Independent Director Incentives: Where do talented directors spend their limited time and energy?

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Abstract

We study reputation incentives in the director labor market and find that directors with multiple directorships distribute their effort unequally based on the directorship's relative prestige. When directors experience an exogenous increase in a directorship's relative ranking, their board attendance rate increases and subsequent firm performance improves. Also, directors are less willing to relinquish their relatively more prestigious directorships, even when firm performance declines. Finally, forced CEO departure sensitivity to poor performance rises when a larger fraction of independent directors view the board as relatively more prestigious. We conclude that director reputation is a powerful incentive for independent directors.

JEL classification: G30, G32, G34
Key words: director incentives, busy directors, labor markets, firm reputation, firm performance

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Abstract

We study reputation incentives in the director labor market and find that directors with multiple directorships distribute their effort unequally based on the directorship's relative prestige. When directors experience an exogenous increase in a directorship's relative ranking, their board attendance rate increases and subsequent firm performance improves. Also, directors are less willing to relinquish their relatively more prestigious directorships, even when firm performance declines. Finally, forced CEO departure sensitivity to poor performance rises when a larger fraction of independent directors view the board as relatively more prestigious. We conclude that director reputation is a powerful incentive for independent directors.

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1. Introduction

What motivates corporate directors to monitor senior management carefully? Recent empirical research that examines the financial incentives of outside directors (Adams and Ferriera, 2008 and Yermack, 2004) concludes that these incentives are not especially strong. In this study, we examine another important source of incentives, director reputation. Fama and Jensen (1983) argue that preserving and enhancing reputation in the labor market for directorships is a primary motivation of directors. They argue that directors want to build a reputation as a diligent monitor of management because it directly affects the value of their human capital and the likelihood of obtaining future directorships (Fama, 1980).

Firm size is a natural source of director reputation incentives given that larger firms afford a director greater visibility, prestige (Adam and Ferreira, 2008 and Shivdasani, 1993), compensation (Ryan and Wiggins, 2004) and likelihood of obtaining added directorships (Yermack, 2004 and Fich, 2005). Hence, it is reasonable to expect directorships in firms of differing sizes to create differential incentives to monitor senior management closely. Specifically, the incentive to be judged as a valuable director is likely to be strongest in a director's most visible and prestigious directorship. This supply side perspective on the directorship market suggests that differences in reputation incentives can be important. Consistent with this perspective, Knyazeva, Knyazeva and Masulis (2013) find that larger firms tend to draw busy director candidates from more distant locations. Fahlenbrach, Low and Stulz (2010) find that independent directors are more prone to resign from poorly performing firms, which offer lower prestige and greater workloads. This body of evidence suggests that directors view board seats as varying in attractiveness and that reputation considerations can have a large effect on the supply of outside director services available to a firm. Given that most directors have heavy demands on their time, it is only natural to expect them to prioritize which boards to serve on and then how they allocate their time and energy across these boards.

The primary goal of this study is to investigate whether outside directors with multiple directorships value each directorship differently based on the relative reputation benefits a board offers. Our focus is on independent directors since they are best able to monitor and discipline management. We start by identifying all independent directors who hold multiple directorships on the boards of S&P 1500

firms between 1997 and 2006 using the Risk Metrics director database. Then we rank each of their directorships based on each firm's market capitalization. Given this ranking, we examine several measures of a director's expenditure of effort and commitment to board responsibilities.

Our first measure is his or her attendance at regular board meetings. We find that after controlling for firm size, directors are significantly less (more) likely to miss meetings in their *relatively* higher (lower) ranked directorships. Moreover, when a directorship's relative ranking increases, board attendance rises significantly. Expanding on the Fahlenbrach et al. (2010) finding, we show that departures are more prevalent in a director's lower ranked directorships. We find directors are quick to relinquish lower ranked directorships when performance suffers, presumably to avoid the negative reputation effects, but they are less willing to relinquish their higher ranked ones.

To capture these varying reputation incentive effects of directors at the firm level, we use either the percentage of independent directors on the board for whom this directorship is one of their highest ranked (i.e. at least 10% larger than their smallest directorship) or an indicator variable for when a majority of a firm's independent directors view this as one of their highest ranked boards. These measures capture (1) board representation by more talented independent directors, who hold multiple outside directorships, and (2) firms where these talented directors have the greatest incentives to work diligently.

We find that firms with a greater proportion of independent directors who rank this directorship highly are associated with better operating performance and higher values of Tobin's Q. We also examine board monitoring and disciplining outcomes, measured by forced CEO departures, and find that these firms are also associated with a lower likelihood of forced CEO departure, but greater forced CEO turnover sensitivity to performance.

To the degree that director incentives are affected by the external market for directorships and not internal firm decisions, endogeneity is less problematic. Nonetheless, for robustness and to address the concern that some of our results could be driven by firm size, we conduct several additional tests. First, we split our full sample in half based on firm size and reexamine the firm performance and value tests for each size subsample. Second we create a matched sample based on firm size and industry and repeat our

primary analysis. Third, we employ a difference-in-difference approach to the director attendance test and the firm-level performance tests using exogenous shocks that lead to a director's ranking of a directorship to increase. The robustness of our primary results to these tests decrease concerns that firm size or endogeneity are the primary cause for the results. Finally, we explore alternative ranking measures based on market value of total assets, book value of total assets, total sales, total shareholder return and the number of employees. We find that these alternative ranking measures provide qualitatively similar, albeit weaker results to those found when ranking directorships by a firm's equity market capitalization.

Our findings make several important contributions to the literature. First, we provide new evidence on the predicted, yet empirically elusive, positive relation between board independence and firm performance and value (Bhagat and Black, 1999 and Hermalin and Weisbach, 2003). Prior research has uncovered several factors that can adversely affect a director's ability to provide reliable monitoring services such as their social connections to the CEO (Hwang and Kim, 2009), the number of directors on the board (Yermack, 1996) and their other directorships (Fich and Shivdasani, 2006). Our results deepen our understanding of the role of reputation as a strong motivating force in enhancing a director's monitoring incentives. They are also important in light of the large literature on director actions that *assumes* that director reputation is a strong motivator by viewing subsequent changes in directorships held as a reward or penalty for director performance.[1] Yet, to our knowledge, there are no studies in the literature that directly examine how reputation incentives arising from their current board appointments affect director actions. Our results indicate that not all directorships are equal in terms of the reputation incentives they offer, which can help to explain why some studies like Ertimur, Ferri and Maber (2012) find weak evidence of the directorship market rewarding or punishing directors.

Second, we provide new evidence on the influence of a board's relative prestige, which furthers our understanding of director incentives. Fama and Jensen (1983) argue that holding a directorship creates

[1] See Brickley, Coles and Linck (1999), Farrell and Whidbee (2000), Yermack (2004), Kaplan and Reishsus (1990), Gilson (1990), Del Guercio, Seery and Woidtke (2008), Fich and Shivdasani (2007), Srinivasan (2005) and others.

strong incentives to perform well in the boardroom because there is "substantial devaluation of human capital" when directors neglect their monitoring duties. In contrast, Mace (1971) argues that compensation, prestige and experience are outside directors' primary motives, so that directors focus their efforts on retaining their directorships, rather than closely monitoring CEOs. Our evidence is consistent with directors having strong incentives to be viewed by the external labor market for directorships as careful monitors in their relatively more prestigious directorships. Further, we find little support for outside directors' direct compensation having the same incentive effects.

Third, finding that directors do not give equal priority to all their directorships contributes to our understanding of busy directors. Despite the frequent use of multiple directorships as an indicator of the most valued and reputable directors,[2] only one strand of literature has directly examined the *effect* of multiple board seats on director incentives and it focuses on the negative aspects of directors being too busy (Ferris, Jagannathan and Pritchard, 2003; Fich and Shivdasani, 2006; Core, Holthausen and Larcker, 1999 and Beasley, 1996). However, by simply summing the number of directorships, these prior studies implicitly assume that directors distribute their time and energy equally across all their directorships. Our results yield a more nuanced view that directors distribute their efforts depending on a board's relative contribution to a director's reputation. More broadly, our findings contribute to the literature on agent's effort dispersion. For example, Agarwal and Ma (2011) find that when mutual fund managers manage multiple funds their efforts are not uniformly distributed across the funds they manage.

Our findings are also related to a contemporaneous study by Field, Lowry and Mkrtchyan (2011). They find that younger firms can benefit from the advice, expertise and contacts of busy directors. Their findings, like ours, reveal that busy directors are not equally detrimental for all firms. However, unlike our study, they do not examine the varying reputation incentives of busy directors to be active monitors, although holding a directorship in a highly visible growth firm may be another way to build reputation.

[2] See for example, Kaplan and Reishsus (1990), Gilson (1990), Shivdasani (1993), Chidambaran, Kedia and Prabhala (2011), Shivdasani and Yermack (1999), Masulis and Mobbs (2011) and Mobbs (2012).

Finally, this study contributes to a broader understanding of the role of reputation in financial markets. The prior literature uses firm size and market share as reputation measures for investment banks, venture capitalists, accounting firms and other institutions (Carter and Manaster, 1990; Carter, Frederick and Singh, 1998; Chemmanur and Fulghieri, 1994; Megginson and Weiss, 1991; Fang, 2005; Krishnan, Ivanov, Masulis and Singh, 2011; Titman and Trueman, 1986; and Beatty, 1989). Our measure of director level reputation incentives is similar in spirit to the reputation metrics in these studies and offers an easy to calculate measure of how directors are likely to allocate their time and energy across multiple boards.

The remainder of the paper is organized as follows. The next section develops our hypotheses. Section 3 discusses the sample data and descriptive statistics for the directors and the firms. Section 4 presents director level analysis. Section 5 focuses on firm level analysis and Section 6 discusses added robustness analysis. Section 7 summarizes our conclusions. Variable definitions are in the Appendix.

2. Hypotheses development

Reputation is a valuable asset (Alchian and Demsetz, 1972) for executives. Likewise, director reputation is often mentioned as an important incentive in the board of director literature. For example, Yermack (2004), Fich (2005), Ryan and Wiggins (2004), Adams and Ferreira (2008) and Fich and Shivdasani (2007) each control for director reputation incentives, measured by firm size. Furthermore, Fama and Jensen (1983) argue that the larger the firm, the more visibility, prestige and thus reputation value the directorship holds, which increases a director's incentive to be viewed as a competent monitor.

Directors with multiple directorships face a dilemma of how to allocate their limited time and energy across their boards. We argue that if prestige rises with firm size, then directors on multiple boards have stronger incentives to monitor the managers of their relatively larger firms, leading to these firms capturing more of a director's time and energy. For example, Vernon Loucks, a director in our sample who held at least three directorships throughout our sample period, attended at least 75% of the meetings each year for his largest directorship, Annheuser Busch, while on smaller firm, Affymetrix, he missed more than 25% of board meetings in two separate years. It is also important to recognize that each

individual director can find the same firm to be relatively more or less prestigious depending on the status of the director's other boards. This leads us to our first director level hypothesis.

H1: *Independent directors are more active on the boards of their relatively more prestigious firms.*

Director commitment is also revealed in their willingness to remain on the board of a firm facing serious difficulties. Fahlenbrach et al. (2010) find evidence that outside directors are more likely to relinquish their directorships prior to poor performance, which they interpret as an effort to protect their reputation. Of course, giving up a directorship can also lower a director's reputation. Thus, each director has to decide which choice is more damaging. This trade off will generally vary across their directorships. For example, if a troubled firm is relatively small, a director can risk reputation damage from both being on the board of a poor performing firm and for reducing the time and energy they give to their higher ranked directorships, which is being reallocated to the struggling smaller firm. Alternatively, a director can simply choose to walk away from a smaller troubled firm and avoid both forms of reputation damage. In contrast, if the troubled firm is a higher ranked firm, a director has greater incentives to work hard to help resolve the firm's troubles and to ensure that it has better performance given the greater visibility and reputation impact of this prestigious directorship. This leads to our next set of direct level hypotheses.

H2a: *Independent directors are more likely to leave the boards of their relatively less prestigious firms before departing from the boards of relatively more prestigious firms.*

H2b: *Independent director departures from their relatively more (less) prestigious firms are less (more) sensitive to poor firm performance.*

Prior research uses the external market for directorships to identify more talented directors by measuring demand for a director's services. For example, Shivdasani and Yermack (1999) argue that director talent and reputation is correlated with the number of boards an individual sits on, while Mobbs (2012) documents that holding outside directorships raises an executive's chances of becoming a CEO. While directors on multiple boards can be more talented, these boards will not necessarily benefit equally from their talent since performance incentives vary with a board's relative visibility and prestige.

Related research documents that having many directorships can place a large strain on directors' time and reduce their effectiveness as monitors (e.g. Fich and Shivdasani, 2006 and Core, Holthausen and

Larcker, 1999). However, if directors do not distribute their talent uniformly, but rather shift more of their time and energy toward their most visible directorships and away from their less prestigious directorships, then we should expect to see that the boards of their more prestigious firms benefit more from their greater ability and their stronger incentives to be viewed as a talented and conscientious director on these boards where their reputation effects are maximized. Thus, firms, where the board is comprised of a greater portion of directors for whom this board is one of their most prestigious are expected to perform better. This economic reasoning leads to our next hypothesis.

