

Politics and Gender in the Executive Suite*

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Abstract

We investigate whether CEOs' political preferences are associated with the prevalence and compensation of women among non-CEO top executives at U.S. public companies. We find that CEOs more strongly identified with the Republican party are associated with fewer women in the executive suite. To explore causality, we use an event study approach to show that replacing a Republican with a Democratic CEO increases female representation in the executive suite. Finally, gender gaps in the level and performance-sensitivity of compensation are larger under Republican CEOs. We cannot reject the hypothesis that no such gaps exist under Democratic CEOs.

JEL: J16, J30, J33, J71, K00, M12, M14, M51, M52, G30

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1 Introduction

This paper investigates the relationship between a CEO’s political preferences and the representation of women on the CEO’s executive team, as well as the level and structure of those executives’ compensation. We hypothesize that the more a CEO favors the Republican party the lower the representation of women in the executive suite, and the greater the gaps in gender compensation. For U.S. companies ever listed in the S&P 1500 during the period 2000-2018, we combine information on CEOs’ political preferences with data on non-CEO executives’ gender and compensation. We indeed find that companies run by CEOs that favor the Republican party employ fewer female executives. To explore causality, we use an event study approach to show that replacing a Republican with a Democratic CEO increases female representation in the executive suite. We also find that gender compensation gaps are small, and statistically insignificant, when a company’s CEO favors Democrats. These gaps rise substantially (and are statistically significant) with how much the CEO favors Republicans. We discuss below the mechanisms that could give rise to such a relationship in the data.

Our analyses draw on data about the personal political contributions of CEOs compiled for a companion paper (Cohen et al., 2019). Implicitly, we assume that contributing significantly more to one party than another signifies a strong personal preference for the former. This assumption is supported by the literature, as discussed in section 2. We merge our data on CEOs’ political preferences with three other datasets; ExecuComp, Compustat, and Form 4 equity reports. The merged data allow us to measure the gender diversity of the executive suite and executive compensation. We discuss the construction of our data in Section 2, as well as various measures of CEO political preferences that we use.

Using an OLS analysis, we find that the stronger a CEO’s preference for Republicans, as measured by the fraction of their contributions to Republican candidates, the lower the fraction of women among top executives. Specifically, a CEO who only donates to Republicans (an “extreme Republican”) employs about 1.0-2.3 percentage points lower fraction of women among top executives than a CEO who only donates to Democrats (an “extreme Democrat”), after controlling for company characteristics and company fixed effects. This is a large amount, given that about 9% of executives are female, when looking at executives listed in ExecuComp. When looking at a wider range of executives, approximate 12% of executives are female.¹ To investigate whether it is the CEO’s political preference

¹The Form 4 sample, described below in section 2.

that affects representation of female executives, we use an event-study approach, where the event is the replacement of a CEO. We show that replacing an outgoing Republican CEO with an incoming Democratic CEO, as compared to an incoming Republican CEO, yields increased female representation among non-CEO executives by as much as 60% over three years, and this effect is statistically significant.² We show that these results are driven by the new Democratic CEO hiring more women, rather than reducing the size of the executive suite.

Using ExecuComp data on executive compensation, we then show that female executives are paid about 9% less than their male counterparts, a gender pay gap that is comparable to what has been documented in the literature discussed below. This pay gap almost entirely disappears, however, under an extreme Democratic CEO. Statistically, we cannot reject the hypothesis that there is no gender compensation gap among executives, when a company CEO is an extreme Democratic. However, we find that the gender compensation gap among executives increases with the intensity of a CEO's preference for Republicans. Thus, our findings indicate that the gender gap documented in the literature can be accounted for by the political preferences of a company's CEO.

Finally, we examine the performance sensitivity of compensation, and show that it is lower for female executives than for their male counterparts. We use three standard measures for performance sensitivity of pay. First, women receive a higher "cash ratio," defined as the ratio of salary and bonus to total compensation; a higher cash ratio implies lower equity-based compensation. We show that differences in cash ratio between men and women are eliminated when a company is run by an extreme Democratic CEO. Second, women receive lower incentives as measured by both the stock-price and the stock-volatility sensitivities of their stock-option packages (commonly termed "delta" and "vega", respectively). We cannot reject the hypothesis that gender gaps in delta and vega also disappear when a company has an extreme Democratic CEO. Gender gaps in the cash ratio, delta, and vega all increase with the intensity of a CEO's preference for Republicans, with the increase both statistically and economically significant.

There are a number of potential mechanisms that underpin our hypothesis that CEOs with different political preferences may have different attitudes toward female executives. First, Democratic CEOs may differ from Republican CEOs in

²The sample of companies replacing an outgoing Democratic CEO is small, and thus relegated to Appendix B. However, the limited evidence we have suggests that replacing the Democrat with an incoming Republican CEO, as compared to an incoming Democrat, does not affect female representation in the executive suite.

their views regarding women's relative skill at business, which in turn may also affect the level and performance sensitivity of compensation packages they offer to women. Second, Democrats may tend more to support "affirmative action" for women in the workplace, in terms of both representation and pay. It is also plausible that a Republican CEO might tend to offer compensation keyed to outside job offers, which tend to be rarer and lower-paying for women, while Democratic CEOs might be more likely to offer equal pay for equal work. Third, Democratic CEOs might have had more exposure to career-focused women (e.g., in fundraising and other social activities), increasing both their comfort with such women and network-based hiring opportunities. Fourth, female executives are more likely than male executives to hold liberal political views (see [Cohen et al., 2019](#)). To the extent that CEOs may feel more affinity towards executives with similar political views, Democratic CEOs may feel more affinity with female candidates for top executive positions than do Republican CEOs. That is, our results may be driven by CEOs preferring like-minded executives rather than by CEO gender preferences. Finally, introducing more women to the executive suite may well involve significant changes to the work environment and to corporate culture; if liberal (Democratic) CEOs are more open to change than conservative CEOs, they may be more willing to hire women. We do not take a stand as to which of these mechanisms may account for our results.

To the best of our knowledge, this paper is the first to investigate the relationship between the incidence and compensation of females among companies' top executives and CEOs' political preferences. Significant literatures exist on both subjects, however, and our work seeks to contribute to each of them.

There is a large literature on gender and non-CEO executives in the U.S. Studies on the gender composition of the executive suite include [Matsa and Miller \(2011\)](#); [Bell \(2005\)](#) and studies on gender gaps in pay in the executives suite include [Bertrand and Hallock \(2001\)](#); [Munoz-Bullon \(2010\)](#); [Gayle et al. \(2012\)](#); [Albanesi et al. \(2015\)](#); [Newton and Simutin \(2015\)](#); [Carter et al. \(2017\)](#); [Quintana-Garcia and Elvira \(2017\)](#). To date, however, this significant body of work has not examined how the prevalence of female executives, and the level and structure of their pay, are associated with the political preferences of companies' CEOs.

In the literature on the political preferences of U.S. CEOs, studies that examine the distribution of CEO preferences for each of the major parties include [Bonica \(2016\)](#) and [Cohen et al. \(2019\)](#). Scholars have also documented associations be-

tween CEOs' political preferences and various choices made by their companies, including behavior in mergers and acquisitions (Elnahas and Kim, 2017), riskiness of investments and level of corporate debt (Hutton et al., 2014), tax sheltering (Francis et al., 2016), lobbying (Unsal et al., 2016), types of litigation (Hutton et al., 2015), corporate social responsibility (Di Giuli and Kostovetsky, 2014), transparency of political spending (Cohen et al., 2019), pay dispersion and diversity in the executive suite (Chin and Semadeni, 2017), and dividend policy (Bayat and Goergen, 2020). However, this body of work has not considered how CEOs' political preferences are associated with gender-related choices by their companies.³

We proceed as follows. Section 2 describes our data sources and the calculation of our main variables of interest. Section 3 studies how the political preferences of a CEO influence the gender composition of the executive suite, and analyzes our event study. Section 4 examines differences in level and structure of compensation between men and women in light of the CEO's political preferences. Finally, section 5 concludes.

2 Data and Summary Statistics

This section describes how we build our data sets and construct our main variables of interest. Section 2.1 describes the companies that make up our data universe, and the financial information we collect on them. Section 2.2 describes the two samples of corporate executives that we employ for our analyses, drawn from ExecuComp and Form 4 data. Section 2.3 describes how we infer an executive's gender, if it is not explicitly given in any of our data sources, and how we calculate our stock-option-based measures of incentive pay (delta and vega). Section 2.4 explains in detail how we determine the political preferences of the CEOs in our sample. Section 2.5 provides summary statistics of the main variables used in our analyses.

2.1 Companies

Our sample consists of executives at companies included in the S&P 1500 at any point in the time period 2000-2018. The S&P 1500 is a composite index that com-

³Though we are unaware of other papers on how CEOs' political preferences influence gender issues in corporate America, Cohen and Yang (2019) examines how judges appointed by Republicans and by Democrats treat female defendants. The authors find that Republican-appointed judges give shorter sentences to female defendants. Relatedly, Carnahan and Greenwood (2018) show that law firms with more politically liberal partners, as measured by their political contributions, are more likely to hire female associates.

bines three separate indices: the S&P 500, which consists of 500 companies with large market capitalization (currently, \$6.1 billion or more); the S&P MidCap 400, consisting of 400 companies with medium capitalization (currently, between \$1.6 and \$2.8 billion); and the S&P SmallCap 600, consisting of 600 companies with small capitalization (currently, between \$450 million and \$2.1 billion) (S&P Dow Jones 2019, p. 6). In the aggregate, the S&P 1500 represents about 90% of total U.S. market capitalization. Thus our sample encompasses the executives, including CEOs, of companies that represent the great majority of public-company assets.

In addition to data on executives at these companies, we collect corporate financial information from the Compustat database. Specifically, we obtain information on industry (SIC code), headquarters location, assets, return on assets, book-to-market ratio, cash, dividends, and total debt.

2.2 Executives

Our primary source of information on CEOs and top executives of public companies is Standard & Poor's ExecuComp database, which covers companies in the S&P 1500 index. For all of the highest-paid executives (including CEOs), ExecuComp provides total compensation (TDC1), stock compensation, age, title, and gender. From these data, we can also infer a CEO's tenure.

We complement the ExecuComp dataset with Form 4 filing data from the Securities and Exchange Commission (SEC), accessed via EDGAR. These are reports made in compliance with Section 12 of the Securities Exchange Act of 1934, which requires every director, officer, or owner of more than 10% of a company's equity to report to the SEC his or her relationship to the company and information on any acquisitions or dispositions of company securities.⁴ Under the assumption that all officers transact in the company stock, these data should allow us to paint a complete picture of the officers in a firm.

⁴The definition of a corporate officer is less clear-cut than it seems. Though state statutes and corporate by-laws typically define the role clearly with regard to day-to-day operation of a firm, the term is not well defined in the Securities and Exchange Act of 1934 with reference to the responsibility to report transactions. It is not clear whether the failure to define the term was a legislative mistake or an assumption that the term would be defined in keeping with contemporaneous usage in the corporate world. Thus the term has been the subject of multiple SEC rules and court cases over the years. It is the general counsel's role to decide who does and does not meet the definition of an officer, in keeping with the general counsel's understanding of the law. Guidelines exist for designating the role of "officer" in a firm. For instance, [Hurley \(1975\)](#) discusses the history of the definition of an officer under the 1934 act and recommends three criteria: likelihood of obtaining confidential information, responsibility for corporate policy, and participation in the executive council.

To assess the reliability of Form 4 data, we first check whether the executives listed in ExecuComp, also appear in the Form 4 data. Very few executives who appear in ExecuComp are absent from our Form 4 data. We then check whether executives employed at a given firm in our database are observed at a high frequency, such that we can accurately infer their continued employment. The vast majority of executives file reports annually, such that their presence in our data is continuous. For completeness, we assume that an executive who files a Form 4 report at least once every 4 years is continuously employed. Overall, less than 3% of our observations involve such imputations, and the vast majority of those are cases of an executive filing a Form 4 report for 1-2 years. Furthermore, we find no systematic differences in the frequency of imputations between male and female executives under CEOs of different political preferences.

We then merge the Form 4 data by company and year with our ExecuComp data to produce a more comprehensive list of executives by company-year.⁵

As noted, using Form 4 data allows us to identify a larger set of corporate executives than merely the most highly paid. This advantage is crucial for our ability to perform the event-studies described below in Section 3.2.

The disadvantage is that we lack a full set of information about these observations, including compensation packages and gender, age, and other demographic characteristics.⁶ All of our analyses of the representation of women in the executive suite use two samples: the sample of all executives appearing in ExecuComp (the “ExecuComp sample”) and the union of executives appearing in the amalgamation of information on executives from ExecuComp and Form 4, described here (the “Form 4 sample”).

2.3 Gender and Compensation

Form 4 provides no data on gender; ExecuComp includes gender beginning in 2007. We thus determine gender by means of textual analysis of executives’ first

⁵We merge the two datasets in two phases. First, within each company we merge exact matches of last names with the same first and middle initial. Second, we match names using the Stata algorithm “matchit”, which assigns a score to the relative similarity of the strings. Any match with a similarity score of less than 0.67 is manually checked; this cutoff was chosen after examining samples at various cutoffs and determining 0.67 to be an excellent measure of match quality. An example of a match performed in this way is Anthony Fadell of Apple Computers. In ExecuComp he is listed as Tony Fadell; in Form 4 he is listed as Anthony Fadell. The lack of matching first initials means that we only merge successfully in the second phase. Because the score of the match between the strings “Anthony Fadell” and “Tony Fadell” is only 0.59, we manually confirm that this is indeed the same person (in that Tony is a common nickname for Anthony).

⁶We discuss below how we infer an executive’s gender from his or her name.

names, performed by gender-api.com. In cases for which we have data from both gender-api.com and ExecuComp, they agree about 90% of the time, increasing our confidence in this source of data. When they disagree, we defer to the gender listed in ExecuComp.

We only have compensation data for executives listed in ExecuComp. To supplement that data, which specifies total compensation, we also calculate each executive's delta and vega, or the price and volatility sensitivities, respectively, of their stock-option portfolios.⁷

2.4 Political Preferences

We obtain information on CEOs' contributions to political parties from records made public by the Federal Election Commission (FEC). This is not a straightforward task; it involves linking the two datasets using names and companies, and inferring political preferences from contributions. We describe this process more fully in Appendix A. Here we will merely point out one of the issues that we encounter.

Specifically, we need to know how to infer a political preference from data about CEOs' political contributions to Democrats or Republicans. For instance, consider a donation to a political action committee (PAC) that funds candidates. A PAC may be Democratic or Republican, in which case its political preference is obvious; alternatively, it may be associated with a company or a movement. In such cases, we infer the political preference of the PAC from its contributions.

