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The Impact of Gender on Voluntary and Involuntary Executive Departure

by

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The Impact of Gender on Voluntary and Involuntary Executive Departure

Abstract

We examine the frequency and conditions of executive departure from S&P 1500 firms. Based upon published news reports, we find that female executives are more likely to depart their positions voluntarily and involuntarily in the presence of controls for firm performance, governance characteristics, and executive human capital. The results also suggest that women are less likely than men to depart voluntarily when firm size increases or board size decreases, while women are more likely than men to be dismissed when the board becomes more male-dominated.

JEL Codes: G30, G32, G34, J44

Keywords: executive turnover, gender differences, executive compensation, firm performance, corporate governance

1. Introduction

The employment of women in U.S. corporations has increased dramatically since the early 1990s, particularly in the highest-ranking positions. Bertrand and Hallock (2001) document that between 1992 and 1997 women almost tripled their participation in the top corporate jobs. Along with the increase in female representation in executive labor markets, researchers and the media are paying increased attention to the effectiveness of female executives. Despite the recent advancements of women in corporate hierarchies, relatively little is known about whether female executives are more likely to be fired than men or whether females who depart their positions do so for different reasons than men, particularly in response to poor firm performance or differences in firm governance structure. This issue has received media attention in recent years. For example, an article in *USA Today* characterized 2005 rather bluntly as a "miserable year for female CEOs of Fortune 500 companies, in that female-headed companies trailed the Standard & Poor's 500 Index for the second straight year."¹

The termination of powerful female executives is often a high-profile event, as in the cases of Carly Fiorina and Patricia Dunn, who were dismissed from Hewlett-Packard in 2005 and 2006, respectively. Although a few well-publicized cases cannot serve as a valid basis for broad generalizations about the executive labor market, these recent anecdotes suggest that the issue of whether there are gender differences in the circumstances of executive departure warrants investigation.

We track a sample of executive departures from S&P 1500 firms between 1996 and 2004. We classify executive departures as either voluntary or involuntary based on a careful examination of public news accounts accompanying the departures. We then examine whether the frequency and conditions of voluntary or involuntary departure differ for men and women. In general, we find systematic evidence that women executives are more likely to leave both

¹ Jones, D. "Not-so-good year for female CEOs," USA Today.com, December 22, 2005

voluntarily and involuntarily from their positions in our sample of firms. Further analysis suggests that, although men and women are both more likely to depart involuntarily following poor corporate performance and when monitored by more effective boards, the relative impacts differ depending on gender. Specifically, women are less likely than men to depart voluntarily and in general when firm size increases or the size of the board decreases. Women are more likely than men to depart involuntarily when the board becomes more male-dominated. Thus, the evidence suggests that in spite of recent advancements by women into the executive ranks, their position at these ranks can be tenuous, particularly at smaller firms, firms with larger boards, and boards comprised of a higher fraction of male directors.

The remainder of this paper is organized as follows. Section 2 discusses the related literature on gender, executive turnover, and firm valuation measures. Section 3 describes the data and descriptive statistics. Section 4 explains the hypotheses and empirical methods that underlie our analysis, as well as the results of the analysis. Section 5 reports sensitivity tests that explore the robustness of our findings to alternative samples and classifications of departure reasons. Section 6 concludes.

2. Related Literature

2.1. Gender Diversity and Firm Valuation

Several studies find a positive relation between the presence of females in the executive ranks and firm value. A 2005 article from the *Economist* reports that research in the U.S., U.K., and Scandinavia shows a strong correlation between the proportion of women in executive positions and shareholder returns.² *Catalyst*, a research organization specializing in women's career advancement, finds that firms with the highest representation of women on their top management teams outperform firms with the lowest representation of women. Adler (2001) studies a sample of Fortune 500 firms over a nineteen-year period and finds that firms with the

² *Economist*, Helping women get to the top. July 23rd 2005, 11.

best record of promoting women are more profitable than the median firms in their industries. Carter, Simkins, and Simpson (2003) find that gender diversity on the board of directors has a positive effect on Tobin's Q. More generally, the literature on the relationship between board diversity and firm valuation measures is extensive (e.g., Zahra and Stanton (1988), Erhardt, Werbel, and Shrader (2003), Bonn, Yoshikawa, and Phan (2004), Farrell and Hersch (2005), and Adams and Ferreira (2007)).

Not all studies find a positive association between gender diversity among executives and firm performance, however. Shrader, Blackburn, and Iles (1997) examine management data for the 200 largest U.S. firms in 1992 and find that higher percentages of women on the top management team and the board of directors have no effect on financial performance. Carleton, Nelson, and Weisbach (1998) find that firms targeted by TIAA-CREF for lack of gender and ethnic diversity on the board experience significantly negative cumulative abnormal returns surrounding the dates of board diversity targets. Lee and James (2007) find event-study evidence that announcements of female CEO appointments are viewed more negatively by the market than reactions to male CEO appointments. Even so, Wolfers (2006) does not find that markets systematically under-value firms led by females.

Although the effects of racial and gender diversity on value remain unclear, several major U.S. firms have instituted diversity programs to help under-represented groups gain improved access to top management positions. The move toward increased diversity is not limited to the U.S. Another 2005 *Economist* article indicates that "in Britain, the number of female executive directors in FTSE 100 firms rose from 11 in 2000 to 17 in 2004."³ In Norway, legislation was passed in 2003 requiring all companies to have 40 percent female representation of directors by January 1, 2008. *The Scotsman* reports that since 2003, the percentage of female board members in Norway has jumped from 6 percent to the current level of 37 percent. However, it is expected

³ *Economist*, The conundrum of the glass ceiling. July 23rd 2005, 63.

that many firms will not meet the quota and may have to shut down until they are able to meet it.⁴

2.2. *Executive Turnover*

The impact of gender on executive turnover has received comparatively little research attention. Stroh, Brett, and Reilly (1996) document turnover rates of male and female managers employed by 20 Fortune 500 firms and find that females leave their organizations in higher proportions than males. In contrast, Lewis (1992) examines middle managers in the U.S. federal civil service and finds insignificant differences in turnover rates between men and women. Lyness and Judiesch (2001) examine voluntary turnover for over 26,000 managers in a financial services organization and find that the turnover rate among female managers is slightly lower than that of male managers. Elvira and Cohen (2001) study turnover differences between sexes at various organizational ranks and find that the proportion of executives in the firm who are female has no effect on the turnover of top-ranking women. However, we are aware of no evidence that exists on the relation between gender and involuntary dismissals.

Empirical evidence generally suggests that poor corporate performance precedes CEO departure (Benston (1985); Coughlan and Schmidt (1985); Warner, Watts, and Wruck (1988); Weisbach (1988); Puffer and Weintrop (1991); Huson, Malatesta and Parrino (2004)) and the departure of lower-level executives (Mian (2001); McNeil, Niehaus, and Powers (2004)). Additional evidence suggests that the sensitivity of the relation between performance and turnover is affected by the relative performance of the firm within its industry (Morck, Shleifer, and Vishny, (1989)), the homogeneity of firms within the industry (Parrino (1997)) and the takeover intensity within the industry (Mikkelson and Partch (1997); Dennis and Kruse (2000)). Similarly, Weisbach (1988) and Denis and Denis (1995) find that board independence and

⁴ *The Scotsman*, Norway's firms face gender law. December 28, 2007.
<http://news.scotsman.com/world?articleid=3624498>

external monitoring affect turnover probabilities. Thus, turnover is associated with firm-level performance and governance characteristics, as well as industry characteristics. We therefore incorporate measures of market- and industry-adjusted financial and stock market performance as well as characteristics of the board to predict executive departure and the reasons for departure.

