**Protecting Your Friends: The Role of Connections in Division Manager Careers\***

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ABSTRACT

We study the role of connections between CEOs and division managers in managerial career outcomes. Holding divisional and managerial characteristics constant, we find that CEOs are substantially less likely to dismiss division managers with whom they share a personal connection. Additionally, the sensitivity of turnover to divisional performance is significantly smaller for more connected division managers relative to others. These findings hold even when we consider CEO-division manager relationships that are more likely to arise for exogenous reasons, suggesting a causal role for personal connections in how managers are treated in a firm's internal labor market. Complementing this evidence, we find that division managers connected to the CEO are relatively more likely to be promoted within the firm. Evidently, having friends in high places is associated with increased job security and improved internal job mobility. Turning to the external labor market, we find that dismissed division managers who were connected to the CEO fare particularly poorly in the external labor market, suggesting that the ability floor leading to the dismissal of a connected manager is particularly low. These findings offer novel insights on, and implications for, organizational design.

# 1. Introduction

The CEO is the most important and visible decision-maker in a firm.  Thus, it is no surprise that many aspects of CEOs' careers, compensation structures, and policy decisions have been exhaustively studied.  Descending one step down the pyramid, the CEO typically has a set of key lieutenants.  In aggregate, this group of executives surely has a substantial effect on a firm's policies and performance, as illustrated by the extensive literature studying conglomerate firms (e.g., Rajan, Servaes, Zingales (2000)).  However, despite the importance of the senior executive team, we have only limited direct evidence on how the composition and incentives of this group are determined.

We would certainly expect career considerations to play a significant role in motivating many non-CEO senior managers at large corporations.  These individuals are highly compensated, so avoiding losing their positions is surely an important concern.  At the same time, given the convexity of pay and power structures at the top of the corporate hierarchy, they should also be quite motivated to move up to even higher positions in the firm (or elsewhere).  Prior evidence demonstrates that these negative and positive career outcomes are significantly related to measurable outcomes such as quantitative performance metrics, creating an incentive for managers to perform well on these dimensions.  However, it seems reasonable to suspect that, in many cases, the *relationship* between the CEO and his/her subordinates could be of comparable significance in governing a very senior executive's career progression and incentives.  In this paper, we provide evidence on the importance of these relationship-specific factors.

A small existing literature offers some evidence on the potential importance of the relationship between the CEO and other executives on career outcomes and firm policy choices.  For example, Fee and Hadlock (2004) and Hayes, Oyer, Schaefer (2006) report

evidence suggesting that there are significant team-specific human capital features to the set of subordinates a CEO assembles into his/her lineup. In a different vein, some studies show that the relationship between a CEO and a special set of key subordinates, division managers, is related to how capital is allocated to the units managed by these individuals (Xuan (2009), Duchin and Sosyura (2013)).

To investigate the role of the relationship with the CEO on subordinates' career-related incentives, we study job outcomes of division managers for a large set of public firms from 2000 to 2015. Division managers are very senior executives at sample firms, and the availability of segment-level accounting information allows us to hold many unit-level factors constant to better isolate relationship-specific effects. Within our sample, we find that division managers' relationships with the CEO appear remarkably important. In particular, the probability that a division manager departs from the firm in an outcome that appears less-than-voluntary is more than 40% smaller when the CEO has a school, past employment, or social connection with the CEO compared to when no such connection exists. Moreover, while there is a strong relationship between divisional accounting performance and turnover for unconnected division managers, there is no similar relationship for connected division managers. Evidently, having friends in high places offers substantial career protection.

The endogenous processes by which CEOs are selected and/or by which division managers are chosen may generate an apparent relationship between connections and internal career outcomes that is not related to the connection itself. To better isolate the causal role of connections with the CEO on division managers, we consider cases in which the division manager was inherited by the CEO (i.e., was in place before the CEO), thus removing factors related to the CEO's role in the division manager's appointment. We find that, even in these cases, CEOs display behavior consistent with protecting their connections in the form of lower

departure probabilities. Moreover, there is no significant evidence of a difference between inherited CEOs and non-inherited CEOs in the level of internal career protection that connections provide.