Once we have matched CEOs with their political donations, and inferred the party that received each donation, we derive measures of a CEO's political preference for use in our econometric exercises. No single measure is perfect, and there is a tradeoff between allowing CEO political preferences to change over time, as they may in reality, and having enough data to make an accurate inference as to the CEO's true beliefs. This is as many CEOs make significant contributions in some years but not others, leaving their political preferences in low-contribution years potentially identified off of noisy data. As such, we use a variety of measures in each of our exercises discussed below to show the robustness of our findings.

Our measures calculate the fraction of a CEO's donations to either Democrats or

⁷We do so using the procedure outlined in [Core and Guay \(2002\)](#), and using code developed by Kai Chen and graciously made available on his website. His code is in turn based on that published on Lalitha Naveen's website, used for her paper ([Coles et al., 2006](#)).

Republicans that went to Republican.⁸ For example, a value of 1.0 (0.0) implies that 100% of a CEO's political donations went to Republicans (Democrats), while a value of 0.5 implies that donations were split evenly between the parties. Within this set of measures, the differences come down to which time periods are used together in order to measure a CEO's political preference. Our first measure is the "election cycle". This measure groups all contributions from a four-year presidential cycle, such as 2001-2004 for the 2004 election, together. As such, this measure of political preference is fixed by CEO during the entirety of the presidential cycle. Our second measure is a "four-year moving average". This measure sets a CEO's political preference in year t to be based off of donations between years $t - 2$ and $t + 1$. Notice that this measure is somewhat similar to the Election Cycle measure, as they each include four years and only one presidential election at a time. Our third measure is an "eight-year moving average". This measure sets a CEO's political preference in year t to be based off of donations between years $t - 4$ and $t + 3$. As such, this measure includes two presidential cycles at a time. Our fourth measure is to combine contributions from all years to create a single, constant measure of a CEO's average political contributions to Republicans. We denote this measure the "sample average".

Two questions arise from our measures of CEO political preferences. The first is whether CEO preferences are constant over time, as implied by the sample average measure, or time-varying, as implied by our other measures. The second is whether our measure captures CEOs' actual political preferences, as opposed to strategic considerations.

That CEOs' political preferences are constant over time is an assumption accepted by much of the literature (Hutton et al., 2014, 2015; Elnahas and Kim, 2017; Bayat and Goergen, 2020). These papers document very little change over time in the pattern of donations by individual CEOs. Further, Bonica (2016) explicitly compares the consistency of the partisan leanings of individual Fortune 500 directors and CEOs across election cycles with those of other individual donors; he shows that both corporate elites and other individual donors are highly partisan in their contributions, giving mostly to a single party in a given election cycle, indicating a strong partisan preference. He then shows that this partisan preference of corporate elites in one election cycle are very strongly associated with the partisan lean of donations in the next election cycle, a pattern that is strikingly similar to that of other individual political contributors. Overall, the empirical

⁸To be clear, we ignore contributions to independent/third party candidates, or contributions that we do not manage to identify the party to whom they belong.

evidence suggests that CEOs' personal political preferences of CEOs are indeed constant, like those of the public at large, a finding that is consistent with the notion that party identification forms during adolescence and remains constant thereafter (Green et al., 2002).⁹ At the end of the day, we do not take a stand on this issue, and instead show our results to be robust to either having preferences change or be constant for a CEO.

We next examine whether political contributions reflect personal beliefs. Bonica (2016) performs a number of analyses to determine whether corporate elites make political donations to advance their personal preferences or their business interests. His first argument is that, if a political contribution is a strategic investment to gain access or influence over politicians, such money should be much more likely to flow to the candidate likely to win. Corporate elites gave only 46% (38%) of their donations to winners in 2008 (2012), when Democrat Barack Obama won the presidency, a pattern consistent with corporate elites' overall Republican leanings and inconsistent with "picking winners" for purposes of influence.¹⁰ Bonica (2016) also shows that corporate elites donate substantially to presidential candidates, while corporate PACs are more focused on congressional races, which he designates as more likely avenue for political access than presidential contributions.¹¹ Furthermore, as noted earlier, corporate elites typically donate largely to a single political party, as do other individual donors; more strategic corporate PACs distribute donations much more evenly between the two major parties.¹² Interestingly, Bonica shows that corporate PACs shift their contributions toward the political party currently in power, a pattern that suggests they may indeed be trying to buy influence. By contrast, corporate elites donate more (in total contributions) to their preferred party when it is out of power. This pattern may suggest some strategizing about the *timing* of political contributions, but it sup-

⁹Relatedly, Fremeth et al. (2013) track contributions by individual CEOs before, during, and after their tenure at the helm of S&P 500 firms, between 1991 and 2008, and find that such contributions increase dramatically during their service as CEOs. The authors conclude that individual CEOs' partisan leanings are not strongly affected by employment as a CEO.

¹⁰Relatedly, Bonica (2016) documents little "hedging" behavior among corporate elites who contribute to presidential nominees. The vast majority donate to only one party.

¹¹Bonica, looking only at contributions to congressional elections, finds that corporate elites are much less likely to pick winners than are corporate PACs, and only slightly more likely to pick winners than itemized individual donors (members of the general public who contribute more than \$200), who in turn are somewhat better at picking winners than smaller donors. This pattern further supports the idea that corporate elites are not trying to buy access, even with congressional contributions.

¹²Cooper et al. (2010) show that the number of candidates a corporate PAC supports is correlated with subsequent abnormal stock-market returns, suggesting that these PACs are indeed focused on firm profits.

ports the assertion that these contributions reflect personal ideology rather than a strategic choice of which party to support.

Hutton et al. (2014) similarly make four arguments that CEOs' political contributions accurately reflect their personal beliefs. First, for a subset of CEOs who self-report their political ideology, the partisan leanings of their contributions strongly correlate with reported ideology. Second, demographic characteristics associated with Republicans in the general population—namely, being older, male, and not a member of a minority—are also strongly correlated with a consistent Republican tilt in CEO contributions. Third, CEOs who donate more to Republicans are more financially conservative in their personal lives than those who donate more to Democrats, as measured by incurring less debt when purchasing their primary residences. Finally, and consistent with Bonica (2016), the authors argue that, if contributions were strategic rather than reflective of personal beliefs, we would see more change in the partisan orientation of donations over time as power changes hands. As noted above, this is decidedly not the case.

Figure 1 shows average CEOs' political preferences over time, by each of our measures. The average CEO donates between 60-70% of their donations to Republicans. The average fell from between 2000 and 2008, and rose again until 2012, and fell thereafter. Notice that the four-year moving average measure is more volatile than other measures, as discussed above, while the sample average measure is most stable. Changes in the sample average represent only changes in CEOs included in our sample for given years, as each CEO has a constant measured political preference. Changes in the other measures represent both changes in the sample of CEOs, as well as potential changes in how each individual CEO donates over time.

2.5 Summary Statistics

Tables 1 and 2 report summary statistics for our main analyses and event study, respectively. We report the mean and standard deviation (in parentheses) for our variables of interest for all observations, as well as conditional on the political preferences of the CEO. We also report the number of observations of each variable, both overall and by the CEO's political preference. For these tables, our measure of a CEO's political preferences is the sample mean.

The first column of Table 1 reports statistics on CEOs who donate less than 50% of their donations to Republicans (and thus, more than 50% to Democrats). The second column reports statistics on CEOs who donate more than 50% of their

donations to Republicans (and thus, less than 50% to Democrats). The last column reports statistics on all CEOs.

Panel A of table 1 reports summary statistics on CEOs, including gender, age, tenure as CEO, and whether they also chair the board of directors. 3% of all CEOs are female, while 4% (2%) of those who donate more to Democrats (Republicans) are female. The average age of all groups of CEOs is about 56 years old. The average tenure for CEOs in our sample is 7.65 years, with the average slightly higher (8.32 years) for CEOs who donate more to Democrats than those who donate more to Republicans (7.39 years). 55% of all CEOs are also the chair of their boards of directors, while this number is slightly lower for those who donate more to Democrats (52%) than those who donate more to Republicans (56%).

Panel B reports summary statistics on the non-CEO executives in our samples: their age, total compensation, ratio of salary and bonus to total compensation (“cash ratio”), delta, and vega. All of this data comes from ExecuComp, and is thus reported only for the ExecuComp sample. Total compensation, delta, and vega are reported in thousands of dollars. Finally, Panel B also reports whether an executive is an insider (as defined above). Insider status is calculated using Form 4 data, because that wider sample of data is more likely to capture an executive having been employed at the firm in a previous time period. There are no major differences in these variables between CEOs of different political preferences.

Panel C reports summary statistics on firm characteristics: number of female executives, total number of executives, and the fraction of non-CEO executives who are female in both the ExecuComp and Form 4 samples. There are approximately 5.7 and 9.6 executives in the ExecuComp and Form 4 samples respectively, numbers that do not vary much by the politics of the CEO. 9% of ExecuComp non-CEO executives and 12% of their Form 4 counterparts are female. CEOs who contribute more money to Democrats employ more women than those who contribute more to Republicans. This is true for both samples. Similarly, Figure 2 shows the fractions of executives who are female, in both samples, by the political preferences. This shows a more continuous measure of how female representation in the executive suite varies by a CEO’s political preferences. In the ExecuComp sample, the fraction of women in the executive suite declines monotonically with the fraction of a CEO’s political contributions that go to Republicans. In the Form 4 sample, the fraction of women in the executive suite is roughly constant among CEOs who give no more than 40-60% of their contri-

butions to Republicans, but then declines monotonically among CEOs who give to Republicans at higher rates. The log of assets is roughly uniform among the three groups of CEOs. Companies run by CEOs who donate more to Republicans have higher return on assets (ROA) than other CEOs. Cash, dividends, and debt all vary somewhat from group to group, but their variance can be attributed to differences in other variables, such as industry and company size.¹³

Table 2 duplicates panel A of Table 1 for a subset of CEOs who are new to the position, if both their political preferences and those of their predecessor can be identified, and who thus constitute the sample used in our event-study analysis, reported in Section 3.2. We report statistics of the incoming CEO by the type of leadership change observed in the data. The first letter denotes the political preference of the outgoing CEO; the second letter denotes that of the incoming CEO: RR specifies a Republican CEO replacing a Republican, RD a Democratic CEO replacing a Republican, DD a Democratic CEO replacing a Democrat, and DR a Republican CEO replacing a Democrat.

Panel A of Table 2 denotes a CEO to be a Republican (Democrat) if they donate at least 50% of their contributions to Republicans (Democrats). Panels B and C do the same, but set the cutoffs to be 67% and 75% of contributions, respectively. Patterns in CEO gender are very similar to those reported in Table 1. Incoming CEOs denoted as Democrats are more likely to be women, and someone younger than their Republican counterparts. We note that the stricter the cutoff for designating a political preference of a CEO, the smaller the sample.

3 The Gender Composition of the Executive Suite

This section documents differences in the gender composition of the top-executive teams by the political preferences of CEOs. Section 3.1 looks at differences across the entire sample of companies. Section 3.2 then uses an event-study approach to examine the dynamics of the executive suite's gender composition around the time of a change in CEO.

3.1 All Companies

Our first exercise studies the relationship between the political preference of a company's CEO and the gender composition of its executives. To do so, we esti-

¹³In untabulated regressions, we confirm that this is the case, with the exception of dividends. Companies run by CEOs who give more to Republicans tend to pay higher dividends, even after conditioning for industry and company size.

mate regressions of the following structure:

$$(1) \quad Y_{ct} = \alpha_0 + \alpha \cdot \text{FracRep}_{ct} + \beta \cdot \text{Female}_{ct} + d_t + I_c + X'_{ct}\xi + \epsilon_{ct},$$

where Y_{ct} is the fraction of company c 's non-CEO executives in year t who are women. FracRep_{ct} is the fraction of a CEO's political contributions that went to Republicans. As discussed above, we use four measures for this variable. Female_{ct} is a dummy variable equal to 1 if the CEO is female. d_t is a set of year fixed effects and I_c represents firm fixed effects. X'_{ct} is a vector of firm characteristics, including (a) a quadratic in CEO age; (b) the log of the CEO's tenure; (c) whether the CEO also chairs the board of directors; (d) whether the CEO is an "insider", (defined as whether (s)he worked for the company in year $t - 1$); (e) the interaction of insider status and being female, and (f) the log of the firm's total assets.¹⁴ Standard errors are clustered at the firm level. We estimate (1) using either the Form 4 or the ExecuComp sample.

Table 3 shows the results of these regressions. Column 1 uses the sample of executives from Form 4 and defines FracRep_{ct} based off of the election cycle measure of political preference. The point estimate for FracRep_{ct} is -0.010, and statistically significant at the 10% level. This suggests that an extreme Republican ($\text{FracRep}_{ct} = 1$) has a lower fraction of women in their executive team of about 1 percentage point. Given that the average fraction of executives who are women is 12.3% in the Form 4 sample, this estimate suggests that an extreme Republican CEO employs about 8% fewer women than an extreme Democrat. Column 2 duplicates column 1 using the sample of executives from ExecuComp, and finds a coefficient of -0.014, which is statistically significant at the 5% level. Given that the average fraction of executives that are women in the ExecuComp sample is about 9%, this implies that an extreme Republican CEO employs about 15% fewer women than an extreme Democrat. Columns 3 and 4 repeat this pattern, but define FracRep_{ct} based off of the four-year moving average measure of political preference. The results are virtually unchanged from columns 1 and 2. This is consistent with the idea that the election cycle and the four-year moving average measures of political preference are quite similar, as they both use four years of

¹⁴ The insider variable interacted with the CEO being female controls for a mechanical issue: that promotion of a female executive to CEO status is likely to change the gender composition of the remaining non-CEO executive suite because a promoted female executive is likely to be replaced by a man, given that the vast majority of executives are male. Thus such an internal promotion will create a negative relationship between a female CEO and the fraction of non-CEO executives who are female. Controlling for the CEO's insider status, interacted with being female, solves this issue.

data and cover one presidential election at a time. Columns 5 and 6 again repeat this pattern, but define $FracRep_{ct}$ based off of the eight-year moving average measure of political preference. The estimate in column 5 (column 6) is -0.012 (-0.016), and statistically significant at the 10% (5%) level. This implies that an extreme Republican CEO employs about 10% (17%) fewer women than an extreme Democrat. Finally, columns 7 and 8 repeat this pattern, but define $FracRep_{ct}$ based off of the sample average measure of political preference. The estimate in column 7 (column 8) is -0.019 (-0.023), implying that an extreme Republican CEO hires about 15% (25%) fewer women. These estimates are statistically significant at the 5% level.¹⁵

Notice that the magnitude of the estimates, as well as their statistical significance, rises with the length of the time period used to calculate a CEO's political preference. This is as longer time periods include more donations, and are thus both include more CEOs and may be a more precise measures of a CEO's true political beliefs.

