# Board Diversity and Career Progression of Women: Evidence from SB 826 *

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**Abstract**

Over the past two decades, many countries have implemented board gender quotas to promote corporate gender diversity. While these mandates have successfully increased female representation at the executive level, their broader impact on women in entry-level and mid-level roles remains unclear. We examine this issue using the 2018 California board gender quota as a natural experiment. Leveraging ExecuComp and a novel employer-employee dataset, we analyze its effects on women's career progression across different organizational levels.Our findings show that the quota significantly increased the hiring and promotion of women within affected firms. Specifically, we observe a rise in both recruitment and promotion of women in mid management positions, as well as an increase in hiring at the top management level and at the entry level. However, the quota also led to higher female turnover, particularly at the entry and top management levels. To explore potential mechanisms, we analyze employee ratings from Glassdoor, shedding light on workplace dynamics.Overall, our results suggest that board gender quotas can create more inclusive workplaces by improving women's representation across organizational tiers.

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# 1 Introduction

The issue of gender disparity in the corporate world remains a significant challenge in today's corporate landscape. While women have made notable strides in various professions, they are still underrepresented in executive and board-level positions. The 2017 U.S. Census found that only 27.6% of executive positions (Gilligan, 2023)were held by women even though women comprised of 47.5% of the workforce. This disparity in leadership positions is called the "glass ceiling", alluding to the invisible barriers that hinder women's advancement to top leadership roles.

In 2023, LeanIn.org and McKinsey & Company released their annual "Women in the Workplace" study, an in-depth exploration of women's experiences across 329 companies. They examined the various challenges women face while trying to climb the corporate ladder and pinpointed a major obstacle: the struggle to advance from entry-level roles to managerial positions. This initial promotion barrier results in a limited representation of women in managerial positions and, consequently, hampers advancement to higher levels of management within organizations(LeanIn, 2023).

To alleviate this, many countries like Norway, France, Germany, Italy, Belgium, and Spain, have taken up different diversity initiatives such as legislation mandating quotas or disclosure requirements(Table 1). Recently, in 2022, the European Union enacted a law mandating that all listed companies maintain a minimum of 33% women directors. Many states in the U.S. have also enacted laws to address the pressing need for gender diversity in corporate leadership. California and Washington passed laws that imposed a gender quota on the board of publicly listed firms headquartered in the state.

Proponents of gender quotas have argued that having women in leadership positions can positively affect the career development of women in mid-management and entry-level positions (Smith, 2014). Women in leadership roles can help to address unconscious bias (Beaman et al., 2009; Rao, 2019) and enact better hiring and promoting policies within the

company. They may also act as mentors and role models to help with career development. On the other hand, critics argue that quotas might lead to tokenism, where women are appointed solely to meet the requirements.

In this paper, we investigate whether increased female representation on boards translates into meaningful career gains for women in these roles. Understanding this relationship is crucial, as it can reveal whether gender diversity at the board level promotes broader organizational changes that support women's advancement, thus fostering a more equitable corporate environment from the ground up.

We use novel employee-employer-matched data to study various dimensions of career progression. In addition to examining the representation of women within firms, our novel employer-employee-matched dataset enables us to investigate shifts in the hiring and promotion practices of women within treated firms. By analyzing changes in hiring and promotion patterns, we can assess whether gender quotas lead to tangible improvements in the advancement opportunities for women within organizations. Moreover, our dataset enables us to explore another crucial aspect: the impact of the gender quota on the turnover of women within treated firms. This helps us understand how gender quotas influence not only the advancement but also the retention of female talent within organizations. Analyzing these various dynamics gives us a comprehensive understanding of how quotas help foster gender equality and inclusion in the workplace.

A major challenge in studying the impact of female board representation is that the decision to appoint women to boards is typically endogenous and closely tied to a company's culture toward gender diversity, which itself can influence the career progression of women in junior roles. Furthermore, even when there is an exogenous policy change mandating board diversity, it can be difficult to identify clear control groups, as these policies often apply uniformly across all companies. To overcome these challenges, we leverage the implementation of the California gender quota as a natural experiment. The quota exclusively impacts firms headquartered in a single state of the United States. This allows us to use

a difference-in-differences estimator to examine changes in the representation of women in treated firms.

We rely on the parallel trends assumption, which asserts that absent the California gender quota, women's career progression in entry-level and mid-management roles would have followed similar trends over time in both treated firms (those headquartered in California) and control firms (those headquartered outside California). In other words, we assume that any differences in career outcomes for women post-quota implementation in treated firms can be attributed to the quota rather than other underlying differences in pre-existing trends.

A potential concern is that firms headquartered in California and those headquartered in other states may have had different pre-existing trends in factors that could independently affect women's career progression. This could raise doubts about whether changes observed in treated firms are truly due to the quota or simply reflect pre-existing differences between California firms and firms elsewhere.

To address this concern, we implement year fixed effects in our model to control for trends over time, ensuring that these changes do not confound our results. Additionally, firm-fixed effects allow us to account for any time-invariant characteristics unique to each firm that might influence women's career progression. We also conducted pre-trend tests to verify that treated and control firms had similar trends in female representation and career progression before the quota's implementation. This further supports the validity of the parallel trends assumption.

We also address concerns about our treated firms being fundamentally different from those in our control regarding their operations and attitude towards gender equality. To mitigate these concerns, we do two things. First, we show that firms in our treated sample are similar to those in our control across various observable characteristics(Table 2). Secondly, to mitigate concerns about "attitude towards gender equality", we restrict our control sample to the "Top 20 states for working women" (excluding California) ranked by

Oxfam (2022). We find that our results are robust to this specification.

The California board gender quota significantly increased the number of women on corporate boards (Figure 1 and Figure 2). Our findings suggest that the quota also enhanced women's career progression in entry-level and mid-management positions.

Our main result is that treated firms saw a substantial increase in the number of female employees, female hiring, and female promotions. Specifically, firms affected by the quota experienced a 16.9 percentage point increase in the number of female employees relative to their 2017 female workforce. Given that the average Californian firm in our sample had 62 female employees in 2017, this translates to an increase of approximately 10.4 female employees per firm compared to non-California firms.

Additionally, we observe an 10.5 percentage point increase in female hires and a 1.7 percentage point increase in female promotions, relative to the firm's 2017 female workforce. At the same time, we find a 1.7 percentage point increase in female exits among California firms after 2018 compared to non-California firms. Notably, these effects are particularly pronounced among mid-management and entry-level workers.

The rise in hiring and promotions suggests that gender quotas effectively improve gender diversity and inclusion across different levels of the corporate hierarchy, expanding career opportunities for women and fostering a more balanced workforce. Meanwhile, the increase in exits could indicate greater labor market mobility for women, potentially reflecting better outside opportunities and career progression beyond their current firms.

To investigate which types of firms respond to the gender quota, we analyze whether the quota has differential effects in male-dominated industries versus those with higher female representation. This approach allows us to determine whether such policies are effective only in sectors where women have historically had a presence or if they can also drive change in industries where women have traditionally been underrepresented. We find that the effects are more salient in male-dominated industries. One possible reason for this is that non-male-dominated industries already have conscious hiring and promotion

practices, and there is not much scope to improve these.

To explore the mechanisms behind the observed increases in female hiring, promotion, and retention following the California gender quota, we analyze employee ratings from Glassdoor.com across several dimensions before and after the policy implementation. Employees rate various policies and initiatives out of 5. We find that there is no increase in Diversity and Inclusion policies at treated firms. However, we find that there is improvement in compensation and benefits, work-life balance, and career opportunities. This indicates that rather than implementing direct Diversity and Inclusion initiatives, firms may have focused on broader structural changes that indirectly benefit female employees, such as offering better pay, more flexible work arrangements, and clearer career advancement pathways.

This study adds to the growing research on gender diversity in corporate boards. Many studies have focused on how stock markets react when gender quotas are introduced. Research by Hwang et al. (2018), Gertsberg et al. (2021), and Greene et al. (2020) showed that stock prices tend to drop after the introduction of these quotas. These papers suggest that this could be because of increased costs in finding suitable candidates, concerns about the qualifications of those replacing the previous board members, and dismissal of qualified male candidates. Similar reactions were observed in Norway after their gender quota was implemented, as reported by Johansen and Sandnes (2008) and Ahern and Dittmar (2012).

In addition to stock price, there have been papers that study the effects of quotas on firm performance. Ahern and Dittmar (2012)) and Matsa and Miller (2013) found that companies often see a decline in performance after a gender quota is introduced. Operating profits decrease, and costs go up.

There have been fewer papers that look at the impact of the board quotas on labor outcomes. Our study is closely related to Bertrand et al. (2018), which investigates the effects of Norway's gender quota on female representation within firms. They find that while the quota increased women's representation in senior leadership, it did not signifi-

cantly reduce wage gaps among women in other top roles or increase female representation in mid-management. A key reason for the difference in our findings may be contextual: Norway already had relatively progressive policies supporting family leave and other benefits for women, potentially limiting the scope for newly appointed female directors to drive further policy or organizational changes that would benefit women in the broader workforce. In contrast, the United States lacks comparable legal mandates for female-friendly workplace policies, which may provide U.S. female directors with greater opportunity to implement changes that improve work environments for women. Additionally, our study builds on this research by leveraging novel data that enables us to examine a wider range of employment outcomes, extending beyond gender pay gaps to include hiring, promotion, and turnover at various levels within the corporate hierarchy. This approach allows us to provide a more comprehensive view of how board quotas may influence the career trajectories of women.

This paper contributes to the literature on barriers women face in advancing within corporate hierarchies and explores whether increased female leadership at the top can help reduce these barriers for women early in their careers. Occupations in business and finance, while high-earning, also exhibit significant gender wage gaps, as highlighted by Goldin (2014). Studies like Bertrand et al. (2010) show that women's earnings diverge significantly from men's over time, with a growing gender wage gap. Barriers to career progression, as discussed by Blau and Kahn (2017) and Petersen and Saporta (2004), are a key driver of this disparity, with the lack of female representation in senior roles exacerbating the wage gap.

Recent studies, such as Benson et al. (2023), reveal that even with higher performance evaluations, women are less likely to be promoted due to lower "potential" ratings. Our research extends this work by examining whether increasing female representation in leadership roles leads to improved promotion rates for women across different levels of the corporate hierarchy.

The remainder of this paper is organized as follows: section 2 discusses the details of the gender quota, section 3 describes our data, section 4 describes our empirical methodology, and section 5 summarizes our results.

# 2 Background

In the United States, California pioneered implementing a mandatory gender quota when SB826 (2018) was signed into law by Governor Jerry Brown on September 30, 2018. The bill requires all publicly held firms whose principal executive office is in California, according to their SEC 10K form, to have a minimum of 1 female on the board of directors by the end of 2019. In addition, the bill required 2 female directors if the board had 5 directors and 3 female directors if the board had 6 or more directors by the end of 2021. In addition to this, firms who failed to comply were subjected to a fine of $100,000 for the first violation and subsequently $300,000 for each additional violation. The maximum fine that can be imposed under the requirement is $900,00 a year. While this amount may be relatively small for most publicly held firms, the firms may face pressure from shareholders to comply with the law and avoid the penalty.