H3: *Firms with more independent directors for whom this is a relatively more prestigious directorship are associated with better operating performance and a higher Tobin's Q.*

Greater incentives by talented directors to put forth effort in the oversight of their more prestigious boards provides both positive and negative effects on a firm's CEO. First, due to their greater interest in the long-run success of the firm in their more prestigious directorships, directors are likely to be more careful in their selection and grooming of the CEO, increasing the CEO's likelihood of success. Second, due to more careful board monitoring of the CEO, the CEO will exert greater effort, leading to better firm performance. Both of these factors will lower the likelihood that the CEO is fired. However, because firm performance is also more important to a director's reputation in their more prestigious directorships and because they have strong reputation incentives to be viewed externally as careful monitors, when performance does suffer these same directors are likely to move more quickly to fire the current CEO. In this case, CEO turnover will be more sensitive to performance. The following summarizes this CEO monitoring hypothesis.

H4: *Firms with more independent directors for whom this is a relatively more prestigious directorship are associated with CEOs having (a) lower forced turnover in general, but (b) higher forced turnover sensitivity to performance.*

3. Sample data and descriptive statistics

Director data are drawn from the Risk Metrics database for the years 1997-2006. Risk Metrics contains individual director information for the S&P 1500 firms resulting in 131,325 director-firm-year observations. Using the "classification" variable, we exclude directors who are either firm employees,

former employees or otherwise affiliated with the firm or its management. This leaves us with 86,330 independent outside directors. Table 1 reports descriptive statistics for the sample of S&P 1500 independent directors. The mean (median) age is 60.4 (61). The most common titles are CEO (of another firm) (18%), President (17%) and Chairman (17%). Executive Vice Presidents represent 2% of the sample. Over 51% of all independent directors are on the audit committee, with 49% and 38% serving on the compensation and nominating committees, respectively. The mean (median) committee membership for the independent directors in the sample is 1.7 (2). Only 2% miss more than 25% of board meetings. The mean (median) board tenure for independent directors is 7.7 (6) years. The average independent director owns .22% of the firm's outstanding shares.

Risk Metrics provides the number of additional directorships in "large public companies" each director holds. While many of the directorships are also in S&P 1500 firms, some are not and because our primary interest is on the boards of the most visible and prestigious firms, we primarily focus on directorships within the Risk Metrics database. The average number of other outside board seats in public firms held by an independent director is approximately one, while the average independent director holds 1.74 directorships within the Risk Metrics database (including their own firm). Thus, our approach understates the total number of directorships held, in its focus on directorships in the largest public firms, which are arguably the most important. Nearly half of all independent directors, i.e. 47%, hold only one directorship. Of the independent directors on multiple boards, on average they hold 2.41 directorships (including their own) in the Risk Metrics sample and they have a average of 1.88 additional board seats as indicated by the broader *outside public boards* variable reported by Risk Metrics.

Finally, market capitalization of the firms where an individual holds multiple independent directorships varies widely. The mean (median) percentage difference in the size of the largest directorship to that of the smallest is 1,905% (269%) for such directors. Thus, significant differences in reputation incentives for an individual director can exist in his or her largest and smallest directorships, while independent directors on the same board can experience very different reputation incentives.

The sample of independent directors comprises 15,215 firm-years. Table 2 presents firm level descriptive statistics. The average firm controls $11.847 ($5.258) billion in total assets (in the subsample of 12,166 firms that exclude Fama-French defined finance and utility industries). The average firm also has an equity market capitalization of $7.163 ($7.011) billion. In almost 80% of firms, independent directors represent a majority of the board.

To capture the relative importance of the director incentive effects associated with a specific firm, we compare the relative size of equity market capitalization in each firm where the director serves. The most (least) prestigious directorship, which represents the largest (smallest) fraction of the total market capitalization under a director's oversight, is simply referred to as HIGHEST (LOWEST). However, to provide greater variability and to capture the relative reputation benefits to individuals with more than two independent directorships, we also create a variable HIGH (LOW), which is an indicator variable for when a directorship is in a firm that is at least 10% larger (smaller) than the firm representing their least (most) prestigious directorship. Since having a greater portion of better (less) motivated directors on a board can improve (worsen) board decision making, we aggregate the director level measures to the board level to obtain the fractions of independent directors who classified this directorship as HIGH or LOW.

Table 2, panel A shows that across all boards the mean percent of directors for whom this is a low ranked directorship is 14.28% (15.29% excluding finance and utilities). In 15% of firms, a majority of the independent directors classify this as a low ranked directorship (17% excluding finance and utilities). The mean percentage of directors for whom this is a high ranked directorship is 12.7% (12.43% excluding finance and utilities). Also, in 15% of the firms, a majority of the independent directors rank this firm as relatively more prestigious, or larger, than the smallest firm where they are independent directors (including or excluding finance and utilities). The average board has almost 29% independent directors for whom this is their sole directorship and in 45% of the firms a majority of independent directors hold no other outside directorships. We distinguish such independent directors since there may be stronger incentives to seek to retain one's only directorship. Finally, 12% of boards are classified as busy (i.e. where a majority of independent directors hold three or more directorships).

Table 2, panel B reports descriptive statistics for the three subsamples of firms that have a majority of independent directors for whom this is a high or low ranked directorship or their sole directorship. As expected, boards with a majority of independent directors for whom this represents a high ranked directorship are generally larger firms, while boards with a majority of independent directors for whom this is their only directorship are generally smaller firms. This highlights the importance of controlling for firm size in the subsequent analysis. Firms with a majority of independent directors for whom this directorship is one of their highest ranked directorships have a slightly larger fraction of independent directors and have a greater fraction of busy boards. They also have higher mean ROA and Tobin's Q ratios. Interestingly, the firm subsample with boards comprised of a majority of independent directors for whom this is a low ranked directorship have slightly lower mean ROA and Tobin's Q ratios than the firm subsample with a majority of independent directors for whom this is their only directorship.

4. Director level analysis

4.1. Board meeting attendance

Their attendance record at board meetings is a measure of a director's commitment to their directorship responsibilities. As a general rule, firms do not report actual meeting attendance by director, which can be in person or by teleconferencing, but in their annual proxy statements they are required by SEC disclosure rules to report when a director misses more than 25% of board meetings during the year. Risk Metrics reports this disclosed absence indicator variable for each director-firm-year. Figure 1A plots the mean absence statistic for independent directors in the sample based on the director's relative board ranking. Absences decline as a board's relative ranking goes from low (ranking≥5) to high (ranking=1).

In untabulated univariate results, we test the difference in mean attendance rates between a director's largest and smallest directorships. The frequency that directors miss more than 25% of board meetings in their most prestigious directorship is 2.13%, while in their least prestigious directorship, it is 3.08%. The difference of -.94% is statistically significant at the 1% level. We also examine board meeting attendance rates pre- and post-Sarbanes-Oxley (SOX). Greater scrutiny of directors by regulators and

investors in the post-SOX era can raise director incentives to attend board meetings. Although attendance does improve post-Sox for both the director's most and least important boards, meeting absences remain significantly larger in their least prestigious directorships relative to their most prestigious directorships. We also split the sample by board size and observe that while larger boards tend to suffer from greater absence rates, perhaps due to an exacerbated free-rider problem, a director's most prestigious directorship continues to exhibit a higher attendance rate. When we alternatively split the sample of independent directors by whether they are current executives in other firms, we again find that the least prestigious directorships exhibit the highest absence rates in both subsamples.

Next we examine board meeting absences in a multivariate setting. In addition to relative firm size, a director's level of commitment to a firm can be affected by characteristics such as board size and director age, which can have a negative effect on their attendance rates. Other characteristics such as their share ownership and board tenure can have a positive effect on their attendance rate. Firm size (Adams and Ferreira, 2008) and performance can also influence a director's attendance incentives. Directors are less likely to miss meetings when firm performance is poor, while there are fewer incentives to attend meetings when firm performance is strong.

Table 3 presents results from independent-director level probit regressions, where the dependent variable equals one if the director attended fewer than 75% of the meetings during the year. The standard errors are robust and are clustered by director. In model 1 the indicator for a more prestigious directorship is negative and significant at the one percent level. In contrast, the indicator for a less prestigious directorship is positive and significant at the one percent level. The coefficient on firm size is also significantly negative. It is important to recognize that our analysis shows that it is not just firm size that matters, but also firm size relative to the firm size of the other boards a director sits on. Even after controlling for firm size, a director's relatively more prestigious directorships are associated with fewer absences and their relatively less prestigious directorships are associated with more absences. Other control variables have expected signs. Directors on larger boards have more absences. Directors who are older, longer tenured, have no other directorship or are serving in the post-SOX era have fewer absences.

Finally, the positive coefficient on Tobin's Q is consistent with directors having less incentive to attend board meetings when a firm is performing well, as reflected in this valuation measure. Share ownership and operating performance (measured by ROA) are not significantly related to attendance.

Are busy directors more prone to miss meetings at all of the boards they sit on? To address this question, model 2 adds controls for the number of other directorships held by a director. The coefficient of the number of directorships is positive as expected, but interestingly it is insignificant. The coefficients of more and less prestigious directorships remain significantly negative and positive respectively.

Model 3 is limited to directors with multiple directorships and finds similar results. By excluding directors with single directorships, we can more clearly examine the economic differences of the resulting coefficient estimates. The predicted probability of a director missing more than 25% of the meetings in a sample year is 2.164%. The corresponding marginal effects from model 3 for high and low ranked directorships are -.00525 (24.26% lower than the predicted value) and +.00302 (13.96% higher than the predicted value) respectively. Thus, the predicted probability of missing more than 25% of board meetings is on average 33% lower ((.01639 - .02466)/.02466) for a typical independent director who ranks the directorship high relative to a director who ranks the directorship low.

In model 4, we include an indicator that equals one if the director is a member of a major board committee (nominating, compensation, audit or corporate governance). These committees represent key board functions and thus indicate a greater level of active involvement by a director. As expected, major committee membership is associated with significantly fewer absences. Yet, even after controlling for major committee membership, more prestigious directorships continue to have fewer absences.[3]

Another motivation for attending board meetings is incremental compensation. Although compensation is relatively small for many directors, Adams and Ferrreira (2008) find that higher meeting attendance fees significantly reduce meeting absences. In model 5 we include firm level controls for the annual director retainer and meeting attendance fees as reported in the Execucomp database.

[3] This control is excluded from our initial models of director attendance given its potential endogeneity.

Unfortunately, this information is not reported by all firms and the data is unavailable after fiscal year 2006, which considerably reduces the number of observations that can be analyzed. Consistent with Adams and Ferreria (2008), we find higher director meeting fees and annual retainers are associated with a lower likelihood of missed board meetings. After controlling for these financial incentives, we still find strong support for the relative ranking of a directorship having a significant association with board meeting attendance, for both high and low ranked directorships, consistent with the prior evidence.

Finally, the number of meetings held during the year can affect meeting attendance. For example, if the firm is performing poorly or going through a significant transition, then the board is likely to meet more often and the seriousness of the situation can create heightened director incentives to attend more meetings. In model 6, we add a control for the number of board meetings held per year. As with the director compensation variables, data on the number of board meetings is not available for all firm-years in the sample, so we lose further observations. Nonetheless, the coefficient estimate for the number of board meetings in model 6 is negative and significant, which suggest that when boards meet more often, directors are less likely to miss meetings. Again, we continue to find strong support for the proposition that directors are more reluctant to miss meetings in their higher ranked directorships.[4]

4.2. Exogenous shocks to directorship rankings

In this section we analyze firm size changes in one directorship that affect a director's relative ranking of other directorships they hold to minimize concerns about endogenous effects. Specifically, we focus on independent directors with multiple directorships and identify all instances where firm market capitalization falls in a given year for one of a director's firms.[5] The fall in firm size can occur for a

[4] In unreported results, we include firm capital expenditures to sales, leverage, the number of business segments and the percentage of tangible assets to capture the greater need for directors to attend more meetings in complex firms, but find no significant evidence in favor of this hypothesis. We also control for an insider dominated board and the presence of a founder family member. We find evidence consistent with independent directors being less inclined to attend meetings when insiders are in control, unless there is an influential insider present to motivate them.

[5] We find consistent results or stronger when we restrict the drop to be at least 5%, even though sample size falls.

number of reasons, such as a spin-off or poor performance, which are firm specific causes. Thus, a change in firm size should be largely independent of the director's involvement on other boards in the years before or after the event.[6] However, a fall in firm size can increase a director's relative rankings of his or her other directorships. These other directorships are the focus of the analysis in this section.

We identify treatment directors as those directors where a directorship increased in ranking due to a drop in the ranking of another directorship due to a decline in that firm's size.[7] We also restrict our analysis of treatment directors to firms that did not themselves rise in market capitalization by more than 10%. This restriction excludes contaminating events at the treatment firm, such as mergers and acquisitions. We further require our treatment directors to not gain or lose a directorship during the event year. This restriction excludes rank changes due to a loss or gain of directorships and allows us to focus directly on changes in relative rankings. We identify 319 treatment firms using these criteria. When we limit treatment firms to not have any increase in market capitalization so as to rule out any possibility that a firm's own actions lead to a rise in their directorships' relative ranking, we are left with 81 exogenous treatment directorships. For this analysis, the remaining independent directors on the boards with treatment directors are defined as the control sample. For the main sample and the smaller restricted sample, we have 1,713 and 464 control directorships, respectively.