We conclude that companies run by CEOs who exhibit a strong Republican preference employ fewer women. These findings hold both for the broad sample of executives in the Form 4 sample, and for the more restricted sample of highly paid executives in the ExecuComp sample.

3.2 Event-Study Design

The previous analysis established an association between the political preference of a CEO and the gender composition of the executive suite; it did not assert causation. One approach to identifying the direction of the association is to use an event-study design, where the event is a change in a company's CEO. Our event-study analysis compares the gender composition of the executive suite at companies whose outgoing CEO is replaced by a successor of the opposite political preference with companies whose outgoing and incoming CEOs are of the same political preference. This requires us to label both outgoing and incoming CEOs with a single political preference, rather than a continuous measure. To do so, we use the sample average measure of political preferences, and use three potential cutoffs.¹⁶ The first one is to label a CEO as a Republican (Democrat) if at least

¹⁵Another interesting result reported in Table 3 is the lack of a relationship between company size, as measured by the log of total assets, and gender composition. Larger companies do not seem to have more gender diversity in their executive suites.

¹⁶As discussed above in section 2.5, this event-study design leaves us with a small sample. Using the sample average measure of political preferences allows us to maximize the sample size for a given cutoff.

50% of their contributions go to Republicans (Democrats). The second and third are to set this cutoff at 67% and 75% of contributions, respectively. The benefit to using a lower cutoff is that more CEOs are identified as being with a political party, and thus enlarge the sample, while the cost is that more CEOs may be erroneously categorized with a political party even if their political preferences are more moderate.

We perform these exercises separately for companies whose outgoing CEOs are Republicans and Democrats. This approach is advantageous as it enables us to better measure trends in female executive employment at companies run by Republicans or Democrats before a change in their leaders' political preference. That is, we are able to show that trends in executive gender composition do not differ, prior to a change in CEO, between companies that replace a Republican with a Democrat and those that select another Republican. Doing so increases confidence that the event-study design captures the effect of a change in the CEO's political preference on the gender composition of the executive suite, rather than differing trends at companies that replace a Republican with a Democrat or with another Republican.

We proceed in two steps. First, section 3.2.1 performs the main event study, and shows that replacing a Republican CEO with an incoming Democratic CEO yields a dynamic increase in the fraction of the executive suite that is female. Second, section 3.2.2 breaks down this result, and shows that the increased fraction of women among executives is due to hiring more women (an increase in the numerator) rather than reducing the number of executives (a decrease in the denominator). Due to small sample sizes, we relegate the event study, as well as breakdown of results, exploring the implications of replacing Democratic CEOs to Appendix B.

3.2.1 Event Study

We estimate regressions of the following structure:

$$Y_{ctk} = \alpha_0 + \sum_{k=-3}^3 \alpha_k \cdot t^k + Switch + \sum_{k=-3}^3 \gamma_k \cdot Switch_{p,-p} \cdot t^k + I_c + X'_{ct} \xi + \epsilon_{ctk},$$

where Y_{ctk} is the fraction company c 's non-CEO executives who are women, k years around the year of a change in CEO, t , where the lag k ranges from -3 to 3

(i.e., from 3 years before to 3 years after the change in CEO).¹⁷ We demean this variable by year.¹⁸ The fraction of executives who are female is measured using the Form 4 sample.¹⁹ t^k is a set of fixed effects for the lags before and after a switch in CEO, which allows us to measure any potential trends around the time of a CEO's replacement.

Switch is a dummy variable indicating that an outgoing CEO of political preference p is replaced by an incoming CEO of the opposite political preference $-p$.²⁰ We also include the interactions of *Switch* with t^k , with coefficients γ_k ; these interactions capture differences between (a) the fraction of non-CEO executives who are female in the years before and after a CEO of party p is replaced with a CEO of party $-p$, and (b) the same changes at companies whose outgoing and incoming CEOs share a political preference. Thus, γ_k are our parameters of interest. I_c are company fixed effects. X'_{ctk} is a vector of firm characteristics, including (a) a quadratic in the CEO's age, (b) whether the CEO is also chairs the board of directors, (c) whether the CEO is female, (d) whether the CEO is an insider, (e) the interaction of the CEO's insider status and being female, and (f) the log of the firm's total assets, in year $t + k$. Standard errors are clustered by firm.

Table 4 reports the results of our event study when studying the sample of companies replacing a Republican CEO with either a Democrat or Republic. Column 1 uses the 50% cutoff for determining CEO political preferences, and does not include the firm controls in X . Column 2 repeats column 1, but includes these firm controls. Columns 3 and 4 (5 and 6) repeat columns 1 and 2, respectively, but

¹⁷There is an issue regarding the exact timing of when a CEO began working. Some CEOs are reported to have a tenure of 1 when they begin, while others are a tenure of 0. The difference comes down to the calendar year- if a CEO began her job in December 2013, then in January 2014 she will have a tenure of 1. However, we're not sure which year the CEO actually began to work, and thus how to center the event study. Accordingly, we set the fraction of executives who are women in the first year of a CEO's tenure to be the average of the first and second year we see the CEO as in the position of CEO, since we are not entirely sure when the CEO actually began. As such, the observations we refer to as being 2 years after the switch might actually be 3 years after the switch.

¹⁸Specifically, we regress Y_{ctk} on year fixed effects using the whole sample of data used in section 3.1 above, and use the residuals in the estimation described here. The use of all the data to demean by year implicitly allows us to estimate year fixed effects using all available data, rather than the limited sample used in these event studies.

¹⁹This event-study approach naturally results in a greatly restricted sample size, as we are limited to observations where we identify the political preferences of both the incoming and outgoing CEOs.

²⁰ For example, consider the event study of the sample of outgoing Republicans who are replaced by either Democrats or Republicans. *Switch* takes a value of 1 if a company replaces a Republican with a Democrat. It thus measures difference in the gender composition of the executive suite between companies that replace a Republican with a Democrat and companies that replace a Republican with another Republican.

use the 67% (75%) cutoff for determining CEO political preferences. We omit the interaction between *Switch* and t^0 . As such, the interpretation of the coefficients on these interactions is a comparison to the year a company changed CEOs. In all specifications, the coefficients on t^k are generally economically and statistically insignificant, indicating no trends in female executive employment around the time of a change in CEO, for this sample of companies. In columns 1 and 2 *Switch* is positive and statistically significant, at the 5% and 10% levels, respectively, while in columns 3 and 4 this variable is close to 0 and insignificant, while in columns 5 and 6 it is negative and significant at the 1% level. However, the estimates on the interaction between *Switch* and t^k prior to the change in CEO indicate no difference in trend in the fraction of the executive suite that is female between companies whose Republican CEOs are replaced with Democrats and with Republicans in all specifications. All specifications find an increase in female representation in the executive suite a year after a Republican CEO is replaced by a Democrat. This increase is 1.1-1.2 percentage points (p.p.) in columns 1 and 2, 2.1-2.2 p.p. in columns 3 and 4, and 3.0 p.p. in columns 5 and 6. The estimates are significant at the 10% level in all specifications except for column 2 where it is significant at the 15% level. Two years after the change in CEO, female representation in the executive suite increases by 2.1-2.2 p.p. in columns 1 and 2, 4.1-4.5 p.p. in columns 3 and 4, and 5.8-5.9 p.p. in columns 5 and 6. All of these estimates are statistically significant at the 5% level. Three years after the change in CEO, female representation in the executive suite increases by 2.4-2.5 p.p. in columns 1 and 2, 3.3-4.1 p.p. in columns 3 and 4, and 6.9-7.0 p.p. in columns 5 and 6. The estimates are statistically significant at the 5% level in columns 1 and 2, 15% level in column 3, not significant in column 4, and the 10% level in columns 5 and 6.

We note that the magnitude of the estimates becomes larger when using stricter thresholds, but statistical significance does not always increase due to smaller sample sizes. We also note that these estimates are quite large, considering that the average fraction of executives who are women ranges from 11.2% (columns 5 and 6) to 12.5% (column 1). Indeed, when using a 50% (67%) [75%] cutoff, these estimates represent an increase of about 20% (40%) [60%] in the fraction of the executive suite that is female.

3.2.2 Breakdown of Results

We next break down the results of this exercise by asking: does the fraction of women in the executive suite rise because incoming Democratic CEOs hire new female executives (i.e., because the numerator increases)? Or because the num-

ber of executives drops (i.e., the denominator falls)?²¹ Figure 3 breaks down the results described above for the 50% threshold event studies when replacing a Republican CEO by the political preferences of the incoming CEO. The top left panel shows that companies that replace a Republican with another Republican see only a small trend in the increase in the number of female executives employed. In contrast, the top right panel shows that companies that replace the Republican CEO with a Democrat see a large increase in the number of female executives, of approximately 0.6 women. The middle panel shows that both types of companies see only small fluctuations in the number of executives they employ.²² The bottom panel shows the net effect of these two facts: the fraction of executives who are women rises slightly under when a Republican replaces a Republican, but much more when a Democrat replaces a Republican, when female representation rises from 12 to 18% of executives. Considering that the number of executives is approximately constant at 10, these results suggest that the extra women added to the executive suite can entirely account for the change in the fraction of executives who are women.

Figures 4 and 5 repeat Figure 3 for the 67% and 75% threshold exercises, respectively. The same patterns hold. Under the 67% (75%) threshold, the number of female executives increases when a Republican is replaced by a Democrat by approximately 0.8 (1.0) women. Considering that the fraction of executives who are women rises by about 0.08 (0.1), and that the number of executives is approximately constant at 10, these results again suggest that the extra women added to the executive suite can entirely account for the change in the fraction of executives who are women. Notice that the increase in the number of women in the executive suite upon replacing a Republican with a Democrat is increasing in the cutoff used to determine political preferences. This is consistent both with the results shown in Table 4, as well the notion that stricter cutoffs yield CEOs with stronger political preferences.

We cannot completely rule out the possibility that confounding factors cause companies to simultaneously replace a Republican CEO with a Democrat and increase female representation in the executive suite. However, our results are highly suggestive that replacing a Republican CEO with a Democrat yields an increase in female representation among executives. As discussed above, the

²¹To examine this, we look at the raw data, as opposed to net of year fixed effects, as described above.

²²While it looks like companies that replace a Republican another Republican may see a decline in the number of executives, the decline is quantitatively not large.

sample of companies replacing a Democratic CEO is quite small, and thus the analysis is relegated to Appendix B. However, we note that the results shown there indicate that replacing a Democratic CEO with an incoming Republican CEO does not seem to impact female representation in the executive suite. The results presented here thus suggest that Democratic CEOs hire women, rather than that Republican CEOs fire women.

4 Gender Differences in Executive Pay

This section documents how gender differences in total compensation (section 4.1) and performance-sensitive pay (section 4.2) vary based with the political preferences of a company’s CEO.

4.1 Total Compensation

To analyze gender differences in non-CEO executive total compensation between companies run by CEOs of different political preferences, we estimate regressions of the following structure:

$$(2) \\ Y_{pct} = \alpha_0 + \alpha \cdot \text{FracRep}_{ct} + \beta \cdot \text{Female}_{ct} + \gamma \cdot \text{ExecFemale}_{pct} + \delta \cdot \text{ExecFemale}_{pct} \cdot \text{FracRep}_{ct} \\ + \omega \cdot \text{ExecFemale}_{pct} \cdot \text{Female}_{ct} + d_t + I_c + X'_{ct}\xi + Z'_{pct}\chi + \epsilon_{pct},$$

where Y_{pct} is the log of total compensation of non-CEO executive p at company c in year t . FracRep_{ct} is the fraction of a CEO’s political contributions that went to Republicans. As in section 3.1, we use the same variety of measures for this variable. Female_{ct} is a dummy variable equal to 1 if the CEO is female. ExecFemale_{pct} is a dummy variable equal to 1 if executive p is female. We interact ExecFemale_{pct} with FracRep_{ct} , with coefficient δ . Our coefficients of interest are β and δ ; they compare gender differences in compensation and how these gaps change with the political preference of the CEO. We also include an interaction between ExecFemale_{pct} and Female_{ct} (listed above with coefficient ω). d_t is a set of year fixed effects. I_c is a set of firm fixed effects. X'_{ct} is a vector of firm characteristics.

As before, X includes a quadratic in the CEO’s age; the log of the CEO’s tenure; an indicator of whether the CEO also chairs the board of directors; an indicator of whether the CEO is an insider, interacted with whether the CEO is female; and the log of total assets. We now add the return on assets, book-to-market value,

cash, dividends, and total debt. Z'_{pct} is a set of individual controls for executive p , including a quadratic in his/her age, an indicator of whether the executive is an insider, and a set of dummy variables for the executive position's title.²³ As such, the controls we use are similar to those in the literature (Munoz-Bullon, 2010; Elkinawy and Stater, 2011; Carter et al., 2017; Quintana-Garcia and Elvira, 2017). Standard errors are clustered at the firm level.

Table 5 reports the estimation results. Column 1 regresses log total compensation on *ExecFemale*, *Female*, their interaction, and includes our firm controls X , individual controls Z , year fixed effects, and firm fixed effects, on the sample for which we have the political preferences of CEOs using the election cycle measure.²⁴ The estimate on *ExecFemale* suggests that female executives are paid about 8% less than their male counterparts, with this difference statistically significant at the 1% level. Column 2 adds CEOs' political preferences *FracRep*, using the election cycle measure, interacted with *ExecFemale*. The estimate on *ExecFemale* suggest that women are paid about 4% less than men, and is statistically significant at the 10% level. Notice that this estimate is implicitly the gender compensation gap under an extreme Democratic CEO. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.071, and is statistically significant at the 5% level. This implies that the gender compensation gap rises from 4% under an extreme Democrat to 11% under an extreme Republican.

Column 3 repeats column 2, but switches the measure of political preferences to be the four-year moving average measure.²⁵ The estimate on *ExecFemale* is -0.034, implying that women under an extreme Democrat earn about 3% less than their male colleagues. However, this estimate is not statistically significant, and thus we cannot reject the hypothesis that female executives under extreme Democratic CEOs do not experience any gender wage gap. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.087, and is statistically significant at the 1% level. This implies that the gender compensation gap rises from 3% under an extreme Democrat (with the estimate not statistically significant) to 11% under an extreme Republican (with the estimate statistically significant at the 1% level).

²³Title groups include chief officers, an executive who is also a chairman, general counsel, human resources, vice president, other titles that include the word *senior*, and other.

²⁴We use the sample for which we have the election cycle measure in order to make the estimates comparable with the those in column 2, which includes these preferences. Notice that this sample happens to be the same as with the four-year and eight-year moving averages. As such, we do not repeat this analysis again when using the four-year and eight-year moving averages. However, we redo this exercise when using the sample average measure as discussed below.

²⁵As discussed in footnote 24, there is no need to replicate column 1 under this sample, as the samples happen to be the same.

