

Diversity and Inclusion Without Equity? Evidence from Executive Compensation

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Abstract

Using cosine similarity methods, we find that female top executives (except CEOs), receive less equity-based pay than male top executives. This inequity in gender pay structure is associated with an \$87,000 annual pay gap in top executive teams. Firms with similar gender pay structures exhibit superior operating performance and ESG scores. In women-led companies, all other members of the top executive team enjoy more similar pay structures. Moreover, the longer a woman serves as CEO, the lower the within- firm pay disparity. These results suggest that pay structure similarity captures whether the firm's culture fosters diversity, equity, and inclusion as well as a stakeholder-centric approach to doing business.

Keywords: Diversity, equity, and inclusion; Executive compensation; CEO pay ratio, ESG

JEL codes: M12, J31, J33, J41, G34, G30, G32, J16

1. Introduction

A recent study about diversity, equity, and inclusion (DEI) by McKinsey & Company shows that firms in the highest quartile for gender diversity on executive teams are 25 percent more likely to have above-average profitability than companies in the lowest quartile.¹ While the study interprets this result as evidence that “inclusion matters,” it notes that about one third of the companies in their dataset as of 2020 lacks gender diversity as they have no women on their top executive teams. In a related vein, [Keller, Molina, and Olney \(2022\)](#) use multivariate analyses to document a significant gender wage gap among top US executives by showing that women earn 8% less than men. While existing work by [Bennedsen, Larsen, and Wei \(2023\)](#), among others, shows that some regulatory initiatives and disclosure requirements have successfully reduced the gender wage gap, little is known about the mechanisms underlying such a gap and whether those mechanisms also affect firm performance.² In this paper, we investigate these issues by empirically analyzing the structure of compensation of top executive teams leading S&P 1500 firms during 2006-2020.

We begin by noticing that about one third of firms in our sample do not have women serving in the top executive team (see Figure 1, panel A). This incidence, which is similar to that in the aforementioned study by McKinsey & Company, provides a sense of the degree of gender *diversity* in prominent US firms. In terms of gender *inclusion*, panel B of Figure 1 shows that only 10% of firms with women serving in the top executive team are led by a female CEO.

Our goal is to explore the degree of *equity* treatment top executive women receive by analyzing their compensation structure. Corporations rely on the compensation structure to provide their top

¹ <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>

² An exemption is the paper by [Duchin, Simutin, and Sosyura \(2021\)](#) showing that gender gap is driven by CEOs who grew up in male-dominated families, by CEOs who attended all-male high schools and by CEOs who grew up in neighborhoods with greater gender inequality.

executives with incentives to improve firm performance and the chance to maximize managerial pay. Consequently, the degree of *gender pay structure similarity* in an organization is a proxy for the extent the firm's *corporate culture* promotes *equity* (i.e., fair treatment, access, and advancement opportunities) for all employees. Based on this conjecture, we study whether gender pay structure similarity is a mechanism that affects (a) the gender pay gap among top executives, (b) the performance of the company, and (c) the ESG scores the firm receives. We also evaluate whether gender pay structure similarity and its effects vary by the CEO's own gender by looking at the CEO pay ratio (a measure of within-the-firm pay inequality),³ and by comparing the gender pay structure in firms with female CEOs.

To measure gender pay structure similarity among men and women serving in the top executive team, we implement the two-step procedure outlined by Cabezón (2023). First, we create a vector consisting of the eight main components of total compensation: salary, restricted bonus, performance-based stock awards, restricted stock awards, option awards, non-equity incentives, other compensation, and change in pensions. Because we measure each component with a monetary value, the vector of payments is comparable across firms. We standardize each element by total compensation, such that the sum of all the elements of each vector equals one. Consequently, the vector measures the *structure* of the executive's compensation rather than the level. In the second step, for every firm in each year, we compute the similarity between the average compensation structure vector for male executives and the average compensation structure vector for female executives, both of unit length. To do so, we calculate the dot product or *cosine similarity* score of the two vectors, which can take values from zero to one. At the extremes, two

³ The CEO pay ratio scales the CEO's annual compensation by the median employee's pay.

vectors with the same orientation have a cosine similarity score of one, while two orthogonal vectors have a similarity score equal to zero.

Our initial vector analyses tests show that top female executives receive a higher fraction of their compensation in salary and bonuses, and a lower fraction in performance-based pay (i.e., equity and stock options) than males. This evidence indicates that, on average, men and women in top executive teams have different compensation structures as females receive significantly less stock-based pay than men. This result holds for all top executive positions except for CEOs.

Given the lack of similarity in pay structure between males and females in top executive teams, we study the association of gender pay structure similarity and the gender pay gap among top executives. The results indicate an inverse association between gender pay structure similarity and the gender pay gap. According to the regression estimates, a one-standard-deviation increase in gender pay structure similarity is associated with an \$87,000 reduction in the total pay gap, on average. This novel finding proves robust to several control variables as well as to the introduction of Industry, Year, Firm, and Industry by Year fixed effects in our regression analyses. Importantly, the inverse association between the gender pay structure and the gender pay gap for top executives suggests that the deficit in equity incentives in the pay structure of females limits their opportunity to earn as much money as male executives, on average.

If gender pay structure similarity captures a corporate culture encouraging fair treatment, full participation, and access and advancement opportunities for *all* executive employees, then it is likely that employees in such an environment deliver greater contributions and higher output. Consistent with this prediction, we find a positive association between gender pay structure similarity and different accounting measures of firm performance and employee productivity. Our

estimates imply that increasing gender pay structure similarity by a single standard deviation is related to a 2.3% increase in return of assets (ROA), a 2.2% increase in return on equity (ROE) and a 2.2% increase in return on employees. Benchmarking these estimates to the respective average value for these three variables suggests that our findings are not only statistically significant but also economically important.

Given the positive association between pay structure similarity among male and female executives and firm performance, we evaluate whether (and how) that similarity measure is related to the firm's Environmental, Social and Governance (ESG) score. Evaluating this relation is important because it sheds light on whether firms where top executives enjoy similar compensation schemes, regardless of their gender, also implement a stakeholder-centric approach to doing business. This possibility is borne in our data as we find a positive association between pay structure similarity and the firm's ESG scores. The estimates indicate that increasing gender pay structure similarity by one standard deviation is associated with a 2.5% increase in the ESG score, on average. Notably, this positive association is primarily driven by the "E" and "G" components of the overall score.

Because male and female serving as CEOs have similar compensation structures, it is possible that the gender pay structure similarity for other members of the top executive team varies by the gender of the CEO. To illuminate this issue, we investigate whether women CEOs are associated with a corporate culture in which the structure of pay for all other members of the top executive team is similar. That is what we find. Regression analyses show that gender pay structure similarity among top executives increases in the tenure of women CEOs. On average, every year a woman CEO is in office, gender pay structure similarity increases by 0.8%.