If CEOs tend to protect their connections from dismissal, it is reasonable to suspect that they may favor these same managers when it comes to promotion decisions. We investigate this possibility by estimating models of the likelihood that a division manager is promoted to a position that appears senior to his/her existing role. Holding performance and other factors constant, we indeed do find that managers with connections to the CEO are significantly more likely to be promoted, with an almost doubling in promotion likelihoods compared to their unconnected counterparts. Thus, job stability and internal mobility prospects appear to be positively related to a connection with the CEO.

Theoretical considerations suggest the possibility of both negative and positive welfare effects from the behavior we detect. If a CEO's favoritism toward more connected subordinates leads to an effectively lower standard for these managers, this could be suboptimal from a shareholder perspective, and policies intended to curb this behavior could be beneficial. However, if CEOs work more effectively with those with whom they share connections, the apparent bias towards these individuals could be optimal for a firm's shareholders.

To offer insights on these alternative interpretations, we first consider the post-separation labor market prospects of connected versus unconnected division managers. If connected division managers are favored for reasons unrelated to their contribution to the firm, we would expect dismissed connected managers to be of particularly low ability. Consistent with this hypothesis, we find that the likelihood of re-employment to a senior executive position is substantially lower for dismissed division managers who were connected

to the CEO, lending some support to the negative welfare interpretation of our main findings.

As a second test, we examine whether newly appointed division managers who are connected to the CEO tend to be associated with improvements in divisional (and firm) performance, as would be expected if connections lead to improved performance because of an enhanced ability to work together. Here, we find no evidence of a positive role for connections in performance changes, casting some doubt on the positive welfare interpretation for our evidence. The evidence from these two tests, plus our finding of no significant sensitivity of connected-manager turnover to divisional performance, appears, on balance, to offer substantially stronger support for an inefficient favoritism hypothesis underlying the job change behavior we document relative to efficiency-based alternatives.

The rest of the paper is organized as follows. In section 2, we discuss the related literature and motivate our investigation and empirical strategy. In section 3, we outline our sample selection and data collection and provide an overview of the resulting sample. Our main findings on the role of connections in division manager turnover are presented in section 4, while in section 5, we study the role of connections in division manager promotions. Section 6 presents tests related to the welfare interpretation of our main evidence. Concluding remarks are offered in section 7.

## 2. Literature, Motivation, and Empirical Strategy

*2.1 Prior evidence on the incentives of executives under the CEO*

The availability of data on a firm's five most highly paid executives has allowed several authors to study the structure of these individuals' compensation. This research demonstrates that the level of pay for top managers immediately below the CEO is high in an absolute sense but low relative to the CEO, thus creating potentially strong tournament-like incentives.

For many of these senior executives, for example, the CFO, it can be difficult to identify publicly available measures of individual performance. Some valiant attempts have been made to do this, a challenge given the heterogeneity in job roles and responsibilities for different members of the senior executive team. Received evidence indicates that compensation policies are optimally structured to reward managers based on a mix of both individual-activity-level performance measures and firm-wide performance (e.g., Aggarwal and Samwick (2003)).

In addition to compensation-induced incentives, it is widely recognized that non-contractible labor market mechanisms (e.g., retention decisions and internal/external promotions) may generate powerful career-concerns incentives for senior executives serving under the CEO. Evidence reported by Hayes, Oyer, and Schaefer (2006), Fee and Hadlock (2003, 2004), and Cichello, Fee, Hadlock, and Sonti (2009) offers support for this general hypothesis. Collectively, the evidence in these studies indicates that the mechanisms underlying senior executive retention and promotion decisions are significantly impacted by dynamic learning considerations related to assessments of managerial ability.

One specific set of high-level non-CEOs that has been studied in more detail is firms' division managers (Aggarwal and Samwick (2003), Cichello, Fee, Hadlock, and Sonti (2009)). Part of the interest in this group arises from a host of findings indicating that unresolved divisional incentive problems can substantively destroy firm value (e.g., Berger and Ofek (1995)). On the more practical side, segment-level accounting disclosures have allowed researchers to measure important unit-level outcomes and characteristics, most notably, divisional performance and measures of relative size and growth opportunities. Consequently, much of the evidence mentioned above on the role of individual versus firm-wide performance measures in senior manager compensation and job changes is based on this

specific set of senior executives.