Column 4 again repeats column 2, but switches the measure of political preferences to be the eight-year moving average measure. The estimate on *ExecFemale* is -0.027, implying that women under an extreme Democrat earn about 3% less than their male colleagues. However, this estimate is not statistically significant, and thus we cannot reject the hypothesis that female executives under extreme Democratic CEOs do not experience any gender compensation gap. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.097, and is statistically significant at the 1% level. This implies that the gender compensation gap rises from 3% under an extreme Democrat (with the estimate not statistically significant) to 11% under an extreme Republican (with the estimate statistically significant at the 1% level). Columns 5 and 6 repeat columns 1 and 2, respectively, but switches the measure of political preferences to be the sample average measure. The estimates in column 5 are virtual indistinguishable from those in column 1, with the exception of a larger sample size, due to the sample average measure including more CEOs, and a larger (but still insignificant) point estimate on impact of having a female CEO.²⁶ In column 6, the estimate on *ExecFemale* is -0.029, implying that women under an extreme Democrat earn about 3% less than their male colleagues. As in columns 3 and 4, this estimate is not statistically significant, and thus again we cannot reject the hypothesis that female executives under an extreme Democratic CEOs do not experience any gender wage gap. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.093, and is statistically significant at the 1% level. This implies that the gender compensation gap rises from 3% under an extreme Democrat (with the estimate not statistically significant) to 12% under an extreme Republican (with the estimate statistically significant at the 1% level).²⁷

We conclude that there is some evidence that women under extreme Democratic CEOs earn less than their male counterparts, though this finding is not robust. In general, we cannot reject the hypothesis that there is no gender wage gap under extreme Democratic CEOs. However, all of our estimates suggest a large and statistically significant gender wage gap under extreme Republican CEOs. These findings suggest that the general gender wage gap among top executives in S&P

²⁶As explained in footnote 24, the purpose of this exercise is to show how the estimates change when including CEO political preferences, as in column 6. As such, we keep the sample constant between columns 5 and 6.

²⁷We also note that there is no significant difference in levels of pay under CEOs of different political preferences. Female CEOs tend to be associated with lower overall executive compensation, though this difference is not statistically significant. Finally, while the interaction between *ExecFemale* and *Female* is positive, and suggests that female executives earn 4-6% more under a female CEO than under a male CEO, this estimate is not statistically significant.

1500 firms can be accounted for by the political preferences of the firms' CEOs.

Ideally, we would perform an analysis along the lines of the event-study done in section 3.2. However, we only have data on executive compensation in the ExecuComp sample. In that sample, more than half of firms do not employ any female executives at all. Given that the event-study we perform is already on a small sample, this data limitation renders the analysis impossible. Additionally, our results above show that Democratic CEOs hire more women. We would not be able to analyze how the wages of these women change when a Democrat takes over. Similarly, it is not clear how the CEO would affect wages of women who were hired prior to the CEO taking office. While it is possible that the CEO would work to equalize wages, it is also possible that the CEO would only do so for new hires. We next study gender differences in the performance-sensitivity of executive compensation under different types of CEOs.

4.2 Performance-Sensitivity Compensation

To analyze gender differences in performance-sensitive non-CEO executive compensation between companies run by CEOs of different political preferences, we estimate regressions as in (2), but with different dependent variables. We use three measures for Y_{pct} : (1) the ratio of salary and bonus to total compensation, which we call "the cash ratio," (2) the log of delta, and (3) the log of vega.²⁸ When the dependent variable is either log of delta or log of vega, we include as a control the sum of the executive's salary and bonus; higher levels of non-stock-option compensation are presumably correlated with higher levels of stock-option compensation.

Table 6 panel A repeats Table 5, but switches the dependent variable to be the cash ratio.²⁹ A higher value for this ratio indicates a higher share of total compensation that is paid in cash rather than equity compensation. In columns 1 and 5 we find that female executives earn a cash ratio that is 1.0-1.1% higher than their male counterparts, with the difference statistically significant at the 1% level.³⁰ In column 2, using the election cycle metric of political preferences, we find that the cash ratio for women is about 0.5% higher than their male counterparts under an extreme Democrat, though this difference is not statistically significant. The

²⁸Technically, we take the log of delta + \$1 or the log of vega + \$1 in order not to take the log of 0 in cases of no stock-option compensation.

²⁹For brevity, Table 6 does not report differences in compensation under female CEOs. We find no differences in the cash ratio under female CEOs either for either male or female executives in any of the specifications discussed here.

³⁰As explained above, the difference between these specifications is just the sample.

estimate on the interaction between *FracRep* and *ExecFemale* is 0.010, suggesting that the gender gap in the cash ratio under an extreme Republican receive a cash ratio that is 1 percentage point higher than they would under an extreme Democrat. While this estimate is not statistically significant, the magnitude of these estimates suggest that a large amount of the gender differences in the cash ratio in column 1 can be accounted for by CEO political preferences. In column 3, using the four-year moving average metric of political preferences, we find that the cash ratio for female executives is virtually indistinguishable from that of male executives under an extreme Democratic CEO. The estimate on the interaction between *FracRep* and *ExecFemale* is 0.017, suggesting that the gender gap in the cash ratio under an extreme Republican is 1.7 percentage point higher than it would be under an extreme Democrat, with this estimate statistically significant at the 5% level. In column 4, using the eight-year moving average metric of political preferences, we find that the cash ratio for female executives is indistinguishable from that of male executives under an extreme Democratic CEO. The estimate on the interaction between *FracRep* and *ExecFemale* is 0.019, suggesting that the gender gap in the cash ratio under an extreme Republican receive is 1.9 percentage point higher than they would under an extreme Democrat, with this estimate statistically significant at the 5% level. In column 6, using the sample average metric of political preferences, we find that the cash ratio for female executives is actually somewhat lower from that of male executives under an extreme Democratic CEO, though this difference is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is 0.025, suggesting that the gender gap in the cash ratio under an extreme Republican is 2.5 percentage point higher than they would under an extreme Democrat, with this estimate statistically significant at the 1% level. Taken together, these results suggest that we cannot reject the hypothesis that the cash ratio is the same between male and female executives under an extreme Democratic CEO, and that gender differences in the cash ratio can potentially be entirely accounted for by the political preferences of a firm's CEO.

Table 6 panel B repeats panel A, but switches the dependent variable to be the log of delta and, as discussed above, adds as a control the sum of the executive's salary and bonus.³¹ A higher value of log delta indicates that the executive's

³¹Again, for brevity, we do not report differences in compensation under female CEOs. We find that having a female CEO is associated with executives receiving a delta that is about 45-50% lower than they would under a male CEO, with the estimates significant at the 5% level, and that female executives receive a delta that is 50-65% higher than they would under a male CEO, with the estimates significant at the 10% level.

stock options are more sensitive to the company's stock price, indicating a higher level of performance incentives. In columns 1 and 5 we find that female executives earn a delta that about 28-32% lower than their male counterparts, with the difference statistically significant at the 1% level. In column 2, using the election cycle metric of political preferences, we find that the delta for female executives is about 17% lower than their male counterparts under an extreme Democrat, with this difference statistically significant at the 15% level. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.332, suggesting that the gender gap in delta is about 28 percentage points larger under extreme Republican than under an extreme Democrat, with this difference statistically significant at the 5% level. These estimates suggest that the majority of the gender gap in delta in column 1 can be accounted for by a company's CEOs political preferences. In column 3, using the four-year moving average metric of political preferences, we find that delta for female executives is about 13% lower than that of male executives under an extreme Democratic CEO, but that this difference is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.405, suggesting that the gender gap in delta is 33 percentage points larger under an extreme Republican than under an extreme Democrat, with this estimate statistically significant at the 5% level. In column 4, using the eight-year moving average metric of political preferences, we find that delta for female executives is 11.3% lower than that of male executives under an extreme Democratic CEO, but that this difference is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.443, suggesting that the gender gap in delta is 36 percentage points larger under an extreme Republican than under an extreme Democrat, with this estimate statistically significant at the 5% level. In column 6, using the sample average metric of political preferences, we find that delta for female executives is virtually the same as male executives under an extreme Democratic CEO, and the estimated differences are not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.471, suggesting that the gender gap in delta under an extreme Republican is 38 percent points than under an extreme Democrat, with this estimate statistically significant at the 1% level. Taken together, these results suggest that we cannot reject the hypothesis that delta is the same between male and female executives under an extreme Democratic CEO, and that gender differences in delta can potentially be entirely accounted for by the political preferences of a firm's CEO.

Table 6 panel C repeats panel B, but switches the dependent variable to be the

log of vega.³² A higher value of log vega indicates that the executive's stock options are more sensitive to the company's stock price volatility, indicating a higher level of performance incentives (specifically, for risk taking). In columns 1 and 5 we find that female executives earn a vega that about 26-29% lower than their male counterparts, with the difference statistically significant at the 1% level. In column 2, using the election cycle metric of political preferences, we find that the vega for female executives is about 16% lower than their male counterparts under an extreme Democrat, but that this estimate is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.263, suggesting that the gender gap in vega under an extreme Republican CEO is about 23 percentage points larger than under an extreme Democrat, with this estimate statistically significant at the 15% level. In column 3, using the four-year moving average metric of political preferences, we find that vega for female executives is about 15% lower than that of male executives under an extreme Democratic CEO, but, again, this estimate is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.298, suggesting the gender gap in vega under an extreme Republican CEO is 26 percentage points larger than under an extreme Democrat, with this estimate statistically significant at the 15% level. In column 4, using the eight-year moving average metric of political preferences, we find that vega for female executives is 10.8% lower than that of male executives under an extreme Democratic CEO, but, again, this estimate is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.375, suggesting that the gender gap in vega under an extreme Republican is about 31 percentage points larger than under an extreme Democrat, with this estimate statistically significant at the 10% level. In column 6, using the sample average metric of political preferences, we find that vega for female executives are about 14% lower than male executives under an extreme Democratic CEO, though this estimated difference is not statistically significant. The estimate on the interaction between *FracRep* and *ExecFemale* is -0.253, suggesting that the gender gap in vega under an extreme Republican is about 22 percentage points larger than under an extreme Democrat, though this estimate is not statistically significant. Taken together, these results suggest that we cannot reject the hypothesis that vega is the same between male and female executives under an extreme

³²Again, for brevity, we do not report differences in compensation under female CEOs. We find that having a female CEO is associated with executives receiving a vega that about 75% lower than they would under a male CEO, with the estimates significant at the 5% level, and that female executives receive a vega that is about 75-115% higher than they would under a male CEO, with the estimates significant at the 1-5% level, depending on the specification.

Democratic CEO, and that gender differences in vega can potentially be entirely accounted for by the political preferences of a firm's CEO.

We conclude that companies run by extreme Democratic CEOs have much smaller and potentially nonexistent gender pay gaps among top executives; other companies, by contrast, have significant pay gaps. Interestingly, this pattern characterizes not only total compensation but also the makeup of the compensation package: significant gender gaps are apparent in the cash ratio, delta, and vega of compensation under CEOs with stronger Republican preferences. Thus, not only do female executives under such CEOs receive lower total compensation than their male counterparts; their compensation also has a much smaller equity component. The previous literature has argued that lower delta and vega for female executives indicate higher female risk aversion (Carter et al., 2017); it is hard to reconcile this explanation with the fact that these differences are greatly mitigated when taking into account the political preferences of a company's CEO.

5 Conclusion

This paper provides the first empirical evidence about how CEOs' political preferences interact with gender-related choices regarding the prevalence of female executives and the level and structure of their compensation. The evidence is consistent with our hypothesis that CEOs whose preferences are more aligned with Democrats are associated with the presence of more women in the executive suite and with a reduced gender gap in compensation of non-CEO executives. To better understand the direction of the association, we use an event-study analysis; the event is a change in a company's CEO. We show that when a Republican CEO is replaced with a Democrat rather than another Republican, the fraction of women in the executive suite increases.

Our study has significant implications for future work. Subsequent explorations of gender-related choices should take CEOs' political preferences into account. Future work may seek to specify the relative roles of the various stories we have discussed in producing the association we have identified.

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Appendices

A Identifying the Political Contributions of CEOs

In this appendix, we detail how we identify the political contributions that CEOs make. This involves two steps. The first step is to map between the information we have on each CEO, such as their name, company they work for, and address, to the FEC dataset to identify what contributions a CEO made, which we detail in section A.1. The second is to identify whether a given contribution counts as being towards Democrats or Republicans, which we detail in section A.2. Much of the information here is very similar to that described in a companion paper Cohen et al. (9).

A.1 Matching CEOs to Contributions

Information on CEO contributions comes from the Federal Election Commission (FEC). The FEC is a regulatory agency, created by the 1974 Amendments to the Federal Election Campaign Act (FECA Amendments of 1974, Pub. L. No. 93-443, 88 Stat. 1263 (1974)). All candidates for federal office, and committees affiliated with them, must register with the FEC and report contributions received from all donors that exceeds (individually or combined) \$200. Similarly, party committees and political committees not affiliated with any particular candidate also must periodically report donations (52 U.S.C. Section 30104(b)(3)(A)). Thus, the database that the FEC publishes include all nontrivial donations to candidates or active political committees, amounting to tens of millions of dollars each year. Each FEC report has to indicate the names of donor and recipient and the donor's home address, employer, and job title. However, in many reports the information about the donor's home address, employer, and job title is missing or incomplete.

We match the FEC database with our CEO database described in section 2. The process is not straightforward. There may be more than one donor with the same name as a CEO. A CEO might use his/her nickname in one dataset, and not the other. They might sometimes use a nickname and sometimes their full name, with or without a middle name.³³

Using ExecuComp, we identify the names of every CEO of companies ever listed in the S&P 1500 between 2000 and 2018, along with the name of the company and

³³We use two datasets to match names to nicknames. The first is the name to nickname dataset, accessible at GitHub, under "name to nick", and the second is the reverse mapping, accessible at GitHub, under "nick to name".

zip code of the company headquarters.³⁴ We use a Python library “whoswho” to do a preliminary match with all FEC contributions where the name of the contributor is the same as the name of the CEO.³⁵ Of this preliminary match, we create three sets of matches.

The first set selects all the contributions in which either the “employer” or “occupation” fields match precisely the name of the company for which the CEO worked. This involves creating a database of consistent company names for matching purposes.³⁶ The second set checks if the occupation entry is consistent with the contributor being an executive.³⁷ If it is, and either there is a lenient company-name match or the zipcode of the contributor is within 80 kilometers of the company headquarters, we accept the match.³⁸ The third match is similar to the second match, but instead of requiring that the contributor’s occupation is consistent with being an executive, a match on the middle name between the executive and contributor is sufficient.

We then expand on all three of these sets of matches to include any other contributions that come from someone with the same name and zip code as exists in these sets of matches. Thus, our set of contributions for a given CEO is all the contributions found in either set, after expanding to include other contributions with the same name and zip code. Of the 7,469 CEOs in our dataset, we are able to match 5,597 executives.