We also examine whether women CEOs influence the association between gender pay structure similarity and the disparity between the compensations of the CEO and the average rank-and-file employee. For that purpose, we collect “pay ratio” data disclosed by publicly traded firms since the 2017 proxy season as required years earlier by the Securities and Exchange Commission (SEC).⁴ The rationale for this test rests on the idea that when men and women CEOs enjoy similar pay structures, women CEOs may want to foster a fair compensation culture throughout the entire organization. Supporting this idea, we find an inverse association between pay structure similarity and the pay ratio in companies with female CEOs. Looking at the regression estimates, a one-standard-deviation increase in gender pay structure similarity is associated with a 27% decrease in the CEO pay ratio when the CEO is female.

Since the characteristics of the executive compensation are a reflection of the firms underlying characteristics, including performance, gender diversity within the firm, and others, we anticipate that our findings could be subject to endogeneity concerns. To address those, we use the initiation of the MeToo movement in October 2017 as a natural experiment to study if whether the exogenous shock to the structure of executive incentives has influenced (a) the gender pay gap among top executives, (b) the performance of the company, and (c) the ESG scores the firm receives. ***To add results***Our empirical findings can be succinctly summarized as follows. First, aside from individuals serving as CEOs, the compensation structure for top executives in many US firms varies by gender, with women getting less equity-based pay than men. Second, the inequity in gender pay structure is associated with the gender pay gap observed in top executive teams. Third, firms with more similar gender pay structures exhibit better operating performance and improved

⁴ On August 5, 2015, the SEC approved the pay ratio disclosure rule. Its implementation was delayed until 2017 by SEC Acting Chairman Michael S. Piwowar as he decided to seek additional public opinions about the rule.

subsequent ESG scores. Fourth, in women-led companies, other members of the top executive team enjoy more similar gender pay structures. Moreover, the longer a woman serves as CEO the lower the inequity in pay within the firm. Overall, the totality of the evidence suggests that the similarity in the gender pay structure for the top executive team captures whether a firm's culture promotes diversity, equity, and inclusion as well as a stakeholder-centric organizational approach to doing business.

This paper contributes to several active research areas. First, we show that members of the top executive teams in some of the largest companies in the U.S. have vastly different compensation structures, with women getting substantially less equity-based pay than their male counterparts. We identify the inequality in gender pay structure as a mechanism underlying the gender pay gap affecting top executive teams. By doing so, we contribute to the rich literature documenting settings where a gender gap exists.⁵

Second, our findings indicate that, as a novel measure of corporate culture, pay structure similarity has a real and important association with various other facets of the corporation. In particular, companies with similar gender pay structures exhibit better operating performance and improved ESG scores. These findings advance the literature examining the benefits of diversity, the extensive body work on the impact of corporate culture, and a growing literature on the ESG performance of public companies.⁶

⁵ For recent work in this area please see [Zandberg \(2021\)](#), [Duchin et al. \(2021\)](#), [Burns et al. \(2022\)](#), and [Giannetti and Wang \(2023\)](#).

⁶ Research on the impact of diversity includes recent papers by [Lins, Servaes and Tamayo \(2017\)](#), [Bernile, Bhagwat and Yonker \(2018\)](#), and [Calder-Wang and Gompers \(2021\)](#). Please see [Gorton, Grennan and Zentefis \(2022\)](#) for a contemporaneous literature review on corporate culture and [Gillan, Koch and Starks \(2021\)](#) for a review of the ESG literature.

Third, our paper also connects to studies that examine compensation inequality in publicly traded firms (e.g., [Mueller, Ouimet, and Simintzi \(2017\)](#); [Frydman and Papanikolaou \(2018\)](#); [Pan, Pikulina, Siegel, and Wang \(2022\)](#)). We contribute to this literature by showing that, in women-led firms, increases in gender pay structure similarity are related to (i) a lower pay gap between CEOs and rank-and-file employees (i.e., the CEO pay ratio measuring within-firm pay inequality), and (ii) to less disparity in the gender pay structure for all other non-CEO members of the top executive team.

2. Data

We obtain data on executive compensation from Execucomp, collected directly from each company's annual proxy (DEF14A SEC form). The dataset includes executives from firms in the S&P 500, S&P MidCap 400, S&P SmallCap 600, and a large number of other firms covered by S&P. We use the compensation of all top-5 executives between 2006 and 2020.

We center the analysis on eight elements of compensation: salary, bonus, performance-based stock awards, restricted stock awards, option awards, non-equity incentives, other compensation, and change in pension value and non-qualified deferred compensation earnings. Salary and bonus reflect the amount received for the fiscal year. Both time-lapse restricted stock and performance-based stock awards are evaluated using the grant-date market value. We identify performance-based stocks as the market value of stock awards that include a target in the Grants of Plan-Based Awards Table and define restricted stocks as the complement. Options awards are evaluated at grant-date value using the [Black and Scholes \(1973\)](#) formula. Non-equity incentives are evaluated at the target level (or the average of minimum and maximum if the target is not reported). Other

compensation includes perquisites, signing bonuses, termination payments, and above-the-market interest paid on deferred compensation.

Accounting measures come from CRSP/COMPUSTAT. We merge the datasets using the Global Company Key —or GVKEY— firm identifier. We drop financial and utilities from our analysis, and all variables are Winsorized at 5% and 95% levels.

2.1 Gender

Our first analysis focuses on all firms with both male and female executives. This condition restricts the analysis to 1,496 unique firms from a total of 2,221 in the whole Execucomp sample, as Figure 1 shows. Even though our analysis does not cover all firms, it represents an important fraction of public firms, with a total market capitalization of \$19.7 trillion and covering 196 different SIC3 industries (out of 207 in the whole Execucomp sample) and all 55 SIC2 industries in Execucomp.

[INSERT FIGURE 1]

2.2 Ethnicity

Our second analysis focuses on ethnicity. We begin with 2,221 unique firms covered by Execucomp between 2006 and 2020. That group of firms includes 26,104 different executives who serve in the C-suite in the sample period. We use unique executive identifiers to merge the data with the ISS Directors and Executives database that covers xxx executives and yyyy directors. After this merge, we are able to identify the ethnicity of 4,374 unique executives. We manually code the ethnicity for the rest using LinkedIn profiles, Bloomberg website, companies' official website, news portals, corporate filings with the SEC, savoynetwork.com, and other internet searches. After an exhaustive search, we are able to manually and reliably verify the ethnicity of 3,904

executives, doubling the ISS sample size to 8,278 unique executives. We identify five ethnicities: Asian, Black, Hispanic, Native American, and White.

At the firm level, we are able to identify the ethnicity of two or more top executives of 2,062 unique firms in our sample period. In that sample, 901 unique firms have at least one racial minority executive (Black, Hispanic, Asian, or Native American), as Figure 2 shows.

[INSERT FIGURE 2]

2.3 Summary statistics

Table 1 reports summary statistics of the main variables. The average firm in our sample has 7.2 billion of total assets, is 22 years old, has ROA of 13% and a market-to-book ratio of 1.7. All these characteristics are similar to the average firm in the S&P1500.