*2.2 Connections in labor markets*

While the literature discussed above is largely focused on the role of quantitative factors in non-CEO careers, a growing literature in labor economics emphasizes that many job allocation decisions are significantly impacted by personal relationships. Of note, several recent studies indicate that interpersonal connections play a significant role in how many rank-and-file employees are hired, with mixed evidence on whether this reflects the negative effects of favoritism or the positive effects of superior flows of soft information within connected networks (e.g., Topa (2011), Burks, Cowgill, Hoffman, and Housman (2015), Pallais and Sands (2016), Hoffman, Kahn, and Li (2017), and Hadlock and Pierce (2020)). One might suspect that these personal factors would be diminished or eliminated when firms are making decisions regarding very senior-level personnel, but there is little direct evidence on this issue. There is also little evidence on the role of connections in firing and internal promotions at any level within an organization, presumably because of data limitations.

There is certainly reason to suspect that personal connections do affect labor market decisions in the executive ranks, as several studies demonstrate that personal relationships and experiences affect other decisions taken at top levels of an organization. For example, Shue (2013) provides evidence that interactions between classmates during and after business school have a significant effect on how these individuals make corporate policy decisions. In a different vein, Hwang and Kim (2009) demonstrate that personal connections between board members and the CEO have a significant effect on CEO compensation and turnover in a manner that is consistent with connections compromising the independence of

board oversight.

*2.3 CEO-subordinate interactions*

Since the output of the set of individuals at the top of the corporate hierarchy has important team-production aspects, it may be the case that personal factors affect how well the team works together. Fee and Hadlock (2004) report that there are abnormally high levels of top-5 manager turnover around the time of a CEO change, suggesting that CEOs have heterogeneous preferences for the team they prefer to work with (and/or vice versa). Whether these types of idiosyncratic preferences or factors are beneficial to the firm is unclear.

Turning to a specific type of policy, several scholars have studied whether relationships between the CEO and the firm's division managers affect how capital is allocated to each division. In an important paper investigating this issue, Duchin and Sosyura (2013) provide compelling evidence that CEOs tend to allocate more capital to a division when they share professional, educational, or social connections with the division's manager. Importantly, these findings extend to cases in which the level of connections appears to be governed by exogenous forces, suggesting a direct causal role of connections on budgeting. Auxiliary evidence suggests that, on balance, these capital allocation patterns reflected agency-related favoritism rather than efficiency-enhancing capital allocation enabled by superior information flows.

While the Duchin and Sosyura (2013) evidence indicates that CEOs at times favor their connections in the capital allocation process, the findings of Xuan (2009) suggest that CEOs are careful not to be too overt in the use of favoritism in budgeting decisions. In particular, Xuan (2009) reports that CEOs with divisional roots do not tend to steer capital towards the division that they came from and, in fact, may instead do the opposite. Thus,

while friendship may matter for budgeting, there are likely constraints that limit the influence of this behavior.

*2.4 Empirical strategy*

Our investigation borrows heavily from the general themes in the literature outlined above and the specific empirical treatments in two studies. Borrowing from Cichello, Fee, Hadlock, and Sonti (2009) (CFHS hereafter), we select a sample for which division manager identities can be cleanly matched to business segment accounting information. We then use those authors' baseline models of job outcomes for division managers, augmented to include information on the relationship between the CEO and his/her division managers. We construct a sample that is much larger (and more recent) than CFHS, with the goal of having sufficient power to thoroughly investigate the hypotheses of interest.

To characterize the closeness of the connections between the CEO and sample division managers, we follow the treatment by Duchin and Sosyura (2013) (DS hereafter) closely. Similar to those authors, we categorize connections by relying primarily on Boardex data and identify connections related to shared social, educational, and professional experiences. One can view our analysis as applying the general hypotheses and approach of DS to labor market outcomes rather than capital allocation outcomes, with salient labor market outcomes and baseline control variables borrowed from the CFHS study. Since internal labor market decisions may be influenced by personal connections in a different way than capital allocation decisions, we at times borrow insights from the related literature on the role of connections in labor market behavior and careers for rank-and-file workers. Thus, parts of our analysis can be viewed as investigating whether personnel behavior at the top of an organization shares relationship-specific features displayed more generally throughout the firm.