The Bill was overturned in May 2022. A group of Californian taxpayers alleged that the law violated the Equal Protection Clause and Article I Section 31 of the California Constitution, which prevents discrimination based on sex in public employment, education, or contracting. The lawsuit did not seek to overturn the law but rather remove the fines imposed by it. The lengthy court case, however, resulted in the reversal of the law altogether.

SB 826 provides a novel setting that helps us to overcome the challenges associated with studying gender quotas using the Norway gender quota as highlighted in Ferrari et al. (2022).

The first challenge associated with using the Norway gender quota is pinpointing the timing of the shock. Although the law was passed in 2003, no penalties were established till

2005, and firms had until the end of 2007 to comply with the law. Various papers using the same shock have picked different timings for when the shock occurred. Ahern and Dittmar (2012) and Bertrand et al. (2018) chose 2003 as the timing of the shock while Matsa and Miller (2013) chose 2006. In contrast, SB 826 was introduced in January, 2018 and was passed in August, 2018. Even though the bill was introduced and passed at the beginning of 2018, it was unclear whether or not the governor would sign the bill. Business groups questioned the legality (McGreevy, 2018) of the bill and the governor also acknowledged them in a statement to the press - "There have been numerous objections to this bill, and serious legal concerns have been raised". The signing of the bill in September was a surprise, which helped us rule out firms changing strategies in anticipation of the law.

Despite the legal concerns, firms complied with the law, and the impact of the quota on the gender composition of California firms was substantial. Figure 2 illustrates this effect: following the law's enactment in 2018, the proportion of board seats held by women increased significantly. It rose from 17% to 22% in 2019, further climbing to 25% by the end of 2020. By 2022, 34% of board positions were occupied by females. In contrast, non-California firms experienced a more gradual shift, moving from 17% to only 19% in 2019. However, by the end of 2022, non-California firms managed to reach 26% representation of women on their boards. The graph underscores a notable trend: while non-Californian firms did increase the presence of women on their boards, the pace of change was not as rapid as observed in firms within California that were impacted by the quota. Figure 1: illustrates how the quota impacted the distribution of gender ratios of firms in California. Before the implementation of the quota, we observe that 40% firms have a gender ratio of 1, meaning there are only men on the board. This falls significantly after the implementation of the quota.

Secondly, there was a lot of self-selection in Norway. Bøhren and Staubo (2014) show that roughly 50% of the affected firms changed their organizational form. We look at whether or not the affected firms in California change their headquarters or delist from

the stock exchange. Figure 3 & Figure 4 show the trends for headquarters changes and delistings. While Figure 5 shows the trends for IPOs. We see no increase in HQ changes, delistings, or IPOs in California after the passage of the law. To further alleviate concerns regarding self-selection, we use the intent-to-treat method throughout our paper.

Similar to the other papers using this shock, we leverage this natural experiment to overcome the empirical challenges of studying the impact of gender quotas.

# 3 Data

For our analysis, we merge data from BoardEx, Compustat, Execucomp, and novel employer-employee matched data to study the relationship between director characteristics and labor market outcomes of firm employees.

## 3.1 BoardEx Data

We use BoardEx to find information about a firm's directors. BoardEx provides us with director characteristics like age, gender, nationality, and network size. It also provides us with board characteristics like gender ratio, nationality mix, and number of directors. We use the gender ratio reported in BoaredEx to determine whether the firm had all-male boards or not.

## 3.2 Compustat and Notre Dame SRAF

We merge BoardEx data with Notre Dame Software Repository for Accounting and Finance (SRAF) 10-X Header Data to identify the location of the firm's headquarters in our sample. If the HQ is missing in the SRAF, we fill it in with HQ from Compustat data. Firms with headquarters in California are considered in our treated group, while firms with headquarters in other states are in our treated group. We also merge with Compustat to get firm financial data to compare whether the firms in our treated and control groups

have similar financial characteristics.

## 3.3 Execucomp

We use Execucomp data to identify the top 5 earners at the firms in our control and treated firms. The data provides us with the name of the executive as well as their position, wage, and whether they are a board member.

## 3.4 Employee-Employer Date

We utilize employer-employee matched data from Bright Data, limiting our sample to individuals currently employed at firms with an all-male board in 2017. We transform the profile experience data, which includes prior position titles, dates, and firms, into a panel data set organized by firm, year, and individual. Due to the absence of gender information in our data, we utilize the Gendered API website, which uses a database of international names to assign gender.

We classify employees into three distinct categories based on their position titles: Top earners i.e. C-suite employees (Excluding Presidents and Chief Executive Officers) and Vice Presidents, Mid- management positions i.e. Directors and Managers, and Early-Career Employees. We exclude Presidents and CEOs as they are highly likely to be on the board of directors. We define a hired individual as a person who changed position and firm. A promotion is operationally defined as an intra-firm change in an individual's position. This definition encompasses both vertical moves and lateral transitions within the same firm. We assume no demotions exist as demotions are relatively rare. Furthermore, promotions within employee categories are determined according to the individual's prior position. For example, within the Director category, a promotion could signify that a Manager has advanced to a Director role, a Director has been elevated to a Senior Director, or a Director has made a lateral move to assume a Directorial role in a different sector within the firm.

### 3.5 Glassdoor Data

Glassdoor is an online platform that enables current and former employees to anonymously review their employers, offering feedback on aspects like company culture, salaries, interview processes, senior leadership, and benefits. Employees voluntarily contribute reviews, similar to how users post restaurant reviews on Yelp. To encourage contributions, Glassdoor requires new users to submit a review before accessing certain parts of the site. Glassdoor verifies reviewers through email or social media accounts to avoid self-promotion and uses rigorous fraud-detecting algorithms. Reviews feature one-to-five star ratings for overall employer quality and ratings for specific categories such as Career Opportunities, Compensation and Benefits, Work-Life Balance, Senior Management, and Culture and Values.

## 4 Empirical Methodology

### 4.1 Identification Strategy

To measure the impact of gender quotas, we estimate a diff-in-diff specification. The quota was passed in 2018 and hence we define our pre-period as 2015-2018 and our post-period as 2019-2022. The quota affected firms in California with no women on the board at the time of passage. Hence we define our treated group as firms headquartered in California with no women on the board. To ensure comparability, we designate firms headquartered outside California with all-male boards as our control group. Given variations in the timing of board statistic reporting, we define our control and treated groups based on the board gender ratio reported in 2017. To mitigate concerns about strategic firm relocation to avoid the gender quota, we use the intent-to-treat method and use headquarters locations stated in 2017.

We estimate the following regression:

$$Y_{it} = \beta_0 + \beta_1 CaliforniaHQ_i \times Post2018_t + \alpha_i + \delta_t + \mu_{it} \quad (1)$$

Where $Y_{it}$ measures career progression of women for a firm $i$ at time $t$. $CaliforniaHQ$ is an indicator variable for whether a firm $i$ has headquarters in California. $Post2018$ is an indicator variable for years after 2018. We add firm fixed effects, $\alpha$, to control for time-invariant differences in a firm's hiring and promoting practices. We also add year fixed effects to control for trends in hiring and promoting practices over time. We adjust for serial correlations by clustering the standard errors at the state level. We are interested in several $Y$ variables.

We begin by examining changes in the proportion of women within firms. If board quotas positively impact early- and mid-career women, we expect to see a larger increase in the share of women in mid-management and entry-level positions within the treated group after 2018. To measure this, we scale the number of women by the firm's total number of female employees in 2017.

Additionally, we examine trends in hiring and promoting women in firms affected by the gender quota. To measure hiring, we scale the number of women hired by the firm's total number of female employees in 2017. Similarly, to measure promotion, we scale the number of women promoted by the firm's total number of female employees in 2017. If the gender quota has a positive influence on these outcomes, we expect a larger increase in both hiring and promotion of women within the treated group after 2018.

In addition to hiring and promoting practices, we would also like to test whether the quota reduces the turnover rate of women. To measure this, we scaled the number of female departures by the total number of female employees in 2017.

We estimate each specification for top-management, mid-management, and entry-level positions. The key assumption upon which the causal interpretation of estimates is that absent the quota, the trends in hiring, promotion, and turnover of women would have followed a similar trajectory for our control and treated firms (The parallel trend assumption).

To test this assumption and verify the validity of our causal interpretation, we conduct a falsification test by examining the trends in outcome variables before implementing the gender quota. The treated and control firms exhibit similar pre-treatment trends. This strengthens the causal interpretation of our findings by suggesting that any post-treatment divergence in outcomes is due to the intervention rather than pre-existing differences. We plot the coefficients from the event-study specification to visually inspect the parallel trends assumption. The parallel trend plots are found in the Appendix.

## 4.2 Descriptive Statistics

Table 2 presents a summary of our sample. We conducted a comparison between our control and treated groups across various observable characteristics before the implementation of the quota to mitigate any concerns regarding potential differences between the two groups.

One concern could be that our control and treated firms have different financial performance and financial constraints, which could impact their diversity initiatives. To address this concern, the first section of the table examines if the control and treated firms differ in terms of a wide range of financial characteristics. Our analysis reveals no statistically significant disparities in financial characteristics between the two groups, providing reassurance in the comparability of their financial profiles.

Another potential concern may arise from differences between the boards of the two groups. To investigate this, we examine the board characteristics of these firms before the intervention. Our analysis indicates that the boards exhibit similarities across several characteristics. However, they differ in two areas: the number of qualifications and board size. Firms in our treated sample tend to be slightly smaller and possess a higher level of qualifications.

In the third section of the table, we test if our control and treated samples exhibit similarity in the distribution of observations across each position level. In the fourth section, we show that the percentage of women in each of these roles is similar for the

treated and control firms before the shock. In the fifth section, we show that the number of women in each of the roles is similar across our treated and control firms.

Finally, in the last section of the table, we show that the hiring and promotion practices, as well as the turnover rate for women, are similar for these firms before the implementation of the gender quota.

For robustness, we also compared the mean of outcome variables for our treated and control groups before the implementation of the quota (Table 3). We find that the means are similar across most outcome variables and the difference is not statistically significant. We do find a difference in the number of overall female promotions as well as the promotions and exits of top managers.