The average executive in our sample receives 32% of her total compensation in salary, 20% in bonuses (4% in restricted bonuses and 16% in performance-based bonuses), 28% in stock awards (14% in performance-based stock and 14% in restricted stock), 11% in options, 6% in other compensation, and 3% in pensions. All these ratios are similar to the stats reported in previous studies (e.g., [Murphy \(2013\)](#) and [Edmans, Gabaix, and Jenter \(2017\)](#)).

3. Methodology

For every firm, we calculate the similarity between male executives' average compensation structure and females' average structure. To calculate the similarity, we follow [Cabezon \(2023\)](#). For each firm, we create a vector that includes the eight primary components of compensation: salary, restricted bonus, performance-based stock awards, restricted stock awards, option awards,

non-equity incentives, other compensation, and change in pensions. Because each of these elements is measured with a monetary value, the vector of payments is comparable across firms. We scale each element by the total compensation, such that the sum of all the elements of each vector equals one. In this way, the vector measures the structure of the compensation plan rather than the level.

$$v_{it} = \left[\frac{salary_{it}}{total_{it}}, \frac{bonus_{it}}{total_{it}}, \frac{perf_stock_{it}}{total_{it}}, \frac{rest_stock_{it}}{total_{it}}, \frac{options_{it}}{total_{it}}, \frac{non_eq_{it}}{total_{it}}, \frac{other_{it}}{total_{it}}, \frac{pension_{it}}{total_{it}} \right]$$

$$total_{it} = salary_{it} + bonus_{it} + perf_stock_{it} + rest_stock_{it} + options_{it} + non_eq_{it} + other_{it} + pension_{it}$$

We then compute the similarity between the average compensation vector of male executives and female executives for every firm in each given year. To measure the similarity between two vectors, we calculate the dot product of the two vectors. This measure of similarity is also known as cosine similarity, and it is the most widely reported measure of the proximity of two vectors, each representing the location in a predefined space (i.e., [Bhattacharyya \(1946\)](#); [Salton \(1983\)](#); [Hoberg and Phillips \(2016\)](#); [Hegde, Herkenhoff and Zhu \(2023\)](#)). Cosine similarity is a measure of similarity between two non-zero vectors of an inner product space that measures the cosine of the angle between them. Cosine similarity can take values from zero to one. Two vectors with the same orientation have a cosine similarity of one; two vectors orthogonal relative to each other have a similarity of zero. In our setting, the lower this similarity, the higher the gender gap in the compensation structure.

$$Gender\ pay\ structure\ similarity = \frac{\sum_{n=1}^8 v_{mt}^n v_{ft}^n}{\sqrt{\sum_{n=1}^8 v_{mt}^n} \sqrt{\sum_{n=1}^8 v_{ft}^n}}$$

Where $v_{it}^n = n^{th}$ element of vector v_{it} ; v_{mt} = average compensation vector of male executives, and v_{ft} = average compensation vector of female executives.

Figure 3 shows that the gender pay structure similarity is very stable across firm size and age, and it is slightly lower for innovative firms. It is also stable across industries, with its lowest levels in industries such as non-durable goods, energy, telecom, and business equipment.

[INSERT FIGURE 3]

4. Main Results

4.1 Pay structure by gender

We first regress the ratio of each element of compensation on a dummy that equals one if the executive is female. In all regressions we include firm and year fixed effects. Table 2 presents the results. We find a gender gap in the structure of pay, as male and female executives are paid differently. Female executives receive a higher fraction of their pay in salary and bonuses, and a lower fraction in performance-based stock and options than males. On the one hand, salary (bonuses) corresponds to a 10% (5%) greater fraction of total compensation for female executives than male executives. On the other hand, performance-based stock (options) corresponds to a 8% (7%) lower fraction of total compensation for female executives than males.

[INSERT TABLE 2]

Panel B shows that these results are robust to including job position fixed effects. We identify three different job positions: CEO, CFO, and other. This result suggests that the gender gap in the structure of pay is not explained by female executives having different positions at the company. Panel C only considers CEOs. In this particular sample of executives, we do not observe a

significant difference in the structure of pay. It is possible that men and women CEOs enjoy similar compensation structures because of the visibility of their position.

4.2 Gender pay structure similarity and the level of pay

To explore the consequences of this gender gap in the pay structure gap, we use the gender pay structure similarity calculated in section 3. First, we examine the relation between pay structure gender similarity and the total pay gender gap. We define total pay gender gap as the average difference between male executives' total compensation and females' total compensation.

Table 3 presents the results of regressing the pay gender gap on the gender pay structure similarity. In column (1), we include industry and year fixed effects. In column (2), we include firm and year fixed effects. In column (3) we include firm and industry by year fixed effects. In all specifications, we control for firm size, age, and market-to-book ratio. Standard errors are clustered by firm.

[INSERT TABLE 3]

We find a negative association between gender pay structure similarity and the total pay gender gap. Specifically, a one-standard-deviation increase in gender pay structure similarity implies a 9.4% decrease in the total pay gap. In terms of dollars, a one-standard-deviation increase in gender pay structure similarity implies a reduction of the total pay gap of \$87,000.

4.3 Gender pay structure similarity and firm performance

We interpret the degree of *gender pay structure similarity* in an organization as a proxy for the extent the firm's *corporate culture* promotes fair treatment, access, and advancement opportunities

for all employees. Based on this conjecture, we examine whether gender pay structure similarity is associated with workers' productivity and firm performance.

We thus regress different measures of performance on the gender-pay-structure-similarity. Table 4 presents the results. In panel A, we include SIC3 industry and year fixed effects. In panel B, we include firm and year fixed effects. In panel C we include firm and industry by year fixed effects. In all specifications, we control for firm size, age, and market-to-book ratio.

[INSERT TABLE 4]

In all three specifications, we find that an ex-ante increase in gender-pay-structure-similarity (a decrease in the gender gap) associates with an ex-post increase in ROA, ROE, and return on employees. Return on employees is measured as net income scaled by the total number of employees. Specifically, a one-standard-deviation increase in gender pay structure similarity implies a 2.3% increase in ROA, 2.2% increase in ROE, and 2.2% increase in the return on employees.

4.4 Gender pay structure similarity and ESG Scores

In line with our measure of gender-pay-structure-similarity capturing a corporate culture that favors equity, we find a positive association with ESG rating scores. We obtain ESG scores from Refinitiv. In Table 5, we regress different ESG scores on the gender-pay-structure-similarity. In panel A, we include industry and year fixed effects, and in panel B, we include firm fixed effects. We find that a one-standard-deviation increase in gender pay structure similarity is associated with a 2.5% increase in the overall ESG score. When decomposing this effect, we find that it is primarily driven by the environmental and corporate governance scores.

[INSERT TABLE 5]

4.5 Female CEOs and gender pay structure similarity

If the gender pay structure similarity is a consequence of corporate culture, it is possible that it varies by the gender of the CEO. We thus investigate if female CEOs foster equity in the corporation. Thus, we regress gender pay structure similarity on a dummy that equals one if the CEO is female. We also interact this dummy with the CEO's tenure. The intuition of this interaction is that CEOs might need time to change the corporate culture.