Table 4 reports the results of a director level difference in difference (DiD) analysis of absences at board meetings using the directorship treatment and control samples. The Treatment indicator variable equals 1 for treatment director-years and zero for control director-years. The Post-Treatment indicator equals zero in the penultimate year prior to the ranking increase and one in the two years following. We exclude the year prior to the change to reduce the concern that events at the firm decreasing in equity capitalization could also affect the attendance of directors at the treatment firm in that year. The interaction of these two variables represents the effect of an exogenous rise in relative ranking. If an increase in a director's relative ranking due to a rank-reducing event at another one of their directorships

[6] If events that decrease firm size require more director time this would bias us against finding our reported results.

[7] We focus on board rank increases as they are more likely to motivate director behavioral changes than decreases.

causes them to value this directorship more, then we expect their absences in these directorships to drop after the ranking shock relative to other independent directors in the same firm.

Table 4, model 1 reports results using the key indicators for the DiD model without additional controls. The coefficient for the interaction is negative and significant, suggesting that directors whose relative ranking of this directorship increased due to a shock at another of their directorships are significantly less likely to miss meetings at this directorship after the shock. Model 2 includes the same controls used in Table 3 and finds stronger treatment effects, both statistically and economically.

It is important to note that some matched directorships are likely to be individuals with only one directorship, who tend to have high attendance records (shown in Table 3), which could bias us against finding significant differences in the treatment directorships. To avoid this potential bias, model 3 only uses directorship-years of directors holding more than one directorship. Again the coefficient estimate on the interaction term is negative and significant (*p*-value=.02). Finally, models 4 and 5 of Table 4 use the smaller, more restrictive sample of treatment directorships, where an increase in ranking is most certainly driven by an exogenous shock in the ranking of another one of a director's directorships and we find an even stronger treatment effect. Moreover, the positive and significant coefficient on the treatment indicator implies that prior to an exogenous rank-increasing shock, these directors are likely to miss meetings more frequently relative to the matched directors. Thus, after a rise in a directorship's relative importance, directors appear to put in more effort at the firm, which is in part manifested by missing fewer meetings relative to before the rank-increasing shock.

To address the possibility that unobserved director characteristics are endogenously determining the observed relations between relative directorship prestige and board meeting absence rates, we repeat the analysis of Tables 3 and 4 using director fixed effects. In this analysis we exclude firm size as a control since including firm size along with director fixed effects would capture variation in firm size across a director's directorships, which is precisely what our High and Low directorship rank variables are designed to measure. There are fewer observations in these tests since director-firm observations with no variation in absence rates during our sample are excluded. In untabulated results, we continue to find

more prestigious directorships are associated with a significantly lower absence rate and less prestigious directorships with a significantly higher absence rate.

In summary, the attendance evidence indicates that independent directors place a greater priority and are more active in their higher ranked directorships. This evidence reveals that directors do not view all directorships equally and thus, do not distribute their efforts, skill and attention equally across all of their directorships, as is often implicitly presumed. Given this finding, it follows that directors who are busy on multiple boards are not necessarily equally detrimental to all the firms where they are directors.

4.3. Board committee service

Another measure of a director's contribution of time and energy is board committee service at a particular directorship. Specifically, the audit and compensation committees are viewed as more time consuming.[8] Table 5, model 1 reports estimates of a probit regression model where the dependent variable is one if the independent director serves on either the audit or compensation committee using the same controls used in Table 3, model 1. We find evidence that in their more prestigious directorships directors are significantly more likely to serve on these more demanding committees, while on their less prestigious boards they are no more likely than other directors to serve. The predicted probability of a director being on either the audit or compensation committee is .83. The corresponding marginal effect for a more prestigious directorship is .016, representing a 1.9% increase (.016/.83) in the probability of an independent director being on one of these more time intensive committees.

[8] See page 1513 of the Corporate Director's Guidebook, Fifth Edition, *The Business Lawyer*, The American Bar Association Section, Vol. 62, No. 4 (August 2007), pp. 1479-1553, which states that "… the time required of directors of public companies is significant, *particularly for members of the audit committee and the compensation committee.* It is not uncommon for a director's total time commitment to involve 250 hours or more a year ...." and later that directors "... should carefully consider how much time will be required to meet their responsibilities, *particularly if they are members of the audit or compensation committees.*" [Italics added for emphasis.]

Given the potentially greater demand upon a director's time from both the audit and compensation committees, a stronger indicator of director effort spent on a particular board is simultaneous membership on these two committees. Thus, the dependent variable in model 2 equals one only if the director serves on both the audit and the compensation committees. We continue to find a positive relation between a director's most prestigious directorship and service on both the audit and compensation committees, though the estimate is not statistically significant. However, we also find that in their relatively less prestigious directorships, independent directors are significantly less likely to serve on both of these time-consuming committees. In unreported results we also include controls for director pay and the number of board meetings and find the importance of our relative ranking measures are unchanged. In addition, director pay and number of board meeting variables are not significantly related to audit or compensation committee membership.

In Table 5, model 3 we estimate a Poisson count regression where the dependent variable is zero if the director does not serve on either the audit or compensation committee, one if they serve on one of these time consuming committees and two if they serve on both. We find that directors in their more prestigious directorships are significantly more likely to serve on either or both of these committees, whereas in their less prestigious directorships they are less likely to serve in these more demanding committees, though the coefficient estimate is not significant at traditional levels (*p*-value=.15).[9] Finally, in model 4 we repeat the DiD analysis from Table 4 and find evidence that prior to an exogenous directorship reputation shock, the treatment directors are less likely to serve on either of these committees, but following a rank increasing shock they are more likely to serve on these two more onerous committees, though the increase is statistically similar to that of the non-treated control directors.

These findings complement the earlier evidence on board meeting attendance and represent another dimension in which directors do not distribute their energy uniformly across their directorships.

[9] In unreported results, we estimate a Tobit model for audit and compensation committee membership and find the coefficient of a director's more (less) prestigious directorships is again significantly positive (significantly negative).

While attendance rates and committee service are only two measures of director contribution to the board, they are likely to be correlated with a director's overall expenditure of effort and thus, provide insights into how directors prioritize their commitment of time and energy across multiple boards.

4.4. Relinquished directorships

In Table 6 we examine director commitment to their directorships by their willingness to hold on to a directorship when times get tough. In panel A we find that the independent directors relinquish their lowest ranked directorship significantly more frequently than their highest ranked directorship. The results also hold in both the subsample of directors who are and are not executive officers in another firm. This is consistent with lower ranked directorships being less beneficial than higher ranked directorships.

Table 6, panel B reports the results of a stronger test where the likelihood of director departure is conditioned on firm performance and other variables that can influence a departure decision. In these probit regression estimates, the sample is limited to independent directors with multiple directorships and the dependent variable is defined as one if the director does not hold the directorship in the following year. Firm performance is measured by annual stock returns and return on assets (ROA).[10] The key explanatory variables are the interactions of firm performance with the director reputation incentive measures. The standard errors are robust and clustered by director.

In models 1 and 2 of Table 6, panel B, firm performance is measured by annual stock returns. In model 1 the coefficients for the low and high ranked directorship indicators are both positive and significant, although the low ranked directorship coefficient is significantly greater (p-value<.01). In addition, the coefficient on annual firm stock performance is negative and significant, consistent with Fahlenbrach et al. (2010) and Yermack (2004). Turning to the relations between directorship exits, and directorship incentives and firm performance, we find the coefficient on the interaction of annual stock returns and a high ranked directorship indicator is significantly positive, whereas the interaction between stock performance and a low ranked directorship indicator is significantly negative. These findings reveal that directors do not react uniformly to firm performance declines across their independent directorships.

[10] In robustness, we find similar results when using industry-adjusted or market-adjusted performance measures.

To obtain a clearer economic interpretation, Table 6, panel C reports the implied probabilities of a directorship being lost in the next year for high and low ranked directorships, conditioning on when stock performance is in the top or bottom quartile. In model 1 when annual stock performance drops from the top to the bottom quartile, there is no statistically significant change in the likelihood of losing a highly ranked directorship. Thus, weakening stock performance per se does not seem to affect the likelihood of relinquishing a highly ranked directorship. However, when stock performance drops from the top to the bottom quartile for low ranked directorships, the likelihood that the director will leave the board in the next period increases from 10.5% to 13.1%, a statistically significant rise in probability of 25% (*p*-value<.01). These findings reveal that directors are less willing to continue their service in their less prestigious directorships when these firms are struggling.

Moving to model 2 of Table 6, panel B, we add controls for other factors associated with directors relinquishing their directorships. We find that directors are less likely to depart larger firms in general. A surprising result is that directors are more likely to depart as their board tenure increases and as their share ownership rises. Possible explanations are that tenure acts as a proxy for directors near retirement age, who may face mandatory retirement or simply older directors facing declining health or wanting to pursue less demanding activities. Also, the number of directorships held increases the likelihood that a director will relinquish one of their board seats due to overall time pressures. A director is more likely to depart when the CEO tenure is shorter, perhaps following a CEO turnover (Farrell and Whidbee, 2000), and when fewer independent directors are on the board, which can increase the monitoring load on the independent directors. In unreported robustness analysis, we add controls for director pay and number of annual board meetings and find that our results are unchanged in this smaller sample. Both components of director pay, the annual retainer and per meeting fee, are associated with a significantly lower likelihood of director departure. On the other hand, board meeting frequency significantly increases the likelihood of the director departing, consistent with the directorship's greater time demands making it less attractive.

Models 3 and 4 of Table 6, panel B report on operating performance measured by ROA. While ROA is not significantly related to independent director departures, its interaction terms with directorship rankings are quite revealing. Independent directors exhibit significantly greater departure sensitivity to performance at their lower ranked directorships, but no significant sensitivity at their higher ranked directorships. Turning to Table 6, panel C, we see the implied probabilities of losing a high or low ranked directorship both increase when firm operating performance drops from the top to the bottom quartile. However, the lower ranked directorships, which already face a greater likelihood of being relinquished, experience a rise in departure frequency that is twice that of high ranked directorships (8% versus 4%).

The evidence thus far indicates that directors are less willing to put forth time and energy in their less prestigious directorships and are more willing to work harder in their relatively more prestigious directorships. If independent directors are expending more time and energy on their higher ranked directorships, then this additional effort should reflect itself in greater firm performance and higher firm value. We consider these important implications in the next section.

5. Firm level analysis

In this section we aggregate up independent director reputation incentives to the board level to take into account the proportion of independent directors on a board that have strong or weak reputation incentives. Firm performance is measured by EBITDA scaled by total assets (ROA) and firm value is measured by the natural logarithm of the equity market to book value ratio to approximate Tobin's Q.[11] We exclude finance and utility firms from this analysis due to their highly regulated nature.

5.1. Firm performance and value

In untabulated results we compare firm performance based on mean and median ROA and Tobin's Q for firms where a majority of independent directors rank this board as their most or least prestigious or they hold no additional directorships. We find that firm performance is significantly greater when a majority of independent directors rank this as their most prestigious board seat, rather than either

[11] We use logs to adjust for outliers. However, all the models in Table 7 are robust to not using logs.

their least prestigious or their only board seat. However, this evidence also suggests that having a majority of independent directors with only one board seat creates greater incentives to perform than when a majority of independent directors sit on multiple boards where this is their least prestigious board. These comparisons suggest that the reputation incentives of holding a single directorship increases independent director motivation to monitor managers carefully, and thereby encouraging strong CEO performance. However, the evidence that directors with multiple board seats are associated with higher ROA and Tobin's Q in their most prestigious directorships relative to directors on a single board is consistent with more skilled independent directors holding more outside directorships (Fama, 1980 and others).

We then split the sample into smaller and larger firms based on median market capitalization to assess whether non-linear firm size effects are driving the prior results. We observe that these results continue to hold in both subsamples. We also observe a smaller difference between firms with a majority of independent directors who view this as their most prestigious directorship and firms with a majority of directors for whom this is their only directorship for the smaller equity capitalization firms.

Table 7 reports estimates from multivariate regressions on our two firm performance measures. Each regression has either firm or industry fixed effects as indicated and all the standard errors are robust and clustered by firm. Each model includes other controls common to the literature on firm performance (e.g. Coles Daniel and Naveen, 2008; Anderson and Reeb, 2003; Fich and Shivdasani, 2006). In models 1 and 5, the key explanatory variables are the percentage of all board members for whom this represents either a more prestigious or less prestigious board seat. Estimates from both models 1 (ROA) and 5 (Q) yield similar conclusions about the relations between these two strong and weak board reputation incentive variables and either firm performance measure. A greater portion of directors for whom this directorship represents one of their most (least) prestigious is associated with significantly better (worse) operating performance and higher (lower) firm valuation.