## 3. Data and Sample Selection

*3.1 Selecting the Initial Sample*

We select our initial sample from the universe of all Compustat firm-years for firms included in the S&P 1500 index set from January 2000 until December 2015. We include for consideration firm-years (measured on a fiscal year basis) in which the firm was in this universe as of the start and end of the observation year. All regulated utilities (SIC codes 4000-4999), financial firms (SIC Codes 6000-6999), and foreign firms are excluded from the sample. We do not impose any size requirements, as inclusion in the S&P 1500 set assures that firms are of a consequential size.

After identifying the resulting set of fiscal years with start and end dates falling within the 1/2000 to 12/2015 window, we match firm-level records to business-unit Compustat segment data. To eliminate nuisance/inconsequential/unusable segment records, we drop segments with nonpositive assets or sales, segments with missing operating income, and segments with a name that indicates little economic substance (e.g., "corporate," "elimination," "other," etc.). Finally, since we are at times focused on questions related to how managers within a firm are treated in a relative sense, we drop all firms with a single segment.

After identifying this set of firm and segment years, we hand collect data on firm and segment (divisional) leaders. The algorithm we use follows the approach outlined by CFHS. Specifically, we closely read each firm's financial filings (10K statements, annual reports) and attempt to identify the individual(s) who heads up the firm's activities that are captured by a given segment accounting record. In some cases, we supplement this information with organizational mappings in the Directory of Corporate Affiliations and business descriptions

in other sources (e.g., Bloomberg). If a clear match can be made, we refer to the identified individual as the "division manager" for a given firm year and the corresponding segment as the "division" that he/she manages. As in CFHS, in some cases, we identify two managers who appear to co-lead a division. In these cases, we treat both individuals as division managers. In a limited number of cases, we identify multiple Compustat segments that clearly aggregate up to a division managed by an individual. In these cases, we aggregate the segment accounting information to create a divisional-level record.

We are deliberately conservative in matching division managers to divisions, and we take particular care to longitudinally follow each unit over time to maintain a consistent matching treatment between managers and firms/divisions. In some cases, it is not possible to make an unambiguous match, often because the reported managerial structure of the firm appears fairly divorced from the segment-level disclosure policy adopted by the firm. Thus, after matching managers to firms, we drop all firm years in which we are unable to identify a divisional manager for each of the firm's 2+ divisions. The resulting sample, described in Table 1, is composed of 2,191 firm years, 5,738 division-years, and 5,986 division-manager years. The average firm has almost 3 divisions, with median firm sales and assets hovering close to $3 billion.

*3.2 Managerial Backgrounds and Connections*

After identifying the sample, we use biographical sketches in financial filings along with disclosures in press releases, Boardex data, Bloomberg descriptions, and web searches to ascertain each division manager and CEO's age, tenure at the firm, and tenure in their current position. We also determine the CEO's role/title in his/her immediate past job position, either at the sample firm or, for outside hires, at their prior employer. As we report in Table 1, the

median CEO is 57 years old or 6 years older than the median division manager. The relative youth of division managers, despite their positions near the top of the corporate hierarchy, suggests that they will have strong incentives induced by career concerns (both internal and external).

We identify connections between CEOs and division managers by following the general approach outlined by DS using information on shared educational, social, and employer networks (details in appendix). The underlying source of data for coding these variables is the Boardex database, supplemented with biographical sketches in Bloomberg and firms' financial filings. We refer to division managers who share a school (social, work) connection with the CEO as of the start of any observation year as a school (social, work) friend. As we report in Panel A of Table 2, friends are the exception rather than the rule, with 17.95% of division managers being a friend of any type, with work friends being more common than social or school connections. These figures appear broadly consistent with what DS report.