Table 6 shows the result of this regression. We find that that gender pay structure similarity among top executives increases in the tenure of women CEOs. In particular, female CEOs increase gender pay structure similarity in 0.8% per each year of tenure. Panel B shows that this result is robust to excluding CEOs from the gender pay structure similarity measure.

[INSERT TABLE 6]

Exploring further, we also find that gender pay structure similarity is associated with lower CEO-pay-to-worker ratio when the CEO is female. The CEO-pay-to-worker ratio is calculated by dividing the CEO's total compensation by the pay of the median employee. This data is available since 2017, as the regulation that mandated the disclosure of this ratio was implemented in that year. In particular, Table 7 shows that a one-standard-deviation increase in gender pay structure similarity is associated with a 27% decrease in the CEO-pay-to-worker ratio when the CEO is female.

[INSERT TABLE 7]

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Figure 1: Firms in S&P1500 and female executives

Panel A in this figure shows the fraction of firms in the S&P1500 that do not have women serving in the top executive team. Panel B shows the fraction of firms with women serving in the top executive team that appoint a woman to serve as their CEO.

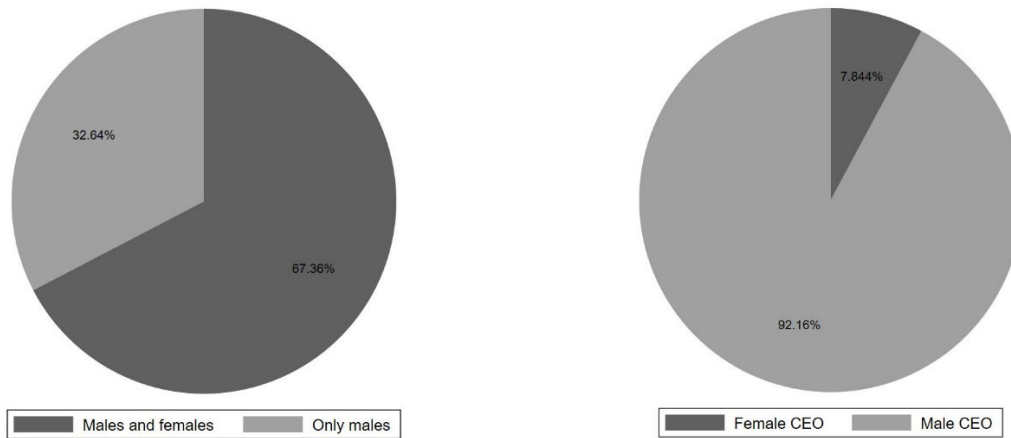


Figure 2: Firms in S&P1500 and minority executives

Panel A in this figure shows the fraction of firms in the S&P1500 for which we were able to identify the ethnicity of two or more top executives. Panel B shows the fraction of those firms with at least one racial minority executive (Black, Hispanic, Asian, or Native American). Panel C shows the fraction of firms that appoint a minority racial executive to serve as their CEO.

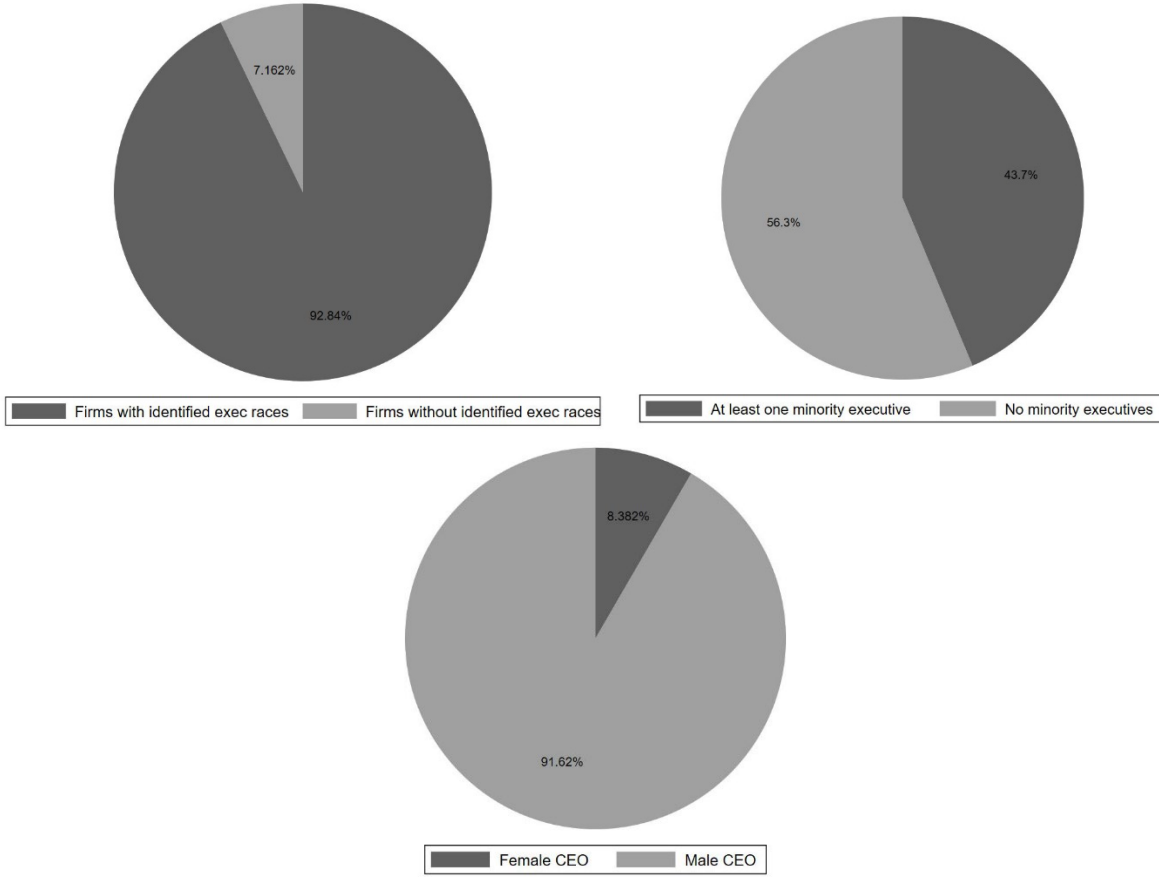


Figure 3: Gender pay structure similarity and firm characteristics

Panel A of this figure shows the average gender pay structure similarity across firm size quintiles, panel B across firm age quintiles, panel C across firms with and without R&D expenditures, and panel D across Fama-French 12 industries.