3. Data and Descriptive Statistics

3.1. Sample Selection and Variable Construction

EXECUCOMP includes a listing of at least the top 5 executives in each firm in the S&P 1500. We begin with the EXECUCOMP universe of firms between 1996 and 2004 and extract the 98,990 unique executive-firm-year observations during this period. In addition to name, position, and compensation, EXECUCOMP reports data on the gender, tenure, equity ownership, the presence of the executive on the board of directors, and, less frequently, the age of the executive. In fact, EXECUCOMP only reports the ages of about ten percent of the executives. We therefore augment data on ages with hand-collected information from proxy statements, annual reports, the *Standard & Poor's Directory of American Corporate Executives*, and news stories. We are able to identify ages for an additional 36,557 executive-firm-year observations using these alternative sources as well as data from the *IRRC* database described below, resulting in age data for roughly fifty percent of the sample.

EXECUCOMP lists a departure date for those executives who leave the firm. We use this field to indicate executive departures. Although EXECUCOMP also lists a reason for departure (RESIGNED, RETIRED, DECEASED, or UNKNOWN), these are not sufficient to classify the departure as voluntary or involuntary. We therefore follow the procedure outlined in Mian (2001), which uses public accounts of the departure from news stories to classify each departure

as “voluntary” or “involuntary”.⁵ Specifically, for each departing executive, we search *Lexis-Nexis* for news stories related to the firm in general and the named executive in particular for up to twelve months surrounding the departure date.⁶ Based on the news and corporate events surrounding the departure announcement date, we classify departures as either voluntary or involuntary. Specifically, involuntary departures include firings that are specifically due to illegalities, fraud, or accounting manipulations; discipline for poor performance of the executive or firm; outright firings for which detailed specific reasons are not given; sudden departures where no reason was provided to suggest it was of the executive’s own accord; and terminations that are related to firm restructuring or mergers. Voluntary departures include resignations that fall into the following categories and where there is no evidence that the decision was forced: exits surrounding disagreements with management and/or the board (but that are clearly initiated by the executive); exits for voluntary professional reasons (i.e., accepting a new position or starting a new business); exits due to health, family or personal reasons; and retirements. We exclude observations in which the executive dies and those in which we can find no information regarding the conditions under which the executive departed.

Annual board-level data come from the *Investor Responsibility Resource Center (IRRC)* database. We collect information on the size of the board, the proportion of independent and male directors, and, where missing from the EXECUCOMP database, the ages and equity ownership of executive-directors.

Finally, firm stock and operating performance values, as well as industry values, are collected from the Compustat and CRSP databases. As described below, we require lagged values of certain performance measures to be available on the CRSP and Compustat databases.

⁵ Similar coding schemes are found in Balsam and Miharjo (2007), Huson, Parrino, and Starks (2001), and Parrino (1997). The Appendix includes a detailed description of the coding scheme.

⁶ The EXECUCOMP date is the actual departure date rather than the announcement date, although on occasion these are the same. In general, we are more interested in the announcement date and rely on news stories for this information.

This restriction in combination with data limitations from each of the databases reduces our final sample to 53,311 executive-firm-year observations, of which we have executive ages for 28,193.

3.2. Descriptive Statistics

In Table 1 we provide summary statistics on departure and the various reasons for departure. We report means for all executives, as well as separate means for men and women, departed executives, male executives who depart and female executives who depart. Approximately 3.9 percent of the executive-year observations in the sample are departures; 1.0 percent of the observations are involuntarily departures and 2.9 percent are voluntary departures. The modal category of involuntary departures is that of sudden departure with no reason given, which accounts for 14.4 percent of all departures (see the “Departed Execs” column), and the modal category of voluntary departure is retirement, which accounts for 41.0 percent of departures. The summary results for males and females show that the proportion of female executive observations that consist of departures is significantly higher than the corresponding proportion for men. Women more frequently depart than men for both involuntary and voluntary reasons. Among only departing executives (see the last two columns of the table), women are more frequently fired for fraud or misdeeds, while men more often retire.

[Insert Table 1 about here]

Table 2 provides descriptive statistics for the characteristics of the executives and the firms in which they are employed. We report summary figures for the full sample, as well as separate statistics for departures, non-departures, involuntary departures, and voluntary departures. These variables include the firm’s total assets, return on assets, and stock returns. Here and throughout, dollar values are measured in constant 1994 dollars based on the Consumer Price Index (CPI).⁷ Return on assets, measured as the ratio of operating income to total assets, is adjusted by the median among other firms in the same Fama-French (1997) industry code.

⁷ Source: *Bureau of Labor Statistics* web site: <<http://data.bls.gov/PDQ/Servlet/SurveyOutputServlet>>.

Monthly stock returns are predicted based on an OLS regression model that includes industry and market factors, and then a monthly abnormal return is formed by taking the difference between the actual and predicted returns of the firm where the executive is employed. A buy-and-hold abnormal return is calculated over a one-year period preceding the beginning of the directory year listed for each executive in the sample.⁸

The means indicate that, while 4.5 percent of the observations in the sample are on female executives, females consist of significantly higher proportions of both departing and involuntarily departing executives than males. There are also significant differences in the means of other variables among departing and non-departing executives, as well as among involuntarily and voluntarily departing executives. For instance, departing executives are older and more experienced than non-departing executives, and also work in firms with lower return on assets, lower cumulative abnormal returns, lower fractions of male directors, and higher fractions of independent directors. Comparing involuntarily versus voluntarily departing executives, we find that involuntarily departing executives are younger and less experienced, are higher paid, work in firms with lower return on assets and cumulative abnormal returns, and work in firms with smaller and less independent boards.

[Insert Table 2 about here]

4. Hypotheses and Empirical Analysis

4.1 Hypotheses

In this section, we develop a set of hypotheses concerning the probability that an executive departs in a given year, the probability that an executive departs involuntarily, and the probability that an executive departs voluntarily. The hypotheses rely on theories of the labor

⁸ For departing executives, we have also calculated abnormal returns based on the event announcement date rather than the fiscal year. The results for voluntary and involuntary departure are robust to this alternative specification of firm abnormal stock returns for departing executives.

market and agency conflicts. Specifically, involuntary departures reflect the actions of the firm, voluntary departures the actions of the executive, and general departures the actions of both. If firms make personnel decisions in order to maximize shareholder value, then we expect a firm to be more likely to dismiss an executive (i.e., involuntary departure) when the opportunity cost of doing so in terms of foregone shareholder value is low. If executives pursue employment opportunities that maximize their utility, given their skills, training and interests, then we expect an executive to be more likely to voluntarily depart a position when the opportunity cost of leaving the position is low. An executive will be more likely to depart generally (i.e., for either voluntary or involuntary reasons) if both of these conditions occur.

We begin by developing specific hypotheses for involuntary departure. The effect of age is expected to be positive because older executives have a shorter time horizon to work for the firm and therefore the opportunity cost of dismissing them is low. The expected effect of experience is negative (controlling for age) because more experienced executives have greater firm-specific human capital, increasing their value to the firm. Higher-ranked executives may be more or less likely than lower-ranked executives to involuntarily depart, because higher rank may be an indicator of higher skill and higher ranked executives may be more difficult for the firm to replace, but at the same time these executives likely are held more accountable by firm owners. Similarly, directors may be more or less likely than non-directors to be dismissed. Compensation may also have a positive or negative effect, because it is positively correlated with innate ability, yet if compensation increases holding firm performance constant, then the firm is earning a lower return on its investment in the executive. The executive's equity ownership in the firm should have a negative effect because it indicates incentives more closely aligned with the interests of firm owners, which should improve job performance.

Firm size has an ambiguous expected effect on the likelihood of involuntary departure. Executives at larger firms, *ceteris paribus*, need more complex skill-sets and therefore may be

more difficult to replace (Coles, Daniel, and Naveen (2008)). Alternatively, larger firms are more visible and poorly performing executives are more likely to be identified by the market and shareholders. Thus, we include firm size, but are agnostic as to the predicted effect. The financial and stock market performance measures should have negative effects, controlling for an executive's compensation, because the firm is earning a higher return on its investment in the employee. Yermack (1996) argues that larger boards are less effective monitors due to high coordination costs, and we therefore predict a negative relation between board size and involuntary departure. Similarly, empirical evidence suggests that independent boards are more effective monitors (Weisbach (1988)), and therefore the fraction of independent directors should have a positive effect. However, since the fraction of the board that is male has no clear effect on the monitoring function, it should have no effect on involuntary departure.