To ascertain whether friends tend to cluster in certain firms, for each friend type, we regress a friend indicator variable for all but the firm's largest division against both year dummies and the friend variable for the firm's largest (in sales) division (if multiple managers are at a division, we code the friend variable based on the eldest manager). We refer to the resulting coefficient as the within-firm friend correlation and report these figures in Panel A of Table 2. In the case of school and social friends, the coefficient is relatively small and insignificant. For work friends, the coefficient is positive and highly significant (t=5.54), suggesting that the presence of one division manager work friend with the CEO tends to increase the likelihood of another CEO work friend in the division manager ranks. The overall (i.e., a friend of any type) within-firm friend correlation is .21. We also report in

Panel A of Table 2 the within-manager correlation of the different types of friend variables. These correlations are all positive and range from .147 to .255, suggesting a moderately elevated likelihood of being a friend of one type, conditional on being a friend of another type (e.g., school and work).

*3.3 Job Outcomes*

For each CEO-year, we ascertain whether the individual experienced a job change during the observation year. The overall rate of CEO turnover in our sample is 9.41%, which is comparable to prior studies. Evidence reported by Fee, Hadlock, Huang, and Pierce (2018) and Fee, Hadlock, and Pierce (2018) indicates that most turnover events for younger CEOs are likely to be involuntary job separations, while for older CEOs, there is a mix of involuntary dismissals and voluntary or planned retirements.

Given their relative youth and more subordinate roles, we expect division manager job changes to include a substantive number of promotions and lateral moves, in addition to involuntary dismissals. As we report in Panel B of Table 2, in 81.86% of all cases, the division manager remains in the position for the entire year, implying an annual job change rate of 18.14%. For these job changes, we follow CFHS and assign the changes into categories depending on whether the individual leaves or stays with the firm and whether the move appears to be a positive/neutral/negative outcome for the individual based on the quality of the new position obtained (if any) relative to the old position. Additional details on the procedures used to make these assignments are reported in the appendix.

Despite substantially different sample periods and selection rules, the relative breakdown of division manager job changes, as reported in Panel B of Table 2, is similar to what CFHS report. By far, the most common job change is a generic departure in which an

individual leaves the firm and does not quickly publicly resurface at another employer in a senior executive role. Overt firings and demotions of division managers appear quite rare, while internal (definite or probable) promotions are reasonably common, far outnumbering jumps to new employers, which in many cases represent external labor market promotions.

These figures on job outcomes indicate that division managers will generally have strong incentives to retain their position within the firm and to simultaneously take actions that elevate the likelihood of an internal promotion, as these promotions occur with some frequency (a 3.19% annual rate when combining definite and probable promotions). Leaving the firm without immediately jumping elsewhere is surely a negative outcome on average, particularly for younger managers, but occurs quite frequently (a 10.89% annual rate when combining generic departures with overtly forced events). [1]

Given the clear dichotomy between staying and leaving, we initially focus on predicting turnover events in which the division manager leaves the firm and does not immediately jump elsewhere or depart for exogenous reasons. For ease of exposition, we will simply refer to these as departure or departure/dismissal events. We also report in Panel B of Table 2 information on the performance of the units run by division managers in the year preceding the annual observation window for a job change. Rather than parsing cloudy univariate differences in performance between each job change category, we defer discussion until after we present full multivariate models.

## 4. Friends in High Places and Division Manager Turnover

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[1] The evidence in CFHS, Fee and Hadlock (2004), and Fee, Hadlock, and Pierce (2018) strongly supports the hypothesis that the vast majority of senior executive turnover events represent dismissals, particularly when restricting attention to managers below a traditional retirement age. We present additional evidence along these lines below when we consider post-separation labor market opportunities after turnover for the division managers in our sample.

*4.1 Baseline Evidence on CEO Connections and Division Manager Turnover*

For an initial picture of the relation between connections and division manager turnover, we calculate division manager departure rates for managers with and without some type of connection to the CEO. The departure rate for managers with at least one connection to the CEO is 6.40%, a figure that is significantly lower than the corresponding 12.88% figure for managers with no such connection. These univariate differences suggest an important and surprisingly large role for connections with the CEO in the departure/dismissal decisions.