³⁴We use data on contributions from 1996 onwards, as some of our measures, such as the eight-year moving average, require information from before a CEO-year observation.

³⁵As part of this process, we clean both datasets from titles such as “Mr” and “Mrs”, or “esq” and “MBA”, containing information that we do not use in our matching algorithm, but includes relevant information such as “jr” or “sr”, which we use to differentiate people with seemingly identical names (such as fathers and sons). Additionally, this algorithm removes prefixes such as “van” and “de” that could obfuscate our matching process. To do so, we employ the nameparser package, which is part of the whoswho library.

³⁶To do so, we must create a consistently named set of unique company names to merge between the datasets. To do so, we clean company names of acronyms such as “llc”, “ltd”, and “co”, using a Python package called “cleanco”. We also remove stop words such as “or”, “the”, and “of” using the Python package “nltk”. Additionally, we expand common shortcut to allow for accurate matching, such as transforming “intl” to “international” and “rlty” to “realty”.

³⁷Specifically, the occupation must include either “board” or “chair” (or chairman/chairwoman) or “chief” or “dir.” (or director), “founder”, “pres” (or president), “trustee”, “CEO”, “VP”.

³⁸Here, we define lenient to be cases where a name is contained in another name. For instance, if the company in the FEC is “New York Bank”, and the company listed in ExecuComp is “New York Bank Mellon”,

A.2 Identifying the Party of a Contribution

We now describe how we infer whether a contribution is towards Democrats or Republicans. To do so, we ask whether a given contribution ultimately benefits Republicans or Democrats. This analysis is not as straight forward as it may seem. Technically, most contributions are made to committees. For many political committees, the FEC database contains information regarding the committee's party affiliation, in which case we simply use the identity given by the FEC.³⁹ Some of these committees are the main campaign committees of specific candidates affiliated with a major party, are explicitly authorized by these candidates to raise funds on their behalf, or at least are not expressly disavowed by the candidate they support. In these cases, there is an official connection between a committee and a candidate.

Other committees, although not explicitly or implicitly authorized by a candidate, are connected with a political party, either because they are part of the official party structure (party committees) or because they are established by officeholders belonging to a political party (so called leadership PACs). In all of these cases, the FEC database contains information regarding the committee's party affiliation. We consider, therefore, all donations made to authorized candidate committees, party committees, and leadership PACs as made to candidates of the affiliated party.

Other political committees, however, are not clearly linked to a party because they are not affiliated in any of the above ways with a political party or a candidate of that party. In such cases, we analyze the FEC records regarding the expenditures that these committees make.⁴⁰ When a CEO donates a given amount to such a committee, we allocate this amount between Republicans and Democrats based on how the committee allocates its total spending between support for each group. There are some committees that we do not manage to identify their politics based off of how they give money. For these committees, we identify their politics based on which committees transfer to them. For instance, a committee that receives large transfers from a Republican political committee is presumably

³⁹Some committees or candidates change political party affiliation over time. In such cases, we identify a candidate as being associated with the party they are most often identified with by the FEC.

⁴⁰One consideration is how to treat "24a" expenditures. These are expenditures by political committees *against* candidates, rather than in their favor. We assume that an expenditure against a Democrat is an expenditure in favor of a Republican, and vice versa. Since we do not know how to interpret an expenditure against an independent candidate, we treat these expenditures as unknown.

Republican. There are 31 committees that receive a total of about \$70 million in contributions from our executives that remain unidentified even after this process. We manually identify these committees based off of their names and looking for them on Google.⁴¹

In short, if a given contribution is identified by the FEC as going to a Democrat (Republican), we assume that 100% of that contribution goes to Democrats (Republicans). If the FEC does not identify the committee's political affiliation, we explore the expenditures made by that committee and infer a percent that the committee gives to each party and divide the contribution accordingly, ignoring contributions to unknown recipients. For example, assume a CEO gave \$1,000 to the Example PAC. The Example PAC is not identified by the FEC as belonging to any party. However, by analyzing Example PAC's expenditure data, we infer that Example PAC gives 30% of its money to Republicans, 10% to Democrats, 10% to Independent candidates, and 50% is unknown. We treat this \$1,000 contribution as being a \$600 contribution to Republicans and a \$200 contribution to Democrats.

Of the 54,911 committees reported in the FEC dataset between 1996-2020, we identify the political affiliations of 27,124 via the FEC. A further 12,338 we identify off of the expenditures the committees made. A further 557 committees we identify from the political affiliation of committees that donate to them. An additionally 31 we identify manually, as discussed above. Finally, 14,861 are unidentified. However, note that not all of these committees actually received contributions from CEOs in our sample.

Of the \$996,357,180 in contributions from CEOs we identify, \$700,877,185 go to Republicans, \$279,560,419 to Democrats, and \$11,926,073 to Independents. This leaves \$3,993,943, or about 0.4% of CEO political contributions unidentified. In terms of how we identify the money, \$406,685,437 is identified by the political affiliation of the receiving committee designated by the FEC. \$514,725,285 of the contributions we identify based off of the committee's activity. \$356,032 is identified based on the political affiliation of the contributing committee. \$70,596,483 is to the 31 manually identified committees discussed above.

⁴¹For instance, "DNC-NON-FEDERAL MIXED" is clearly a Democratic committee, while "RNC REPUBLICAN NATIONAL STATE ELECTIONS COMMITTEE" is clearly a Republican committee. It is unclear why their party affiliation is left blank by the FEC.

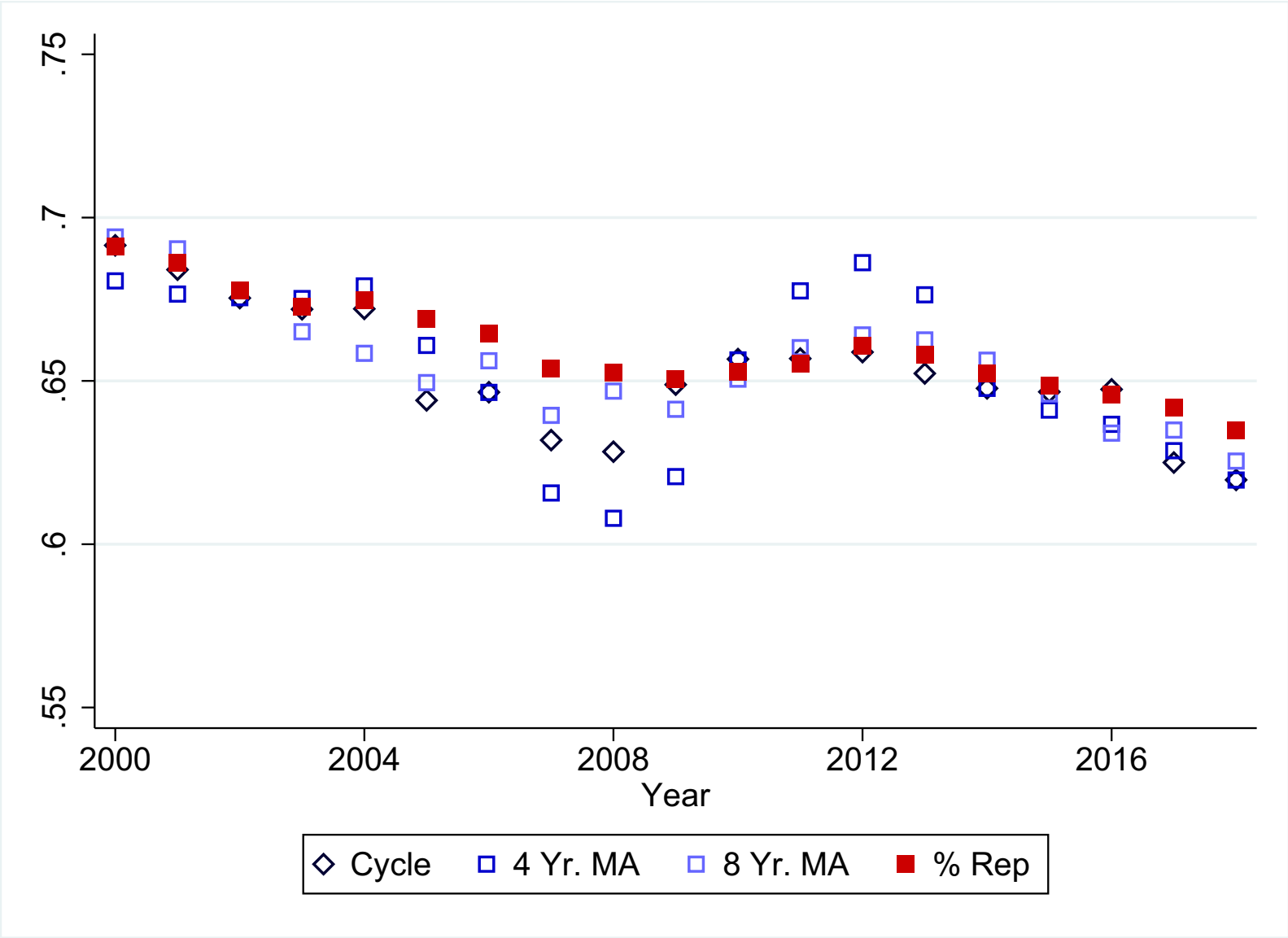
B Event Study, Replacing Democratic CEOs

In this appendix, we perform the event study described in section 3.2.1, as well as the breakdown of results described in section 3.2.2, on the sample of firms replacing a Democratic CEO with either an incoming Democrat or Republican. As a reminder to the reader, we relegate this analysis to an appendix due to small sample sizes.

Table A1 repeats Table 4 on this sample. In all specifications, the coefficients on t^k are generally economically and statistically insignificant, indicating no trends in female executive employment around the time of a change in CEO, for this sample of companies. In columns 1 and 2 *Switch* is virtually zero in magnitude and statistically indistinguishable from zero, while in columns 3-6 this variable is positive and statistically significant at the 15% in columns 3 and 6, 5% level in column 4, and not significant in column 5. The estimates on the interaction between *Switch* and t^k prior to the change in CEO indicate no difference in trend in the fraction of the executive suite that is female between companies whose Democratic CEOs are replaced with Democrats and with Republicans in all specifications. Similarly, after the switch in CEO, there is no consistent or statistically significant evidence that the fraction of women in the executive suite changes after replacing a Democrat with a Republican CEO.

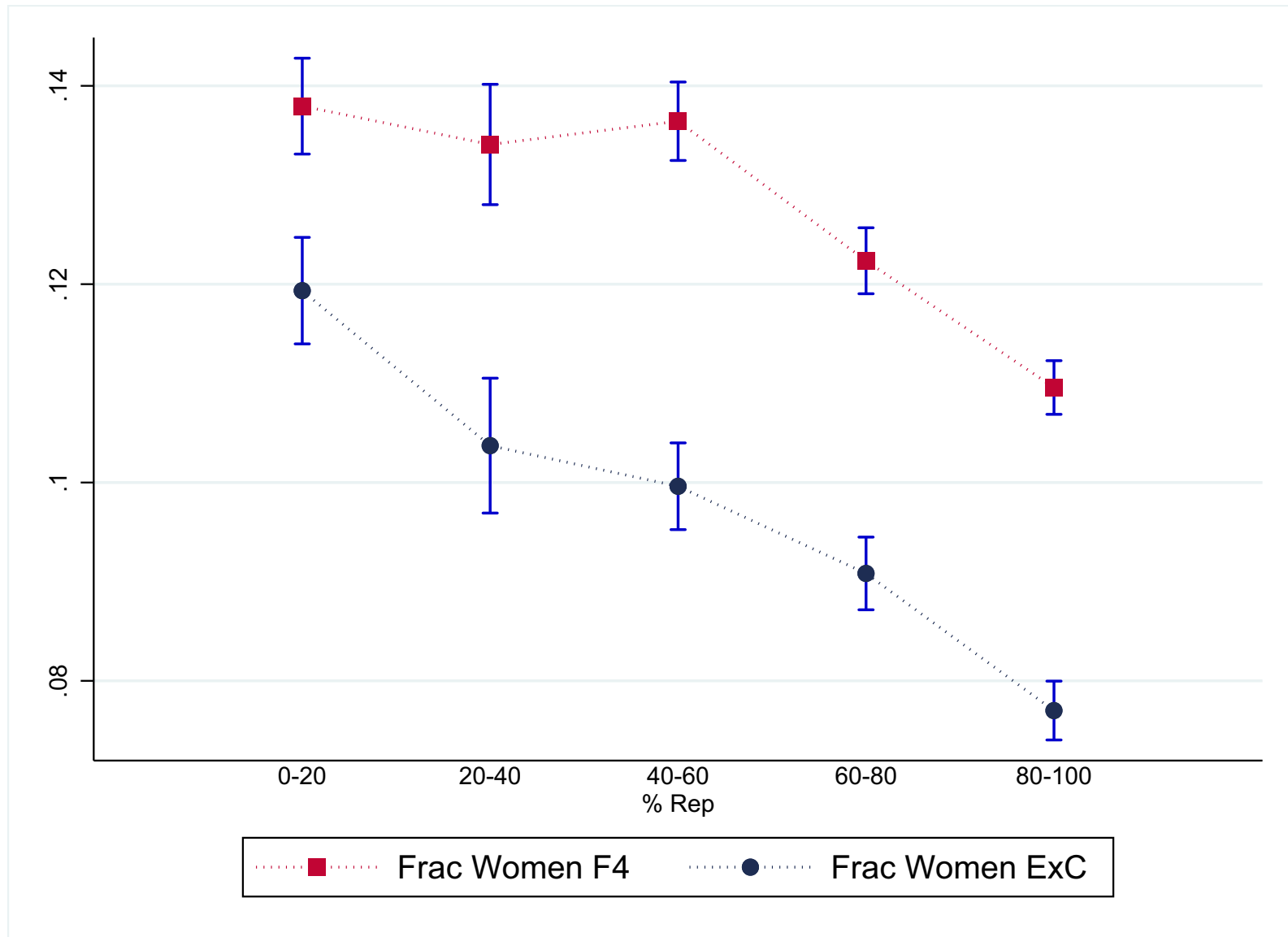
Figures A1, A2, and A3 repeat Figures 3, 4, and 5, respectively. We do not note any consistent pattern in the data, and again remind the reader that there are very small samples in these figures. They are included here for completeness only.

Figure 1: CEOs' political preferences, 2000-2018.