The effect of gender on involuntary departure is our central empirical question. Women will be more likely to depart involuntarily if firms have a preference for male executives, if women have lower levels of human capital than men, or if female executives have weaker labor force attachment than men. Although our data do contain several human capital controls, we are not able to definitively disentangle these alternative explanations. However, we seek to extend the literature by establishing formal evidence on whether or not a gender difference exists.

Our hypotheses concerning voluntary departure are as follows. The effect of age is uncertain because older executives have greater non-work opportunities such as the leisure available in retirement, but also may be less willing to depart because other firms are reluctant to hire them. The effect of experience is also uncertain because more experienced executives have higher levels of firm-specific human capital, making employment at other firms less attractive, but also have higher levels of general human capital that is transferable to other firms. The effects of being a higher-ranked executive or director, or a higher-paid executive, are also uncertain because these executives may have innately high skill that increases their labor market

value, yet may have difficulty finding comparably high positions at other firms. Compensation and share ownership in the firm have negative expected effects because they raise the opportunity cost of leaving a position.

Firm size should have a positive effect on voluntary departure, because working in a large firm should expand the set of alternative employment opportunities available to the executive, due to the firm's visibility. The financial and stock market performance of the firm should negatively affect voluntary departure, because a better performing firm is likely a more attractive place to work. Smaller and more independent boards may be more difficult to work for if they focus greater scrutiny on their executives or are more difficult for executives to influence than larger and less independent boards. Thus, we expect board size to have a negative effect and board independence to have a positive effect on voluntary departure. The fraction of the board that is male is expected to have no effect because it has no clear connection with the attractiveness of working for a given firm.

It follows from the preceding remarks that for general departure, the expected effects of age, experience, executive rank, directorship, compensation, and firm size are all uncertain (because each has an uncertain effect on at least one type of departure). Share ownership in the firm has a negative expected effect on general departure because it has negative effects on both involuntary and voluntary departure. Following similar reasoning, financial and stock performance have negative expected effects, board size has a negative expected effect, and board independence has a positive expected effect. The fraction of the board that is male has no expected effect on either outcome; the reason for including this variable is to determine whether male-dominated boards treat men and women differently in models that allow for male- and female-specific slopes, as discussed below. Women are expected to be more likely to depart than men based on higher likelihoods of involuntary and voluntary departure.

4.2 Empirical Model and Results for General, Involuntary, and Voluntary Departure

In this section we test the above hypotheses concerning general, involuntary, and voluntary departure. We begin by using the full sample of executives to estimate the probability that a given executive departs his or her position in a given year without distinguishing the reasons for departure. The method that we utilize to estimate the probability of departure is random effects logit because there are observations available in multiple years for the majority of executives in our sample. Random effects is employed instead of fixed effects because the effects of time-invariant covariates are central to our analysis and because few executives in our sample are observed to depart in some years and not depart in other years, as would be required for identification with fixed effects.⁹ Thus, our model of departure is:

$$\Pr(D_{it} = 1) = A(\beta_E x_{it}^E + \beta_F x_{it}^F + \delta T_t + \mu_i^F), \quad [4.1]$$

where D_{it} is a binary variable that equals 1 if executive i departs his or her position in year t and equals 0 otherwise; A is the cumulative logistic distribution function; x_{it}^E is a vector of characteristics describing the executive in year t (some of these characteristics are time-invariant); x_{it}^F is a vector of characteristics describing characteristics of the firm where executive i is employed in year t ; T_t is a vector of year dummies for each of the years in our sample excluding the final year; and μ_i^F is unobserved executive-firm heterogeneity. This term captures all unobserved factors that are constant for a given executive during all years spent with a given firm (e.g., attitudes of the executive toward work versus leisure, innate managerial ability, educational background, attitudes of the firm about when to fire executives, etc.). We specify executive-firm heterogeneity instead of just executive- or firm-specific heterogeneity in order to allow the unobserved component of departure to differ across firms for the same executive and

⁹ The random effects method imposes the stringent assumption that the executive-specific unobserved heterogeneity is uncorrelated with the observed covariates. However, our results are robust to a simple logit approach, which imposes the opposite extreme assumption of perfect correlation between the unobserved heterogeneity and the controls.

across executives for the same firm¹⁰. However, note that anything that is constant across all executives in the same firm (such as the firm's tastes for firing executives) will also be constant for a given executive during his or her time with the same firm, and consequently will be subsumed into μ_i^F . The random effects model is consistent and efficient under the assumption that μ_i^F is uncorrelated with x_{it}^E and x_{it}^F .

The vector x_{it}^E includes the gender and age of the executive as well as a quadratic in age to allow for a depreciating effect, the executive's tenure with the firm, a dummy variable for whether or not the executive is a director of the firm, dummy variables for whether the executive is a CEO, CFO, or COO¹¹, the natural log of the executive's total annual compensation (which consists of base salary, bonuses, and fringe benefits), and the natural log of the dollar value of the firm's shares owned by the executive. The vector x_{it}^F includes the natural log of the firm's one-year lagged total assets, the firm's one-year lagged industry-adjusted return on assets (i.e., the industry-adjusted return on assets for year $t-1$), the firm's one-year lagged buy-and-hold abnormal stock return adjusted for market and industry factors (i.e., the sum of the monthly abnormal returns for year $t-1$), the total number of directors on the firm's board, the fraction of directors who are men, the fraction of directors who are independent, and a set of industry dummies based on Fama and French (1997) industry groupings¹². We use lagged values of the firm size and performance measures (total assets, return on assets and abnormal returns) to avoid potential endogeneity between current-year values and executive departure or non-departure. These could be endogenous because whether or not the executive departs could affect

¹⁰ Alternatively, we also estimate the models using firm random effects and obtain qualitatively identical results.

¹¹ CEO refers to "Chief Executive Officer," CFO to "Chief Financial Officer," and COO to "Chief Operating Officer." The excluded category of executives, with reference to these title variables, consists of those holding titles that are vice-presidential in nature. This category includes the majority of executives in the EXECUCOMP sample.

¹² Specifically, we aggregated the 48 Fama and French (1997) industry categories into the following broader groups: food and agriculture; entertainment and leisure; consumer and retail goods; health care services; textiles, construction, and manufacturing; drugs and chemicals; mining and energy; utilities and telecommunications; electricity; and finance, insurance and real estate. The excluded category in the regression is food and agriculture.

contemporaneous measures of performance. However, the same problem should not pertain to prior-year performance.

We also estimate random effects logit models of the probability of involuntary and voluntary departure with the same set of controls as the general departure model:

$$\Pr(I_{it} = 1) = \Lambda(\beta_E x_{it}^E + \beta_F x_{it}^F + \delta T_t + \mu_i^F) \quad [4.2]$$

$$\Pr(V_{it} = 1) = \Lambda(\beta_E x_{it}^E + \beta_F x_{it}^F + \delta T_t + \mu_i^F), \quad [4.3]$$

where I_{it} and V_{it} are dummy variables that equal 1 if the executive departs involuntarily or voluntarily, respectively, in year t . All other controls are defined as in [4.1].

The estimates of two specifications of each model [4.1]-[4.3] are reported in Table 3. For each departure category, one of the models (Model 1) excludes age, age squared, and tenure, while the other model (Model 2) includes these variables. Because age and tenure are unavailable for some of the executives, the regressions for Model 2 have smaller sample sizes than those for Model 1.