# 5 Results

## 5.1 Baseline Results

Our analysis reveals that firms headquartered in California, subject to the board quota mandate, exhibit significant improvements in both the recruitment and promotion of women. The estimation results, presented in Table 4, highlight these effects. While we find a significant change in the overall number of women in firms (Column 1,$p < 0.05$ ), there are notable increases in the proportion of female hires (Column 2; $p < 0.01$) and promotions (Column 3; $p < 0.05$). Specifically, firms affected by the quota experienced a 16.9 percentage point increase in the number of female employees relative to their 2017 female workforce, an 10.5 percentage point increase in female hires, and a 1.7 percentage point rise in the promotions awarded to women, all measured as a proportion of the firm's 2017 female employee base. Additionally, we observe a significant 1.7 percentage point increase in the proportion of female exits in treated firms (Column 4; $p < 0.01$), suggesting greater labor market mobility or shifts in workplace dynamics following the policy implementation. For a Californian firm with an average of 53 female employees, an 10.5 percentage point

increase in the share of female new hires translates to approximately 5.5 additional female hires compared to non-California firms. Similarly, a 1.7 percentage point rise in female promotions corresponds to approximately 1 additional promotions, while a 1.7 percentage point increase in female exits equates to 1 additional female employee leaving the firm. Together, these results indicate that the inclusion of women on corporate boards positively impacts women's representation and career progression within firms, contributing to a more inclusive corporate landscape. An increase in exits might indicate a greater degree of labor market mobility for women, suggesting that the gender quota not only improved hiring and promotion opportunities but also empowered women to seek better career prospects. We can see that these relative increases coincide with the timing of the implementation of the gender quota (Figure 6). These figures show that our parallel trends assumptions hold for total females, female hires, and female promotions. However, we do see some pre-trends in exits.

Next, we examine the impact of the board quota on women in top management roles. Initially, we utilize our employer-employee matched data for this analysis, presenting our findings in Table 5. Our findings indicate a 5.6 percentage point increase in the total number of women in top management and a 1.2 percentage point rise in female hires at this level. However, we observe a 0.3 percentage point increase in exits among women in top management positions. For a California firm with an average of 53 female employees, these percentage point changes translate to measurable workforce shifts. A 5.6 percentage point increase in the total number of women corresponds to approximately 3 additional female employees in top management. Similarly, the 1.2 percentage point increase in female hires equates to 0.6 additional female hires. Meanwhile, the 0.3 percentage point increase in exits corresponds to 0.1 additional female exits.

A limitation of using our employer-employee data is the inability to differentiate between top management employees who also serve as board members. To address this limitation, we turn to Execucomp data for further analysis (Table 6). Leveraging Execucomp data

allows us to isolate top management employees who are not board members. Our results using the Execucomp data are similar. Our analysis reveals a notable 5 percentage point increase in the number of women in these top management roles (column 1; $p < 0.01$), a 2 percentage point increase in female hires(column 2; $p < 0.01$), and a 1.6 percentage point increase in exits(column 3; $p < 0.05$).

We also assess the impact of the board quota on women in mid-management roles, with results presented in Table 7. Our analysis reveals a significant 5.8 percentage point increase in the number of women in mid-management positions (Column 1; $p < 0.05$). Additionally, we find a notable 3.5 percentage point rise in the number of female hires and 0.9 percentage point increase in female promotions (Column 2; $p < 0.01$, Column 3; $p < 0.05$). These effects are economically meaningful. Given that the average Californian firm in our sample has 53 female employees, a 5.8 percentage point increase in women's representation in mid-management corresponds to an increase of approximately 3 additional female mid-managers. Similarly, the 3.5 percentage point rise in female hiring translates to approximately 2 more women hired into mid-management roles compared to non-California firms. The 0.9 percentage point increase in female promotions translates to 0.5 more women promoted. We can see that these relative increases coincide with the implementation of the gender quota Figure 8. This strengthens our result by demonstrating that our parallel trends assumption is reasonable.

Finally, we study the impact of the board quota on women early in their careers(Table 8). We observe a significant change in the number of women hired (Column 2,$p < 0.05$), and female exit (Column 4; $p < 0.01$). We find a 5.7 percentage points increase in female hires suggesting 3 more women hired into early-career roles. However, we also observe an increase in female exits, with a 1.1 percentage point rise translating to approximately 0.6 more female employees leaving early-career roles. To assess the parallel trends identification assumption, we examine whether the outcomes (e.g., total women hires, and exits) evolve similarly for treated and control firms before the introduction of the 2018 policy. Figure 9

show that parallel trend assumption holds for hiring,with some pre trends in the total and exits.

These results, taken together, suggest that implementing the board quota leads to improved career outcomes for women in mid-management and entry-level positions.

## 5.2 Male-Dominated Industries

Next, we investigate how the quota impacts firms in male-dominated industries compared to those in non-male-dominated industries. We define "male-dominated" industries as those with 60 or higher percent of male workers, according to the Bureau of Labor Statistics. On one hand, we may expect to find weaker results in male-dominant industries as there may not be enough women participants in the industry's labor force. On the other hand, we may expect to find stronger results in these industries as non-male dominant industries might already have women-friendly policies, and not much reform is needed.

First, we look at male-dominated industries (Table 9). We find a 10 percentage point (column 2, $p< 0.01$)increase in females hired and 2 percentage point increase in promotions (column 2, $p< 0.05$). We find a 3.7 percentage point (column 2, $p< 0.01$) increase in total female top managers and 1.6 percentage point increase (column 1, $p< 0.01$) in hired female top managers and 0.2 percentage point increase in promotions (column 3, $p< 0.01$)(Table 10). We see similar trends in mid-managers(Table 11), where there is a 8.5 percentage point (column 1, $p< 0.05$) increase in total women in firms, a 5.4 percentage point (column 2, $p< 0.01$)increase in females hired, and a 1.4 percentage point (column 3, $p< 0.1$) increase in female promotions.

Next, we look at non-male-dominated industries(Table 13). We find a 31.3 percentage point (column 1, $p< 0.02$) increase in total women in firms, a 11.1 percentage point (column 2, $p< 0.1$)increase in females hired. We find an 11.4 percentage point (column 1, $p< 0.01$) increase in total female top managers. There is an increase in exits of female top managers(Table 14). We do not see much change in mid-managers(Table 15). However, we

observe changes in entry-level workers. Where there is a 22 percentage point (column 1, p< 0.05) increase in total women in firms, a 13.5 percentage point (column 2, p< 0.01)increase in females hired, and a 6.7 percentage point (column 4, p< 0.01) increase in female exits.

Our findings suggest that, overall, the quota had a comparable impact across male-dominated and non-male-dominated industries(Table 17). However, the specific career stages at which women benefited varied by industry type. In non-male-dominated industries, the quota significantly enhanced the career progression of women in both top management(Table 18) and entry-level positions (Table 20), potentially indicating stronger opportunities for advancement at both ends of the career ladder. Conversely, in male-dominated industries, the quota had the strongest effect at the mid-management level(Table 19), suggesting that while initial barriers to entry and advancement to executive roles may persist, the policy effectively supports women's upward mobility within middle leadership ranks. These results highlight how industry composition shapes the mechanisms through which gender diversity policies influence career trajectories, underscoring the need for tailored approaches to fostering gender equity in leadership.

## 5.3 Robustness - Women Friendly States

A potential concern with our findings is that the observed effects of the quota may be driven by California's broader women-friendly policies, rather than the quota itself. To address this, we restrict our control sample to the top 20 women-friendly states identified by Oxfam (2022), excluding California. Our results remain robust under this specification, reinforcing the independent impact of the board quota.

Our analysis reveals significant improvements within treated firms (Table 21). We find an 16.7 percentage point increase in the total number of female employees (Column 1; $p < 0.1$), a 12.4 percentage point rise in female hires (Column 2; $p < 0.01$), and a 2.1 percentage point increase in female exits (Column 5; $p < 0.01$).

For a California firm with an average of 53 female employees, these changes translate

into meaningful workforce shifts. The 16.7 percentage point rise in female representation corresponds to approximately 9 additional female employees per firm, while the 12.4 percentage point increase in hiring equates to 6.5 more female hires. At the same time, the 2.1 percentage point rise in female exits reflects 1.1 additional female employees leaving the firm.

Examining top management positions (Table 22), we find a 5.3 percentage point increase in the total number of women in executive roles (Column 1; $p < 0.01$ and a 1 percentage point rise in female hires (Column 2; $p < 0.01$. For a California firm with an average of 62 female employees, these changes correspond to 3.3 additional female top managers and 0.6 more female hires at the executive level.

For mid-management positions (Table 23), we observe similar positive trends in treated firms. Our analysis shows a 3.2 percentage point increase in female hiring (Column 2; $p < 0.05$),0.9 percentage point increase in female promotions (Column 3; $p < 0.1$) and a 0.6 percentage point increase in female exits (Column 4; $p < 0.01$). These findings suggest that the board quota not only influenced top leadership but also contributed to increasing female representation at mid-management levels.

For entry-level positions (Table 24), we observe similar positive trends in treated firms. Our analysis shows a 9 percentage point increase in total number of women (Column 1; $p < 0.1$), 7.9 percentage point increase in female hiring (Column 2; $p < 0.01$) and a 1.1 percentage point increase in female exits (Column 4; $p < 0.01$). These findings suggest that the board quota not only influenced top leadership but also contributed to increasing female representation at mid-management levels.

Overall, our findings suggest that the California board quota not only increased female representation at the top but also had widespread effects across all levels of the corporate hierarchy. The policy led to greater hiring and retention of women, particularly in early-career and mid-management roles, demonstrating its potential to create long-term, structural changes in gender diversity within firms.

## 5.4 Mechanisms

To investigate the mechanisms driving the observed increases in female hiring, promotion, and retention following the California gender quota, we analyze Glassdoor employee ratings on several workplace dimensions before and after the policy's implementation(Table 25 ). Our analysis reveals significant improvements in overall ratings, culture and values, compensation and benefits, career opportunities, and senior leadership. These changes suggest an enhanced work environment supporting women's career advancement and retention.

We observe a 0.24-star increase in Culture and Values (column 2, $p< 0.01$), which suggests that the gender quota may have influenced a broader cultural shift within these companies, fostering an environment that values diversity and inclusion. A supportive culture can make organizations more attractive to female talent and encourage them to remain within the company, aligning with the increased retention rates we observe for women.

We also observe a 0.09 star increase in Compensation and Benefits (column 4, $p< 0.1$) could imply more equitable compensation practices, potentially addressing gender pay disparities and making these workplaces more appealing for women. This enhanced equity could drive both recruitment and retention of female employees.

We see a 0.17 star increase in the Career Opportunities (column 5, $p< 0.1$) rating, which suggests potentially more career advancement and skill development pathways within the firm. For women, this improvement can be particularly impactful as it may reduce barriers to upward mobility by providing clearer pathways for promotions, access to mentorship programs, and more robust professional development resources.

We see a 0.18 star increase in work-life balance(column 5, $p< 0.1$) rating, suggesting that firms may have introduced more flexible work arrangements, supportive policies, or better work-life integration. For women, this improvement can be particularly impactful, as greater flexibility and a healthier work-life balance are often critical for career advancement.

Finally, we also see a 0.27 star increase in the ratings for Senior Leadership (column 6,

$p < 0.01$). This suggests that employees may be responding favorably to the management style and contributions of female leaders, which could contribute to reducing biases against women across the organization.

Notably, we do not observe significant changes in ratings for D&I (Diversity and Inclusion) initiatives, indicating that while the quota may have improved organizational culture and leadership, it has not yet spurred major changes in D&I-Specific programs. This suggests that the observed career outcomes for women may be driven more by general cultural and structural shifts rather than targeted D&I policies. These findings shed light on the types of organizational changes that most directly impact women's career trajectories.