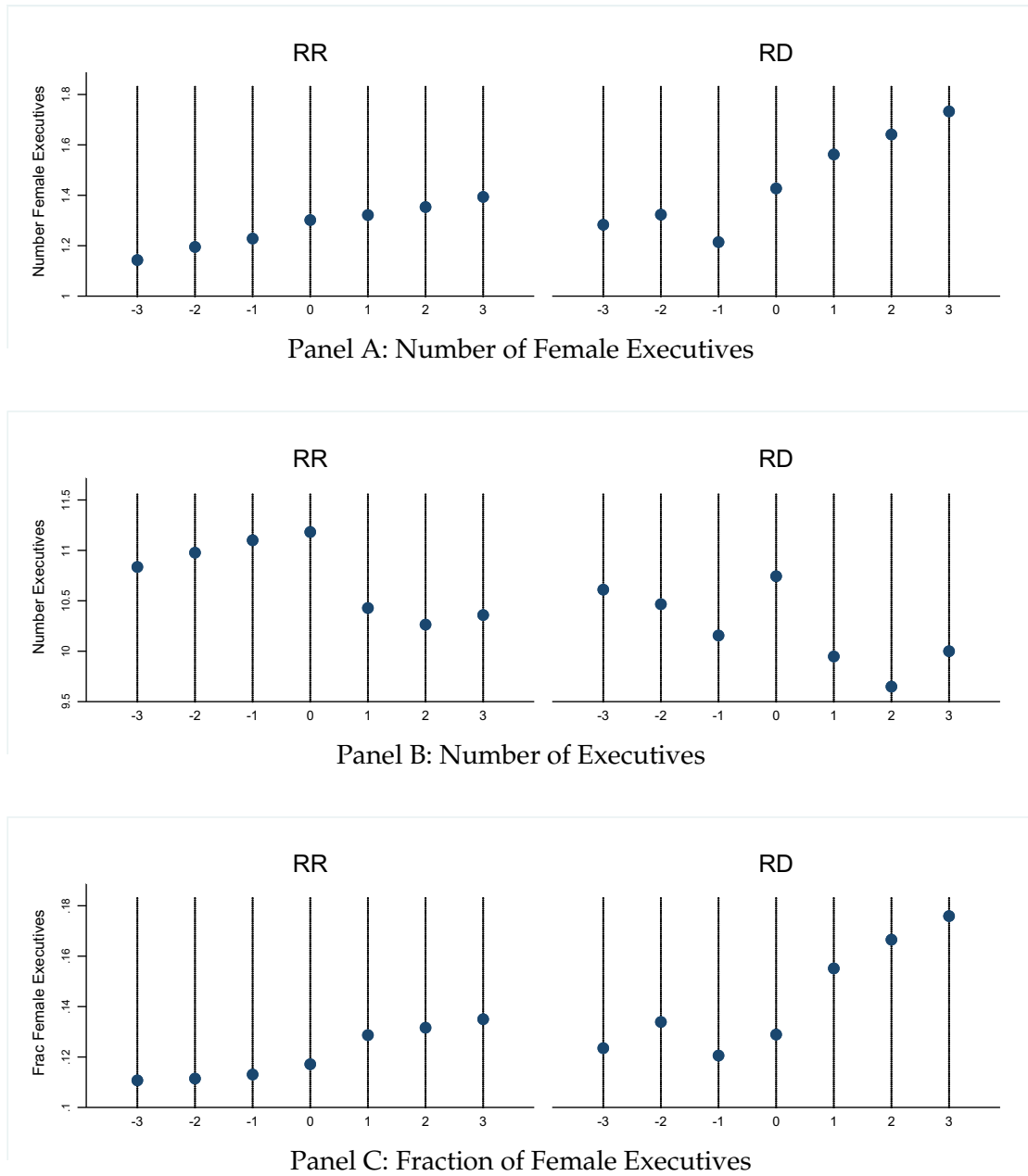
Notes: This figure plots the average fraction of CEO political donations that went to Republicans, by year, for each of our four measures. "Cycle" refers to the election cycle measure. "4 Yr. MA" and "8 Yr. MA" represent the four-year and eight-year, respectively, moving average measures. "% Rep" represents the sample average measure. All variables as defined in the text.

Figure 2: Fraction of Executives who are Female, 2000-2018.



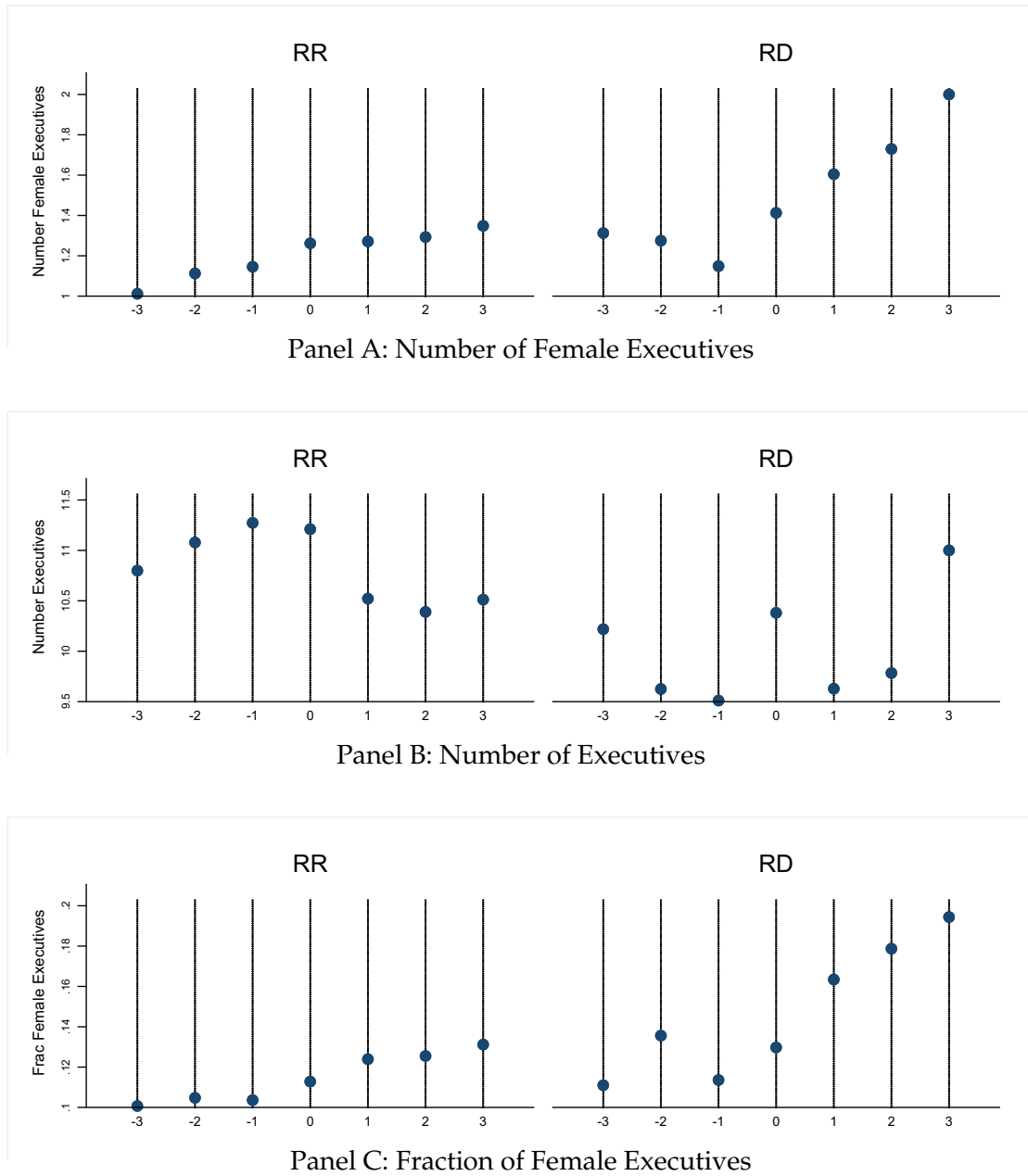
Notes: This figure plots the average fraction of women among executives in the Form 4 sample (“Frac Women F4”) and in the ExecuComp sample (“Frac Women ExC”) by the fraction of a CEO’s contributions that were donated to Republicans, as measured by the sample average measure. The bands represent the 95% confidence interval for these estimates. The bins on the X-axis represent the range of CEO donation types grouped together. For instance, “0-20” groups together CEOs who gave 0-20% of their political donations to Republicans.

Figure 3: Event-Study: Interpreting the Results, 50% Threshold.
Replacing a Republican CEO



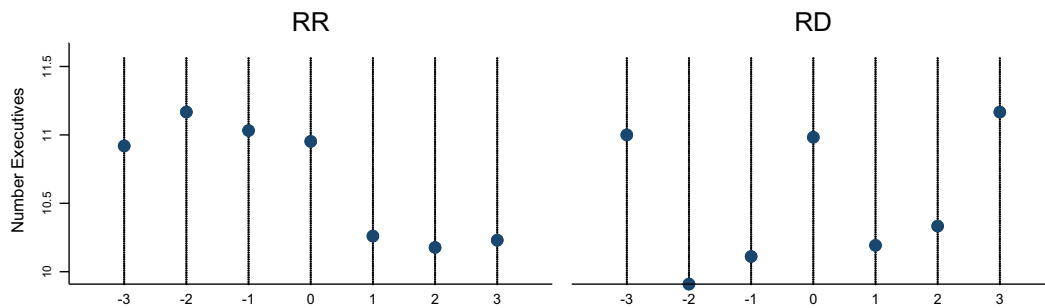
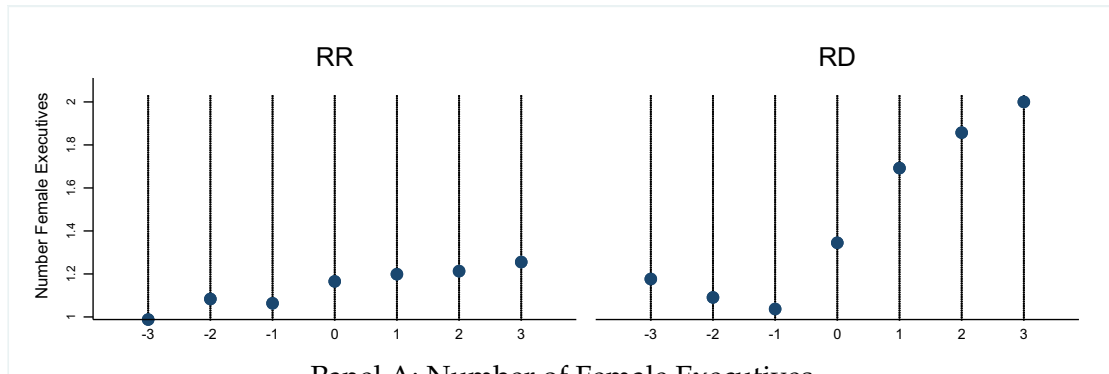
Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “RR” represents an outgoing Republican CEO replaced by another Republican. “RD” represents an outgoing from a Republican CEO replaced by a Democratic. The data are from the Form 4 sample. All variable definitions are as in the text.

Figure 4: Event-Study: Interpreting the Results, 67% Threshold.
Replacing a Republican CEO

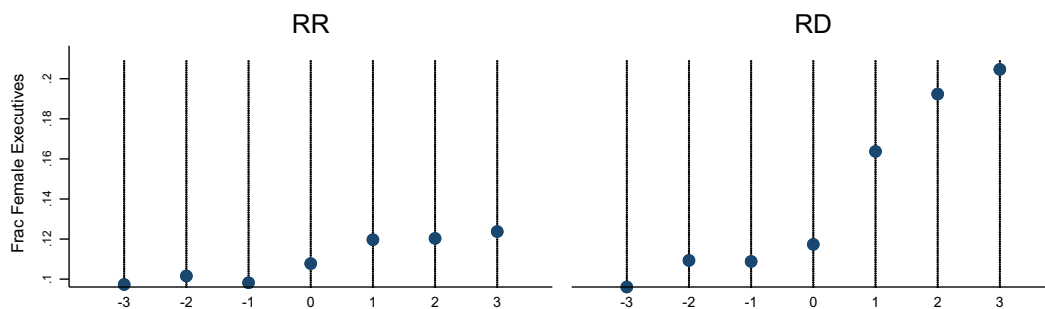


Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “RR” represents an outgoing Republican CEO replaced by another Republican. “RD” represents an outgoing from a Republican CEO replaced by a Democratic. The data are from the Form 4 sample. All variable definitions are as in the text.

Figure 5: Event-Study: Interpreting the Results, 75% Threshold.
Replacing a Republican CEO



Panel B: Number of Executives



Panel C: Fraction of Female Executives

Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “RR” represents an outgoing Republican CEO replaced by another Republican. “RD” represents an outgoing from a Republican CEO replaced by a Democratic. The data are from the Form 4 sample. All variable definitions are as in the text.

Table 1: Summary Statistics: Firms, CEOs.
Means (Standard Deviations)

Variable	Below 50%	Above 50%	All
<i>Panel A: CEO Characteristics</i>			
CEO Female	0.04 (0.21)	0.02 (0.15)	0.03 (0.17)
CEO Age	55.69 (7.86)	56.51 (7.07)	56.29 (7.30)
CEO Tenure	8.32 (8.14)	7.39 (7.42)	7.65 (7.63)
CEO Chairman	0.52 (0.50)	0.56 (0.50)	0.55 (0.50)
N	6,901	18,652	25,553
<i>Panel B: Executive (non-CEOs) Characteristics</i>			
Age(ExC)	51.66 (7.37)	52.14 (7.06)	52.01 (7.14)
Compensation	2543.73 (4784.33)	2282.69 (3744.26)	2353.24 (4053.42)
Salary & Bonus	666.01 1001.86)	591.92 (689.07)	611.94 (786.67)
Ratio	0.42 (0.26)	0.40 (0.24)	0.40 (0.25)
Delta	176.12 1522.06)	217.70 (5740.37)	206.47 (4967.77)
Vega	41.56 (105.71)	41.45 (132.63)	41.48 (125.93)
Insider	0.91 (0.29)	0.92 (0.27)	0.92 (0.28)
N	24,058	64,953	89,011
<i>Panel C: Firm Characteristics</i>			
# Female Executives (ExC)	0.580	0.420	0.464

Continued on next page

Table 1 – Continued from previous page

	Below 50%	Above 50%	All
	(0.790)	(0.669)	(0.707)
# Executives (ExC)	5.640	5.684	5.672
	(1.203)	(1.205)	(1.205)
Frac Female (ExC)	0.114	0.084	0.092
	(0.161)	(0.138)	(0.145)
# Female Executives (F4)	1.261	1.100	1.144
	(1.353)	(1.258)	(1.286)
# Executives (F4)	9.282	9.663	9.560
	(4.245)	(4.513)	(4.445)
Frac Female (F4)	0.140	0.116	0.123
	(0.144)	(0.126)	(0.131)
Log Assets	7.973	8.164	8.112
	(1.876)	(1.694)	(1.747)
Return on Assets	0.026	0.039	0.035
	(0.147)	(0.192)	(0.181)
Book to Market	0.498	0.507	0.505
	(0.439)	(0.436)	(0.437)
Cash	1385.863	1073.228	1157.171
	(4462.889)	(3464.951)	(3761.458)
Dividends	152.137	203.043	189.258
	(513.728)	(615.115)	(589.809)
Debt	4184.012	3781.599	3890.001
	(13638.323)	(10404.647)	(11367.741)
N	6,901	18,652	25,553

Notes: All variables as defined in text. The variables Salary & Bonus, delta, and vega are in USD'000. The rows denoted N report the number of observations. ExC denotes the ExecuComp sample, while F4 denotes the Form 4 sample. All age and compensation variables are from the ExecuComp sample. "Below 50%" is the set of CEOs who contributed less than half of their political contributions to Republicans, while "Above 50%" is the set of CEOs who contributed at least half of their political contributions to Republicans. "All" is the full set of CEOs in our sample.