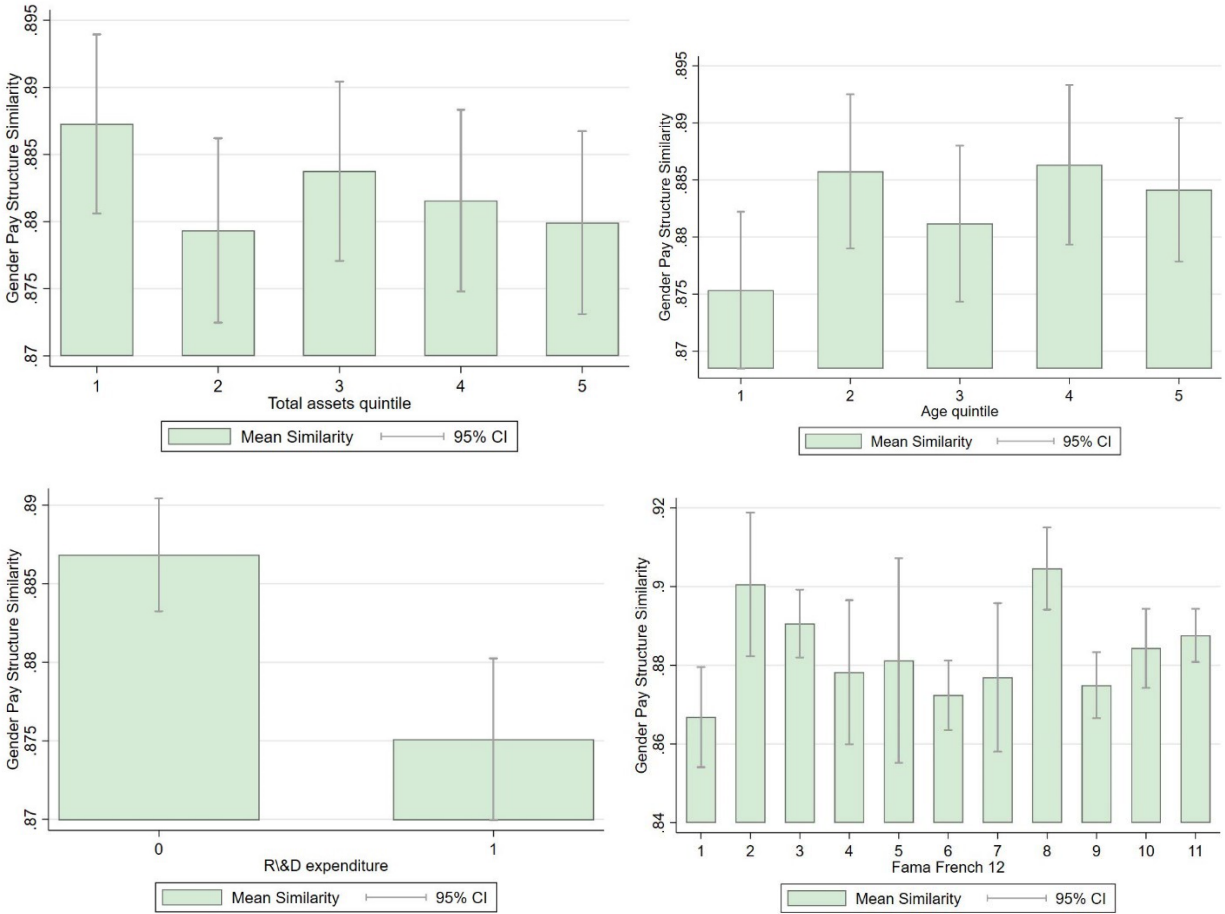


Figure 4: Ethnic minority pay structure similarity and firm characteristics

Panel A of this figure shows the average ethnicity pay structure similarity across firm size quintiles, panel B across firm age quintiles, panel C across firms with and without R\&D expenditures, and panel D across Fama-French 12 industries.

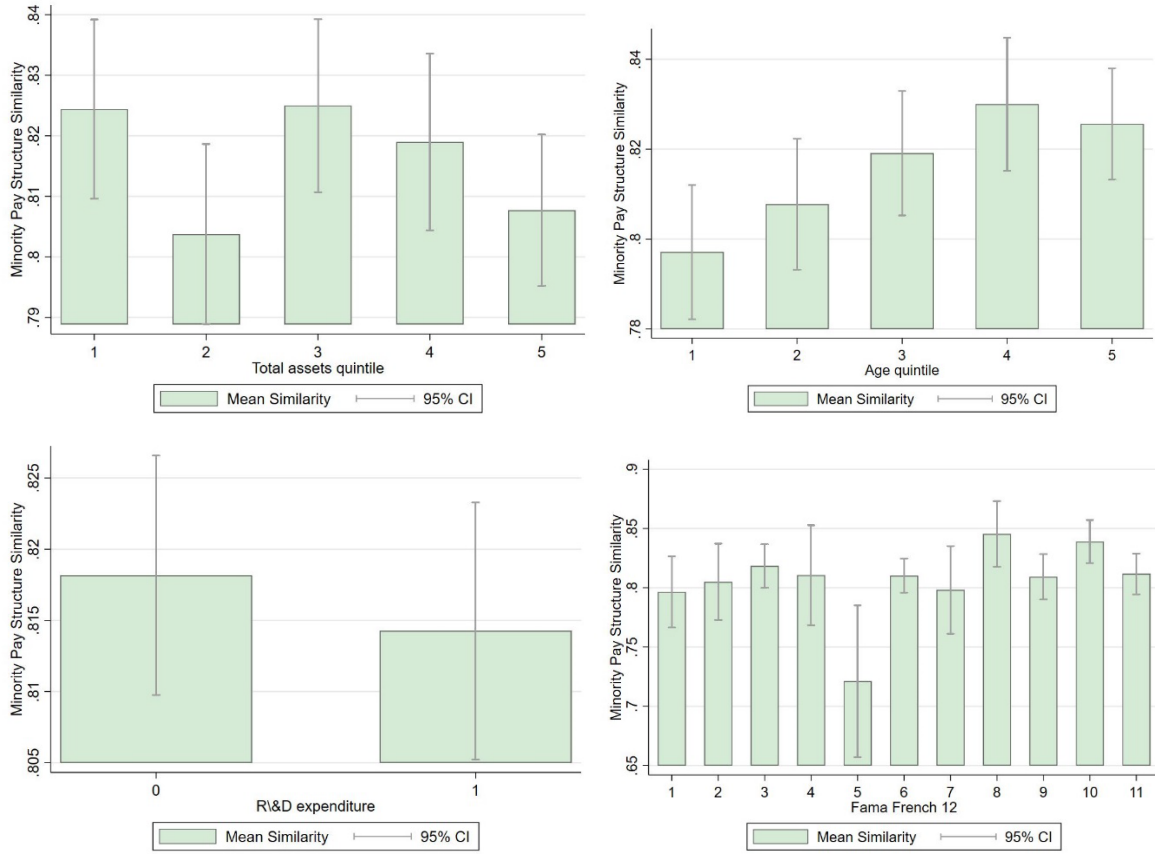


Table 1: Summary Statistics

This table presents summary statistics for the two samples of firms used in our analysis. Panel A presents the sample of firms with both male and female executives. Panel B presents the sample of firms with at least one ethnic minority executive. Both samples period go from 2006 to 2020.