# 6 Conclusion

In 2018, California was the first state in the US to implement the gender quota. The quota aimed to improve the corporate landscape for women. We find that the quota had a significant effect. First, it led to an increase in the representation of women in top management positions. Second, it increased the promotion of women in mid-management positions. Third, it increased the hiring of women in mid-management and early career positions. Finally, it led to increased retention of women in mid-management and early career positions.

Furthermore, we showed that these effects were more salient in male-dominated firms. We also showed that our results are robust to restricting our control group to states with women-friendly policies but no quotas.

These findings suggest that having women in boards and leadership positions can have positive effects on women at all stages of their careers and can reduce barriers in the workplace. How gender quotas and women on boards affect the gender pay gap is an interesting topic for future research.

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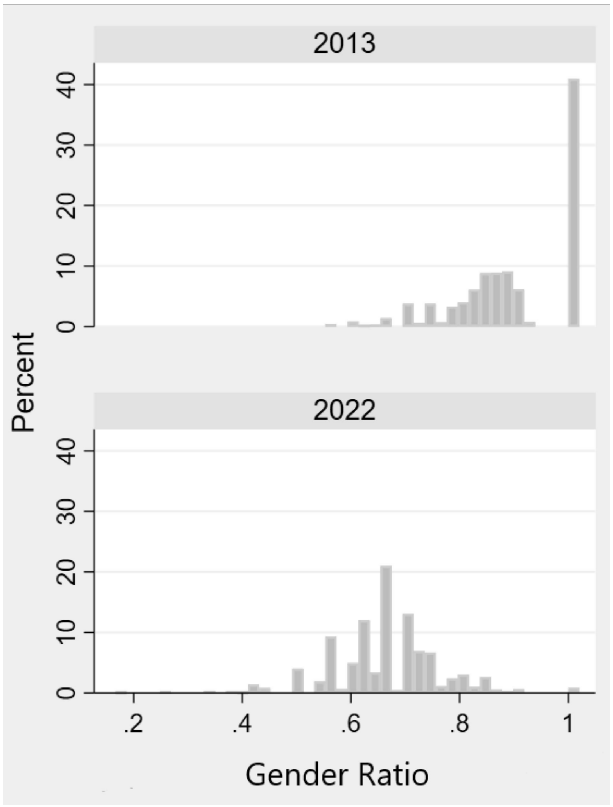
# 7 Appendix

## 7.1 Figures

Figure 1: Gender Ratio Distribution in California




This figure shows the distribution of board gender ratios of public firms in California (treated group) in 2013 and 2022. A gender ratio of 1 represents an all-male board while a gender ratio of 0 represents an all-female board.

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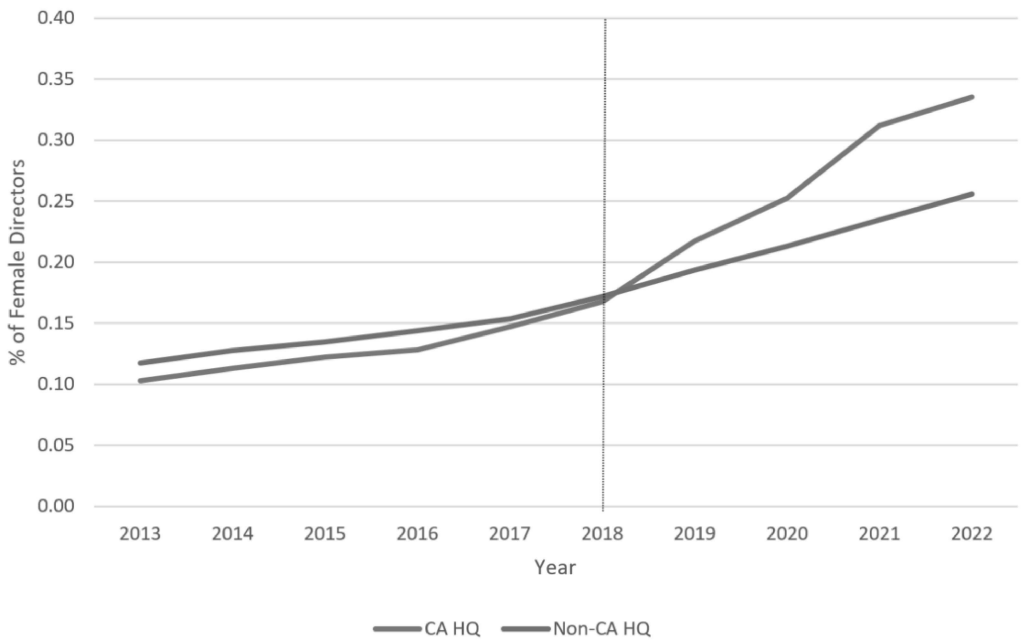
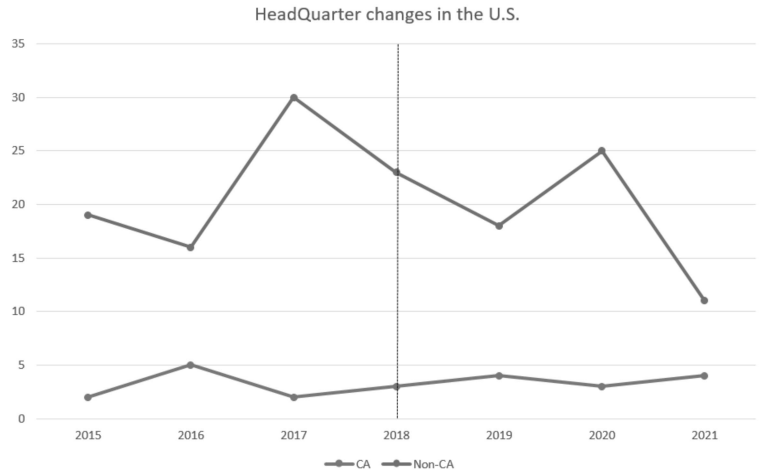
Figure 2: Percent of Board Seats Held By Women



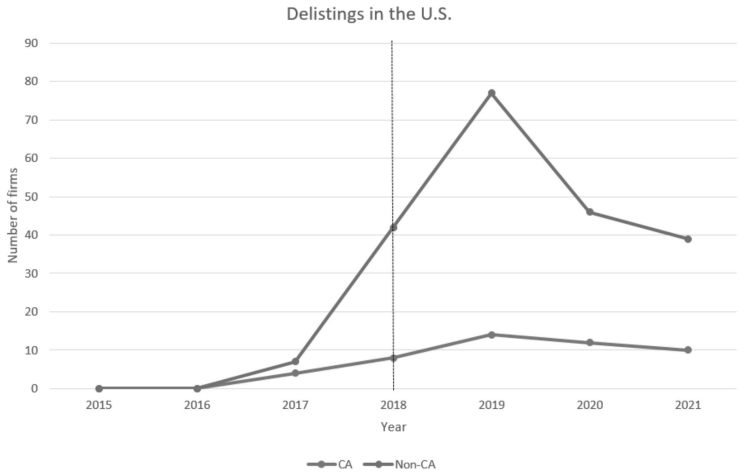

This figure shows the percentage of board seats held by women. The sample consists of public firms in the US covered by BoardEx. Firms headquartered in California are in our treated group while those not headquartered in California are in our control group. The period of observations is between 2013 to 2022. The treatment, passage of the California gender quota, occurred in 2018.

Figure 3: Headquarter Changes in the US



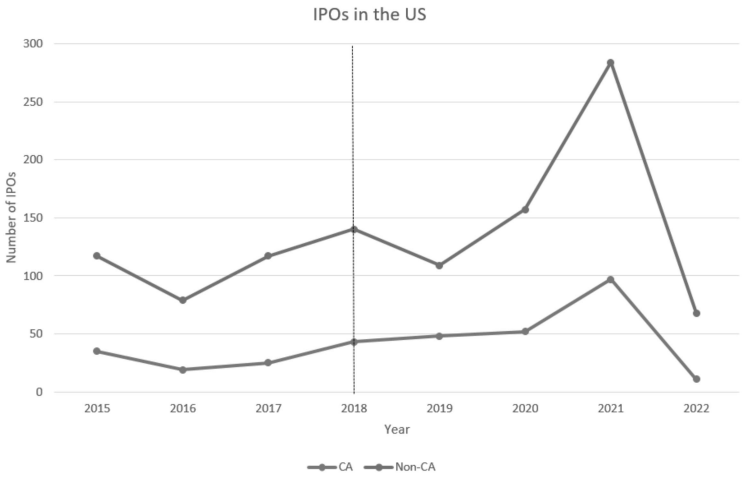

This figure shows the number of firms that changed their headquarters. The sample consists of public firms in the US covered by Compustat. Firms headquartered in California are in our treated group, while those not headquartered in California are in our control group. The period of observations is between 2013 and 2022. The treatment, passage of the California gender quota, occurred in 2018.

Figure 4: Delistings in the US




This figure shows the number of firms that delisted in the US. The sample consists of public firms in the US covered by Compustat. Firms headquartered in California are in our treated group, while those not headquartered in California are in our control group. The period of observations is between 2013 and 2022. The treatment, passage of the California gender quota, occurred in 2018.

Figure 5: IPOs in the US




This figure shows the number of IPOs in the US. The sample consists of firms in the US covered by Compustat. Firms headquartered in California are in our treated group, while those not headquartered in California are in our control group. The period of observations is between 2013 and 2022. The treatment, passage of the California gender quota, occurred in 2018.

Table 1: Gender Quotas Across the World

| Country | Quota | Date Law Passed | Date To Comply | Sanction For Non-Compliance |
|---|---|---|---|---|
| Norway | 40% women on the board of PLCs | 2003 | 2007 | Forced liquidation |
| Spain | 40% women on the board of PLCs | 2007 | 2015 | No consequence for non-compliance.§ |
| Iceland | 40% women on the board of PLCs with 50+ employees | 2010 | 2013 | New firms must comply to go public |
| Italy | 33% women on the board of PLCs | 2011 | 2012 | A fine of €100 thousand – €1 million. |
| France | 40% women on the board of PLCS | 2011 | 2017/2020† | No compensation for directors. |
| Belgium | 33% women on the board of all firms | 2011 | 2017/2019‡ | No compensation for directors. |
| India | 1 woman on the board of PLCs* | 2013 | 2015 | Fine of 50,000-500,000 INR |
| Germany | 30% men and 30% women on the board of PLCs | 2015 | 2016 | Fine of €50,00 |
| Austria | 30% men and 30% women on the board of PLCs with 1000+ employees | 2017 | 2018 | No consequence for non-compliance |
| Portugal | 20% women on the board of public, state-owned, and local government-owned firms | 2017 | 2018 | Fine equal to 1 month board compensation |

*Listed companies with share capital up to 100 million INR or net worth up to 250 million INR, and small or mid cap firms are exempt.