To interpret the economic significance of these results, first recall that boards in our sample have nine directors on average. Thus, if a single independent director's ranking shifts to High, this is equivalent to an 11% increase in our primary measure of improved independent director reputation incentives. The

coefficient estimate in model 1 implies that an increase of one independent director who is strongly (weakly) motivated is associated with a 2.09 percentage point increase (1.43 percentage point decrease) in ROA.[12] Similarly, the coefficient estimate for model 5 implies that the same change is associated with a 10.34% rise (5.06% fall) in Tobin's Q.[13] Since the average board has six independent directors, if even one of these directors has stronger (weaker) incentives to monitor, the increased (decreased) monitoring efforts over multiple years can imply a significant improvement (deterioration) in firm governance, leading to a rise (fall) in shareholder value, which is reflected in a significant rise (or fall) in Tobin's Q.

Models 2 and 6 present results using indicators for firms with a majority of independent directors for whom this is a more or less prestigious directorship as key explanatory variables and obtain stronger economic effects, consistent with our prior conclusions. Models 3 and 7 add firm fixed effects to control for any time-invariant unobserved factors that may be associated with firm performance and board composition and we obtain similar results. Models 4 and 8 use industry-adjusted measures of ROA and Q as the dependent variable and add an indicator for when a majority of the independent directors on the board are busy, where a busy director is defined as holding three or more directorships. Fich and Shivadasani (2006) find evidence that when a majority of independent directors are busy, these firms are associated with worse operating performance. Model 4 reveals a similar finding. The coefficient for a busy board has a significant negative association with ROA. More importantly, after controlling for busy boards, the indicators for a majority of independent directors with strong or weak reputation incentives continue to have the same significant associations with firm performance.[14]

Table 8 presents a stronger set of evidence on director reputation incentives. It reports the results of a firm level analysis of firms with treatment directors, who are identified as independent directors

[12] An increase from an intermediate to a High Rank equates to (.0019x11) = .0209 higher ROA level.

[13] An increase from an intermediate to a High Rank equates to (.0094x11) = .1034 increase in Tobin's Q.

[14] The results are unchanged if we control for the potentially endogenous fraction of independent directors who miss more than 25% of the board meetings during the year.

experiencing an exogenous negative shock to the ranking of one of their other directorships, which are the same events analyzed earlier in Table 4. In this analysis we include the firm-year prior to the rise in a director's relative ranking of the board. Control firms are selected from the same Fama-French defined industry as the treatment firms, they have no treatment directors on their boards and are closest in market capitalization to the treatment firm. In addition, firms triggering the drop in a director's relative ranking of a directorship are excluded from the analysis. There are 448 treatment firms and 446 control firms. We estimate similar DiD models for firm performance and firm value. The dependent variables are industry-adjusted, the controls are the same as in Table 7 (though suppressed for brevity). For this analysis, the post-treatment indicator variable is zero in the year prior to the exogenous rank increase and is one in the following two years. We truncate the post-treatment period after two years to minimize the confounding effects of later events on firm performance.[15] The ranking change year is excluded to allow some time for the incentive change to manifest itself. The treatment indicator variable equals one for firms with a treatment director and is zero for the matched control firms. Again, the interaction between the treatment firm and post-treatment period indicators represents the effect on firm performance of a relative ranking increase by an independent director.

Table 8, model 1 reports the results for industry-adjusted ROA, using only the director-firm treatment and the post-rank increase indicator variables and their interaction term as regressors. The interaction term has a significant positive coefficient indicating that these firms exhibit significantly improved operating performance following an exogenous positive ranking shock compared to control firms whose independent directors experience no change in relative directorship rankings. In addition, the post-treatment indicator has a significant negative coefficient, indicating that the control firms actually experienced a drop in operating performance over the period. Together these findings imply that treatment firms exhibit a .3 (.017 - .014 = .003) percentage point rise in industry-adjusted ROA after a positive reputation shock, resulting in a 1.7 percentage point gain in ROA relative to the matched firms. Model 2 includes all the Table 7 controls. The interaction term is no longer significant, though it remains

[15] The results are robust to including all years following the exogenous rank increase.

positive. This may be due to some of the controls capturing part of the treatment effect because they are rising in the post-treatment period.

In Table 8, model 3, the dependent variable is the industry-adjusted natural logarithm of Tobin's Q. The findings are stronger, perhaps due to the market's ability to capitalize expected future benefits arising from improved board reputation incentives. Specifically, the interaction term coefficient is positive and significant at the 1% level. The coefficient estimate of the treatment indicator is significantly negative, suggesting that prior to the improved board incentives, these firms had lower market values, but following an exogenous rise in board incentives, firm value rises. Specifically, the coefficient estimates suggest that for an unexpected rise in board ranking, the treatment firms experience a 2.2% (.089 - .067) average increase in Tobin's Q, resulting in an 8.9% gain in value relative to the matched control firms. This is consistent with increased attention by talented directors leading to improved firm performance and valuation. Model 4 includes all of the controls used in Table 7 and draws similar conclusions. Finally, in Table 8, models 5 and 6 we consider a larger sample that includes observations in which the treatment firm in question also increases in size. The control firm selection process is the same. For both ROA and Tobin's Q, the interaction term has a positive and significant coefficient.

In summary, the Table 8 results provide further confidence that endogenous effects are not driving our primary results. Together, the evidence from Tables 7 and 8 supports the proposition that a rise in the proportion of independent directors having relatively stronger reputation motives is associated with better firm performance and value. Thus, we have further evidence that directors with multiple directorships do not distribute their efforts uniformly across all their directorships. Rather they prioritize their efforts and employ more of their energy and attention on their more prestigious boards, where their reputation benefits are greatest, at the expense of their other boards.

5.2. Forced CEO turnover

Next, we examine a direct measure of director monitoring effort, forced CEO turnover. CEO turnovers are clearly a time consuming process for independent directors given their high visibility, potential legal liability and the time needed to find and recruit a replacement. We identified 380

occurrences of forced CEO turnover within our sample firm-years after excluding turnovers due to mergers. Forced turnovers are identified from searches of press releases in Factiva that directly state a CEO's departure was forced. Also, if a CEO is under 60 years old and there is no news of a new job acceptance, poor health or death, and a retirement decision is not announced at least 6 months prior to the departure press release, then this is also treated as forced (Parrino, 1997; Huson, Malatesta and Parrino, 2004; and Hazarika, Karpoff and Nahata, 2012).

Table 9 reports the estimates from logit regressions where the dependent variable is one if a firm's CEO is forced out during the year. To capture other causes of CEO departures, we control for board size, number of outside directorships, an above median outside director shareholding indicator, institutional shareholdings, firm size, CEO tenure and an indicator for CEOs in the retirement age range (60-70 years old). The explanatory variables are all lagged one year to capture firm conditions existing prior to the forced departure decision. All regressions report robust standard errors clustered by firm.

In the first model of Table 9, panel A, we find that the percentage of independent directors with relatively strong reputation incentives is negatively related to the probability of a forced CEO turnover. This is consistent with better motivated directors selecting better qualified CEOs. However, we also recognize that fewer forced CEO departures can be consistent with weaker monitoring. One view is that though directors want to be seen as strong monitors, they do not always act accordingly because they are simply too busy and thus, they are less likely to detect or act on poor performance and fire a poorly performing CEO (Fich and Shivdasani, 2006). Another view is that independent directors in their relatively more prestigious directorships are less willing to "rock the boat" or otherwise attempt to discipline the current CEO since annoying a CEO with probing questions could endanger a director's renomination (Warther, 1998 and Adams, Hermalin and Weisbach, 2010). This is also consistent with Holmström's (1999) suggestion that reputation concerns create incentives for directors to avoid risky actions, such as confronting the CEO, which could have negative consequences for their future directorships. To distinguish between the stronger monitoring hypothesis and these two weak monitoring

hypotheses, we consider how these reputation measures affect the sensitivity of CEO turnover to firm performance, since the stronger and weaker monitoring hypotheses have opposite predictions.

Industry-adjusted stock return performance has a significant negative relation with forced CEO departures, consistent with earlier studies of CEO turnover (Warner, Watts and Wruck, 1988 and Weisbach, 1988). The coefficient on the interaction between prior stock performance and the percentage of independent directors that rank the board relatively highly is significantly negative, indicating that as the fraction of independent directors with strong reputation incentives rises, sensitivity of forced CEO turnover to stock performance also rises. There is no evidence that a larger fraction of independent directors that rank the directorship relatively low has a significant relation with this sensitivity to stock performance. This evidence is consistent with a director's incentive to be viewed externally as a stronger monitor on average dominating their desire to please the CEO or to shirk as a result being overcommitted.

Panel C of Table 9 reports the implied probabilities of forced CEO departures based on the coefficient estimates of model 1 for the top and bottom quartiles of firm stock performance. Holding the percentage of independent directors with high reputation incentives equal to the population mean, then a large decline from the top to the bottom quartile in stock performance increases the threat of a forced CEO turnover by 126%. Whereas conditional on this same large drop in stock performance, but with no independent directors with strong reputation incentives present, the likelihood of forced turnover increases, but at a smaller 97%, reflecting weaker CEO turnover sensitivity to stock performance.

Models 2 and 3 of Table 9, panel A include year and industry fixed effects respectively and yield similar results. Model 4 uses the indicator variables for a majority of independent directors having strong and weak reputation incentives and reveals consistent results. Model 5 includes an indicator for boards with a majority of independent directors (Weisbach, 1988) and it shows that such boards are positively associated with the likelihood of forced CEO departures and significantly greater sensitivity of forced turnover to stock performance. Nevertheless, our primary findings for boards with a greater proportion of independent directors with strong reputation motivates continue to hold.

Panel B of Table 9 uses operating performance, measured by ROA, as the key firm performance measure. In model 1, firms with a greater portion of independent directors who highly rank the directorship are again associated with significantly lower likelihood of forced CEO departures and a greater CEO turnover sensitivity to operating performance. Greater sensitivity of forced CEO turnovers to operating performance is also evident when ROA drops from the top to bottom quartile, given the larger increase in the probability of a forced CEO departure observed in panel C. Model 2 exhibits similar results when year and industry fixed effects are included. Models 3 and 4 use indicators for when a majority of independent directors have each type of reputation incentives. Model 3 adds an indicator for boards having a majority of independent directors and a corresponding interaction term with operating performance. Both the indicator and the interaction term are insignificant.

Model 4 of Table 9, panel B adds a busy board indicator that equals one if a majority of independent directors have three or more directorships as in Fich and Shivdasani (2006). Consistent with their earlier findings, the interaction between the busy board indicator and firm operating performance is positive, though insignificant; suggesting that busy directors weaken the sensitivity of forced CEO departures to firm performance. After controlling for busy boards, we continue to find boards having a majority of independent directors with stronger reputation incentives are associated with a significantly greater sensitivity of forced CEO departure to ROA. Thus, when directors are overly busy, some of their directorships are likely to suffer from less attention, but their higher ranked directorships, where their reputation incentives are stronger, do not exhibit evidence of reduced monitoring activity.

6. Further robustness

6.1. A further examination of firm size effects

To further isolate the effects of independent director incentives, we compare firm performance and value and forced CEO departure sensitivity to performance across matched pairs of firms with independent directors having large differences in their reputation incentives. Specifically, we match each firm having a majority of independent directors who highly rank the directorship with a control firm in

the same Fama-French industry that is closest in firm size (equity market capitalization) and having a majority of independent directors who rank the directorship low. This approach addresses two potential concerns with our primary findings. First, by comparing similar firms, we reduce the likelihood that other endogenously determined firm characteristics or industry shocks are causing the prior results. Second, the matched sample further addresses the concern that the prior results are driven by firm size.

Examining the relation between independent director incentives and firm performance using either ROA or Tobin's Q, we find further confirmation of our earlier findings. Specifically, in untabulated results a greater percentage of independent directors who ranked the directorship High (Low) is positively (negatively) associated with ROA and Tobin's Q. Examining both the likelihood of forced CEO departure and its sensitivity to these two firm performance measures, we find the proportion of independent directors who highly rank the directorship is negatively related to the unconditional likelihood of a forced CEO departure, though it is only significant in the stock performance regressions. More importantly, the proportion of independent directors who highly rank this directorship has a significantly greater sensitivity of forced CEO turnover to performance, using either firm performance measure. In summary, our primary findings are also supported by a matched sample approach.

6.2. Alternative directorship ranking measures

As an important robustness test, we consider five other measures of firm size or prestige to see whether directors are similarly influenced by reputation concerns when these alternative reputation measures are used. We consider a firm's market value of total assets, book value of total assets, total sales, number of employees and total shareholder return. Market value of total assets is measured by equity capitalization plus book value of debt. The other measures are well known and formally defined in the Appendix. Figure 1B shows the average absentee rate at board meetings based on a directorship's relative ranking using the five alternative measures of board prestige, along with our primary measure, equity market capitalization. The patterns of director absences based on firm market value or book value of total assets and total sales are very similar to our earlier findings and reveal a clear increase in board

meeting absences as the director's board ranking declines. Total shareholder return and the number of employees reveal similar inverse relations, though the associations are not as strong.