To investigate whether this relation between connections and departure/dismissals holds after controlling for manager and division/firm characteristics, we estimate standard logit turnover regressions at the division-manager-year level. In these models, the dependent variable assumes a value of 1 for a division manager departure/dismissal event and 0 if the division manager stays with the firm in any capacity. All other events (e.g., jumps to new employers, exogenous departures related to an asset sale or restructuring) are coded as missing values in these initial models. Following CFHS, the key control variables in this regression are measures of divisional performance (industry-adjusted ROA), firm performance (industry-adjusted stock returns), relative division size, firm size, and a manager's age and tenure with the firm. We report estimates of the marginal change in probability of departure for a one-unit change in the explanatory variables, holding all other variables at their sample means.

In column 1 of Table 3, we report estimates for an initial model that includes only the control variables. As expected, the coefficient on divisional performance as measured by the division's industry-adjusted-ROA is negative and highly significant, indicating that a departure/dismissal is much more (less) likely when a division is performing poorly (well). This echoes the findings in CFHS and a long literature demonstrating that job departures at

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many levels of an organization are sensitive to unit-level performance metrics. It also helps confirm that most of the events being predicted are involuntary departures, as we would expect voluntary/natural/planned retirements to be largely unrelated to performance.

The other control variable of note in this initial model is division manager age, which enters with a positive and significant sign. Surely some of this represents a higher proportion of natural retirements as division manager age increases, a phenomenon that has been widely reported in the parallel CEO turnover literature. However, most division managers are far below a traditional retirement age, and, as we document below, the external labor market prospects of departed/dismissed managers are fairly poor. Thus, it is almost surely the case that most of these sample events will be driven by non-retirement involuntary departures, with age controlling for some of the residual voluntary retirements for the most mature division managers in the sample.

In column 2 of Table 3, we augment the initial model to include the key variable of interest, a dummy variable indicating whether a division manager has a connection of any type with the CEO as of the start of the observation year. We will refer to this specification as the baseline model. Consistent with the earlier univariate figures, the highly significant estimated marginal effect on the connection variable indicates that the probability of a division manager departure/dismissal declines by more than 4.5% when a connection with the CEO exists and all other variables are held as their sample means. This is a very large figure relative to the sample mean departure rate in the 12% range, and it indicates that connections play a surprisingly large role in how division managers are viewed by the CEO when it comes to dismissal decisions.[2] This is one of the main results in our study and one

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[2] We have experimented with investigating whether there are differences in the role of different types of connections on division manager turnover. We find some evidence that school connections are less important than the other types, but this evidence is not statistically significant. For parsimony and ease of exposition, we focus on the all-encompassing connection variable that includes all types of connections.

we explore in more depth below.

One issue with models predicting turnover events is that they do not lend themselves to the inclusion of firm-level fixed effects, as the normal rate of turnover at the firm level cannot be estimated with any precision given the relative rarity of turnover and discreteness of the measured outcome. However, we are concerned that connection propensities at firms may be correlated with unobserved firm characteristics that could be correlated with lower turnover rates (e.g., a friendly/gentle firm culture). Thus, we create a best friend variable (BFF) which assumes a value of 1 only if a division manager is connected to the CEO and all other division managers at the firm are not connected to the CEO. When we include the BFF in place of the connection variable, the estimated marginal effect, reported in column 3 of Table 3, is quite similar in magnitude to what we estimate for the connection variable in the baseline model. Thus, it does not appear that our results reflect an omitted firm-specific factor that drives both a firm's degree of tolerance of connection-based job allocations and its cultural resistance to dismissing division managers.

Since prior research suggests that new CEOs often make managerial changes soon after their appointment, we next augment the baseline model to include dummy variables indicating whether the CEO was replaced during the observation year or during the year prior, along with a CEO tenure variable. As we report in column 4 of Table 3, the variable indicating a prior year CEO replacement is positive and marginally significant, and the CEO tenure variable is negative and marginally significant. This suggests that division manager turnover is elevated soon after a CEO takes the reins and declines slowly as the CEO settles into the role. More importantly, for our purposes, the inclusion of these variables has no material effect on the estimated role of connections on division manager departures. In

column 5, we simply exclude observations for which the firm appointed a new CEO in the current or prior year, with again no substantive effect on the estimated role of connections on turnover.[3]

*4.2 Extensions of Baseline Evidence – Performance Effects and Exogenous Connections*

The key finding above that division managers with connections to the CEO are afforded a high level of job protection suggests that connections insulate managers from the usual incentives to deliver high performance to obtain a comfortable level of job security. If this is the case, we might expect to observe not only low turnover rates for connected division managers but also a low sensitivity of turnover to divisional performance. To investigate, we estimate baseline models predicting departures/dismissals separately for the set of connected managers and unconnected managers.