†2017 for publicly listed firms with more than 500 employees or €50 million in revenue, 2020 for publicly listed firms with more than 250 employees or €50 million in revenues

‡2017 for large cap publicly listed firms, 2019 for SMEs

§Complying firms may be favored for government contracts

Table 2: Observable Characteristics in 2017

| | CA: Mean | Non-CA: Mean | Diff | p-value | CA: No. Obs | Non-CA: No. Obs |
|---|---|---|---|---|---|---|
| **Panel A: Firm Characteristics** | | | | | | |
| Market Value of Equity | 3388.22 | 2100.96 | 1287.26 | 0.25 | 52 | 205 |
| Book Leverage | 0.24 | 0.26 | -0.02 | 0.68 | 53 | 207 |
| PPE | 140.16 | 864.03 | -723.87 | 0.30 | 49 | 195 |
| Operating Income | 229.40 | 247.86 | -18.46 | 0.87 | 49 | 194 |
| Total Assets | 2160.53 | 3296.26 | -1135.73 | 0.39 | 54 | 208 |
| Total Liabilities | 1296.26 | 2296.26 | -1000.00 | 0.31 | 54 | 208 |
| **Panel B: Overall Board Characteristics** | | | | | | |
| Attrition | 0.09 | 0.07 | 0.03 | 0.30 | 19 | 85 |
| Attrition_3yr | 0.12 | 0.11 | 0.01 | 0.40 | 32 | 139 |
| Time to Retirement | 6.94 | 5.73 | 1.21 | 0.16 | 47 | 202 |
| Time in Role | 5.93 | 6.19 | -0.26 | 0.70 | 47 | 202 |
| Time on Board | 8.05 | 8.47 | -0.47 | 0.62 | 47 | 202 |
| Time In Company | 8.39 | 9.23 | -0.84 | 0.38 | 47 | 202 |
| Avg Time in Other Companies | 3.38 | 3.40 | -0.02 | 0.96 | 47 | 202 |
| No. of Qualification | 2.24 | 1.97 | 0.27 | 0.00 | 47 | 202 |
| No. of Directors | 6.45 | 7.31 | -0.86 | 0.00 | 47 | 202 |
| **Panel C: Sample** | | | | | | |
| Top Management % | 10% | 8% | -2% | 0.10 | 54 | 210 |
| Mid Management % | 27% | 27% | 0% | 0.85 | 54 | 210 |
| Entry Level % | 61% | 63% | 2% | 0.45 | 54 | 210 |
| **Panel D: %Females in Roles** | | | | | | |
| Women in Top Management % | 15% | 19% | 4% | 0.36 | 47 | 179 |
| Women in Mid Management % | 32% | 33% | 1% | 0.95 | 52 | 203 |
| Women in Entry Level % | 36% | 40% | 4% | 0.11 | 54 | 208 |
| **Panel E: No. Females in Roles** | | | | | | |
| Number of Women | 52.82 | 80.91 | 28.1 | 0.31 | 54 | 210 |
| Women in Top Management | 0.16 | 0.13 | -0.03 | 0.63 | 54 | 210 |
| Women in Mid Management | 3.65 | 3.60 | -0.05 | 0.9 | 54 | 210 |
| Women in Entry Level | 38.37 | 60.3 | 21.93 | 0.31 | 54 | 210 |
| **Panel F: Hiring, Promotion, and Turn Over** | | | | | | |
| Number of Women/Number of Total Employees | 0.33 | 0.36 | 0.03 | 0.26 | 54 | 210 |
| Num Women Hired/Num of Employees Hired | 0.32 | 0.36 | 0.04 | 0.38 | 50 | 193 |
| Num Women Promoted/Num of Employees Promoted | 0.32 | 0.34 | 0.01 | 0.73 | 46 | 164 |
| Num Women Exit /Num of Employees Exit | 0.43 | 0.36 | -0.07 | 0.38 | 29 | 95 |

This table reports the means for observable characteristics in our treated(CA firms) and control (Non-CA firms) in the year prior to treatment (2017). It also reports the difference in the means and p-values. Panel A reports the financial characteristics of the firm, Panel B reports the board characteristics, Panel C reports the percentage of our sample in the three position levels, Panel D reports the percentage of women in the three position levels, Panel E reports the number of women in each position, and Panel F reports the hiring and turnover activities.

Table 3: Summary Statistics and Mean Comparisons

| | CA: Mean | Non-CA: Mean | Diff | p-value | CA: No Obs | Non-CA: No. Obs |
|---|---|---|---|---|---|---|
| **Panel A: Overall** | | | | | | |
| Num Females Hired / Employees | 0.15 | 0.14 | -0.01 | 0.71 | 54 | 210 |
| Num Females Promoted / Employees | 0.05 | 0.04 | -0.01 | 0.30 | 54 | 210 |
| Num Females Exit / Employees | 0.05 | 0.01 | -0.04 | 0.00 | 54 | 210 |
| **Panel B: Top Management** | | | | | | |
| Women in Top Management | 0.08 | 0.04 | -0.03 | 0.13 | 54 | 210 |
| Women Hired / Employees | 0.02 | 0.00 | -0.02 | 0.06 | 54 | 210 |
| Women Promoted / Employees | 0.00 | 0.00 | -0.00 | 0.70 | 54 | 210 |
| Women Exit / Employees | 0.00 | 0.00 | -0.00 | 0.12 | 54 | 210 |
| **Panel C: Mid-Management** | | | | | | |
| Women in Mid-Management | 0.26 | 0.24 | -0.02 | 0.58 | 54 | 210 |
| Women Hired / Employees | 0.04 | 0.03 | -0.01 | 0.68 | 54 | 210 |
| Women Promoted / Employees | 0.01 | 0.01 | -0.00 | 0.91 | 54 | 210 |
| Women Exit / Employees | 0.01 | 0.00 | -0.01 | 0.18 | 54 | 210 |
| **Panel D: Entry Level** | | | | | | |
| Women in Entry Level | 0.66 | 0.70 | 0.04 | 0.20 | 54 | 210 |
| Women Hired / Employees | 0.09 | 0.10 | 0.01 | 0.51 | 54 | 210 |
| Women Promoted / Employees | 0.02 | 0.02 | 0.00 | 0.91 | 54 | 210 |
| Women Exit / Employees | 0.04 | 0.01 | -0.03 | 0.00 | 54 | 210 |

This table reports the means for the outcome variables in our treated (CA firms) and control (Non-CA firms) in the year prior to treatment (2017). It also reports the difference in the means and p-values. Panel A reports the overall outcome variables; Panel B reports the outcome variables for top management positions; Panel C reports the outcome variables for mid-management roles; Panel D reports the outcome variables for entry-level roles.

## 7.2 Baseline Results

Table 4: Career Progression of Women and Gender Quotas

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.169** | 0.105*** | 0.017** | 0.017*** |
| | (0.065) | (0.025) | (0.008) | (0.005) |
| Constant | 1.387*** | 0.229*** | 0.086*** | 0.024*** |
| | (0.007) | (0.003) | (0.001) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.529 | 0.386 | 0.379 | 0.284 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions of career progression of women employees on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. The dependent variables are the number of female employees scaled by the total number of female employees in 2017 (column 1), the number of female employees hired scaled by the total number of female employees in 2017 (column 2), the number of female employees promoted scaled by the total number of female employees in 2017(column 3), and the number of female employee exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Career Progression of Women In Top Management Positions

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.056*** | 0.012*** | -0.000 | 0.003** |
| | (0.005) | (0.002) | (0.001) | (0.001) |
| Constant | 0.065*** | 0.007*** | 0.002*** | 0.001*** |
| | (0.001) | (0.000) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.749 | 0.174 | 0.157 | 0.139 |
| Observations | 2115.000 | 2115.000 | 2115.000 | 2108.000 |

This table reports coefficients from firm-panel regressions of career progression of women in top management positions on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. Top Managers are defined as members of c-suite and vice-presidents. We drop CEOS and Presidents as they may be on the board of directors. The dependent variables are the number of female top managers scaled by the total number of female employees in 2017 (column 1), the number of female top managers hired scaled by the total number of female employees in 2017 (column 2), the number of female top managers promoted scaled by the total number of female employees in 2017(column 3), and the number of female top managers exists scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Top Management(ExecuComp)

| | (1) Total | (2) Hired | (3) Exit |
|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.050*** | 0.020*** | 0.016** |
| | (0.013) | (0.006) | (0.006) |
| Constant | 0.100*** | 0.021*** | 0.030*** |
| | (0.001) | (0.000) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ |
| ✓ | | | |
| Year FE | ✓ | ✓ | ✓ |
| ✓ | | | |
| $R^2$ | 0.644 | 0.162 | 0.250 |
| Observations | 1909 | 1909 | 1909 |

This table reports coefficients from firm-panel regressions of the career progression of women among ExecuComp reported top earners. Specifically, we focus on top managers (c-suite and vice-presidents, excluding CEOs and presidents) and examine the interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018). Since ExecuComp does not include total number of employees, all outcomes (total women in top earners, hires, and exits) are scaled by the total number of top earners in 2017. The sample consists of firm-year observations from 2015 to 2022 and includes firm fixed effects and year fixed effects. Standard errors (in parentheses) are clustered at the state level. Data is from ExecuComp. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Career Progression of Women in Mid-Management Positions

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.058** | 0.035*** | 0.009** | 0.002 |
| | (0.025) | (0.008) | (0.004) | (0.003) |
| Constant | 0.369*** | 0.059*** | 0.025*** | 0.007*** |
| | (0.003) | (0.001) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.622 | 0.335 | 0.305 | 0.168 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions of career progression of women in mid-management positions on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. Mid-Managers are defined as those who have "Director" or "Manager" in their position title. The dependent variables are the number of female mid-managers scaled by the total number of female employees in 2017 (column 1), the number of female mid-managers hired scaled by the total number of female employees in 2017 (column 2), the number of female mid-managers promoted scaled by the total number of female employees in 2017 (column 3), and the number of female mid-managers exiting scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Career Progression of Women In Entry-Level Positions

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.055 | 0.057** | 0.004 | 0.011*** |
| | (0.043) | (0.022) | (0.004) | (0.003) |
| Constant | 0.941*** | 0.161*** | 0.045*** | 0.017*** |
| | (0.004) | (0.002) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.528 | 0.369 | 0.298 | 0.289 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions of career progression of women in early career positions on the interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. Entry-level workers are defined as those who have not been classified as top managers or mid-managers. The dependent variables are the number of female entry-level employees scaled by the total number of female employees in 2017 (column 1), the number of female entry-level employees hired scaled by the total number of female employees in 2017 (column 2), the number of female entry-level employees promoted scaled by the total number of female employees in 2017 (column 3), and the number of female entry-level employee exits scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015–2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## 7.3 Male-Dominated Industries

Table 9: Career Progression of Women in Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.123 | 0.103*** | 0.019** | -0.002 |
| | (0.074) | (0.028) | (0.009) | (0.006) |
| Constant | 1.388*** | 0.225*** | 0.085*** | 0.025*** |
| | (0.007) | (0.003) | (0.001) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.523 | 0.381 | 0.415 | 0.282 |
| Observations | 1647 | 1647 | 1647 | 1643 |