Table 2: Summary Statistics: Event Study CEO Characteristics
Means (Standard Deviations)

	RR	RD	DD	DR	All
<i>Panel A. Cutoff 50%</i>					
CEO Female	0.04 (0.19)	0.06 (0.24)	0.10 (0.30)	0.02 (0.15)	0.04 (0.21)
CEO Age	53.36 (6.27)	53.25 (7.15)	52.21 (7.09)	53.93 (7.27)	53.29 (6.62)
CEO Chairman	0.33 (0.47)	0.27 (0.45)	0.30 (0.46)	0.27 (0.45)	0.31 (0.46)
Insider	0.90 (0.30)	0.84 (0.37)	0.85 (0.36)	0.92 (0.27)	0.89 (0.32)
N	888	185	155	180	1,408
<i>Panel B. Cutoff 67%</i>					
CEO Female	0.03 (0.17)	0.03 (0.18)	0.07 (0.26)	0.02 (0.13)	0.03 (0.18)
CEO Age	53.28 (6.28)	52.59 (6.98)	50.89 (8.07)	54.07 (7.26)	53.06 (6.63)
CEO Chairman	0.34 (0.47)	0.28 (0.45)	0.30 (0.46)	0.30 (0.46)	0.33 (0.47)
Insider	0.91 (0.29)	0.74 (0.44)	0.81 (0.39)	0.98 (0.13)	0.89 (0.31)
N	559	58	70	56	743
<i>Panel C. Cutoff 75%</i>					
CEO Female	0.02 (0.15)	0.06 (0.23)	0.04 (0.19)	0.03 (0.16)	0.03 (0.16)
CEO Age	53.09 (6.46)	52.28 (7.19)	50.77 (8.67)	55.15 (7.21)	52.96 (6.86)
CEO Chairman	0.34 (0.48)	0.33 (0.48)	0.28 (0.45)	0.30 (0.46)	0.33 (0.47)
Insider	0.91 (0.29)	0.78 (0.42)	0.83 (0.38)	0.97 (0.16)	0.90 (0.30)
N	409	36	53	40	538

Notes: All variables are defined in the text. Column RR reports statistics on a Republican replacement for an outgoing Republican CEO; column RD reports statistics on a Democratic replacement for a Republican CEO; column DD reports statistics on a Democratic replacement for a Republican CEO; column DR reports statistics on a Republican replacement for a Democratic CEO. The row denoted N reports numbers of observations. The political preference of a CEO is defined using the sample mean measure. Panel A defines a CEO as being a member of a party if they contributed at least 50% of their contributions to that party. Panels B and C increases the cutoff to 67% and 75%, respectively.

Table 3: Fraction of Women Executives

Political Preference Sample	Election Cycle		4 Yr. Moving Ave.		8 Yr. Moving Ave.		Sample Ave.	
	F4	ExC	F4	ExC	F4	ExC	F4	ExC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Frac Republican	-0.010*	-0.014**	-0.010*	-0.013**	-0.012*	-0.016**	-0.019**	-0.023**
	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)	(0.011)
CEO Female	-0.001	-0.027	-0.000	-0.026	-0.000	-0.026	-0.023	-0.040
	(0.033)	(0.039)	(0.032)	(0.039)	(0.032)	(0.038)	(0.037)	(0.041)
CEO Age	-0.000	-0.003	-0.000	-0.003	-0.000	-0.003	-0.001	-0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
CEO Age ²	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
log CEO Tenure	0.001	-0.001	0.001	-0.001	0.001	-0.001	0.000	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Chair	0.002	-0.001	0.002	-0.001	0.002	-0.001	0.003	-0.000
	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)
CEO Insider	0.018***	0.016**	0.018***	0.016**	0.018***	0.016**	0.014***	0.014**
	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.005)	(0.006)
CEO Insider × Female	-0.064**	-0.070*	-0.064**	-0.071*	-0.064**	-0.071*	-0.039	-0.053
	(0.032)	(0.039)	(0.032)	(0.038)	(0.032)	(0.038)	(0.036)	(0.040)
log Assets	-0.003	-0.004	-0.003	-0.004	-0.003	-0.004	-0.003	-0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N	22,388	22,386	22,388	22,386	22,388	22,386	25,555	25,553
Adj. R ²	0.6591	0.6180	0.6591	0.6180	0.6591	0.6180	0.6512	0.6092
Mean Dep. Variable	0.1230	0.0917	0.1230	0.0917	0.1230	0.0917	0.1230	0.0917

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors (in parenthesis) are clustered at the firm level. All specifications include firm and year fixed effects. "Election Cycle", "4 Yr. Moving Ave.", "8 Yr. Moving Ave.", and "Sample Ave." represent difference measures of CEO political preferences, as defined in the text.

Table 4: Event Study – The Outgoing CEO is Republican

Dep. Variable	Fraction of Women Executives					
	Cutoff 50%		Cutoff 67%		Cutoff 75%	
	(1)	(2)	(3)	(4)	(5)	(6)
Switch $\times(t = -3)$	0.008 (0.012)	0.008 (0.012)	0.008 (0.023)	0.019 (0.022)	0.004 (0.033)	0.024 (0.032)
Switch $\times(t = -2)$	0.009 (0.011)	0.004 (0.010)	0.014 (0.026)	0.004 (0.017)	-0.001 (0.023)	0.004 (0.023)
Switch $\times(t = -1)$	-0.003 (0.008)	-0.003 (0.008)	-0.002 (0.015)	0.011 (0.016)	0.006 (0.022)	0.019 (0.021)
Switch $\times(t = 1)$	0.012* (0.007)	0.011⁺ (0.007)	0.022* (0.012)	0.021* (0.012)	0.030* (0.016)	0.030* (0.016)
Switch $\times(t = 2)$	0.022** (0.010)	0.021** (0.010)	0.045** (0.019)	0.041** (0.019)	0.058** (0.025)	0.059** (0.027)
Switch $\times(t = 3)$	0.025** (0.012)	0.024** (0.012)	0.041⁺ (0.026)	0.033 (0.026)	0.070* (0.038)	0.069* (0.039)
$t = -3$	-0.003 (0.004)	0.000 (0.005)	-0.006 (0.005)	-0.001 (0.006)	-0.007 (0.006)	-0.005 (0.008)
$t = -2$	-0.001 (0.003)	0.002 (0.006)	-0.003 (0.004)	0.002 (0.007)	-0.003 (0.005)	-0.003 (0.008)
$t = -1$	-0.001 (0.003)	0.004 (0.005)	-0.006* (0.003)	-0.000 (0.007)	-0.007* (0.004)	-0.008 (0.008)
$t = 1$	0.006** (0.003)	0.006** (0.003)	0.005 ⁺ (0.003)	0.005 (0.004)	0.007* (0.004)	0.005 (0.004)
$t = 2$	0.005 (0.004)	0.005 (0.004)	0.003 (0.004)	0.002 (0.005)	0.006 (0.005)	0.003 (0.006)
$t = 3$	0.005 (0.004)	0.005 (0.004)	0.005 (0.005)	0.004 (0.006)	0.006 (0.006)	0.001 (0.007)
Switch	0.036** (0.018)	0.032* (0.019)	0.005 (0.037)	-0.001 (0.039)	-0.055*** (0.012)	-0.052*** (0.013)
Firm Controls	No	Yes	No	Yes	No	Yes
N	5,640	5,552	3,249	3,188	2,331	2,287
Adj. R^2	0.5715	0.5823	0.5771	0.5967	0.5947	0.6119
Mean Dep. Variable	0.125	0.124	0.117	0.117	0.112	0.112

Notes: ⁺ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors (in parenthesis) are clustered at the firm level. Firm Controls include the log of firm assets, indicators for whether the CEO is Female, chair of the board, an insider (also interacted with the CEO being female), and a quadratic in CEO age. All specifications include firm fixed effects. The dependent variable is demeaned by year, as explained in the text.

Table 5: Executive Log Compensation (non-CEO)

Political Preference	Election Cycle		4 Yr. Mov. Ave.	8 Yr. Mov. Ave.	Sample Ave.	
	(1)	(2)	(3)	(4)	(5)	(6)
Exec Female	-0.087*** (0.012)	-0.044* (0.025)	-0.034 (0.025)	-0.027 (0.026)	-0.087*** (0.011)	-0.029 (0.025)
Frac Republican		-0.006 (0.026)	-0.011 (0.026)	-0.012 (0.032)		0.029 (0.039)
Frac Republican × Exec Female		-0.071** (0.032)	-0.087*** (0.033)	-0.097*** (0.035)		-0.093*** (0.033)
CEO Female	-0.041 (0.195)	-0.048 (0.194)	-0.049 (0.194)	-0.044 (0.194)	-0.153 (0.197)	-0.150 (0.199)
Exec Female × CEO Female	0.059 (0.051)	0.050 (0.050)	0.048 (0.051)	0.045 (0.050)	0.058 (0.048)	0.048 (0.047)
N	78,207	78,207	78,207	78,207	89,011	89,011
Adj. R^2	0.6007	0.6008	0.6008	0.6008	0.5949	0.5949

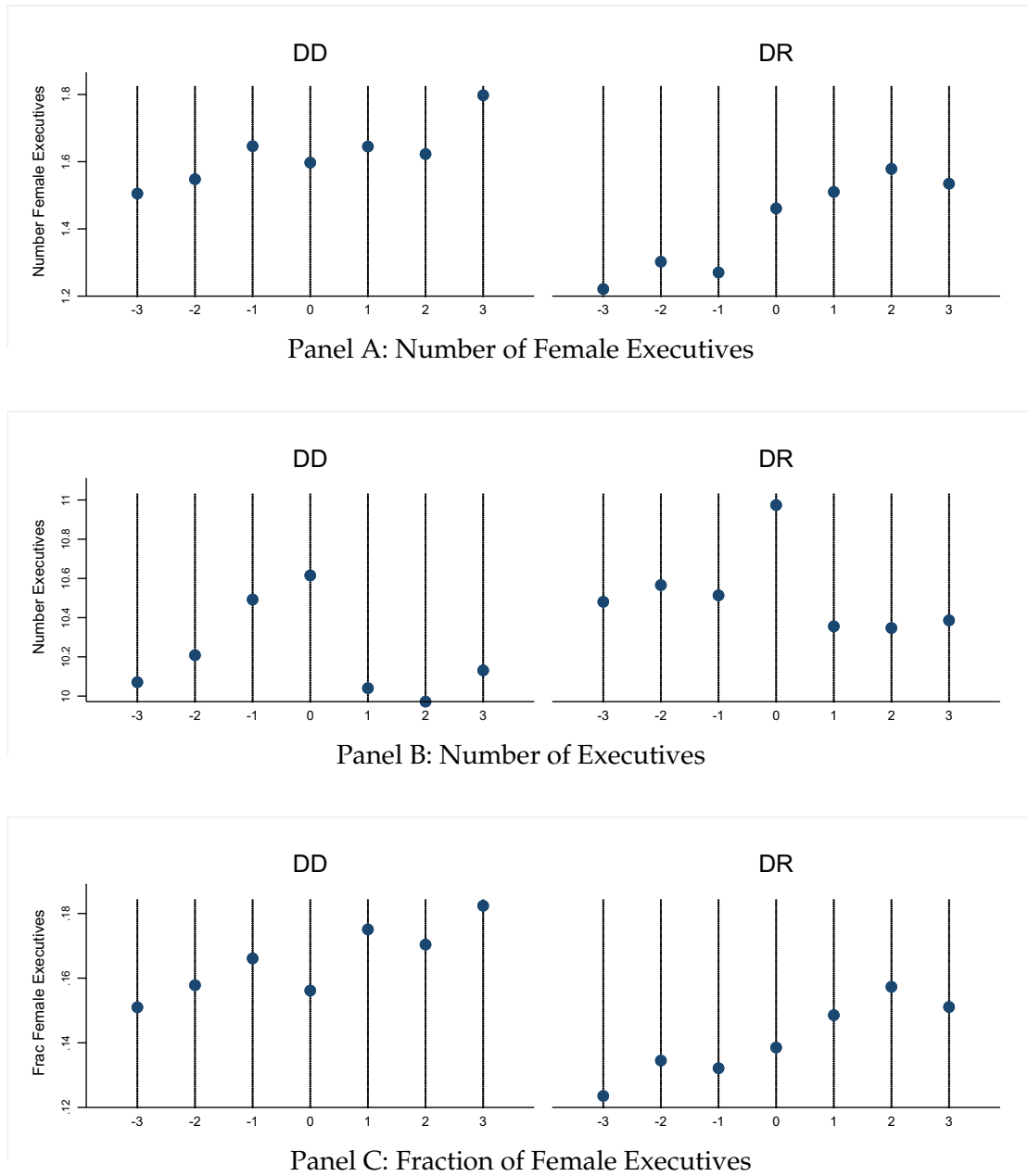
Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors (in parenthesis) are clustered at the firm level. All specifications include controls for whether the executive is an insider, title fixed effects (defined in the text), a quadratic in executive age, indicators for whether the CEO is female, chair of the board, an insider (also interacted with the CEO being female), a quadratic in CEO age, the log of CEO tenure, the log of total firm assets, return on assets, book-to-market value, cash, dividends, and total debt. "Election Cycle", "4 Yr. Moving Ave.", "8 Yr. Moving Ave.", and "Sample Ave." represent difference measures of CEO political preferences, as defined in the text.