Next, we reexamine our primary findings using each of these alternative measures to rank directorships and then to classify boards based on the representation of independent directors with strong and weak reputation incentives. In untabulated results, we analyze independent director meeting attendance rates based on the regression analysis in model 4 of Table 3. Market value of total assets yields very similar results to our primary measure. High ranked directorships under the remaining alternative ranking measures are all associated with fewer board meeting absences, though these differences are not significant at conventional levels. The lack of significance may reflect the fact that these alternative measures are weaker proxies for firm visibility and board prestige. Low ranked directorships have a significant positive relation to a director's absence rate at board meetings for all these measures, except for total shareholder return. We also repeat the board committee membership analysis of Table 5, model 2 using these alternative reputation measures and find robust results for all the measures, except total shareholder return and number of employees. Finally, at the director level, we find similar results for the directorships relinquished analysis of Table 6 model 2 when using market assets, total sales and total shareholder return as our reputation measures, although the coefficient of the interaction of the high rank board measure based on sales and firm performance is not significant.

Repeating the firm performance and value regressions in Table 7 with the alternative board ranking measures and including firm fixed effects, we find that ranking directorships based on market value of total assets and total shareholder return provide similar relations to industry-adjusted ROA and Q as our primary measure based on equity market capitalization. Ranking directorships by total sales also yields similar results in the ROA analysis. Reexamining the forced CEO turnover analysis of Table 9, we find similar results using these alternative board ranking measures. Specifically, when ranking directorships by book or market value of total assets or by total shareholder return, we continue to find a significantly lower likelihood of a forced CEO departure when more independent directors rank the board

highly. Moreover, when directorships are ranked by market or book value of total assets, we find significantly greater sensitivity of forced CEO departures to stock performance.

In summary, the alternative reputation measures we examine yield similar findings, but appear to be noisier measures of a director's relative incentives across boards, leading to less precision in the relations with firm performance and value. On the other hand, equity market capitalization and market value of total assets reflect a market assessment of a firm's relative importance. Thus, these two measures facilitate a clearer ranking of boards that directors are likely to use when allocating their time and energy.

6.3. Relative ranking of directorships by compensation

Since director compensation is correlated with firm size (Ryan and Wiggins, 2004), it is possible that the variation in relative pay across an individual director's board positions could create incentives to work harder at larger firms and hold onto those directorships simply because they offer relatively higher rents. These effort and retention incentives differ from a director's reputation incentives, thus we wish to consider their impact here on our primary tests. To do so, we rank a director's board positions by director pay, which is measured by the sum of the annual retainer fee and the board meeting fee multiplied by the number of meetings in the prior year.

In multivariate analysis, we find no significant relation between board meeting attendance and high or low ranked directorships based on director pay. These insignificant findings for director pay are consistent with director compensation providing relatively weak incentives (Adams and Ferreira, 2008). We do find evidence of a significantly greater likelihood of a director being on the audit or compensation committee in their higher ranked directorships based on director pay, which is consistent with a greater willingness to serve when there is relatively more compensation. However, we find no significant differences in high or low ranked directorships based on director pay and the likelihood of a director relinquishing a directorship or of that decision being more or less sensitive to firm stock performance.

In the firm level analysis, we find that high or low ranked directorships based on director pay are insignificantly related to measures of firm performance and value. We also find no evidence of a reduction in forced CEO turnover or a greater sensitivity of turnover to firm stock performance for either

a director's high or low paying directorships. Given the lack of significant relations across most of our tests when using relative director compensation to rank a director's board seats, we conclude that reputation incentives are stronger than the compensation incentives in motivating independent directors.

7. Conclusions

Reputation is a valuable commodity, which generates strong incentives on the part of economic agents to protect it. Given the importance of reputation incentives, and especially given the serious concerns about the limited incentive effects of director compensation, it is essential to understand the multi-dimensional nature of director reputation incentives. Furthermore, given a director's limited time and energy, we need to understand how they prioritize among competing directorship responsibilities. We study this question by examining independent directors with multiple directorships. The fact that a director's skills are demanded by several firms is a positive signal of their talent and experience. Yet, the primary incentive explored in the literature is the negative effect of multiple directorships reducing a director's monitoring effectiveness. We explore a different aspect of holding multiple directorships by considering the differential reputation incentives a director faces across these directorships. We argue that the reputation of a board relative to that of the other firms on whose boards a director sits is a positive function of firm prestige and visibility, which are correlated with a firm's equity market capitalization. Given the competing time demands on directors holding multiple directorships, rational directors should expend more effort where the rewards are greatest, namely their more prestigious directorships.

By focusing on the relative size of the firms supervised by an independent director, we find board meeting attendance is greater in a director's more prestigious directorship and it increases when a directorship's relative ranking rises due to an exogenous shock at another firm where this same director sits. We also find independent directors are more willing to serve on the time-consuming audit and compensation committees in their relatively more prestigious directorships, where their talents are potentially more visible to the external labor market. We also find evidence that directors have stronger incentives to hold onto their most visible directorships, even when firm performance is weak.

At the firm level, we find that as the portion of independent directors who have a relatively high (low) ranking of the board increases, firm value and operating performance improve (deteriorate). These findings are robust to firm fixed effects, difference-in-difference analysis of an exogenous increase in a directorship's relative ranking and a matched sample analysis, reducing concerns that endogenous relations are driving the results. Examining forced CEO turnover, we find that greater representation by independent directors with relatively strong reputation incentives is associated with a lower unconditional probability of forced CEO departure, but that departure is more sensitive to firm performance, consistent with independent director reputations as strong monitors weighing more heavily in more visible firms.

In summary, these findings underscore the importance of considering individual director-firm level incentives when examining the quality of director monitoring. It also offers a different perspective on the effects of busy boards by illustrating that directors do not uniformly distribute their effort across all the boards they sit on. Rather, these talented directors tend to concentrate their efforts in the directorships where they stand to gain the most reputation benefit. Likewise, shareholders of firms that have more directors who consider this their most important directorship stand to benefit from the greater effort these skilled directors are likely to make. The main findings of this study indicate that director reputation concerns have a strong influence on director behavior and as such represent a new dimension of director incentives that researchers and shareholders should take into account in analyzing boards of directors.

Appendix: Variable Definitions[16]

Variable	Definition and Data Source
Director Characteristics	
High Ranked Directorship	Indicator variable: equals 1 if the directorship is 10% larger than the director's smallest directorship measured by the market capitalization of the firm. Source: Risk Metrics.
Low Ranked Directorship	Indicator variable: equals 1 if the directorship is 10% smaller than the director's largest directorship measured by the market capitalization of the firm. Source: Risk Metrics.
Highest Ranked Directorship	Indicator variable: equals 1 if the directorship is the director's largest directorship measured by the market capitalization of the firm. Source: Risk Metrics.
Lowest Ranked Directorship	Indicator variable: equals 1 if the directorship is the director's smallest directorship measured by the market capitalization of the firm. Source: Risk Metrics.
Major Committee	Indicator variable: equals 1 if the director is a nominating, audit, compensation or corporate governance committee member. Source: Risk Metrics.
Sole Directorship	Indicator variable: equals 1 if the directorship is the director's only directorship. Source: Risk Metrics.
Number of Directorships	Number of additional directorship identified within the Risk Metrics data set. Source: Risk Metrics.
Missed >75% of Meetings	Indicator variable: equals 1 if the director missed more than 75% of the meetings during the year. Reported in the proxy statement. Source: Risk Metrics.
Director Age	Director age. Source: Risk Metrics.
Board Tenure	The number of years a director has served on the board. Source: Risk Metrics.
Director Ownership	Percent of common shares outstanding held by the director, including stock options. Source: Risk Metrics.
Board Characteristics	
Majority Independent	Indicator variable: equals 1 if the percent independent outside directors is greater than 50% and is 0 otherwise. Source: Risk Metrics.
Percent Independent Low Ranked	Percentage of board members who are independent outside directors and this directorship is 10% smaller than their largest directorship measured by the market capitalization of the firm. Source: Risk Metrics
Percent Independent High Ranked	Percentage of board members who are independent outside directors and this directorship is 10% larger than their smallest directorship measured by the market capitalization of the firm. Source: Risk Metrics.
Majority Independent Low	Indicator variable: equals 1 if the percent of independent outside directors for whom this is directorship is 10% smaller than their largest directorship by market

[16] All dataxx variables refer to the corresponding variable identifiers in the COMPUSTAT annual data base

	capitalization of the firm is greater than 50% and is 0 otherwise. Source: Risk Metrics.
Majority Independent High	Indicator variable: equals 1 if the percent of independent outside directors for whom this is directorship is 10% larger than their smallest directorship by market capitalization of the firm is greater than 50% and is 0 otherwise. Source: Risk Metrics.
Majority Independent Lowest	Indicator variable: equals 1 if the percent of independent outside directors for whom this is directorship is their smallest directorship by market capitalization of the firm is greater than 50% and is 0 otherwise. Source: Risk Metrics.
Majority Independent Highest	Indicator variable: equals 1 if the percent of independent outside directors for whom this is directorship is their largest directorship by market capitalization of the firm is greater than 50% and is 0 otherwise. Source: Risk Metrics.
Percent Independent (Only)	Percentage of board members for whom this directorship is their only directorship. Source: Risk Metrics.
Majority Independent (Only)	Indicator variable: equals 1 if for more than 50% of the independent outside directors, this directorship is their only directorship. Source: Risk Metrics.
Outside Director Ownership	Percent of common shares outstanding held by all outside directors of the board at year-end, including stock options. Source: Risk Metrics.
Board Size	Number of directors on the board at year-end. Source: Risk Metrics.
Percent Independent	Percentage of the board who are independent outside directors. Source: Risk Metrics.
Busy Board	Indicator variable: equals 1 if a majority of the independent outside directors each holds 3 or more directorships. Source: Risk Metrics.
Founder Present	Indicator variable: equals 1if one of the directors is the founder. Source: Hand collected.
Founder Family Member Present	Indicator variable: equals 1 if one of the directors is a member of the founding family. Source: Hand collected.
Director Pay	Sum of the Annual Retainer Fee and the Meeting Attendance Fee at the firm level. Source: ExecuComp.
Number of Board Meetings	Number of board meetings during the fiscal year. Source: ExecuComp.
CEO Characteristics	
CEO Tenure	The number of years the CEO has served on the board. Source: Risk Metrics
CEO Ownership	Percent of common shares outstanding held by the CEO at year-end, including stock options. Source: Risk Metrics.
CEO Chair	Indicator variable: equals 1 if the CEO is also the chairperson and is 0 otherwise. Source: Risk Metrics
Forced CEO Departure	Indicator variable: equals 1 if the CEO was forced out during the fiscal year. Source: Hand collected from press releases.

CEO Age (60-70)	Indicator variable: equals 1 if the CEO is 60 to 70 years old.
High Outside Director Holdings	Indicator variable: equals 1 if the outside directors own more than the median outside director ownership. Source: Risk Metrics.
Firm Characteristics	
ROA	(EBITDA) / Beginning-year Total Assets: data13/lag(data6). Source: Compustat.
Operating Cash Flow (CF)	(Annual Cash Flow from Operations) / Beginning-year Total Assets: data308/lag(data6). Source: Compustat.
Tobin's Q	(Total Assets – Book Equity + Market Value of Equity) /Total Assets: (data6 – data60 + data199*data25)/data6 : All year end values. Source: Compustat.
Annual Stock Return	Twelve month monthly compounded return during the fiscal year. Source: CRSP.
R&D/Assets	R&D/Assets: Max(year-end R&D expense,0) / year-end Total Assets: max(data46,0)/data6 Source: Compustat database.
Capital Expenditure /Sales	Capital Expense/Sales: Year-end Capital Expenditure/ year-end Total Assets: (data128/data12) Source: Compustat database.
Depreciation Expense/Sales	Year-end Depreciation Expense/ year-end Total Sales: (data14/data12) Source: Compustat database.
Sales	Year-end sales, (data12) Source: Compustat database.
Assets	Year-end assets, (data6). Source: Compustat database.
Market Assets	Equity Capitalization plus Book Debt (data25xdata199 + (data9 + data34)) Source: Compustat database
Market Capitalization	Market value of equity at year end, (data25xdata199). Source: Compustat database.
Total Shareholder Return (TSR)	Annual stock return with dividend reinvestment, calculated from monthly compounded returns. Source: CRSP
Volatility	Standard deviation of most recent 3 years of monthly stock returns from CRSP.
Institutional Holdings	Percent ownership from institutions. Source: Risk Metrics and Thompson Financial.
Growth Rate of Assets	Growth rate in total assets from prior year to current year. Source: Compustat database.
Leverage	(Year-ending Long-term Debt plus Debt in Current Liabilities) / year-end Total Assets: ((data9 + data34)/data6). Source: Compustat database.
# of Business Segments	The number of business segments listed in Compustat.
Firm Age	Number of years a firm is listed in CRSP.
Tangible Assets	Percentage of year-end total assets that are tangible: (1-data33/data6)*100%. Source: Compustat database.
Post-SOX	Indicator variable: equals 1 if the observations occurs in fiscal year 2001 or later and is 0 otherwise.