This table reports coefficients from firm-panel regressions of career progression of women employees in male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant." The dependent variables are the number of female employees scaled by the total number of female employees in 2017 (column 1), the number of female employees hired scaled by the total number of female employees in 2017 (column 2), the number of female employees promoted scaled by the total number of female employees in 2017(column 3), and the number of female employee exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 10: Career Progression of Women Top Managers in Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.037*** | 0.016*** | 0.002*** | 0.002 |
| | (0.006) | (0.002) | (0.001) | (0.002) |
| Constant | 0.039*** | 0.005*** | 0.001*** | 0.001*** |
| | (0.001) | (0.000) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.685 | 0.141 | 0.170 | 0.129 |
| Observations | 1647 | 1647 | 1647 | 1643 |

This table reports coefficients from firm-panel regressions of career progression of women in top management positions in male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant". Top Managers are defined as members of c-suite and vice-presidents. We drop CEOS and Presidents as they may be on the board of directors.The dependent variables are the number of female top managers scaled by the total number of female employees in 2017 (column 1), the number of female top managers hired scaled by the total number of female employees in 2017 (column 2), the number of female top managers promoted scaled by the total number of female employees in 2017(column 3), and the number of female top managers exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 11: Career Progression of Women Mid-Managers in Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.085** | 0.054*** | 0.014*** | 0.002 |
| | (0.035) | (0.009) | (0.005) | (0.003) |
| Constant | 0.384*** | 0.059*** | 0.026*** | 0.007*** |
| | (0.003) | (0.001) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.618 | 0.348 | 0.296 | 0.169 |
| Observations | 1647 | 1647 | 1647 | 1643 |

This table reports coefficients from firm-panel regressions of career progression of women in mid-management positions in male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant".Mid-Managers are defined as those who have "Director" or "Manager" in their position title. The dependent variables are the number of female mid-managers scaled by the total number of female employees in 2017 (column 1), the number of female mid-managers hired scaled by the total number of female employees in 2017 (column 2), the number of female mid-managers promoted scaled by the total number of female employees in 2017 (column 3), and the number of female mid-managers exiting scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 12: Career Progression of Women Entry-Level Workers in Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.003 | 0.033 | 0.000 | -0.006* |
| | (0.044) | (0.023) | (0.004) | (0.003) |
| Constant | 0.957*** | 0.159*** | 0.045*** | 0.017*** |
| | (0.004) | (0.002) | (0.000) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.519 | 0.366 | 0.330 | 0.301 |
| Observations | 1647 | 1647 | 1647 | 1643 |

This table reports coefficients from firm-panel regressions of career progression of women in early career positions in male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant".Entry-level workers are defined as those who have not been classified as top managers or mid-managers.The dependent variables are the number of female entry-level employees scaled by the total number of female employees in 2017 (column 1), the number of female entry-level employees hired scaled by the total number of female employees in 2017 (column 2), the number of female entry-level employees promoted scaled by the total number of female employees in 2017 (column 3), and the number of female entry-level employee exits scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015–2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## 7.4 Non Male-Dominated Industries

Table 13: Career Progression of Women Employees in Non Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.313** | 0.111* | 0.009 | 0.079*** |
| | (0.127) | (0.055) | (0.013) | (0.007) |
| Constant | 1.382*** | 0.245*** | 0.091*** | 0.022*** |
| | (0.014) | (0.006) | (0.001) | (0.001) |
| $R^2$ | 0.556 | 0.413 | 0.293 | 0.314 |
| Observations | 468.000 | 468.000 | 468.000 | 465.000 |

This table reports coefficients from firm-panel regressions of career progression of women employees in non-male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant." The dependent variables are the number of female employees scaled by the total number of female employees in 2017 (column 1), the number of female employees hired scaled by the total number of female employees in 2017 (column 2), the number of female employees promoted scaled by the total number of female employees in 2017(column 3), and the number of female employee exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 14: Career Progression of Women Top-Managers in Non Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.113*** | -0.001 | -0.010*** | 0.006*** |
| | (0.011) | (0.005) | (0.001) | (0.001) |
| Constant | 0.158*** | 0.016*** | 0.005*** | 0.001*** |
| | (0.001) | (0.001) | (0.000) | (0.000) |
| R2 | 0.796 | 0.259 | 0.147 | 0.252 |
| Observations | 468.000 | 468.000 | 468.000 | 465.000 |

This table reports coefficients from firm-panel regressions of career progression of women in top management positions in nonmale-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant". Top Managers are defined as members of c-suite and vice-presidents. We drop CEOS and Presidents as they may be on the board of directors.The dependent variables are the number of female top managers scaled by the total number of female employees in 2017 (column 1), the number of female top managers hired scaled by the total number of female employees in 2017 (column 2), the number of female top managers promoted scaled by the total number of female employees in 2017(column 3), and the number of female top managers exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 15: Career Progression of Women Mid-Managers in Non Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | -0.027 | -0.026 | -0.010 | 0.005*** |
| | (0.034) | (0.017) | (0.008) | (0.002) |
| Constant | 0.314*** | 0.058*** | 0.023*** | 0.005*** |
| | (0.004) | (0.002) | (0.001) | (0.000) |
| R2 | 0.652 | 0.258 | 0.346 | 0.188 |
| Observations | 468.000 | 468.000 | 468.000 | 465.000 |

This table reports coefficients from firm-panel regressions of career progression of women in mid-management positions in non-male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant".Mid-Managers are defined as those who have "Director" or "Manager" in their position title. The dependent variables are the number of female mid-managers scaled by the total number of female employees in 2017 (column 1), the number of female mid-managers hired scaled by the total number of female employees in 2017 (column 2), the number of female mid-managers promoted scaled by the total number of female employees in 2017 (column 3), and the number of female mid-managers exiting scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 16: Career Progression of Women Entry-Level Workers in Non Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.219** | 0.135*** | 0.014 | 0.068*** |
| | (0.103) | (0.047) | (0.013) | (0.006) |
| Constant | 0.885*** | 0.169*** | 0.045*** | 0.016*** |
| | (0.011) | (0.005) | (0.001) | (0.001) |
| R2 | 0.549 | 0.390 | 0.232 | 0.298 |
| Observations | 468.000 | 468.000 | 468.000 | 465.000 |

This table reports coefficients from firm-panel regressions of career progression of women in early career positions in non-male-dominated industries on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We define Male-dominated Industry using statistics from the Bureau of Labor Statistics(BLS). If the BLS reports a proportion of men greater than 60% for a particular industry, we classify it as "male-dominant".Entry-level workers are defined as those who have not been classified as top managers or mid-managers.The dependent variables are the number of female entry-level employees scaled by the total number of female employees in 2017 (column 1), the number of female entry-level employees hired scaled by the total number of female employees in 2017 (column 2), the number of female entry-level employees promoted scaled by the total number of female employees in 2017 (column 3), and the number of female entry-level employee exits scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015–2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## 7.5 Non Male-Dominated vs Male-Dominated Industries

Table 17: Career Progression of Women with Interaction for Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.313** | 0.111** | 0.009 | 0.079*** |
| | (0.125) | (0.054) | (0.013) | (0.007) |
| Post2018 X MD | -0.014 | -0.021 | -0.018 | 0.009 |
| | (0.142) | (0.060) | (0.016) | (0.008) |
| CaliforniaHQ X Post2018 X MD | -0.190 | -0.008 | 0.010 | -0.081*** |
| | (0.142) | (0.060) | (0.016) | (0.008) |
| Constant | 1.392*** | 0.237*** | 0.093*** | 0.020*** |
| | (0.056) | (0.024) | (0.006) | (0.003) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.530 | 0.386 | 0.380 | 0.290 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions analyzing the career progression of women employees in firms headquartered in California relative to other firms, with a focus on male-dominated industries. The regressions include an interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018), along with an additional interaction term for male-dominated industries (MD). Male-dominated industries are defined based on Bureau of Labor Statistics (BLS) data, where an industry is classified as male-dominated if the proportion of male workers exceeds 60%. The dependent variables are the total number of female employees (column 1), the number of female employees hired (column 2), the number of female employees promoted (column 3), and the number of female employees who exited (column 4), all scaled by the total number of female employees in 2017. The model includes firm fixed effects and year fixed effects. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 18: Career Progression of Women Top Managers with Interaction for Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.113*** | -0.000 | -0.010*** | 0.006*** |
| | (0.011) | (0.005) | (0.001) | (0.001) |
| Post2018 X MD | -0.035*** | -0.005 | -0.005*** | -0.001 |
| | (0.013) | (0.005) | (0.002) | (0.002) |
| CaliforniaHQ X Post2018 X MD | -0.077*** | 0.016*** | 0.012*** | -0.003 |
| | (0.013) | (0.005) | (0.002) | (0.002) |
| Constant | 0.079*** | 0.009*** | 0.004*** | 0.001* |
| | (0.005) | (0.002) | (0.001) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.753 | 0.174 | 0.164 | 0.139 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions analyzing the career progression of women in top management positions in firms headquartered in California relative to other firms, with a focus on male-dominated industries. The regressions include an interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018), along with an additional interaction term for male-dominated industries (MD). Male-dominated industries are defined based on Bureau of Labor Statistics (BLS) data, where an industry is classified as male-dominated if the proportion of male workers exceeds 60%. The dependent variables are the total number of female employees (column 1), the number of female employees hired (column 2), the number of female employees promoted (column 3), and the number of female employees who exited (column 4), all scaled by the total number of female employees in 2017. The model includes firm fixed effects and year fixed effects. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 19: Career Progression of Women Mid Managers with Interaction for Male- Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | -0.027 | -0.026 | -0.010 | 0.005*** |
| | (0.034) | (0.017) | (0.008) | (0.002) |
| Post2018 X MD | 0.021 | -0.005 | -0.001 | 0.005 |
| | (0.056) | (0.020) | (0.010) | (0.003) |
| CaliforniaHQ X Post2018 X MD | 0.112* | 0.081*** | 0.024** | -0.004 |
| | (0.056) | (0.020) | (0.010) | (0.003) |
| Constant | 0.360*** | 0.061*** | 0.026*** | 0.005*** |
| | (0.020) | (0.008) | (0.004) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.623 | 0.337 | 0.306 | 0.169 |
| Observations | 2115 | 2115 | 2115 | 2108 |

This table reports coefficients from firm-panel regressions analyzing the career progression of women in mid management positions in firms headquartered in California relative to other firms, with a focus on male-dominated industries. The regressions include an interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018), along with an additional interaction term for male-dominated industries (MD). Male-dominated industries are defined based on Bureau of Labor Statistics (BLS) data, where an industry is classified as male-dominated if the proportion of male workers exceeds 60%. The dependent variables are the total number of female employees (column 1), the number of female employees hired (column 2), the number of female employees promoted (column 3), and the number of female employees who exited (column 4), all scaled by the total number of female employees in 2017. The model includes firm fixed effects and year fixed effects. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 20: Career Progression of Women Entry-Level Workers with Interaction for Male-Dominated Industries