Panel A: firms with both male and female executives

	Obs.	Mean	Std. Dev.	Min	Max
Total Assets	8,453	7241.3	14120.29	130.01	95905
Firm age	8,453	22	15.77732	0	58
Sales	8,453	4952.9	7479.127	75.646	34179
ROA	8,452	0.132	0.0759412	-0.084	0.298
Market to book	8,419	1.697	1.065452	0.174	5.749
XRD/assets	8,453	0.026	0.0411592	0	0.171
Tangibility	9,090	0.227	0.21008	0	0.804
Average total comp top-5 executives	9,034	2904.6	2307.315	362.8	11064.9
Average total comp male executives	9,034	3061.7	2444.254	363.0	11453.7
Average total comp female executives	9,026	2136.6	1966.085	241.8	9292.3
CEO tenure	9,096	6	6.865314	0	56
Salary/total comp	9,096	0.322	0.1863519	0	1
Bonus/total comp	9,096	0.041	0.0906276	0	0.796
Perf-based stock/total comp	9,096	0.137	0.1531089	0	0.999
Rest stock/total comp	9,096	0.144	0.1522942	0	0.969
Options/total comp	9,096	0.105	0.1425297	0	0.969
Non-eq incentives/total comp	9,096	0.160	0.1345525	0	0.905
Other comp/total comp	9,096	0.062	0.0754545	0	0.913
Change in pension/total comp	9,096	0.029	0.073422	0	0.656

Panel B: firms with ethnic minority executives

	Obs.	Mean	Std. Dev.	Min	Max
Total Assets	4,931	8753.1	15785.3	130.0	95905
Firm age	4,931	22	15.5	0	58
Sales	4,931	5658.8	8157.6	75.6	34179
ROA	4,928	0.127	0.072	-0.084	0.298
Market to book	4,899	1.734	1.062	0.238	5.749
XRD/assets	4,931	0.038	0.048	0	0.171
Tangibility	5,223	0.199	0.194	0	0.804
Average total comp top-5 executives	5,186	3219.9	2429.9	362.8	11064.9
Average total comp white executives	4,589	4625.2	4008.2	396.0	17538.4
Average total comp minority executives	5,182	3102.5	2949.5	277.2	15341.5
CEO tenure	5,096	6.6	7.2	0	50
Salary/total comp	5,223	0.298	0.180	0	1
Bonus/	5,223	0.037	0.083	0	0.777
Perf-based stock/total comp	5,223	0.149	0.166	0	0.996
Rest stock/total comp	5,223	0.156	0.156	0	0.963
Options/total comp	5,223	0.111	0.148	0	0.994
Non-eq incentives/total comp	5,223	0.163	0.138	0	0.968
Other comp/total comp	5,223	0.061	0.075	0	0.915
Change in pension/total comp	5,223	0.025	0.059	0	0.514

Table 3: Ethnic Minority and Structure of Pay

This table presents the results of an OLS regression of the fraction of each compensation component divided by total compensation. We use a dummy that equals one if the executive is a minority ethnicity (Black, Hispanic, Asian, or Native American) and zero if it is a white executive. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: all top executives

VARIABLES	(1) Salary /total	(2) Bonus /total	(3) Perf stock /total	(4) Rest stock /total	(5) Options /total	(6) Non.Eq. Inc /total	(7) Other /total	(8) Pension /total
1 if ethnic minority	0.027*** (7.238)	0.006*** (3.056)	-0.010*** (-3.094)	-0.001 (-0.172)	-0.012*** (-4.550)	-0.004 (-1.467)	0.000 (0.181)	-0.008*** (-5.120)
Observations	53,781	53,781	53,781	53,781	53,781	53,781	53,781	53,781
R-squared	0.429	0.386	0.353	0.333	0.277	0.348	0.119	0.481
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES

Panel B: including job-position fixed effects

VARIABLES	(1) Salary /total	(2) Bonus /total	(3) Perf stock /total	(4) Rest stock /total	(5) Options /total	(6) Non.Eq. Inc /total	(7) Other /total	(8) Pension /total
1 if ethnic minority	0.010*** (2.833)	0.004** (2.056)	0.001 (0.045)	0.003 (1.122)	-0.005** (-1.967)	0.001 (0.559)	-0.007*** (-2.773)	-0.006*** (-4.292)
Observations	53,781	53,781	53,781	53,781	53,781	53,781	53,781	53,781
R-squared	0.445	0.387	0.360	0.334	0.280	0.351	0.123	0.482
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES
Position FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES

Panel C: only CEOs

VARIABLES	(1) Salary /total	(2) Bonus /total	(3) Perf stock /total	(4) Rest stock /total	(5) Options /total	(6) Non Eq. Inc /total	(7) Other /total	(8) Pension /total
1 if ethnic minority	0.025 (1.62)	0.009 (1.485)	0.007 (0.596)	-0.003 (-0.286)	-0.013 (-1.541)	-0.017** (-2.184)	0.001 (0.272)	-0.010** (-2.495)
Observations	20,013	20,013	20,013	20,013	20,013	20,013	20,013	20,013
R-squared	0.124	0.099	0.109	0.100	0.138	0.072	0.069	0.207
SIC3 FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES

Table 4: Pay Structure Similarity and Total Pay Gap

This table reports the results of an OLS regression of total pay gap on the similarity of pay structure. Columns (1) to (3) consider the pay gap and structure similarity between male and female executives. Columns (4) to (6) consider the pay gap and structure similarity between executives belonging to ethnic minorities (Black, Hispanic, Asian, or Native American) and white executives. Panel B excludes CEOs from the analysis. Both pay structure similarities are standardized such that they have a mean of zero and a standard deviation of one. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: All executives

VARIABLES	(1) Gender Pay Gap	(2) Gender Pay Gap	(3) Gender Pay Gap	(4) Ethnic Minority Pay Gap	(5) Ethnic Minority Pay Gap	(6) Ethnic Minority Pay Gap
Gender pay structure similarity in t	-0.125*** (-8.528)	-0.094*** (-6.815)	-0.097*** (-5.911)			
Ethnic minority pay structure similarity in t				-0.158*** (-6.474)	-0.102*** (-4.443)	-0.084*** (-2.609)
Log of Assets in t-1	0.508*** (31.865)	0.286*** (6.004)	0.268*** (4.634)	0.469*** (18.599)	0.383*** (4.634)	0.326*** (3.185)
Log of Age in t-1	-0.023 (-0.933)	0.081 (1.203)	0.084 (1.161)	0.106** (2.292)	0.330*** (2.709)	0.588*** (3.186)
Market to book in t-1	0.144*** (6.851)	0.136*** (5.151)	0.133*** (3.937)	0.162*** (3.952)	0.213*** (5.420)	0.214*** (4.100)
Observations	7,706	7,654	6,811	4,006	3,916	3,086
R-squared	0.436	0.640	0.722	0.415	0.656	0.741
SIC3 FE	YES			YES		
Year FE	YES	YES		YES	YES	
Firm FE		YES	YES		YES	YES
SIC3xYear FE			YES			YES