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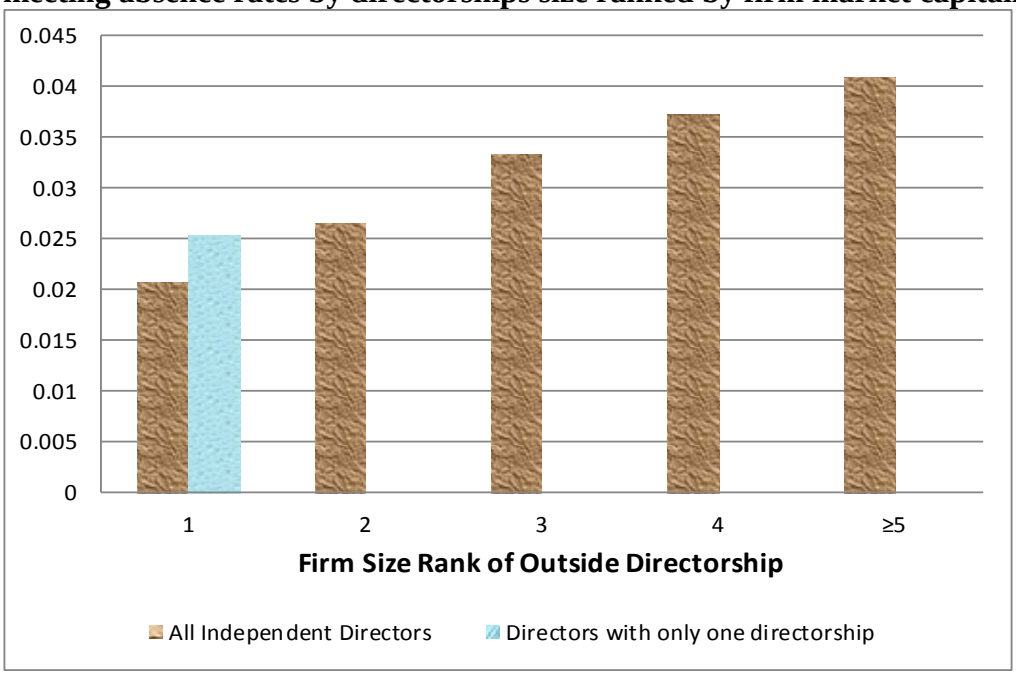
Figure 1. Board Meeting Absence Rates by Directorship Relative Size Ranking

This figure reports the fraction of all independent directors (textured) who attended less than 75% of the board meetings in a given year based on the relative size of their directorships where the rankings are based on market capitalization. Directorship size is ranked from largest (1) to smallest (≥5). The light column in panel A indicates the meeting attendance of independent directors with only one directorship. In panel B the rankings are based on firm market capitalization, market value of total assets, book value of total assets, total sales, total shareholder return (TSR) or the number of firm employees.

Panel A. Board meeting absence rates by directorships size ranked by firm market capitalization



Panel B. Board meeting absence rates by directorships size with various ranking measures

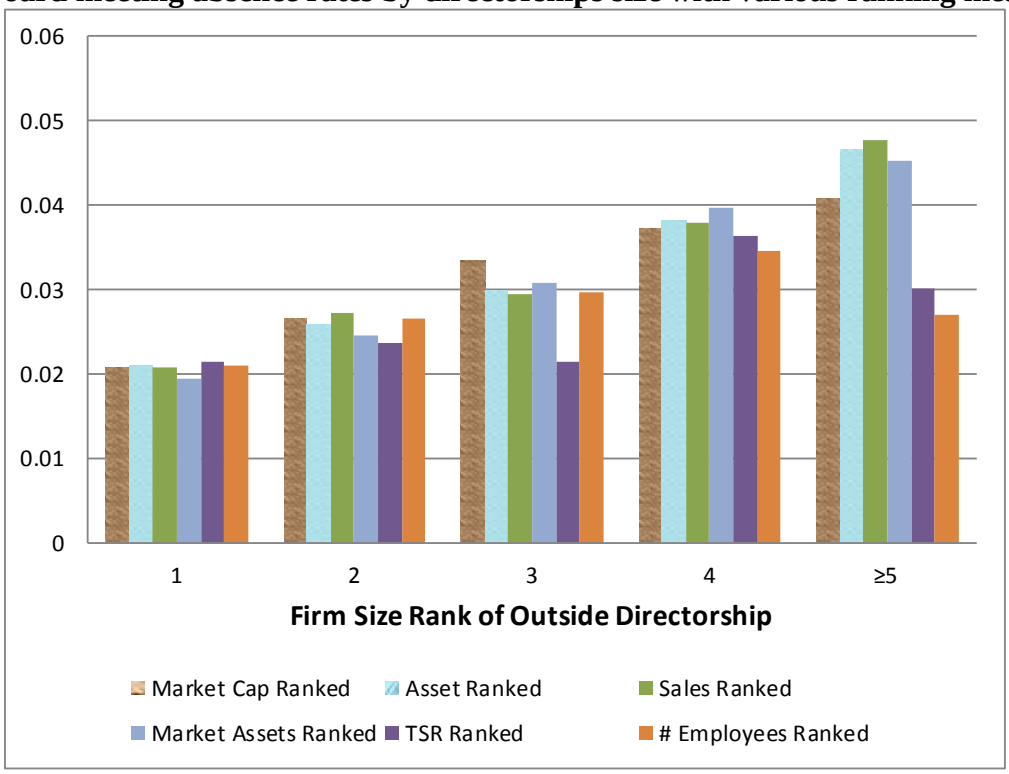


Table 1. Director Level Descriptive Statistics

This table reports means and medians for various director-firm-year level variables for the independent directors from fiscal years 1997 to 2006. *Outside public boards* is the variable within Risk Metrics director database that provides the number of additional directorships held by a director, which may include directorships outside of the Risk Metrics universe. The variable *Number of outside directorships within Risk Metrics* is the total number of directorships held by the director within the Risk Metrics sample of firms. Sole directorship is an indicator variable that equals one if the director has only one directorship listed within the Risk Metrics sample. Variable definitions are also reported in the Appendix.

	Independent directors		
Director Characteristics	N	Mean	Median
Age	86310	60.42	61.0
President	86330	0.17	-
Chairman	86330	0.17	-
Vice Chairman	86330	0.01	-
Vice President	86330	0.01	-
CEO	86330	0.18	-
Chief Financial Officer	86330	0.01	-
Chief Operating Officer	86330	0.01	-
Senior Vice President	86330	0.01	-
Secretary	86330	0.00	-
Treasurer	86330	0.00	-
Executive Vice President	86330	0.02	-
Nominating committee member	86330	0.38	-
Compensation committee chair	76519	0.12	-
Compensation committee member	86330	0.49	-
Audit committee chair	76519	0.12	-
Audit committee member	86330	0.51	-
Governance committee member	86324	0.29	-
Number of committee memberships	86324	1.70	2.0
Attended <75% of meetings	86330	0.02	-
Board tenure	86277	7.66	6.0
Ownership	86284	0.22	0.02
Outside public boards	86330	0.99	1.0
Number of directorships within Risk Metrics	86330	1.74	1.0
Sole directorship	86330	0.47	-
Directors with multiple boards			
Outside public boards	45606	1.88	2.0
Number of directorships within Risk Metrics	45606	2.41	2.0
Max - Min (Market Cap)	45596	20740	3455
Max as % of Min (Market Cap)	45596	1905	269

Table 2. Firm Level Descriptive Statistics

This table reports means and medians for various firm-year level variables from fiscal years 1997 to 2006. Panel A reports results for the full sample and for the subsample excluding finance and utility firms. Panel B reports results for the three subsample of firms with a (1) majority of independent directors for whom this is a high ranked directorship, (2) majority of independent directors for whom this is a low ranked directorship and (3) majority of independent directors for whom this is their only directorship. Percent Independent High (Low) Ranked is the percentage of board members who are independent outside directors and this directorship is 10% larger (smaller) than their smallest (highest) ranked directorship measured by a firm's market capitalization. *Majority of Independent High* (*Low*) is an indicator variable that equals 1 if a majority of independent outside directors give a high (low) rank to this directorship based on a firm's market capitalization being 10% larger (smaller) than their smallest (largest) directorship and the variable is zero otherwise. *Majority of Independent Highest* (*Lowest*) is an indicator variable that equals 1 if a majority of independent outside directors ranks this directorship their highest (lowest) based on a firm's market capitalization and the variable is zero otherwise. *Percent Independent (Only)* is the percentage of independent directors for whom this is their only directorship. *Majority Independent (Only)* is an indicator variable that equals 1 if a majority of the firm's independent directors have no other directorship and is zero otherwise. *Busy board* is an indicator variable that equals 1 if a majority of the independent outside directors each holds 3 or more directorships and is zero otherwise. All variable definitions are reported in the Appendix.

Panel A	All firms			Excluding finance and utility		
Firm Characteristics	N	Mean	Median	N	Mean	Median
Assets	15107	11847.00	1559.1	12077	5258.23	1112.3
Market Capitalization	15074	7163.44	1515.9	12047	7011.40	1326.9
Board Size	15215	9.40	9.0	12166	8.92	9.0
Percent Outside Directors	15215	79.56	83.3	12166	78.94	82.8
Percent Independent Directors	15215	66.15	69.2	12166	65.39	66.7
Majority Independent Directors	15215	0.79	1.0	12166	0.77	1.0
Percent Independent Low Ranked	15215	14.28	11.1	12166	15.29	12.5
Majority of Independent Low	15215	0.15	0.0	12166	0.17	0.0
Majority of Independent Lowest Ranked	15215	0.09	0.0	12166	0.11	0.0
Percent Independent High Ranked	15215	12.70	7.1	12166	12.43	0.0
Majority of Independent High	15215	0.15	0.0	12166	0.15	0.0
Majority of Independent Highest	15215	0.08	0.0	12166	0.08	0.0
Percent Independent (Only): Sole directorship	15215	28.87	28.6	12166	27.36	27.3
Majority Independent (Only): Sole directorship	15215	0.45	0.0	12166	0.43	0.0
Busy board	15215	0.12	0.0	12166	0.13	0.0
ROA	14813	0.15	0.1	12022	0.17	0.2
Q	15071	2.13	1.5	12044	2.32	1.7

Panel B	Majority of Independent High			Majority of Independent Low			Majority of Independent (Only): Solo		
Firm Characteristics	N	Mean	Median	N	Mean	Median	N	Mean	Median
Assets	2235	45653.73	8668.0	2222	7241.66	1403.9	6916	4537.74	1023.6
Market Capitalization	2235	27528.10	9591.8	2222	3329.01	1155.9	6910	2528.73	1010.3
Board Size	2235	10.73	10.0	2222	9.12	9.0	6916	9.09	9.0
Percent Outside Directors	2235	81.16	83.3	2222	79.90	83.3	6916	77.23	80.0
Percent Independent Directors	2235	65.30	70.0	2222	63.76	66.7	6916	62.44	64.3
Majority Independent Directors	2235	0.78	1.0	2222	0.75	1.0	6916	0.73	1.0
Busy board	2235	0.43	0.0	2222	0.34	0.0	6916	0.00	0.0
ROA	2212	0.17	0.2	2209	0.14	0.1	6775	0.15	0.1
Q	2235	2.64	1.8	2222	1.84	1.4	6907	2.01	1.4

Table 3. Board Meeting Absences

This table reports results from multivariate probit regression analysis of board meeting attendance for independent directors conditioning on the relative size of the directorship from fiscal years 1997 to 2006 The dependent variable is one if the director attended fewer than 75% of the meetings for the year and zero otherwise. Sole directorship equals one if this is the director's only directorship. Low (high) ranked directorship equals one if the directorship is 10% smaller (larger) than the director's largest (smallest) and zero otherwise. Committee membership equals one if the director is a member of the nominating, compensation, audit or corporate governance committees. All other variable definitions are reported in the Appendix. Model 3 uses only director-firm-year observations for those with multiple directorships. Relative size is measured by market capitalization. Standard errors are robust to heteroskedasticity (White, 1980) and clustered by director with *p*-values in parentheses. *, **, *** indicate significance at the 10%, 5% and 1% levels respectively.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent variable:	Probit	Probit	Probit	Probit	Probit	Probit
Attended <75% of Meetings	(1/0)	(1/0)	(1/0)	(1/0)	(1/0)	(1/0)
High Ranked Directorship	-0.078***	-0.099***	-0.101***	-0.075**	-0.082***	-0.085***
	(0.01)	*(<.01)*	*(<.01)*	*(0.02)*	*(0.01)*	*(<.01)*
Low Ranked Directorship	0.085***	0.065**	0.0630**	0.088***	0.081***	0.075**
	(<.01)	*(0.04)*	*(0.05)*	*(<.01)*	*(<.01)*	*(0.02)*
Sole Directorship	-0.103***	-0.079**		-0.11***	-0.11***	-0.12***
	(<.01)	*(0.03)*		*(<.01)*	*(<.01)*	*(<.01)*
Number of outside directorships		0.023	0.028*			
		(0.12)	*(0.06)*			
Major Committee Membership				-0.161***	-0.144***	-0.137***
				(<.01)	*(<.01)*	*(<.01)*
Annual Director Retainer					-0.002**	-0.002**
					(0.02)	*(0.03)*
Director Meeting Fee					-0.060***	-0.063***
					(<.01)	*(<.01)*
Number of Board Meetings						-0.016***
						(<.01)
Board Tenure	-0.002	-0.002	-0.0004	-0.001	-0.001	-0.001
	(0.26)	*(0.24)*	*(0.41)*	*(0.56)*	*(0.69)*	*(0.65)*
Board Size	0.04***	0.04***	0.045***	0.037***	0.035***	0.035***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Ln(Director Age)	-0.329***	-0.338***	-0.606***	-0.318***	-0.341***	-0.342***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Director Ownership	0.001	0.001	-0.0004	-0.001	0.0009	0.0015
	(0.89)	*(0.9)*	*(0.96)*	*(0.87)*	*(0.9)*	*(0.83)*
Post-SOX	-0.263***	-0.26***	-0.336***	-0.259***	-0.23***	-0.231***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Ln(Market Cap)	-0.047***	-0.048***	-0.061***	-0.045***	-0.031***	-0.029**
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(0.01)*
ROA	-0.017	-0.016	-0.005	-0.016	0.022	0.001
	(0.54)	*(0.58)*	*(0.9)*	*(0.57)*	*(0.63)*	*(0.98)*
Q	0.011**	0.011**	0.011**	0.011**	0.004	0.004
	(0.01)	*(0.01)*	*(0.03)*	*(0.01)*	*(0.48)*	*(0.47)*
Number of Observations	84676	84676	44717	84676	80118	78538
Psuedo-R^2	3.25%	3.27%	4.33%	3.42%	3.25%	3.40%