Table 6: Compensation Structure

Political Preference						
		Election Cycle	4 Yr. Mov. Ave.	8 Yr. Mov. Ave.	Sample Ave.	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A. Dependent Variable: Ratio</i>						
Exec Female	0.011*** (0.003)	0.005 (0.006)	0.001 (0.006)	-0.000 (0.006)	0.010*** (0.003)	-0.005 (0.006)
Frac Republican		0.001 (0.008)	0.002 (0.008)	0.005 (0.010)		-0.013 (0.011)
Frac Republican × Exec Female		0.010 (0.008)	0.017** (0.008)	0.019** (0.009)		0.025*** (0.008)
N	78,210	78,210	78,210	78,210	89,014	89,014
Adj. R ²	0.4737	0.4737	0.4738	0.4738	0.4681	0.4682
<i>Panel B. Dependent Variable: Log Delta</i>						
Exec Female	-0.386*** (0.059)	-0.183+ (0.118)	-0.138 (0.116)	-0.113 (0.121)	-0.322*** (0.055)	-0.028 (0.112)
Frac Republican		-0.088 (0.109)	-0.067 (0.111)	-0.129 (0.135)		0.025 (0.139)
Frac Republican × Exec Female		-0.332** (0.166)	-0.405** (0.164)	-0.443** (0.175)		-0.471*** (0.160)
N	83,507	83,507	83,507	83,507	95,130	95,130
Adj. R ²	0.2347	0.2348	0.2348	0.2348	0.2310	0.2311
<i>Panel C. Dependent Variable: Log Vega</i>						
Exec Female	-0.340*** (0.066)	-0.179 (0.133)	-0.157 (0.133)	-0.108 (0.140)	-0.305*** (0.062)	-0.146 (0.132)
Frac Republican		-0.127 (0.159)	-0.080 (0.165)	-0.020 (0.209)		0.078 (0.233)
Frac Republican × Exec Female		-0.263+ (0.181)	-0.298+ (0.181)	-0.375* (0.194)		-0.253 (0.180)
N	83,507	83,507	83,507	83,507	95,130	95,130
Adj. R ²	0.3799	0.3800	0.3799	0.3799	0.3751	0.3751

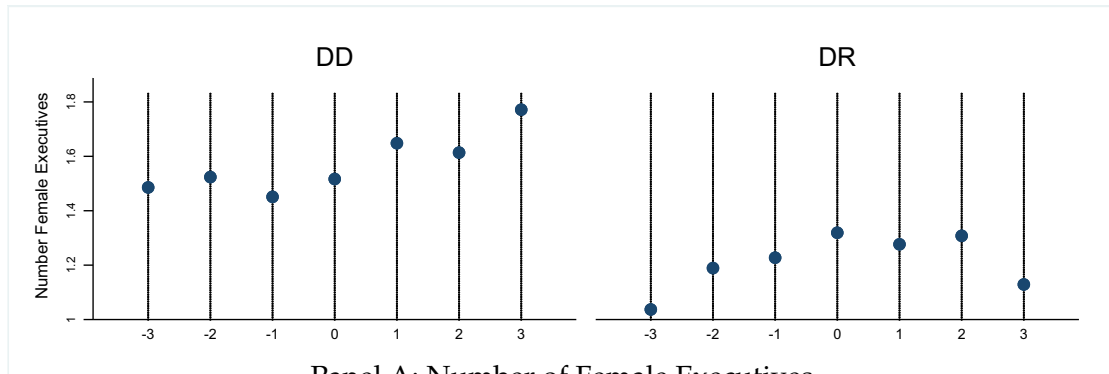
Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors (in parenthesis) are clustered at the firm level. All specifications include controls for whether the executive is an insider, title fixed effects (defined in the text), a quadratic in executive age, indicators for whether the CEO is female, chair of the board, an insider (also interacted with the CEO being female), a quadratic in CEO age, the log of CEO tenure, the log of total firm assets, return on assets, book-to-market value, cash, dividends, and total debt. In panels B and C there is also a control for the sum of an executive's salary and bonus. "Election Cycle", "4 Yr. Moving Ave.", "8 Yr. Moving Ave.", and "Sample Ave." represent difference measures of CEO political preferences, as defined in the text.

Figure A1: Event-Study: Interpreting the Results, 50% Threshold.
Replacing a Democratic CEO

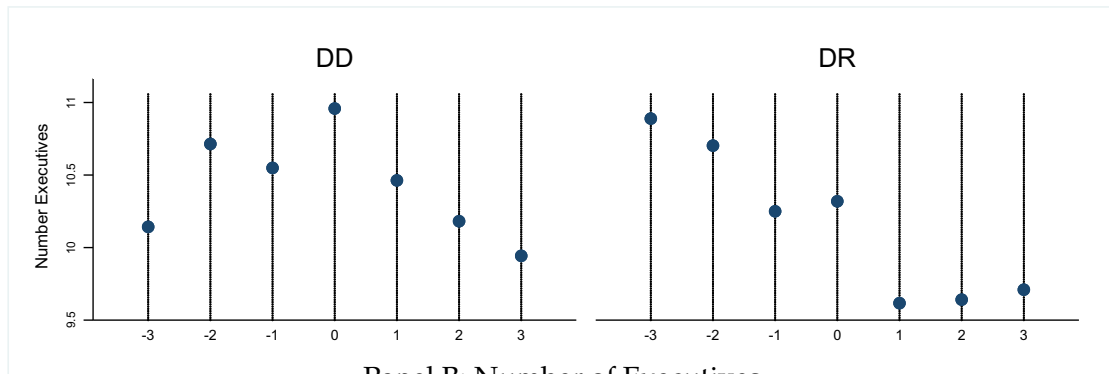


Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “DD” represents an outgoing Democratic CEO replaced by another Democrat. “DR” represents an outgoing from a Democratic CEO replaced by a Republican. The data are from the Form 4 sample. All variable definitions are as in the text.

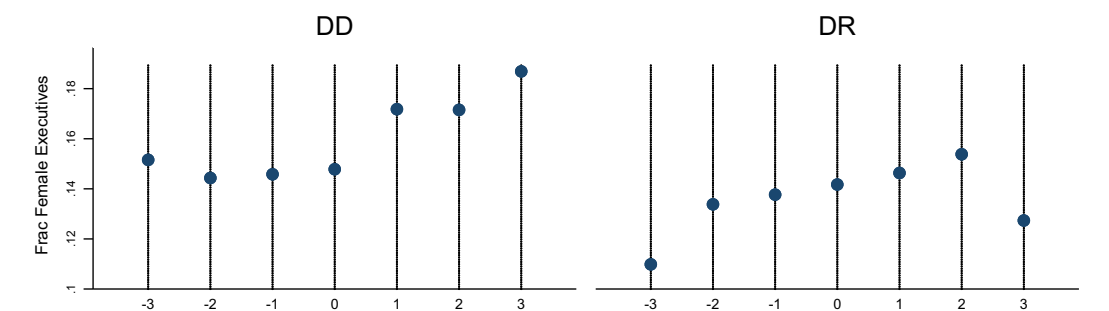
Figure A2: Event-Study: Interpreting the Results, 67% Threshold.
Replacing a Democratic CEO



Panel A: Number of Female Executives



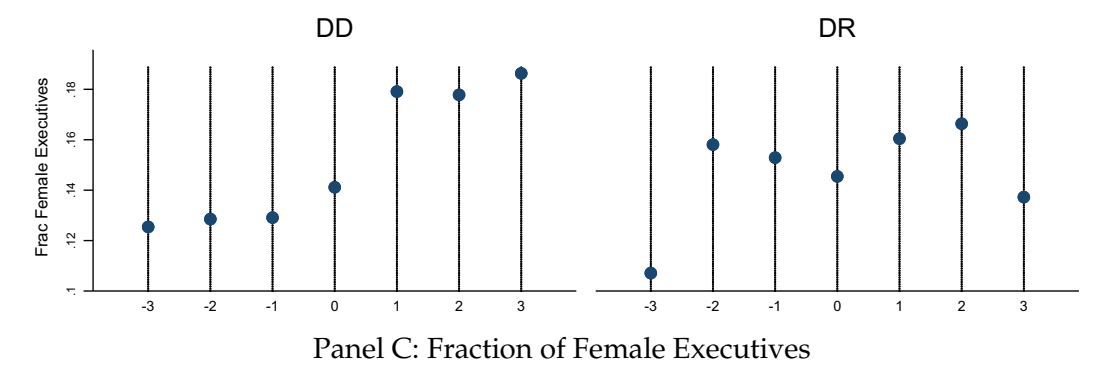
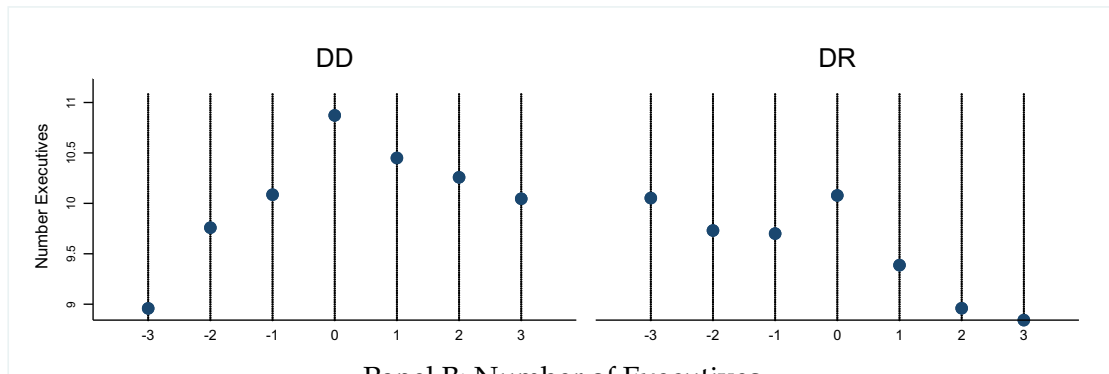
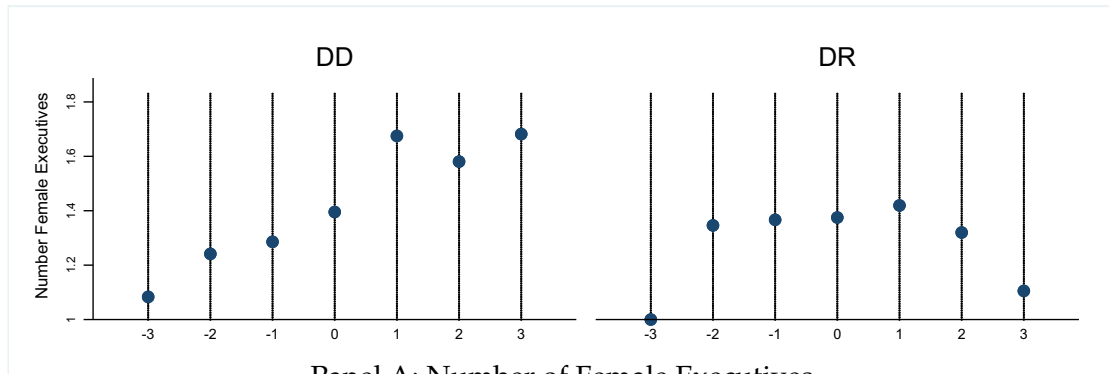
Panel B: Number of Executives



Panel C: Fraction of Female Executives

Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “DD” represents an outgoing Democratic CEO replaced by another Democrat. “DR” represents an outgoing from a Democratic CEO replaced by a Republican. The data are from the Form 4 sample. All variable definitions are as in the text.

Figure A3: Event-Study: Interpreting the Results, 75% Threshold.
Replacing a Democratic CEO



Notes: The top panel shows the number of female executives relative to the timing of a change in CEO, by type of change in CEO. The middle panel shows the total number of executives relative to the timing of a change in CEO, by type of change in CEO. The bottom panel shows the fraction of executives who are female relative to the timing of a change in CEO, by type of change in CEO. The change in CEO happens at time 0. “DD” represents an outgoing Democratic CEO replaced by another Democrat. “DR” represents an outgoing from a Democratic CEO replaced by a Republican. The data are from the Form 4 sample. All variable definitions are as in the text.

Table A1: Event Study – The Outgoing CEO is Democrat

Dep. Variable	Fraction of Women Executives					
	Cutoff 50%		Cutoff 67%		Cutoff 75%	
	(1)	(2)	(3)	(4)	(5)	(6)
Switch $\times(t = -3)$	-0.007 (0.015)	-0.002 (0.015)	-0.009 (0.026)	0.002 (0.023)	-0.001 (0.027)	0.002 (0.028)
Switch $\times(t = -2)$	-0.005 (0.013)	-0.001 (0.013)	-0.006 (0.023)	0.005 (0.020)	0.025 (0.026)	0.029 (0.026)
Switch $\times(t = -1)$	-0.014 (0.011)	-0.008 (0.011)	-0.009 (0.019)	-0.000 (0.019)	0.011 (0.024)	0.013 (0.025)
Switch $\times(t = 1)$	-0.003 (0.010)	-0.004 (0.011)	0.002 (0.013)	0.001 (0.013)	-0.003 (0.015)	-0.001 (0.015)
Switch $\times(t = 2)$	0.002 (0.014)	0.002 (0.014)	0.001 (0.021)	-0.000 (0.021)	-0.004 (0.026)	-0.003 (0.026)
Switch $\times(t = 3)$	-0.013 (0.015)	-0.014 (0.015)	-0.023 (0.023)	-0.032 (0.023)	-0.015 (0.028)	-0.019 (0.028)
$t = -3$	0.002 (0.012)	0.008 (0.013)	0.002 (0.017)	-0.017 (0.019)	-0.010 (0.013)	-0.020 (0.026)
$t = -2$	0.003 (0.010)	0.007 (0.012)	-0.003 (0.014)	-0.025 ⁺ (0.016)	-0.017 (0.012)	-0.027 (0.023)
$t = -1$	0.012 (0.008)	0.013 (0.011)	0.000 (0.012)	-0.021 (0.017)	-0.011 (0.012)	-0.018 (0.021)
$t = 1$	0.006 (0.008)	0.006 (0.008)	0.004 (0.009)	0.001 (0.009)	0.016* (0.009)	0.013 (0.009)
$t = 2$	0.002 (0.010)	-0.001 (0.010)	0.002 (0.015)	-0.004 (0.016)	0.018 (0.015)	0.015 (0.016)
$t = 3$	0.010 (0.011)	0.005 (0.011)	0.012 (0.016)	0.004 (0.016)	0.020 (0.017)	0.017 (0.017)
Switch	-0.002 (0.021)	-0.014 (0.022)	0.055 ⁺ (0.035)	0.045** (0.020)	0.049 (0.037)	0.040 ⁺ (0.024)
Firm Controls	No	Yes	No	Yes	No	Yes
N	1,694	1,683	589	583	403	397
Adj. R^2	0.6364	0.6565	0.6902	0.7147	0.7205	0.7342
Mean Dep. Variable	0.152	0.153	0.150	0.151	0.151	0.153

Notes: ⁺ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors (in parenthesis) are clustered at the firm level. Firm Controls include the log of firm assets, indicators for whether the CEO is Female, chair of the board, an insider (also interacted with the CEO being female), and a quadratic in CEO age. All specifications include firm fixed effects. The dependent variable is demeaned by year, as explained in the text.