[Insert Table 3 about here]

The results for general departure suggest that, holding constant executive and firm characteristics, women are 3.4 to 6.8 percentage points more likely to depart than men, 1.3 to 1.5 percentage points more likely to involuntarily depart, and 1.5 to 3.8 percentage points more likely to voluntarily depart. While the general and voluntary departure results are consistent with women placing a higher value on opportunities outside the firm, the involuntary departure result is consistent with corporations having a greater preference for male executives (i.e., a discrimination hypothesis). However, it is also consistent with gender differences in unobserved ability, and with lower labor force attachment on the part of women executives.

Age increases the likelihood of general, involuntary, and voluntary departure, but at a diminishing rate in each case since the marginal effect of the quadratic term is negative and significant. However, note that the rate of depreciation is very small because the marginal effect

of the quadratic term is much smaller in magnitude than that of the linear term. These results are consistent with older executives having a higher opportunity cost of remaining with the firm and with firms having a higher opportunity cost of retaining older executives. Tenure with the same firm reduces the likelihood of general departure and involuntary departure, but does not affect the likelihood of voluntary departure. These results are consistent with more experienced executives having higher levels of firm-specific human capital, which makes them more valuable to their firms.

The effects of the variables indicating the executive's position in the firm are sensitive to whether or not age and tenure controls are included, likely because age and experience are correlated with title. However, we find that CEOs are less likely to depart in general and to depart voluntarily than executives with titles in the excluded category (primarily vice-presidents) but CEOs are no more or less likely to involuntarily depart. COOs are more likely to involuntarily depart than lower-ranked executives, but just as likely to depart in general and to voluntarily depart (controlling for age, tenure, and directorship). CFOs do not display consistently different likelihoods of any type of departure relative to lower-ranked executives. These results are consistent with CEOs having a higher opportunity cost of leaving the firm than lower-ranked executives and with COOs bearing greater accountability for the performance of the firm. Directors are more likely than non-directors to depart in general, to depart involuntarily, and to depart voluntarily when age and tenure are excluded, but this difference vanishes in the presence of age and tenure controls. This reflects that directors tend to be older and more experienced than non-directors.

Executives with higher total compensation are less likely to depart in general and less likely to depart voluntarily than those with lower total compensation, but are no more or less likely to involuntarily depart. Specifically, a ten percent increase in total compensation is predicted to decrease the likelihood of general departure by 2.4 to 3.4 percentage points and that

of voluntary departure by 2.7 to 3.2 percentage points. These results are consistent with higher paid executives having a greater opportunity cost of leaving their positions. The lack of an effect for involuntary departure suggests that compensation may serve as a proxy for innate executive ability, offsetting the fact that the firm earns a lower return on its investment in the executive when compensation increases, holding firm performance constant. Consistent with our hypotheses, the effect of executive share ownership is negative on all three categories of departure¹³. A ten-percent increase in the value of shares owned lowers the probability of each type of departure by about 0.1 percentage points. Although the magnitude of the effect is small, it is consistent with firm ownership aligning managers' interests more closely with those of shareholders (Jensen and Meckling (1976)).

The total assets of the firm have positive effects on all three categories of departure. A ten percent increase in the level of total assets is predicted to increase the likelihood of general departure by 4.6 to 5.1 percentage points, the likelihood of involuntary departure by 0.8 to 1.1 percentage points, and that of voluntary departure by 2.9 to 4.1 percentage points. These results suggest that executives are more mobile or under greater scrutiny from the market when working in larger firms. Higher industry-adjusted return on assets and market- and industry-adjusted abnormal stock returns reduce the probability of all types of departure, consistent with the findings of Huson, Malatesta, and Parrino (2004). Our findings therefore support the notion that executives are more attractive to firms, and vice-versa, when firm performance is strong.

Executives employed by firms with larger boards are less likely than those with smaller boards to depart in general and to involuntarily depart, but are no more or less likely to voluntarily depart. An additional board member reduces the probability of general departure by about 1.0 percentage points and that of involuntary departure by about 0.5 percentage points.

¹³ We also estimated the models using the executive's proportional share ownership, rather than the dollar value of share ownership, and continued to find negative effects on all types of departure.

These results are consistent with the literature that finds smaller boards are more effective monitors (Yermack (1996)), which may enhance their ability to detect performance lapses that are grounds for executive terminations. The fraction of the board that is male has no effect on any type of departure, indicating that this variable is not directly connected to an executive's valuation of a job in a particular firm, or the firm's valuation of a particular executive. In contrast, the fraction of the board that is independent has positive effects on all types of departure, consistent with more independent boards being better monitors as well as less appealing to work with than less independent boards.

4.3 Results with Gender Interactions

Table 4 reports coefficient estimates from random effects logit models of general, involuntary, and voluntary departure that include a full set of interactions between the female dummy and all of the control variables listed in equations [4.1]-[4.3]. This approach allows us to test for the possibility that the effects of the control variables differ for men and women. We report coefficients instead of marginal effects because it is problematic to assign a meaningful interpretation to the marginal effects of interaction terms in a non-linear model¹⁴. Thus, the results that we presently report will speak primarily to the directions (rather than the magnitudes) of the effects of the control variables on the departure probabilities for men and women.

The table is organized as follows. For each departure outcome, we estimate two models, one without the age and tenure controls (Model 1), and the other with these controls (Model 2). For each departure category, we report the coefficients for men, which are the coefficients on the un-interacted forms of the variables (first column for each model), and the coefficients for

¹⁴ The reason is that, in a non-linear model, the marginal effect of a variable incorporates both the coefficient and a probability weight. When a control variable is interacted with a dichotomous variable, the probability weights on the marginal effects of the interacted and un-interacted variables are different. This implies that the marginal effect of the interaction term does not measure the difference in the marginal effects for the two groups, as it would in a linear model. However, the coefficient on the interaction term still indicates the direction of the difference in the effect for the two groups.

women (second column for each model), which are computed as the sums of the coefficients on the interacted and un-interacted forms of the variables. The significance of the coefficients for men are evaluated with simple t-tests, while the significance of the coefficients for women are evaluated with Chi-Square tests, since they are sums of coefficients. Therefore, the “star” superscripts in the table indicate coefficients that are significantly different from zero, according to the t-tests or Chi-Square tests referenced above.

The results for men in Table 4 are similar to those for the pooled effects for women and men when the effects are constrained to be the same across gender (i.e., Table 3). In particular, the effects of all variables except the characteristics of the board are the same in sign and significance for men as they are for men and women combined. This is unsurprising since the majority of the sample is male. However, there are some differences in the effects of the board characteristics for male executives relative to the pooled effects for men and women. The size of the board has a negative effect on voluntary departure instead of an insignificant effect (when age and tenure controls are included), which suggests that an increase in the size of the board lowers the likelihood of all types of departure for men. The fraction of male directors has a negative effect on the likelihood of general and voluntary departure for men, as opposed to insignificant effects when constrained to be the same for men and women. This suggests that men prefer to remain employed at firms with more male-dominated boards.

The results for women in Table 4 indicate that several of the controls have different effects on the various types of departure for women than they do for men. Considering first the models for general and voluntary departure (with age and tenure included), being a director has a negative effect for women as opposed to an insignificant effect for men, while being a CEO has an insignificant effect for women rather than a negative effect for men. Being a CFO has an insignificant effect on general departure for women rather than a negative effect for men, but being a CFO has no effect on voluntary departure for either women or men. Compensation and

the value of shares owned by the executive have insignificant effects for women as opposed to negative effects for men (in the models without age and tenure; when these are included compensation has a positive effect on general and voluntary departure for women). Thus, the results are supportive of the notion that increases in compensation or share ownership increase the opportunity cost of leaving a position more for men than for women. Total assets have an insignificant effect on general departure for women (with or without the age and tenure variables) instead of a positive effect for men, whereas total assets have a negative effect on voluntary departure for women compared to a positive effect for men. This indicates women are less likely than men to want to leave their positions when firm size increases, consistent with larger firms being more “female-friendly” than smaller firms. Larger firms may have more generous family leave programs, offer on-site childcare, or offer more flexible scheduling. Return on assets has an insignificant effect on all departure categories for women (with age and tenure included) in contrast to negative effects for men, suggesting that increases in the performance of the firm improve the working environment more for men than for women. It may be that, in evaluating the quality of the work environment, women place a relatively greater value on items other than firm performance (such as how the firm treats female employees).