Table 4. Exogenous Changes in Directorship Rank: Difference-in-Difference Board Absences

This table presents difference-in-difference estimates of director meeting absences for directors experiencing an increase in directorship ranking due to a drop in ranking at another directorship. A treatment director is identified as an independent director with multiple directorships for whom the firm of one of their other directorships decreased in size and this results in a rank decrease for that directorship and a corresponding rank increase for the current directorship. The treatment director-firm-year observations are the directors remaining directorships where the size of the firm as measured by market capitalization, did not increase by more than 10% (at all) in models 1 through 3 (models 4 and 5). Model 3 reports results using only the sample of directors with multiple directorships. The control directors are the remaining independent directors on the board of the treatment director-firm. The model estimated is

$$Meeting\ Absences_{i,t} = \beta_0 + \beta_1 Treatment_i + \beta_2 Post\text{-}Treatment_t + \beta_3 Treatment_i * Post\text{-}Treatment_t + Controls_{i,t} + \varepsilon_{i,t}.$$

Post-Treatment$_t$ is an indicator variable that equals zero in the penultimate year to the ranking change and one in the two years following the ranking change. *Treatment*$_i$ equals one for treatment director-years and zero for control director-years. The coefficient estimate of the interaction term, β_3, is the difference-in-difference estimate. The controls are the same as in model 1 of Table 3, but are suppressed for brevity. Standard errors are robust and clustered by director with *p*-values are in parentheses beneath the coefficients. *, **, *** indicate significance at the 10%, 5%, and 1% levels respectively.

Director Level Meeting Absences	Model 1	Model 2	Model 3	Model 4	Model 5
Dependent variable:	Probit	Probit	Probit	Probit	Probit
Attended <75% of Meetings	(1/0)	(1/0)	(1/0)	(1/0)	(1/0)
Treatment Director	0.187	0.208	0.193	0.782***	0.958***
	(0.28)	*(0.25)*	*(0.3)*	*(<.01)*	*(<.01)*
Post-Treatment Indicator	0.008	0.228**	0.189	0.159	0.368*
	(0.93)	*(0.04)*	*(0.13)*	*(0.39)*	*(0.1)*
Post-Treatment X Treatment Director	-0.37*	-0.473**	-0.496**	-0.723**	-0.827**
	(0.07)	*(0.02)*	*(0.02)*	*(0.03)*	*(0.01)*
Number of Observations	6157	5701	3753	1711	1079
Controls	No	Yes	Yes	No	Yes
Psuedo-R^2	0.29%	6.85%	8.72%	2.52%	13.06%

Table 5. Board Audit and Compensation Committee Membership

This table reports results from a multivariate analysis of board audit and/or compensation committee membership for independent directors conditioning on the relative size of the directorship from fiscal years 1997 to 2006. The dependent variable in model 1 and model 4 equals one if the director serves on either the audit or compensation committee. The dependent variable in model 2 equals one if the director serves on both the audit and compensation committee. The dependent variable in model 3 is 0 if the director serves on neither committee, 1 if the director serves on one of these committees and 2 if they serve on both. Models 1, 2 and 4 are Probit models and model 3 is a Poisson count model. Sole directorship equals one if this is the director's only directorship. Low (high) ranked directorship equals one if the directorship is 10% smaller (larger) than the director's largest (smallest) and zero otherwise. Relative size is measured by market capitalization. All other variable definitions are reported in the Appendix. All models include industry fixed effects. Standard errors are robust and clustered by director with *p*-values in parentheses. *, **, *** indicate significance at the 10%, 5% and 1% levels respectively.

	Model 1	Model 2	Model 3	Model 4
Dependent variable:	Probit Audit or Comp. (1/0)	Probit Audit & Comp. (1/0)	Poisson No. Comm.(0-2)	Probit Audit or Comp. (1/0)
High Ranked Directorship	0.063*** *(<.01)*	0.017 *(0.49)*	0.022** *(0.01)*	
Low Ranked Directorship	0.01 *(0.67)*	-0.053** *(0.03)*	-0.013 *(0.15)*	
Treatment Director				-0.193** *(0.03)*
Post-Treatment Indicator				0.119** *(0.02)*
Post-Treatment X Treatment Director				0.103 *(0.36)*
Sole Directorship	-0.074*** *(<.01)*	0.01 *(0.65)*	-0.015* *(0.07)*	-0.19*** *(<.01)*
Board Tenure	0.0024 *(0.11)*	0.0011*** *(<.01)*	0.0005*** *(<.01)*	0.007 *(0.18)*
Board Size	-0.084*** *(<.01)*	-0.122*** *(<.01)*	-0.056*** *(<.01)*	-0.073*** *(<.01)*
Ln(Director Age)	0.743*** *(<.01)*	0.617*** *(<.01)*	0.36*** *(<.010)*	0.273 *(0.2)*
Director Ownership	-0.035*** *(<.01)*	-0.033*** *(<.01)*	-0.021*** *(<.01)*	-0.034* *(0.08)*
Post-SOX	-0.022 *(0.12)*	-0.074*** *(<.01)*	-0.023*** *(<.01)*	-0.027 *(0.6)*
Ln(Market Cap)	0.001 *(0.92)*	-0.027*** *(<.01)*	-0.005 *(0.11)*	-0.036 *(0.11)*
ROA	0.047* *(0.09)*	0.062 *(0.13)*	0.028* *(0.07)*	0.223 *(0.4)*
Q	-0.0001 *(0.98)*	0.0072* *(0.06)*	0.001 *(0.32)*	-0.001 *(0.96)*
Number of Observations	84676	84676	84676	6101
Psuedo-R^2 / Prob>χ^2	4.76%	6.45%	0.00%	4.03%

Table 6. Annual Directorships Lost in the Following Year and Performance

This table reports results from a univariate and multivariate analysis of net directorships lost conditioning on the relative size of the directorship for directors with multiple directorships from fiscal years 1997 to 2006. Panel A reports univariate analysis using a director's largest and smallest directorships. The T-test is used to test for the difference in the means of the percentage of independent director-firm-years representing a directorship that is to be lost between the director's smallest and largest directorships. Panel B reports probit regression results controlling for firm performance and other variables and all directorships for directors with multiple directorships. Standard errors are robust and clustered by director with *p*-values in parentheses. Panel C reports the implied probabilities of not having a directorship in the subsequent year for performance in the top and bottom quartiles based on the probit regression estimates from models 1 and 3. Relative size is measured by market capitalization. All other variable definitions are reported in the Appendix. *, **, *** indicate significance at the 10%, 5% and 1% levels respectively.

Panel A: Univariate

	Independent Directors		Independent Directors who are Officers		Independent Directors who are non-Officers	
	N	Mean Directorship lost (t+1)	N	Directorship lost (t+1)	N	Directorship lost (t+1)
Total	29847	12.10%	5423	10.62%	24424	12.42%
Highest Ranked Directorship	14479	10.81%	2736	8.99%	11743	11.23%
Lowest Ranked Directorship	15368	13.31%	2687	12.28%	12681	13.52%
Difference		-2.5%***		-3.29%***		-2.29%***
p-value		*(<.01)*		*(<.01)*		*(<.01)*

Table 6 *(continued)*

Panel B: Multivariate	Model 1	Model 2	Model 3	Model 4
Dependent variable: Directorship lost $_{(t+1)}$	Probit (1/0)	Probit (1/0)	Probit (1/0)	Probit (1/0)
High Ranked Directorship	0.451***	0.222***	0.483***	0.237***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
Low Ranked Directorship	0.630***	0.315***	0.663***	0.347***
	(<.01)	*(<.01)*	*(<.01)*	*(<.010)*
Annual Return	-0.108***	-0.102***		
	(<.01)	*(<.01)*		
High Ranked Directorship x Annual Return	0.127***	0.081**		
	(<.01)	*(0.02)*		
Low Ranked Directorship x Annual Return	-0.174***	-0.147***		
	(<.01)	*(<.01)*		
ROA			-0.003	0.026
			(0.98)	*(0.84)*
High Ranked Directorship x ROA			-0.165	-0.214
			(0.25)	*(0.14)*
Low Ranked Directorship x ROA			-0.349**	-0.336**
			(0.02)	*(0.02)*
Ln(Sales)		-0.057***		-0.047***
		(<.01)		*(<.01)*
Board Tenure		0.001***		0.001***
		(<.01)		*(<.01)*
Director Ownership		0.012**		0.011*
		(0.03)		*(0.05)*
Ln(Director Age)		0.600***		0.597***
		(<.01)		*(<.01)*
Number of Directorships		0.203***		0.206***
		(<.01)		*(<.01)*
Ln(CEO Board Tenure)		-0.059***		-0.065***
		(<.01)		*(<.01)*
Percent Independent Directors		-0.0008		-0.001**
		(0.22)		*(0.04)*
SOX		-0.269***		-0.272***
		(<.01)		*(<.01)*
Number of Observations	42742	42684	44927	44871
Psuedo-R^2	5.25%	8.88%	5.10%	8.84%

Panel C. Implied Probabilities of Directorship Lost $_{(t+1)}$

Quartile	RET	High Ranked	Low Ranked	ROA	High Ranked	Low Ranked
75^{th}	0.3483	0.0921	0.1050	0.2067	0.0874	0.1123
25^{th}	-0.1209	0.0907	0.1312	0.0827	0.0908	0.1208
Increase in probability		-0.0014	0.0262***		0.0034*	0.0085*
p-value of difference		*(0.41)*	*(<.01)*		*(0.09)*	*(0.06)*
% Change		-2%	25%		4%	8%