Panel B: Excluding CEOs

VARIABLES	(1) Gender Level Gap	(2) Gender Level Gap	(3) Gender Level Gap	(4) Ethnicity Level Gap	(5) Ethnicity Level Gap	(6) Ethnicity Level Gap
Gender pay structure similarity in t	-0.306*** (-17.769)	-0.272*** (-14.620)	-0.264*** (-12.509)			
Ethnicity pay structure similarity in t				-0.387*** (-10.790)	-0.309*** (-7.828)	-0.388*** (-6.786)
Log of Assets in t-1	0.446*** (24.698)	0.293*** (5.509)	0.308*** (4.443)	0.418*** (11.732)	0.676*** (4.887)	0.533*** (2.907)
Log of Age in t-1	-0.056** (-1.989)	0.065 (0.879)	-0.077 (-0.935)	0.120* (1.927)	0.124 (0.717)	0.285 (0.896)
Market to book in t-1	0.162*** (6.304)	0.131*** (4.090)	0.140*** (3.499)	0.095** (2.102)	0.178*** (2.594)	0.088 (0.950)
Observations	7,293	7,233	6,364	2,387	2,244	1,553
R-squared	0.324	0.529	0.639	0.352	0.542	0.678
SIC3 FE	YES			YES		
Year FE	YES	YES		YES	YES	
Firm FE		YES	YES		YES	YES
SIC3xYear FE			YES			YES

Table 5: Gender Pay Structure Similarity and Ethnicity Pay Structure Similarity

This table reports the results of an OLS regression of the similarity of pay structure between male and female executives on the similarity of pay structure between white and non-white executives (Black, Hispanic, Asian, or Native American). Both pay structure similarities are standardized such that they have a mean of zero and a standard deviation of one. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

VARIABLES	(1)	(2)	(3)
	Gender pay structure similarity		
Ethnicity pay structure similarity	0.365*** (12.218)	0.335*** (9.184)	0.335*** (6.737)
Log of Assets in t-1	-0.035* (-1.743)	-0.192* (-1.748)	-0.287 (-1.559)
Log of Age in t-1	0.079** (2.099)	0.304** (2.588)	0.466*** (3.072)
Market to book in t-1	-0.025 (-0.863)	0.033 (0.663)	-0.021 (-0.269)
Observations	1,711	1,595	959
R-squared	0.269	0.460	0.626
SIC3 FE	YES		
Year FE	YES	YES	
Firm FE		YES	YES
SIC3xYear FE			YES

Table 6: Pay structure similarity and firm performance

This table reports the results of an OLS regression of firm performance on the similarity of pay structure. Columns (1) to (3) consider the pay structure similarity between male and female executives. Columns (4) to (6) consider the pay structure similarity between white and non-white executives (Black, Hispanic, Asian, or Native American). Panel B excludes CEOs from the analysis. The similarity of pay structure is standardized such that it has a mean zero and a standard deviation of one. Standard errors are clustered by firm, and t-stats appear in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: All executives

VARIABLES	(1) ROA	(2) ROE	(3) NI/emp	(4) ROA	(5) ROE	(6) NI/emp
Gender pay structure similarity in t	0.002** (2.045)	0.002* (1.860)	2.200** (2.021)			
Ethnicity pay structure similarity in t				0.002* (1.932)	0.002* (1.796)	1.556* (1.729)
Log of Assets in t-1	0.002 (0.558)	0.006 (1.033)	24.890*** (3.730)	-0.015*** (-3.274)	-0.015 (-1.634)	6.824 (1.280)
Log of Age in t-1	0.003 (0.602)	-0.003 (-0.417)	-1.030 (-0.198)	0.001 (0.205)	-0.001 (-0.050)	-5.376 (-0.868)
Observations	6,722	6,707	6,709	3,721	3,696	3,712
R-squared	0.819	0.821	0.871	0.786	0.785	0.850
Firm FE	YES	YES	YES	YES	YES	YES
SIC3xYear FE	YES	YES	YES	YES	YES	YES

Panel B: Excluding CEOs

VARIABLES	(1) ROA	(2) ROE	(3) NI/emp	(4) ROA	(5) ROE	(6) NI/emp
Gender pay structure similarity in t	0.001* (1.725)	0.002** (2.155)	1.835* (1.714)			
Ethnicity pay structure similarity in t				0.003** (2.490)	0.002 (0.855)	2.466** (2.208)
Log of Assets in t-1	0.001 (0.378)	0.004 (0.686)	24.420*** (3.512)	-0.014** (-2.303)	-0.015 (-1.361)	17.964* (1.944)
Log of Age in t-1	0.003 (0.754)	-0.004 (-0.503)	0.221 (0.041)	0.001 (0.188)	-0.009 (-0.625)	-9.154 (-0.890)
Observations	6,277	6,262	6,263	2,046	2,035	2,039
R-squared	0.824	0.823	0.873	0.829	0.825	0.873
Firm FE	YES	YES	YES	YES	YES	YES
SIC3xYear FE	YES	YES	YES	YES	YES	YES

Table 7: Pay Structure Similarity and ESG Scores

This table reports the results of an OLS regression of ESG scores on the similarity of pay structure. Panel A considers the structure similarity between male and female executives. Panel B, between white and non-white executives (Black, Hispanic, Asian, or Native American). Columns (1) to (5) include industry (SIC-3) firm effects, and columns (6) to (10) include firm fixed effects. The similarity of pay structure is standardized such that it has a mean of zero and a standard deviation of one. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: Gender

VARIABLES	(1) Overall	(2) Econ	(3) Envrn	(4) CorpGov	(5) Social	(6) Overall	(7) Econ	(8) Envrn	(9) CorpGov	(10) Social
Gender pay structure similarity	0.016*** (4.621)	0.013*** (3.357)	0.012*** (3.055)	0.011*** (4.100)	0.015*** (4.175)	0.006** (2.328)	0.008** (2.158)	0.004 (1.552)	0.003* (1.669)	0.003 (1.044)
Log of Assets in t-1	0.123*** (30.428)	0.078*** (16.013)	0.138*** (30.093)	0.037*** (12.154)	0.124*** (27.562)	0.050*** (3.826)	-0.002 (-0.156)	0.062*** (4.681)	0.038*** (3.708)	0.050*** (4.049)
Log of Age in t-1	0.055*** (7.764)	0.058*** (7.713)	0.045*** (5.458)	0.028*** (5.887)	0.051*** (6.754)	0.079*** (3.905)	0.082*** (2.670)	0.045*** (3.180)	0.068*** -4.54	0.073*** (3.741)
Observations	4,919	4,919	4,756	4,919	4,919	4,788	4,788	4,618	4,774	4,788
R-squared	0.585	0.315	0.620	0.303	0.570	0.831	0.589	0.884	0.690	0.845
SIC3 FE	YES	YES	YES	YES	YES					
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE						YES	YES	YES	YES	YES