The size of the board also has different effects on general and voluntary departure for men and women. Essentially, the effect of an increase in board size on both outcomes is more positive for women than for men, indicating that women are more likely than men to want to leave their positions when the size of the board increases (holding overall firm size constant). This result is consistent with men having a greater preference than women for working with larger boards. Perhaps women find it more difficult to gain influence or respect when dealing with larger boards. The fraction of men on the board also has different effects on general departure for women and men. Essentially, the effects are more positive for women (either positive or insignificant compared to the negative effect for men), indicating that women are

more likely than men to want to leave their positions when the fraction of male board members increases. This suggests that men have a greater preference than women for working with more male-dominated boards. The fraction of independent directors has an insignificant effect on both general and voluntary departure for women in contrast to positive effects on both types of departure for men, suggesting that women have a greater preference for working with more independent boards than do men. A possible explanation is that more independent boards are less intertwined with old boy networks than are boards consisting of a higher fraction of insiders.

We also observe in Table 4 that the effects of most of the variables on involuntary departure are insignificant for women despite being significant for men. The only variable that has a significant impact on the probability of involuntary departure for women is the abnormal stock return, which has a negative effect. Thus, the results suggest that for women, involuntary departure probabilities are less sensitive to differences in firm characteristics than they are for men. However, the relatively small sample size for women compared to men may be partially responsible for the lack of significance on some of the coefficient estimates.

In Table 5 we report the p-values for the tests of whether the coefficients for men and women are significantly different from *each other*, which are the t-tests on the interaction terms estimated in the regression. These p-values indicate that the effects of several variables on general and voluntary departure are significantly different for women and men. Specifically, the effects of directorship, compensation, total assets, abnormal returns, the size of the board, and the fraction of male directors differ significantly for the two groups. The effect of board independence differs significantly between the two groups only for voluntary departure, and only when age and tenure are included in the model.

For involuntary departure, however, the tests on the interaction terms generally fail to detect significant differences between the male and female coefficients. In the case of abnormal stock returns, the lone variable that is individually significant for women, the effects for women

and men are both negative and statistically indistinguishable at the ten percent level. Inspection of the p-values also reveals that the only variable with a significantly different effect for women and men is the fraction of male board members. The sign of the coefficient is negative for men and positive for women, which suggests that women are more likely than men to be dismissed when the fraction of male board members increases. This is consistent with more male-dominated boards having a preference for retaining male rather than female executives. However, this statement must be made with caution, as the coefficients for men and women are both insignificantly different from zero when tested separately.

5. Sensitivity Tests

We perform a variety of sensitivity tests on our models due to the subjective nature of the classification scheme used to distinguish voluntary from involuntary departures. Although in the interests of brevity we do not report these results in separate tables, we briefly discuss them here. Our first sensitivity test is to conduct the analysis in Tables 3 and 4 with retirements excluded. The reasons for excluding retirements are that these departures are considered voluntary (in the absence of evidence of pressure from the firm) and men are much more likely to retire than women. Thus, excluding retirements could potentially change the inference of gender differences in the circumstances of departure. However, most of the results are unchanged by the exclusion of retirements, which may be because we have included age controls and conducted intensive scrutiny of news accounts related to retirements to ensure that they were appropriately classified. Most notably, women remain more likely to depart in general, to involuntarily depart, and to voluntarily depart when retirements are excluded. However, the results for compensation are affected by the exclusion of retiring executives, in that the effect of compensation on general departure becomes insignificant rather than negative when age and tenure are excluded. This may be because the exclusion of executives who retire results in a younger pool of executives, and younger executives become more mobile than older executives as compensation increases.

The results for the fraction of male directors in the models with gender interactions are also different when we exclude retirements, in that the effect of the fraction of male directors on general departure is no longer negative for men. This suggests that old boy networks in firms with male-dominated boards are more beneficial for older executives, who are a lower percentage of the sample when retirements are excluded.

In specifications that are also unreported, we adopt an alternative classification scheme that moves merger-related departures into the voluntary category. While adopting this new scheme, we bring retirements back into the sample and continue to consider them as voluntary departures. This change has little effect on the results for involuntary or voluntary departure. Again, women are more likely to depart both voluntarily and involuntarily. The major substantive change is that for women, the fraction of male directors now has a positive effect on involuntary departure. This strengthens some of our prior inferences that women are more likely than men to be dismissed as the board becomes more male-dominated.

In a final set of unreported sensitivity tests, we adopt a classification scheme that moves all departures except firing for fraud and poor performance into the voluntary category. Thus, we now consider as involuntary only those departures that are for the most clearly disciplinary reasons. This change in the classification scheme produces some interesting changes. We now find that age has no effect on involuntary departure, suggesting that the bulk of dismissals of older executives are for non-disciplinary reasons. We also now find that being a director has a consistently positive effect on involuntary departure, suggesting that the dismissals of directors tend to be for clearly disciplinary reasons. The effects of return on assets and board independence are now insignificant, indicating that increases in firm operating performance do not help prevent the most clearly disciplinary departures, while the additional firings undertaken by more independent boards tend to be for reasons other than outright fraud or demonstrably poor performance. The effect of return on assets on general departure also becomes significantly

more negative for women than men, indicating that better operating performance is relatively more helpful to women in reducing the chances of the most clearly disciplinary dismissals. Despite the aforementioned changes, our key results regarding the gender difference in the probabilities of voluntary and involuntary departure are robust to this reclassification.

6. Conclusion

Through anti-discrimination policies, changing cultural attitudes, and evolving labor force participation trends, women are becoming better represented in executive labor markets over time. Nevertheless, recent widely publicized events have raised the concern that corporations are relatively quick to dismiss female executives. Because this sentiment seems to arise from intense media scrutiny of a few cases, we closely investigate the reasons for departure in a sample of male and female executives from the EXECUCOMP database. Specifically, during the period 1996-2004, we classify departures into categories of voluntary and involuntary departure and examine the determinants of these departure types, as well as of general departure.

Our key findings are that women are more likely to depart, to involuntarily depart, and to voluntarily depart than men, controlling for firm performance, governance characteristics, and executive human capital. These results are robust to specifications that include age and tenure controls, that exclude retirements, and that use different classification schemes for involuntary and voluntary departures. Thus, our evidence is supportive of a discrimination hypothesis, but cannot definitively rule out alternative explanations such as gender differences in unobserved human capital or labor force attachment. Moreover, because we find women are also more likely to voluntarily depart, the evidence also supports the notion that women have higher returns than men in non-labor market activities.

Our remaining findings are supportive of labor market and agency theories. Generally, the probability of involuntary departure is high when the opportunity cost to the firm of dismissing an executive is low, the probability of voluntary departure is high when the

opportunity cost to the executive of leaving a position is low, and the probability of general departure is high in circumstances conducive to both voluntary and involuntary departure.

We also estimate models with gender interaction terms to test whether the effects of the controls on the various types of departure are different for women and men. We find differences in the determinants of general and voluntary departure that suggest a greater preference on the part of women relative to men for working in larger firms, firms with smaller boards, and firms with less male-dominated boards. Furthermore, the involuntary departure results provide suggestive evidence that more male-dominated boards are more likely to dismiss women than men.