As we report in columns 6 and 7 of Table 3, the data support this suspicion. In the case of connected division managers, the estimated marginal effect of divisional performance on turnover in column 6 is small in magnitude, of the wrong sign (positive), and insignificant. In contrast, for unconnected division managers, the performance coefficient is large, of the correct sign (negative), and highly significant. It appears that having a connection to the CEO lowers the risk of losing one's position and eliminates the role of performance as a determinant of any remaining risk.

Our evidence that CEOs appear resistant to dismissing managers with which they share a connection may reflect that they have more allegiance to managers that they appoint, coupled with a tendency to appoint individuals with whom they share a connection. To

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[3] The coefficient on divisional performance becomes smaller in magnitude and insignificant in models that exclude observations with current or lagged CEO turnover. Since CEO turnover tends to occur when firms (and thus most divisions) are performing poorly, the ability to detect divisional performance effects is diminished once these highly informative observations are excluded.

investigate whether our evidence primarily reflects these underlying endogenous connection mechanisms versus a direct causal role of connections on turnover, we identify managers that the CEO inherited when he/she took office. For these individuals, endogenous selection is unlikely to be a substantive factor.

To flag these types of managers, we first create an inherited division manager (IDM) dummy variable that assumes a value of 1 if the division manager was already leading the division when the CEO assumed the top position. As an alternative, we also create an inherited manager (IM) dummy variable, which assumes a value of 1 if the division manager was already somewhere at the firm when the CEO was awarded the CEO position. This latter variable will flag both inherited division managers and individuals who were at the firm but were assigned the division manager role after the CEO took office. If internal division manager promotions largely follow traditional divisional succession plans, the CEO-connection status of these managers should also be largely exogenous.

In columns 8 and 9 of Table 3, we augment the baseline models to include these inherited executive dummy variables and the interaction of these variables with friend status. The estimated marginal effects on the dummy variables themselves are small and insignificant, offering little evidence supporting the hypothesis that CEOs are particularly likely to dismiss managers they inherited. More importantly, for our purposes, the interactions of the inherited dummy variables with the friend variables, while positive, are relatively small in magnitude and far from significant. Thus, there is little evidence that the friend result is entirely a reflection of CEOs selecting friends that they are then reluctant to dismiss.

If we replace the variables for inherited status with their complements (i.e., use an indicator of non-inherited status in place of the inherited-status variables), thus creating

indicators of potentially more endogenous hires, the resulting coefficients on the non-interacted friend variable are significant at the 5% and 1% levels in models corresponding to columns 8 and 9 respectively. Thus, even when estimating the connection effect based solely on the cases in which the division manager is likely connected to the CEO for exogenous reasons, there is significant evidence of a negative relationship between connections and division manager turnover.

## 5. Moving Up Rather than Out

While the most common job change event for division managers is to be dismissed or depart from the firm for (typically) less-green pastures, a fair number of division managers experience a positive internal labor market event in the form of an apparent promotion into an even more senior role at the firm (e.g., to firm COO or CFO). Since CEOs appear relatively resistant to dismissing their friends, the mechanism leading to this behavior may also cause them to be relatively more eager to promote these same managers. Grouping probable and definite promotion events together into a single promotion category, the univariate figures are highly consistent with this suspicion, as the promotion rates for friends of 6.20% is almost double the 3.16% rate for non-friends. To investigate further, we estimate models that parallel the departure/dismissal models, but with a dependent variable that assumes a value of 1 for these promotion events and 0 if the division manager stays with the firm and is not promoted (with all other job change events are coded as missing).