Panel B: Ethnicity

VARIABLES	(1) Overall	(2) Econ	(3) Envrn	(4) CorpGov	(5) Social	(6) Overall	(7) Econ	(8) Envrn	(9) CorpGov	(10) Social
Ethnic minority pay structure similarity	0.014*** (2.996)	0.016*** (3.159)	0.009* (1.732)	0.011*** (2.931)	0.011** (2.233)	-0.003 (-0.924)	-0.001 (-0.114)	0.000 (0.145)	0.003 (1.101)	-0.007** (-2.265)
Log of Assets in t-1	0.122*** (24.785)	0.079*** (13.161)	0.144*** (25.169)	0.035*** (8.895)	0.125*** (21.262)	0.058*** (4.030)	0.014 (0.711)	0.075*** (4.680)	0.020 (1.565)	0.050*** (3.070)
Log of Age in t-1	0.064*** (5.972)	0.060*** (5.383)	0.055*** (4.401)	0.039*** (5.982)	0.058*** (5.236)	0.098*** (4.214)	0.107*** (3.523)	0.061*** (3.176)	0.065** (2.359)	0.065*** (3.254)
Observations	2,673	2,673	2,586	2,673	2,673	2,553	2,553	2,466	2,553	2,553
R-squared	0.614	0.350	0.640	0.359	0.599	0.854	0.611	0.886	0.708	0.864
SIC3 FE	YES	YES	YES	YES	YES					
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE						YES	YES	YES	YES	YES

Table 8: CEOs and Pay Structure Similarity

This table reports the results of an OLS regression of the similarity of pay structure on a dummy that equals one if the CEO is a minority. The regression includes an interaction term between the minority CEO dummy and the CEO tenure. Columns (1) to (3) consider the pay structure similarity between male and female executives. Columns (4) to (6) consider the pay structure similarity between white and non-white executives (Black, Hispanic, Asian, or Native American). Panel B excludes CEOs from the analysis. The similarity of pay structure is standardized such that it has mean zero and standard deviation of one. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: all executives

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Gender Structure Similarity			Ethnicity Structure Similarity		
(1 if female CEO)(CEO tenure)	0.042***	0.034***	0.044***			
	(5.356)	(2.952)	(2.974)			
1 if female CEO	-0.076	-0.071	-0.074			
	(-1.325)	(-0.938)	(-0.779)			
(1 if non-white CEO)(CEO tenure)				0.005	0.028*	0.029*
				(0.678)	(1.948)	(1.737)
1 if non-white CEO				0.167**	0.159	0.144
				(2.322)	(1.465)	(1.269)
CEO tenure	0.009***	0.006	0.004	0.008	0.009*	0.011*
	(4.008)	(1.411)	(0.621)	(1.619)	(1.787)	(1.905)
Log of Assets	-0.024**	-0.041	0.028	-0.028	-0.007	-0.001
	(-2.080)	(-0.926)	(0.517)	(-1.449)	(-0.114)	(-0.016)
Log Age	0.023	-0.020	-0.061	0.031	-0.011	-0.033
	(1.201)	(-0.371)	(-0.863)	(1.036)	(-0.121)	(-0.360)
Observations	8,319	8,137	7,215	4,285	4,129	3,941
R-squared	0.065	0.304	0.441	0.089	0.353	0.437
SIC3 FE	YES			YES		
Year FE	YES	YES		YES	YES	
Firm FE		YES	YES		YES	YES
SIC3xYear FE			YES			YES

Panel B: excluding CEOs

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Gender Structure Similarity			Ethnicity Structure Similarity		
(1 if female CEO)(CEO tenure)	0.045*** (3.811)	0.037* (1.787)	0.051** (2.146)			
1 if female CEO	-0.118 (-1.385)	-0.171 (-1.413)	-0.282** (-2.095)			
(1 if non-white CEO)(CEO tenure)				-0.017 (-1.587)	-0.013 (-0.662)	-0.013 (-0.558)
1 if non-white CEO				0.300*** (3.052)	0.411*** (3.048)	0.422*** (2.664)
CEO tenure	0.012*** (5.383)	0.010** (2.264)	0.007 (1.197)	0.017*** (3.957)	0.018*** (2.920)	0.018** (2.298)
Log of Assets	-0.024** (-2.103)	-0.065 (-1.451)	-0.001 (-0.012)	-0.044* (-1.844)	-0.024 (-0.288)	-0.095 (-0.903)
Log Age	0.012 (0.626)	-0.044 (-0.778)	-0.096 (-1.230)	0.027 (0.704)	0.025 (0.204)	0.065 (0.568)
Observations	7,879	7,686	6,735	2,574	2,380	2,165
R-squared	0.061	0.286	0.434	0.114	0.368	0.479
SIC3 FE	YES			YES		
Year FE	YES	YES		YES	YES	
Firm FE		YES	YES		YES	YES
SIC3xYear FE			YES			YES

Table 9: Gender Pay Structure Similarity and the CEO-pay-to-worker Ratio

This table reports the results of an OLS regression of the CEO-pay-to-worker ratio on the similarity of pay structure between male and female executives. The regression includes an interaction term with a dummy that equals one if the CEO is female. Panel B excludes CEO's compensation from the gender structure similarity calculation. The similarity of pay structure is standardized such that it has a mean of zero and a standard deviation of one. Standard errors are clustered by firm, and t-stats are reported in parentheses. Significance levels are indicated: *=10%, **=5%, ***=1%.

Panel A: gender structure similarity considering all executives

VARIABLES	(1) Pay ratio	(2) Pay ratio	(3) Pay ratio
(Gender pay structure similarity)(1 if female CEO)	-187.206** (-2.336)	-114.970* (-1.685)	-47.734* (-1.872)
Gender pay structure similarity	-0.034 (-0.004)	8.380 (1.249)	7.118 (1.101)
1 if female CEO	52.751 (0.830)	13.219 (0.331)	42.496 (1.261)
Log of Assets	-41.171** (-2.335)	-66.099* (-1.824)	-49.296 (-1.420)
Log of Age	14.354 (0.763)	120.255** (1.996)	131.496* (1.821)
Observations	1,811	1,690	1,662
R-squared	0.421	0.861	0.906
SIC3 FE	YES		
Year FE	YES	YES	
Firm FE		YES	YES
SIC3xYear FE			YES

Panel B: gender structure similarity excluding CEOs

VARIABLES	(1) Pay ratio	(2) Pay ratio	(3) Pay ratio
(Gender pay structure similarity)(1 if female CEO)	-353.375** (-2.429)	-190.547 (-1.600)	-72.701* (-1.801)
Gender pay structure similarity	-2.010 (-0.225)	10.178 (1.464)	6.429 (1.024)
1 if female CEO	154.485 (1.479)	34.534 (0.693)	59.748 (1.365)
Log of Assets	-49.653*** (-2.611)	-67.099* (-1.744)	-52.080 (-1.393)
Log of Age	11.103 (0.587)	116.066* (1.854)	127.413 (1.634)
Observations	1,716	1,587	1,561
R-squared	0.432	0.861	0.906
SIC3 FE	YES		
Year FE	YES	YES	
Firm FE		YES	YES
SIC3xYear FE			YES