While we have attempted to provide rigorous evidence on the existence of gender differences in the reasons for departure, we acknowledge that there are some limitations to our analysis. Any classification scheme that codes departures into voluntary and involuntary categories is inherently subjective, so that it is difficult to state with absolute certainty whether the departure of an executive is voluntary or involuntary. In addition, age controls are available for only a portion of the sample, so a verdict on the robustness of our full-sample results must await the availability of a more complete data source on executive ages. However, the similarity of the results with and without the age controls offers some reassurance on this front. Finally, one could always desire more detailed controls for the professional and cognitive ability of the executive, as well as educational background. The title, director, and compensation variables that we use here are indirect controls for qualifications and skills. Likewise, more direct controls for the outside opportunities available to the executive would allow us in some cases to draw more precise conclusions about the motivating factors behind a departure. Therefore, further work is required to definitively disentangle whether our results reflect discrimination or simply the efficient functioning of the corporate labor market in light of fundamental differences between women and men.

Appendix

Reasons for Executive Departures from Lexis-Nexis News Reports Classifications based on Mian (2001)

Involuntary Departures

- A.) Firings or resignations for fraud associated with accounting irregularities or illegalities where the executive is clearly blamed
- B.) Clear firing because of poor company performance or questions of competence (but no illegal actions on the part of the executive)
- C.) Clear firing but no reason directly provided or suggested
- D.) Left suddenly with no reason provided
- E.) Merger, reorganization, or corporate restructuring-related.

Voluntary Departures

- F.) Quit due to disagreements with management/board of directors (departure initiated by executive)
- G.) Left with cause/voluntary professional reasons
- H.) Specific personal reasons, such as health or family reasons
- I.) Retirement

Other Classifications (excluded from empirical analysis)

- J.) Could not find. This category represents searches on the executive's name and firm in which no results were found.
- K.) Death.

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Table 1 Descriptive Statistics for Executive Departure and Departure Reasons

Variables	All Execs	Male Execs	Female Execs	Departed Execs	Male Departed	Female Departed
DEPARTED	0.0392 (0.1940)	0.0376*** (0.1903)	0.0719*** (0.2583)	1.0000 (0.0000)	1.0000 (0.0000)	1.0000 (0.0000)
INVOLUNTARILY DEPARTED	0.0102 (0.1005)	0.0093*** (0.0961)	0.0290*** (0.1679)	0.2605 (0.4390)	0.2478*** (0.4318)	0.4035*** (0.4920)
Fired for fraud or misdeeds	0.0006 (0.0241)	0.0005*** (0.0212)	0.0034*** (0.0579)	0.0148 (0.1210)	0.0120*** (0.1089)	0.0468*** (0.2118)
Fired for poor performance	0.0022 (0.0468)	0.0020*** (0.0447)	0.0063*** (0.0792)	0.0560 (0.2300)	0.0532* (0.2245)	0.0877* (0.2837)
Fired for unspecified reasons	0.0001 (0.0097)	0.0001 (0.0099)	0.0000 (0.0000)	0.0024 (0.0489)	0.0026 (0.0510)	0.0000 (0.0000)
Left suddenly (no reason provided)	0.0056 (0.0748)	0.0052*** (0.0718)	0.0151*** (0.1221)	0.1437 (0.3508)	0.1377*** (0.3447)	0.2105*** (0.4089)
Left for merger-related reasons	0.0017 (0.0413)	0.0016*** (0.0398)	0.0042*** (0.0647)	0.0436 (0.2042)	0.0423 (0.2012)	0.0585 (0.2353)
VOLUNTARY DEPARTURES	0.0290 (0.1677)	0.0283*** (0.1659)	0.0429*** (0.2026)	0.7395 (0.4390)	0.7522*** (0.4318)	0.5965*** (0.4920)
Quit due to disagreements w/ board	0.0007 (0.0260)	0.0006*** (0.0247)	0.0021*** (0.0458)	0.0172 (0.1302)	0.0162 (0.1262)	0.0292 (0.1690)
Left for professional reasons	0.0111 (0.1048)	0.0104*** (0.1014)	0.0265*** (0.1606)	0.2835 (0.4508)	0.2760** (0.4471)	0.3684** (0.4838)
Left for personal reasons	0.0011 (0.0332)	0.0009*** (0.0304)	0.0050*** (0.0709)	0.0283 (0.1657)	0.0245*** (0.1547)	0.0702*** (0.2562)
Retired	0.0161 (0.1258)	0.0164*** (0.1270)	0.0092*** (0.0957)	0.4104 (0.4920)	0.4356*** (0.4960)	0.1287*** (0.3358)
Number of exec-year observations	53311	50932	2379	2088	1917	171
Number of unique executives	17644	16667	977	2061	1896	165
(Standard deviations in parentheses)						
***Difference between male and female categories is significant at 1%; ** 5%; *10%						

Table 2 Descriptive Statistics for Firm and Executive Variables

Variables	Full Sample	Departed	Non Departed	Involuntarily Departed	Voluntarily Departed
Female	0.0446 (0.2065)	0.0819*** (0.2743)	0.0431*** (0.2031)	0.1268*** (0.3331)	0.0661*** (0.2485)
Age (years)	53.1877 (8.0043)	54.9790*** (7.9660)	53.0888*** (7.9949)	51.1968*** (6.6113)	56.2500*** (7.9819)
Tenure with firm (years)	7.5829 (11.6895)	8.0761** (13.0068)	7.5628** (11.6323)	4.0345*** (9.1266)	9.5001*** (13.8463)
Director	0.3682 (0.4823)	0.4023*** (0.4905)	0.3668*** (0.4819)	0.3750 (0.4846)	0.4119 (0.4923)
Chief Executive Officer	0.1940 (0.3954)	0.1346*** (0.3414)	0.1964*** (0.3973)	0.1673*** (0.3736)	0.1231*** (0.3286)
Chief Financial Officer	0.1353 (0.3420)	0.1489* (0.3561)	0.1347* (0.3414)	0.1599 (0.3669)	0.1451 (0.3523)
Chief Operating Officer	0.0821 (0.2745)	0.1145*** (0.3184)	0.0808*** (0.2725)	0.1618*** (0.3686)	0.0978*** (0.2971)
Total Direct Comp. (\$ million)	1.5023 (4.4836)	1.5779 (3.6882)	1.4992 (4.5131)	1.9805*** (5.1996)	1.4360*** (2.9678)
Exec equity ownership (\$ million)	20.1221 (443.0559)	5.9407 (49.1781)	20.7002 (451.8775)	2.9250* (14.6483)	7.0033* (56.4915)
Total Assets (\$ billion)	6.2449 (26.5105)	8.2608*** (33.7033)	6.1627*** (26.1726)	10.2818 (46.8144)	7.5488 (27.6260)
Industry-adjusted return on assets (%)	0.0673 (0.1225)	0.0550*** (0.1203)	0.0678*** (0.1226)	0.0453** (0.1166)	0.0584** (0.1214)
1-year buy-and-hold abnormal returns (%)	-0.0062 (0.4530)	-0.0829*** (0.4764)	-0.0031*** (0.4517)	-0.1518*** (0.5511)	-0.0586*** (0.4447)
Total number of directors	9.7241 (3.0520)	9.7553 (2.9922)	9.7228 (3.0544)	9.2279*** (2.9042)	9.9411*** (3.0016)
Fraction of male directors	0.9226 (0.0853)	0.9156*** (0.0865)	0.9229*** (0.0853)	0.9170 (0.0904)	0.9151 (0.0851)
Fraction of independent directors	0.6339 (0.1819)	0.6572*** (0.1706)	0.6329*** (0.1823)	0.6408*** (0.1776)	0.6630*** (0.1677)
Number of executive-years	53311	2088	51223	544	1544
Number of unique executives	17644	2061	17176	541	1529
Standard Deviations in Parentheses. ***Difference between departed and non-departed or between involuntarily and voluntarily departed categories is significant at 1%; ** 5%; *10% The excluded group of executive titles is vice-president Total direct compensation includes base salary, bonuses, and fringe benefits Total assets and return on assets are lagged one year prior to the year of observation listed for the executive Return on assets is measured as the deviation from the industry median, where industry groupings are as defined by Fama and French (1997) 1 year buy-and-hold abnormal returns are the deviations of actual monthly stock returns from the predictions of a market and industry model, summed over the year prior to that listed for the executive Executive equity ownership is calculated by multiplying the number of shares owned by the firm's stock price per share at the end of the year prior to that listed for the executive The number of executive-year observations on age in each of the columns is 28210, 1475, 26735, 371, and 1104 The number of executive-year observations on tenure in each of the columns is 53292, 2088, 51204, 544, and 1544 The number of unique executives in the departed and non-departed columns sum to a number greater than the number of unique executives in the full sample because nearly every executive who is observed as a departure is also observed as a non-departure in some other year The number of unique executives in the involuntarily and voluntarily departed columns sum to a number greater than the number of unique executives in the departed column because some executives are observed as both voluntary departures and involuntary departures (in different years)					