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.219** | 0.135*** | 0.014 | 0.068*** |
| | (0.101) | (0.047) | (0.012) | (0.006) |
| Post2018 X MD | 0.000 | -0.011 | -0.004 | 0.006 |
| | (0.104) | (0.048) | (0.014) | (0.007) |
| CaliforniaHQ X Post2018 X MD | -0.216** | -0.103** | -0.014 | -0.074*** |
| | (0.104) | (0.048) | (0.014) | (0.007) |
| Constant | 0.941*** | 0.165*** | 0.047*** | 0.014*** |
| | (0.042) | (0.019) | (0.006) | (0.003) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.528 | 0.370 | 0.299 | 0.298 |
| Observations | 2115.000 | 2115.000 | 2115.000 | 2108.000 |

This table reports coefficients from firm-panel regressions analyzing the career progression of women employees in entry-level positions firms headquartered in California relative to other firms, with a focus on male-dominated industries. The regressions include an interaction between an indicator for whether the firm's headquarters are in California (CaliforniaHQ) and an indicator for years after 2018 (Post2018), along with an additional interaction term for male-dominated industries (MD). Male-dominated industries are defined based on Bureau of Labor Statistics (BLS) data, where an industry is classified as male-dominated if the proportion of male workers exceeds 60%. The dependent variables are the total number of female employees (column 1), the number of female employees hired (column 2), the number of female employees promoted (column 3), and the number of female employees who exited (column 4), all scaled by the total number of female employees in 2017. The model includes firm fixed effects and year fixed effects. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## 7.6 Robustness: Top 20 States for Working Women

Table 21: Career Progression of Women in Top 20 Female-Employee Friendly States

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.167* | 0.124*** | 0.019 | 0.021*** |
| | (0.083) | (0.029) | (0.014) | (0.004) |
| Constant | 1.383*** | 0.230*** | 0.089*** | 0.029*** |
| | (0.016) | (0.005) | (0.003) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.548 | 0.391 | 0.411 | 0.334 |
| Observations | 1133 | 1133 | 1133 | 1128 |

This table reports coefficients from firm-panel regressions of career progression of women employees on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We restrict our control group to the top 20 women friendly states in the US. We use the Oxfam 2022 list of women-friendly states to work in to classify whether a state is female-friendly. he dependent variables are the number of female employees scaled by the total number of female employees in 2017 (column 1), the number of female employees hired scaled by the total number of female employees in 2017 (column 2), the number of female employees promoted scaled by the total number of female employees in 2017(column 3), and the number of female employee exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 22: Career Progression of Female Top-managers in Top 20 Female-Employee Friendly States

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.053*** | 0.010*** | -0.000 | 0.005 |
| | (0.008) | (0.003) | (0.001) | (0.003) |
| Constant | 0.079*** | 0.009*** | 0.002*** | 0.001* |
| | (0.001) | (0.001) | (0.000) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.745 | 0.178 | 0.178 | 0.142 |
| | 0.154 | 0.141 | | |
| Observations | 1133 | 1133 | 1133 | 1128 |

This table reports coefficients from firm-panel regressions of career progression of women in top management positions on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We restrict our control group to the top 20 women friendly states in the US. We use the Oxfam 2022 list of women-friendly states to work in to classify whether a state is female-friendly.Top Managers are defined as members of c-suite and vice-presidents. We drop CEOS and Presidents as they may be on the board of directors. The dependent variables are the number of female top managers scaled by the total number of female employees in 2017 (column 1), the number of female top managers hired scaled by the total number of female employees in 2017 (column 2), the number of female top managers promoted scaled by the total number of female employees in 2017(column 3), and the number of female top managers exits scaled by the total number of female employees in 2017(column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 23: Career Progression of Female Mid-managers in Top 20 Female-Employee Friendly States

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.022 | 0.032* | 0.009* | 0.006** |
| | (0.041) | (0.016) | (0.005) | (0.002) |
| Constant | 0.392*** | 0.064*** | 0.026*** | 0.007*** |
| | (0.008) | (0.003) | (0.001) | (0.000) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.635 | 0.335 | 0.308 | 0.209 |
| Observations | 1133 | 1133 | 1133 | 1128 |

This table reports coefficients from firm-panel regressions of career progression of women in mid-management positions on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects. We restrict our control group to the top 20 women friendly states in the US. We use the Oxfam 2022 list of women-friendly states to work in to classify whether a state is female-friendly. Mid-Managers are defined as those who have "Director" or "Manager" in their position title. dependent variables are the number of female mid-managers scaled by the total number of female employees in 2017 (column 1), the number of female mid-managers hired scaled by the total number of female employees in 2017 (column 2), the number of female mid-managers promoted scaled by the total number of female employees in 2017 (column 3), and the number of female mid-managers exiting scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015-2022. Standard Errors, which are clustered at the state level, are reported in parentheses. Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 24: Career Progression of Female Entry-Level Workers in Top 20 Female-Employee Friendly States

| | (1) Total | (2) Hired | (3) Promoted | (4) Exit |
|---|---|---|---|---|
| CaliforniaHQ X Post2018 | 0.090** | 0.079*** | 0.006 | 0.011*** |
| | (0.041) | (0.019) | (0.006) | (0.003) |
| Constant | 0.903*** | 0.156*** | 0.046*** | 0.021*** |
| | (0.008) | (0.004) | (0.001) | (0.001) |
| Firm FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| $R^2$ | 0.551 | 0.382 | 0.309 | 0.327 |
| Observations | 1133 | 1133 | 1133 | 1128 |

This table reports coefficients from firm-panel regressions of career progression of women in early-career positions on the interaction between an indicator for whether the firm's headquarters are in California or not (CaliforniaHQ) and an indicator for years after 2018 (Post2018), firm fixed effects, and industry-year fixed effects.We restrict our control group to the top 20 women friendly states in the US. We use the Oxfam 2022 list of women-friendly states to work in to classify whether a state is female-friendly.Entry-level workers are defined as those who have not been classified as top managers or mid-managers. The dependent variables are the number of female entry-level employees scaled by the total number of female employees in 2017 (column 1), the number of female entry-level employees hired scaled by the total number of female employees in 2017 (column 2), the number of female entry-level employees promoted scaled by the total number of female employees in 2017 (column 3), and the number of female entry-level employee exits scaled by the total number of female employees in 2017 (column 4). The sample includes firm-year observations from 2015–2022. Standard errors, which are clustered at the state level, are reported in parentheses.Our data is provided by Bright Data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## 7.7 Mechanisms

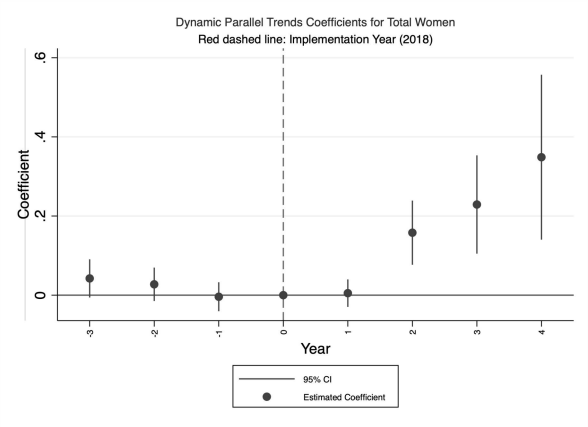
Table 25: Glassdoor Ratings

| | (1) Overall Rating | (2) Culture & Values | (3) D & I | (4) Compensation Benefits | (5) Career Opportunities | (6) Work-Life Balance | (7) Senior Leadership |
|---|---|---|---|---|---|---|---|
| POST X TREATED | 0.276*** | 0.242*** | -0.063 | 0.092*** | 0.170** | 0.182*** | 0.279*** |
| | (0.041) | (0.038) | (0.048) | (0.024) | (0.071) | (0.041) | (0.039) |
| Constant | 3.221*** | 2.938*** | 1.416*** | 3.143*** | 2.603*** | 3.038*** | 2.719*** |
| | (0.004) | (0.004) | (0.006) | (0.002) | (0.008) | (0.004) | (0.004) |
| Firm Fixed Effect | | | | | | | |
| Year Fixed Effect | | | | | | | |
| R2 | 0.410 | 0.421 | 0.895 | 0.440 | 0.361 | 0.395 | 0.395 |
| Observations | 1398 | 1362 | 1063 | 1362 | 966 | 1363 | 1361 |

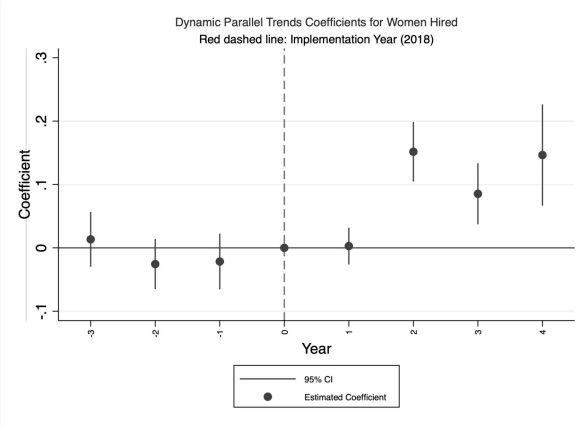
Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

## 7.8 Parallel Trends Plots

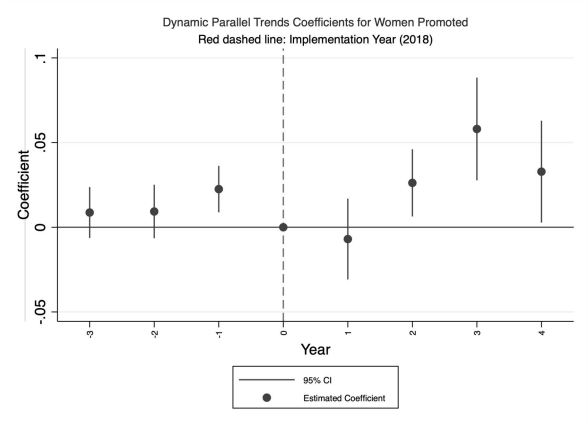
Figure 6: Dynamic Parallel Trends for Women's Career Outcomes



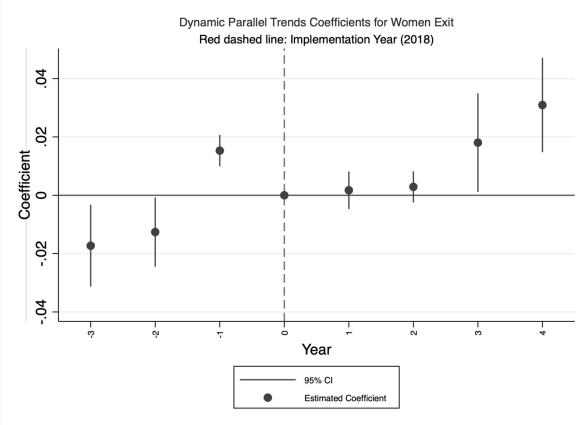

(a) Total Women Normalized by 2017 Women




(b) Hired Women Normalized by 2017 Women




(c) Promoted Women Normalized by 2017 Women Total



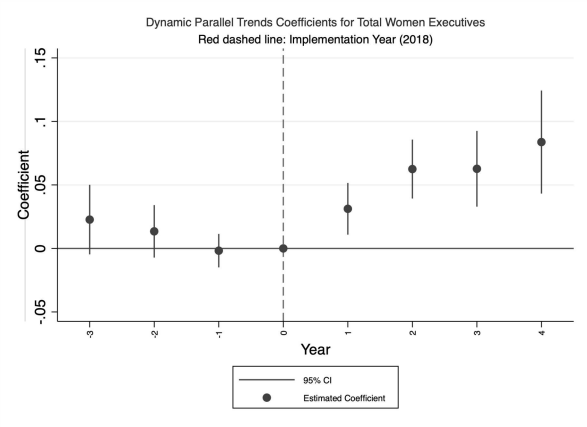

(d) Exiting Women Normalized by 2017 Women Total

This figure presents dynamic parallel trends in career outcomes for women, normalized by the total number of women in 2017. Each subplot represents a different outcome: total employment (top left), hires (top right), promotions (bottom left), and exits (bottom right). The figure plots the estimated coefficients $\beta_k$ and the 95% confidence interval from the following regression:

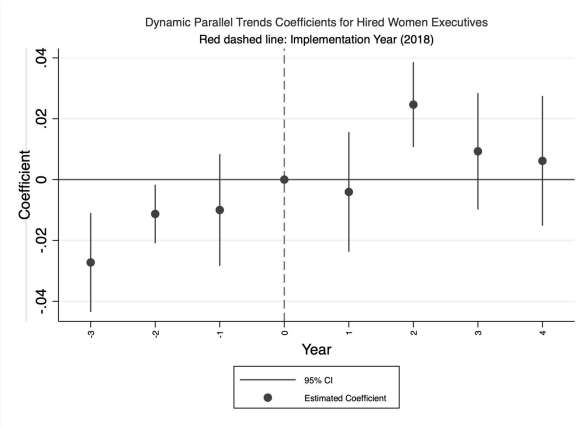
$$Y_{i,t} = \sum_{k=-3, k\neq -1}^{4} \beta_k \cdot \text{Treated}_{i,t}^{(k)} + \alpha_i + \gamma_t + \epsilon_{i,t}$$

where $Y_{i,t}$ represents the outcome variables (total women employed, hired, promoted, and exited, normalized by the total number of women in 2017). The variable $\text{Treated}_{i,t}^{(k)}$ is a set of indicators for each event time $k$ relative to the implementation year (2018), with $k = -1$ excluded as the reference category. The regressions control for firm fixed effects ($\alpha_i$) and year fixed effects ($\gamma_t$), and standard errors are clustered at the state level. The red dashed line marks the policy implementation year (2018). The data includes firm-year observations from 2015 to 2022.

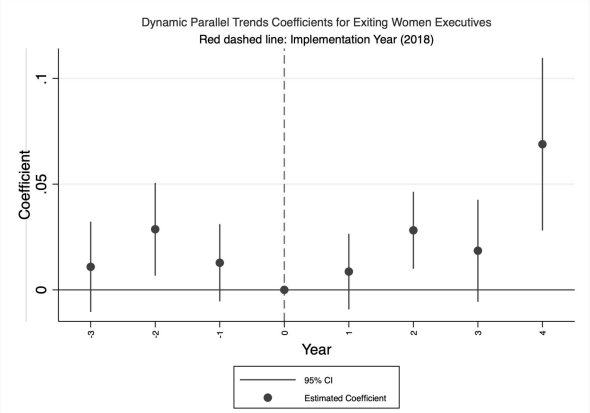
Figure 7: Dynamic Parallel Trends for Women Among ExecuComp Top Earners




(a) Total Women Normalized by 2017 Top Earners




(b) Hired Women Normalized by 2017 Top Earners



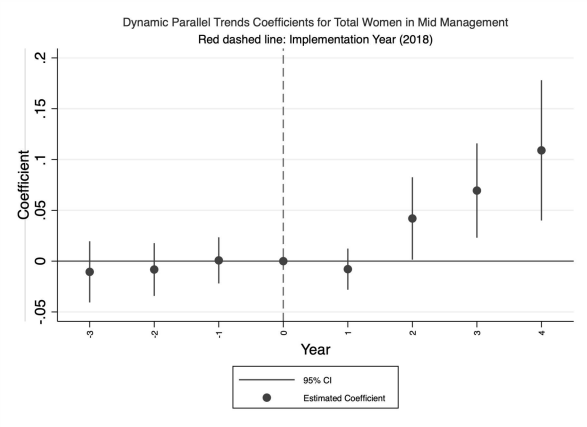

(c) Exiting Women Normalized by 2017 Top Earners

This figure presents dynamic parallel trends in career outcomes for women among ExecuComp-reported top earners using ExecuComp Data. ExecuComp does not have data on total employees, so each outcome is scaled by the total number of top earners in 2017. The figure plots the estimated coefficients $\beta_k$ and 95% confidence intervals from the following event-study regression:

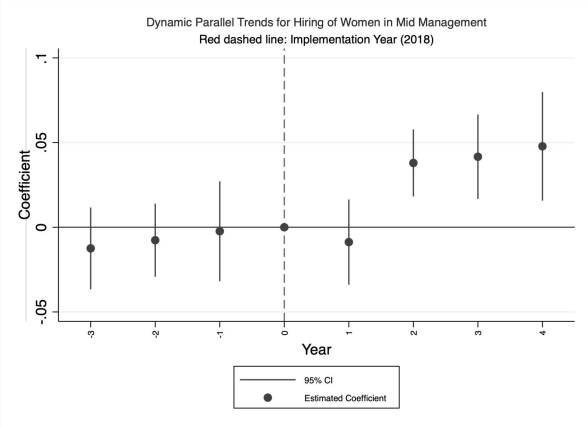
$$Y_{i,t} = \sum_{k=-3, k\neq -1}^{4} \beta_k \cdot \text{Treated}_{i,t}^{(k)} + \alpha_i + \gamma_t + \epsilon_{i,t},$$

where $Y_{i,t}$ (total, hired, and exiting women) is normalized by the number of top earners in 2017. $\text{Treated}_{i,t}^{(k)}$ indicates event time $k$ relative to the 2018 policy, with $k = -1$ excluded as the reference category. The regressions include firm fixed effects ($\alpha_i$) and year fixed effects ($\gamma_t$), and standard errors are clustered at the state level. The red dashed line marks the policy implementation year (2018). The data covers firm-year observations from 2015–2022.

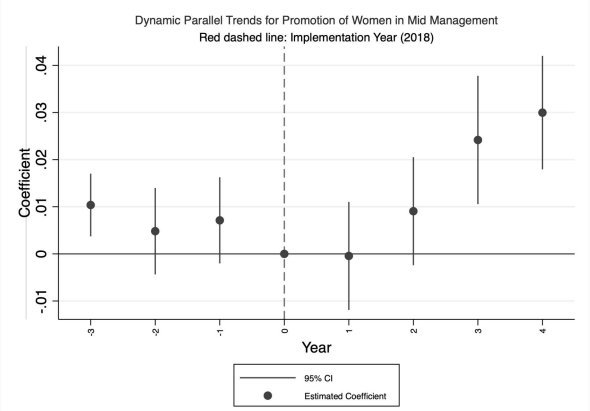
Figure 8: Dynamic Parallel Trends for Women in Mid Management Positions




(a) Total Women in Mid Management Normalized by 2017 Women




(b) Hired Women in Mid Management Normalized by 2017 Women



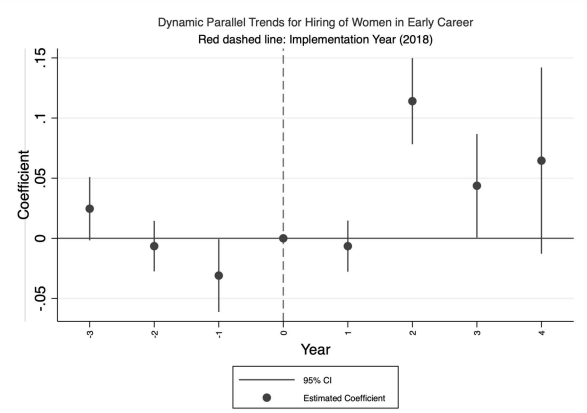

(c) Promoted Women Normalized by 2017 Women

This figure presents dynamic parallel trends in career outcomes for women in mid management positions, normalized by the total number of women in 2017. The left panel shows total women in mid management, and the right panel shows hired women in mid management. The figure plots the estimated coefficients $\beta_k$ and the 95% confidence intervals from the event-study regression:

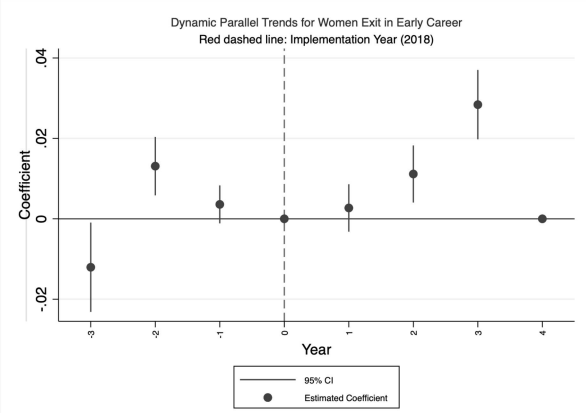
$$Y_{i,t} = \sum_{k=-3, k\neq -1}^{4} \beta_k \cdot \text{Treated}_{i,t}^{(k)} + \alpha_i + \gamma_t + \epsilon_{i,t},$$

where $Y_{i,t}$ is the outcome of interest, and $\text{Treated}_{i,t}^{(k)}$ indicates event time $k$ relative to the 2018 policy. Firm and year fixed effects are included, and standard errors are clustered at the state level. The data covers 2015–2022. The red dashed line marks the policy implementation year (2018).

Figure 9: Dynamic Parallel Trends for Women in Early Career Positions




(a) Hired Women in Early Career Normalized by 2017 Women




(b) Exiting Women in Early Career Normalized by 2017 Women

This figure presents dynamic parallel trends in career outcomes for women in entry-level positions, normalized by the total number of women in 2017. Each subplot represents a different outcome: total employment (top left), hires (top right), promotions (bottom left), and exits (bottom right). The figure plots the estimated coefficients $\beta_k$ and the 95% confidence interval from the following regression:

$$Y_{i,t} = \sum_{k=-3, k\neq -1}^{4} \beta_k \cdot \text{Treated}_{i,t}^{(k)} + \alpha_i + \gamma_t + \epsilon_{i,t}$$

where $Y_{i,t}$ represents the outcome variables (total women employed, hired, promoted, and exited, all normalized by the total number of women in 2017). The variable $\text{Treated}_{i,t}^{(k)}$ is a set of indicators for each event time $k$ relative to the implementation year (2018), with $k = -1$ excluded as the reference category. The regressions control for firm fixed effects ($\alpha_i$) and year fixed effects ($\gamma_t$), and standard errors are clustered at the state level. The red dashed line marks the policy implementation year (2018). The data includes firm-year observations from 2015 to 2022.