Table 7. Firm Performance and Value

This table presents results from a multivariate regression analysis of firm performance and value. The data are from fiscal years 1997 to 2006 and exclude finance and utility firms. ROA is EBITDA scaled by assets. Ln(Q) is the natural logarithm of the market-to-book approximation of Tobin's Q. *Percent Independent High* (*Low*) *Ranked* is the percentage of independent directors for whom the firm associated with this board is ranked relatively high (low) based on market capitalization. *Majority of Independent High* (*Low*) is an indicator variable that equals one if a majority of independent directors rank this board seat as relatively High (Low) based on firm market capitalization. All other variable definitions are reported in the Appendix. All regressions include year and either industry or firm fixed-effects as indicated. Standard errors are robust, clustered by firm and *p*-values are in parentheses beneath the coefficients. *, **, *** indicate significance at the 10%, 5%, and 1% levels respectively.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Dependent Variable:	ROA	ROA	ROA	Ind. Adj. ROA	Ln(Q)	Ln(Q)	Ln(Q)	Ind. Adj. Ln(Q)
Percent Independent High Ranked	0.0019***				0.0094***			
	(<.01)				*(<.01)*			
Percent Independent Low Ranked	-0.0013***				-0.0046***			
	(<.01)				*(<.01)*			
Majority of Independent High		0.048***	0.025***	0.022***		0.252***	0.131***	0.109***
		(<.01)	*(<.01)*	*(<.01)*		*(<.01)*	*(<.01)*	*(<.01)*
Majority of Independent Low		-0.035***	-0.0240***	-0.023***		-0.123***	-0.096***	-0.083***
		(<.01)	*(<.01)*	*(<.01)*		*(<.01)*	*(<.01)*	*(<.01)*
Majority of Independent (Only)				-0.004				-0.008
				(0.23)				*(0.47)*
Majority Independent	0.00091	0.002	0.002		-0.008	0.012	-0.003	
	(0.86)	*(0.74)*	*(0.64)*		*(0.65)*	*(0.480)*	*(0.850)*	
Busy Board				-0.007*				0.013
				(0.09)				*(0.29)*
Outside Director Ownership	-0.0005**	-0.0005**	-0.001***	-0.001***	0.001	0.001	-0.002**	-0.002***
	(0.02)	*(0.020)*	*(<.01)*	*(<.01)*	*(0.16)*	*(0.25)*	*(0.02)*	*(<.01)*
CEO Ownership	0.001	0.001	0.002**	0.00194**	-0.0043	-0.00474	0.001	0.003
	(0.43)	*(0.45)*	*(0.03)*	*(0.03)*	*(0.14)*	*(0.1)*	*(0.74)*	*(0.28)*
CEO Ownership^2	-0.00003	-0.00002	-0.00005**	-0.00005**	0.0001*	0.0002*	-0.00007	-0.0001
	(0.31)	*(0.36)*	*(0.04)*	*(0.03)*	*(0.08)*	*(0.06)*	*(0.38)*	*(0.13)*
Founder Present	0.019***	0.02***	-0.004	0.001	0.048**	0.047**	-0.033	-0.045**
	(<.01)	*(<.01)*	*(0.49)*	*(0.92)*	*(0.03)*	*(0.03)*	*(0.14)*	*(0.03)*
Founding Family Present	-0.005	-0.006	0.005	0.003	-0.037	-0.042*	0.018	0.048**
	(0.4)	*(0.32)*	*(0.41)*	*(0.66)*	*(0.14)*	*(0.1)*	*(0.43)*	*(0.03)*
Operating Cash Flow / Assets					1.595***	1.722***	1.121***	0.915***
					(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
Operating Cash Flow / Assets$_{(t-1)}$					0.352***	0.368***	0.273***	0.225***
					(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
Operating Cash Flow / Assets$_{(t-2)}$					-0.039**	-0.04**	0.027	-0.006
					(0.04)	*(0.04)*	*(0.61)*	*(0.9)*
Capital Expenditure / Sales					0.007***	0.006***	0.003***	0.001***
					(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
R&D / Assets	-0.446***	-0.425***	-0.379***	-0.405***	2.297***	2.448***	0.019	-0.016
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(0.94)*	*(0.94)*
Depreciation/Sales	-0.025**	-0.026**	0.001	0.0041				
	(0.01)	*(0.01)*	*(0.9)*	*(0.3)*				
Ln(Assets)	-0.019***	-0.012***	0.01	0.003	-0.053***	-0.018***	-0.259***	-0.243***
	(<.01)	*(<.01)*	*(0.12)*	*(0.6)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Ln(Firm Age)	-0.008**	-0.007**	-0.039***	-0.0273***	-0.045***	-0.04***	-0.192***	-0.127***
	(0.01)	*(0.02)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Number of Business Segments	-0.004***	-0.004***	-0.002*	0	-0.017***	-0.017***	-0.005	-0.001
	(<.01)	*(<.01)*	*(0.06)*	*(0.8)*	*(<.01)*	*(<.01)*	*(0.18)*	*(0.79)*
Volatility	-0.562***	-0.574***	-0.29***	-0.214***				
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*				
Fixed Effect	Industry	Industry	Firm	Firm	Industry	Industry	Firm	Firm
Number of Observations	10566	10566	10566	10566	10363	10363	10363	10363
Adjusted-R^2	16.02%	14.21%	77.94%	78.21%	46.53%	43.91%	80.38%	76.31%

Table 8. Exogenous Changes in Directorship Rank: Difference-in-Difference – Firm Performance

This table presents difference-in-difference estimates for firm level tests of firm operating performance and firm value, as measured by the natural logarithm of Tobin's Q, where the treatment firms are those with at least one treatment director from the director level sample used in the tests of Table 4. Control firms are firms closest to the size of the treatment firm, by market capitalization, in the same Fama-French industry and without a treatment director. The model estimated is

$$Firm\ Performance\ or\ Value_{i,t} = \beta_0 + \beta_1 Treatment_i + \beta_2 Post\text{-}Treatment_t + \beta_3 Treatment_i * Post\text{-}Treatment_t + Controls_{i,t} + \varepsilon_{i,t}.$$

Post-Treatment$_t$ is an indicator variable that equals zero in the year prior to the ranking change and one in the two years following the ranking change. *Treatment*$_i$ equals one for treatment firm-years and zero for control firm-years. The coefficient estimate of the interaction term, β_3, is the difference-in-difference estimate. The controls are the same as in models 1 and 5, for industry adjusted ROA and Ln(Tobin's Q) respectively, of Table 7, but are suppressed for brevity. Models 5 and 6 report results using all increases in directorship ranking due to a decrease in one of the firm's independent directors other directorships. Standard errors are robust, clustered by firm and *p*-values are in parentheses beneath the coefficients. *, **, *** indicate significance at the 10%, 5%, and 1% levels respectively.

Firm Level Performance and Value	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent variable:	Ind. Adj. ROA	Ind. Adj. ROA	Ind. Adj. Ln(Q)	Ind. Adj. Ln(Q)	Ind. Adj. ROA	Ind. Adj. Ln(Q)
Treatment Director	-0.007	-0.005	-0.089**	-0.083***	-0.022***	-0.087***
	(0.38)	*(0.52)*	*(0.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Post-Treatment Indicator	-0.014**	-0.015*	-0.067***	-0.045	-0.011	-0.018
	(0.03)	*(0.07)*	*(<.01)*	*(0.12)*	*(0.14)*	*(0.45)*
Post-Treatment X Treatment Director	0.017**	0.011	0.089***	0.066**	0.022***	0.048*
	(0.04)	*(0.23)*	*(<.01)*	*(0.04)*	*(<.01)*	*(0.09)*
Number of Observations	1935	1686	1938	1664	2330	2301
Controls	No	Yes	No	Yes	Yes	Yes
Adjusted-R^2	2.39%	11.02%	4.07%	36.27%	10.31%	31.31%

Table 9. Forced CEO Turnover Sensitivity to Performance

This table presents results from multivariate regression analysis of 380 forced CEO turnovers. The data are from fiscal years 1997 to 2006 and exclude finance and utility firms. *Percent Independent High* (*Low*) *Ranked* is the percentage of independent directors for whom the firm associated with this board is ranked relatively high (low) based on market capitalization. *Majority of Independent High* (*Low*) is an indicator variable that equals one if a majority of independent directors rank this board seat as relatively High (Low) based on firm market capitalization. Standard errors are robust, clustered by firm and *p*-values are in parentheses beneath the coefficients. The dependent variable is one if a forced CEO departure occurred during the fiscal year and zero otherwise. All other variable definitions are reported in the Appendix. Panel A (B) reports results using stock returns (ROA) as a firm's performance measure. Panel C reports the implied forced CEO turnover probabilities for the top and bottom performance quartiles based on the coefficient estimates from the first model in panels A and B. *, **, *** indicate significance at the 10%, 5%, and 1% levels respectively.

Panel A: Stock Performance	Model 1	Model 2	Model 3	Model 4	Model 5
Dependent Variable: Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)
Percent Independent High Ranked$_{(t-1)}$	-0.010**	-0.010	-0.011**		
	(0.05)	*(0.27)*	*(0.02)*		
Percent Independent Low Ranked$_{(t-1)}$	0.001	0.001	0.001		
	(0.84)	*(0.85)*	*(0.77)*		
Majority Independent High$_{(t-1)}$				-0.24	-0.24
				(0.47)	*(0.46)*
Majority Independent Low$_{(t-1)}$				0.07	0.08
				(0.75)	*(0.71)*
Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$	-2.21***	-2.15***	-2.07***	-2.42***	-1.6***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
Percent Independent High Ranked$_{(t-1)}$	-0.032*	-0.034***	-0.030**		
X Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$	*(0.08)*	*(<.01)*	*(0.03)*		
Percent Independent Low Ranked$_{(t-1)}$	-0.002	-0.001	-0.002		
X Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$	*(0.92)*	*(0.95)*	*(0.91)*		
Majority Independent High$_{(t-1)}$				-0.65**	-0.54*
X Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$				*(0.05)*	*(0.06)*
Majority Independent Low$_{(t-1)}$				-0.222	-0.27
X Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$				*(0.75)*	*(0.71)*
Majority Independent$_{(t-1)}$					0.122
					(0.13)
Majority Independent$_{(t-1)}$					-1.26**
X Average Industry Adjusted Stock Return$_{(t-1 \text{ to } t)}$					*(0.04)*
Board Size$_{(t-1)}$	-0.036	-0.038	-0.013	-0.043	-0.042
	(0.27)	*(0.28)*	*(0.64)*	*(0.27)*	*(0.28)*
High Outside Director Holding$_{(t-1)}$	0.114	0.119	0.11	0.135	0.165
	(0.39)	*(0.43)*	*(0.42)*	*(0.23)*	*(0.17)*
Institutional Holdings$_{(t-1)}$	0.005*	0.01**	0.01***	0.01**	0.01*
	(0.07)	*(0.04)*	*(<.01)*	*(0.04)*	*(0.09)*
Ln(Sales)$_{(t-1)}$	0.101*	0.101	0.093*	0.091	0.091
	(0.09)	*(0.19)*	*(0.1)*	*(0.11)*	*(0.12)*
CEO Board Tenure$_{(t-1)}$	-0.06***	-0.06***	-0.06***	-0.06***	-0.06***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*	*(<.01)*
CEO Age (60-70)$_{(t-1)}$	-0.338*	-0.347**	-0.319**	-0.342**	-0.37**
	(0.06)	*(0.02)*	*(0.04)*	*(0.04)*	*(0.02)*
Fixed Effect	None	Year	Year/Industry	Year	Year
Number of Observations	9293	9277	9125	9277	9218
Psuedo-R^2	9.60%	9.83%	10.14%	9.63%	10.18%

Table 9. *(continued)*

Panel B: Operating Performance	Model 1	Model 2	Model 3	Model 4
Dependent Variable: Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)	Forced CEO Departure (1/0)
Percent Independent High Ranked$_{(t-1)}$	-0.01**	-0.01**		
	(0.05)	*(0.03)*		
Percent Independent Low Ranked$_{(t-1)}$	0.001	0.001		
	(0.89)	*(0.81)*		
Majority Independent High$_{(t-1)}$			-0.27	-0.27
			(0.14)	*(0.16)*
Majority Independent Low$_{(t-1)}$			0.02	0.03
			(0.89)	*(0.85)*
Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$	-2.06**	-1.77*	-2.63**	-2.42***
	(0.01)	*(0.07)*	*(0.01)*	*(<.01)*
Percent Independent High Ranked$_{(t-1)}$	-0.069*	-0.070**		
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$	*(0.09)*	*(0.05)*		
Percent Independent Low Ranked$_{(t-1)}$	-0.017	-0.020		
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$	*(0.61)*	*(0.65)*		
Majority Independent High$_{(t-1)}$			-2.34	-3.84*
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$			*(0.25)*	*(0.08)*
Majority Independent Low$_{(t-1)}$			-1.07	-1.4
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$			*(0.22)*	*(0.11)*
Majority Independent$_{(t-1)}$			0.22	
			(0.13)	
Majority Independent$_{(t-1)}$			0.35	
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$			*(0.75)*	
Busy Board$_{(t-1)}$				0.005
				(0.98)
Busy Board$_{(t-1)}$				2.91
X Average Industry Adjusted ROA$_{(t-1 \text{ to } t)}$				*(0.15)*
Board Size$_{(t-1)}$	-0.05	-0.03	-0.06*	-0.063**
	(0.1)	*(0.22)*	*(0.05)*	*(0.05)*
High Outside Director Holding$_{(t-1)}$	0.19	0.2	0.28**	0.244*
	(0.14)	*(0.22)*	*(0.03)*	*(0.05)*
Institutional Holdings$_{(t-1)}$	0.01**	0.01***	0.01***	0.01***
	(0.01)	*(<.01)*	*(<.01)*	*(<.01)*
Ln(Sales)$_{(t-1)}$	0.16***	0.18***	0.16***	0.162***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
CEO Board Tenure$_{(t-1)}$	-0.07***	-0.07***	-0.07***	-0.07***
	(<.01)	*(<.01)*	*(<.01)*	*(<.01)*
CEO Age (60-70)$_{(t-1)}$	-0.39**	-0.33**	-0.39**	-0.38**
	(0.03)	*(0.03)*	*(0.03)*	*(0.03)*
Fixed Effect	None	Year/Industry	Year	Year
Number of Observations	9690	9520	9601	9690
Psuedo-R^2	5.12%	5.52%	5.57%	5.56%

Panel C. Implied Probabilities of Forced CEO Departure

Quartile	RET	Percent Indep. High = 0	Mean Percent Indep. High	ROA	Percent Indep. High = 0	Mean Percent Indep. High
75th	0.1878	0.0170	0.0136	0.0487	0.0245	0.0207
25th	-0.1218	0.0334	0.0306	-0.0411	0.0301	0.0277
Increase in probability		0.0164***	0.0170***		0.0056***	0.007*
p-value of difference		*(<.01)*	*(<.01)*		*(<.01)*	*(<.01)*
% Change		97%	126%		23%	33%