Table 3 Random Effects Logit Models of the Reason for Departure (Marginal Effect Estimates)

Independent Variables	GENERAL DEPARTURE		INVOLUNTARY DEPARTURE		VOLUNTARY DEPARTURE	
	Model (1)	Model (2)	Model (1)	Model (2)	Model (1)	Model (2)
Female	0.0337*** (0.000)	0.0678*** (0.000)	0.0129*** (0.000)	0.0152*** (0.000)	0.0153*** (0.000)	0.0382*** (0.000)
Age	X	0.0052*** (0.000)	X	0.0017*** (0.003)	X	0.0051*** (0.000)
Age Squared	X	-0.0000*** (0.002)	X	-0.0000*** (0.004)	X	-0.0000*** (0.002)
Tenure with firm	X	-0.0002*** (0.008)	X	-0.0002*** (0.000)	X	-0.0000 (0.995)
Director	0.0261*** (0.000)	-0.0029 (0.244)	0.0018** (0.024)	-0.0003 (0.745)	0.0238*** (0.000)	-0.0024 (0.247)
Chief Executive Officer (CEO)	-0.0212*** (0.000)	-0.0295*** (0.000)	-0.0002 (0.852)	-0.0015 (0.110)	-0.0192*** (0.000)	-0.0246*** (0.000)
Chief Financial Officer (CFO)	0.0035 (0.123)	-0.0062** (0.019)	0.0019** (0.045)	-0.0014 (0.106)	0.0010 (0.601)	-0.0035 (0.107)
Chief Operating Officer (COO)	0.0053* (0.056)	0.0009 (0.778)	0.0065*** (0.000)	0.0027** (0.043)	-0.0023 (0.272)	-0.0028 (0.250)
Log Total Direct Comp. (millions)	-0.0024*** (0.007)	-0.0034*** (0.002)	0.0002 (0.589)	-0.0001 (0.845)	-0.0027*** (0.000)	-0.0032*** (0.000)
Log Exec equity ownership (millions)	-0.0001*** (0.003)	-0.0001*** (0.000)	-0.0001*** (0.0000)	-0.0001*** (0.000)	-0.0000* (0.060)	-0.0001*** (0.007)
Log Total Assets (billions)	0.0051*** (0.000)	0.0046*** (0.000)	0.0008*** (0.003)	0.0011*** (0.001)	0.0041*** (0.000)	0.0029*** (0.000)
Industry-adjusted return on assets	-0.0328*** (0.000)	-0.0341*** (0.000)	-0.0075*** (0.000)	-0.0070*** (0.003)	-0.0183*** (0.000)	-0.0170** (0.015)
1-year buy-and-hold abnormal returns	-0.0134*** (0.000)	-0.0154*** (0.000)	-0.0044*** (0.000)	-0.0049*** (0.000)	-0.0067*** (0.000)	-0.0068*** (0.001)
Total number of directors	-0.0010*** (0.002)	-0.0011** (0.010)	-0.0005*** (0.000)	-0.0004*** (0.008)	-0.0003 (0.335)	-0.0004 (0.203)
Fraction of male directors	-0.0108 (0.266)	-0.0208 (0.102)	-0.0007 (0.832)	-0.0019 (0.645)	-0.0092 (0.276)	-0.0154 (0.140)
Fraction of independent directors	0.0328*** (0.000)	0.0412*** (0.000)	0.0031* (0.063)	0.0044** (0.034)	0.0285*** (0.000)	0.0330*** (0.000)
Number of executive-years	53311	28193	53311	28193	53311	28193
Number of unique executives	18404	8222	18404	8222	18404	8222
% Correctly Predicted	96.1	94.8	99.0	98.7	97.1	96.1

Estimates are marginal effects; p-values in parentheses
 *** (**) (*) Marginal effect estimate is significant at 1% ; ** 5%; * 10%

Dependent variables for the three departure outcomes are dummy variables that equal 1 if the executive departs, departs involuntarily, and departs voluntarily, respectively
 Each model contains a full set of year and industry dummies; industry categories include food and agriculture (the excluded group); entertainment and leisure; consumer and retail goods; health care services; textiles, construction and manufacturing; drugs and chemicals; mining and energy; utilities and telecommunications; electricity; and finance, insurance and real estate

The excluded group of executive titles is vice-president
 Total direct compensation includes base salary, bonuses, and fringe benefits
 Total assets and return on assets are lagged one year prior to the year of observation listed for the executive
 Return on assets is measured as the deviation from the industry median, where industry groupings are as defined by Fama and French (1997)
 Buy-and-hold abnormal returns are the deviations of actual monthly stock returns from the predictions of a market and industry model, summed over the year prior to that listed for the executive
 Executive equity ownership is calculated by multiplying the number of shares owned by the firm's stock price per share at the end of the year prior to that listed for the executive

Table 4 Random Effects Logit Models of the Reason for Departure (Separate Coefficient Estimates for Men and Women)

Retirements included; regressions include interactions between female dummy and all control variables

Independent Variables	GENERAL DEPARTURE				INVOLUNTARY DEPARTURE				VOLUNTARY DEPARTURE			
	Model (1)		Model (2)		Model (1)		Model (2)		Model (1)		Model (2)	
	COEFF. FOR MEN	COEFF. FOR WOMEN	COEFF. FOR MEN	COEFF. FOR WOMEN	COEFF. FOR MEN	COEFF. FOR WOMEN	COEFF. FOR MEN	COEFF. FOR WOMEN	COEFF. FOR MEN	COEFF. FOR WOMEN	COEFF. FOR MEN	COEFF. FOR WOMEN
Age	X	X	0.1937*** (0.000)	0.2029 (0.332)	X	X	0.3049*** (0.002)	0.3768 (0.291)	X	X	0.2711*** (0.000)	0.0579 (0.815)
Age2	X	X	-0.0012*** (0.000)	-0.0020 (0.365)	X	X	-0.0029*** (0.002)	-0.0039 (0.303)	X	X	-0.0017*** (0.000)	-0.0005 (0.863)
Tenure	X	X	-0.0067*** (0.008)	-0.0195* (0.094)	X	X	-0.0405*** (0.000)	-0.0343* (0.069)	X	X	-0.0007 (0.783)	-0.0068 (0.623)
Director	0.7805*** (0.000)	-0.0581 (0.859)	-0.0229 (0.756)	-0.8384** (0.012)	0.2830** (0.028)	0.6097 (0.158)	-0.0288 (0.849)	0.0628 (0.887)	0.9332*** (0.000)	-0.6834 (0.156)	-0.0209 (0.801)	-1.5189*** (0.002)
CEO	-0.8176*** (0.000)	-0.6636 (0.240)	-0.9571*** (0.000)	-0.7963 (0.159)	0.0171 (0.917)	-0.6510 (0.377)	-0.2434 (0.158)	-0.7603 (0.302)	-1.0563*** (0.000)	-0.5715 (0.504)	-1.1444*** (0.000)	-0.6969 (0.414)
CFO	0.1037 (0.134)	0.1019 (0.626)	-0.2022** (0.033)	-0.2154 (0.345)	0.2825** (0.036)	0.1565 (0.621)	-0.3102 (0.125)	-0.1781 (0.599)	0.0425 (0.593)	0.0683 (0.797)	-0.1517 (0.153)	-0.1829 (0.518)
COO	0.1554** (0.048)	0.3325 (0.346)	0.0524 (0.570)	0.0522 (0.892)	0.8119*** (0.000)	0.1637 (0.756)	0.4370*** (0.007)	0.0601 (0.911)	-0.1119 (0.241)	0.4401 (0.320)	-0.0925 (0.402)	0.0728 (0.883)
Log Compensation	-0.0995*** (0.000)	0.2915*** (0.003)	-0.1096*** (0.001)	0.0933 (0.408)	0.0077 (0.888)	0.2085 (0.144)	-0.0027 (0.966)	-0.0396 (0.810)	-0.1384*** (0.000)	0.3048** (0.013)	-0.1504*** (0.000)	0.1640 (0.247)
Log Exec equity	-0.0022*** (0.005)	-0.0164 (0.243)	-0.0031*** (0.001)	-0.0204 (0.232)	-0.0162*** (0.002)	-0.0170 (0.367)	-0.0130*** (0.006)	-0.0151 (0.446)	-0.0013* (0.059)	-0.0141 (0.485)	-0.0023*** (0.007)	-0.0257 (0.361)
Log Total Assets	0.1718*** (0.000)	-0.0448 (0.520)	0.1520*** (0.000)	-0.1138 (0.130)	0.1191*** (0.007)	0.1279 (0.218)	0.1827*** (0.001)	0.1432 (0.195)	0.1919*** (0.000)	-0.1735* (0.054)	0.1487*** (0.000)	-0.2827*** (0.003)
Adjusted ROA	-0.9907*** (0.000)	-1.4834** (0.016)	-0.9815*** (0.000)	-0.9165 (0.193)	-1.2184*** (0.000)	-1.4204 (0.172)	-1.2227*** (0.001)	-0.6200 (0.586)	-0.7231*** (0.002)	-1.2523* (0.087)	-0.6384** (0.031)	-0.7880 (0.344)
1-year BHAR	-0.3845*** (0.000)	-0.7258*** (0.000)	-0.4278*** (0.000)	-0.6503*** (0.001)	-0.7337*** (0.000)	-0.5691** (0.035)	-0.8798*** (0.000)	-0.5500* (0.057)	-0.2329*** (0.000)	-0.7711*** (0.000)	-0.2321*** (0.004)	-0.6137** (0.010)
Total directors	-0.0386*** (0.000)	0.0582 (0.109)	-0.0423*** (0.001)	0.0811** (0.039)	-0.0979*** (0.000)	-0.0136 (0.807)	-0.0811*** (0.002)	-0.0005 (0.992)	-0.0187 (0.116)	0.1042** (0.023)	-0.0287** (0.045)	0.1297*** (0.008)
Pct. male directors	-0.6953** (0.028)	1.7065* (0.058)	-1.1268*** (0.004)	1.0835 (0.266)	-0.6040 (0.310)	2.0050 (0.145)	-1.1071 (0.138)	1.6023 (0.281)	-0.6905* (0.061)	1.3240 (0.247)	-1.0932** (0.016)	0.6652 (0.581)
Pct. indep. directors	1.0282*** (0.000)	0.6574 (0.174)	1.1833*** (0.000)	0.5465 (0.293)	0.4307 (0.126)	1.0575 (0.158)	0.5975* (0.095)	1.0564 (0.180)	1.2199*** (0.000)	0.4383 (0.470)	1.3671*** (0.000)	0.1767 (0.782)
Exec-years	53311		28193		53311		28193		53311		28193	
Executives	18404		8222		18404		8222		18404		8222	
% Correct Predict	96.1		94.8		99.0		98.7		97.1		96.1	

For each model, the first column lists the coefficient on the un-interacted form of each variable (i.e., the coefficient for men), and the second column lists the sums of the coefficients on the un-interacted and female-interacted forms of each variable (i.e., the coefficient for women). P-values in parentheses. *** (***) (*) Coefficient estimate is significant at 1% ; ** 5%; * 10% in a t-test for a single coefficient or a Chi-Square test for the sum of two coefficients

Dependent variables for the three departure outcomes are dummy variables that equal 1 if the executive departs, departs involuntarily, and departs voluntarily, respectively

If adjacent cells are shaded, it means the male and female coefficients are significantly different from each other at a maximum significance level of 10 percent (i.e., a significant coefficient on the interaction term)

Each model contains a full set of year and industry dummies; industry categories include food and agriculture (the excluded group); entertainment and leisure; consumer and retail goods; health care services; textiles, construction and manufacturing; drugs and chemicals; mining and energy; utilities and telecommunications; electricity; and finance, insurance and real estate

The excluded group of executive titles is vice-president; total compensation includes base salary, bonuses and fringe benefits; total assets and return on assets (ROA) are lagged one year prior to the year of observation listed for the executive

Return on assets (ROA) is measured as the deviation from the industry median, where industry groupings are as defined by Fama and French (1997)

Buy-and-hold abnormal returns (BHAR) are the deviations of actual monthly stock returns from the predictions of a market and industry model, summed over the year prior to that listed for the executive

Executive equity ownership is the value of firm shares owned by the executive, which we calculate by multiplying the number of shares owned by the firm's stock price per share at the end of the year prior to that listed for the executive

Table 5 P-Values for Differences between Male and Female Coefficients in Models with Gender Interactions
Retirements included

Independent Variables	GENERAL DEPARTURE		INVOLUNTARY DEPARTURE		VOLUNTARY DEPARTURE	
	Model (1)	Model (2)	Model (1)	Model (2)	Model (1)	Model (2)
Age	X	0.965	X	0.846	X	0.396
Age2	X	0.723	X	0.802	X	0.631
Tenure	X	0.282	X	0.758	X	0.666
Director	0.012**	0.017**	0.468	0.845	0.001***	0.002***
CEO	0.787	0.779	0.376	0.494	0.573	0.602
CFO	0.993	0.957	0.714	0.738	0.926	0.918
COO	0.624	1.000	0.234	0.504	0.223	0.744
Log Compensation	0.000***	0.082*	0.183	0.833	0.000***	0.031**
Log Exec equity	0.311	0.312	0.965	0.918	0.526	0.406
Log Total Assets	0.003***	0.001***	0.936	0.740	0.000***	0.000***
Adjusted ROA	0.443	0.930	0.851	0.613	0.490	0.865
1-year BHAR	0.067*	0.277	0.569	0.300	0.022**	0.129
Total directors	0.010**	0.003***	0.154	0.209	0.009***	0.002***
Pct. male directors	0.011**	0.032**	0.076*	0.094*	0.090*	0.164
Pct. indep. directors	0.462	0.247	0.431	0.594	0.214	0.077**
Exec-years	53311	28193	53311	28193	53311	28193
Executives	18404	8222	18404	8222	18404	8222

*** (**) (*) Coefficient estimate is significant at 1% ; ** 5%; * 10% , respectively
 Dependent variables for the three departure outcomes are dummy variables that equal 1 if the executive departs, departs involuntarily, and departs voluntarily, respectively
 Each model contains a full set of year and industry dummies. Industry categories include food and agriculture (the excluded group); entertainment and leisure; consumer and retail goods; health care services; textiles, construction, and manufacturing; drugs and chemicals; mining and energy; utilities and telecommunications; electricity; and finance, insurance, and real estate
 The excluded group of executive titles is vice-president
 Total direct compensation includes base salary, bonuses, and fringe benefits
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 Buy and hold abnormal returns (BHAR) are the deviations of actual monthly stock returns from the predictions of a market and industry model, summed over the year prior to that listed for the executive
 Executive equity ownership is calculated by multiplying the number of shares owned by the firm's stock price per share at the end of the year prior to that listed for the executive