We present models predicting these events in Table 4 for a set of specifications that exactly parallel the earlier turnover models. In contrast to some of the findings of CFHS, the baseline specification in column 1 does not indicate any relation between performance and promotions. However, the data clearly indicate that younger division managers, managers at a

firm's larger divisions, and managers at larger firms are more likely to be promoted, findings

that all have intuitive economic explanations and largely agree with prior work.

When we add the friend variable to the initial model, the estimated marginal effect

reported in column 2 of Table 4 indicates a significant relation, with friends having a more

than 2.4% elevation in promotion rates, a large number relative to an overall baseline rate of

just over 3%. If we replace the friend variable with the BFF version, the estimated effect is

substantively unchanged, as is reported in column 3.[4] Thus, it does, in fact, appear that

connections to the CEO improve a division manager's internal promotion prospects.

To address the endogeneity issue related to connection status, we add in columns 4

and 5 variables indicating whether a connected division manager was an inherited division

manager (IDM) or manager (IM).  As we report in these two columns, we find no difference

between inherited and non-inherited division managers in the marginal role of connections on

promotions as indicated by the insignificant and small in magnitude coefficient on the

inherited friend variables.  If we replace these inherited variables with their complements

(i.e., variables indicating non-inherited status), the point estimate on the friend variable is

positive but insignificant in model 4, while remaining positive and significant at the 5% level

in model 5.  Thus, we find no convincing evidence of a difference between inherited and non-

inherited managers in the role of friendship on promotions, and a significant friendship effect

can be identified solely from the inherited managers when using the more liberal inherited

status categorization (IM rather than IDM).  On balance, this evidence suggests that the

positive role of connections on promotions does not solely reflect the treatment of division

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[4] Given the lack of any significant performance effects in promotions, we do not estimate separate performance
coefficients for the connected and non-connected subsamples.  In untabulated models, we have experimented with
including the CEO turnover and tenure variables that were included in some of the earlier turnover models.  We
find that these variables have no apparent role in promotions, and their inclusion does not have a substantive
effect on the estimated key coefficients of interest.

managers that were picked (i.e., not inherited) by the CEO, lending support to a causal interpretation of the promotion findings.[5]

## 6.  Friendliness from a Shareholder Perspective

Taking stock of the evidence, we find that CEOs tend to be "nicer" to their friends in the sense of being less likely to dismiss and more likely to promote division managers with whom they share a connection.  There are no sharp differences in this behavior between inherited managers not selected by the CEO and division managers they select, suggesting that there is a causal role of connections on how key lieutenants to the CEO are evaluated and incentivized.

While our evidence suggests that CEOs have a preference to work with division managers with which they have connections, it is unclear whether this is good or bad for shareholders.  The answer to this question has important implications for various human resource and corporate governance policies and strategies.  Much of the prior literature emphasizes the dark side of favoritism in which decisions that are influenced by personal preferences are presumed to reflect agency conflicts that destroy shareholder value.  However, some authors have identified theoretical channels in which personal relationships in CEO decisions can increase firm performance and shareholder wealth.

The finding we report above that turnover behavior of connected division managers appears completely divorced from divisional performance certainly would tend to strongly

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[5] We do not include in these last two models of Table 4 an indicator for a division manager's inherited status independent of connections, as power in these promotion models is a concern.  In the case of the IDM model (column 4), inclusion of inherited status by itself has no substantive effect on our inferences.  In the case of the IM model (column 5), inclusion of inherited status by itself does lead in some cases to a negative coefficient on the friendship variable interacted with this exogeneity indicator, but in these models, we continue to detect a significant positive role for friendship on promotions for the exogenous friend group, again supporting a causal relation.

favor the inefficiency-based explanation for our findings, as certainly negative performance signals should result in a downward revision in the CEO's assessment of a division manager's abilities, even if the connection results in an enhanced ability to work well with the CEO. To provide additional evidence on the relative likelihood of the inefficiency versus efficiency explanations for our evidence, we consider two additional tests.

*6.1 Life after departure/dismissal*

First, we consider the post-separation labor market outcomes for connected versus unconnected division managers. The logic here is that if a connected division manager is dismissed despite a CEO's bias towards this type of individual, the manager is likely to have a particularly low level of ability compared to an unconnected dismissed manager. If this is the case, we would expect these individuals to have a relatively more difficult time securing a new high-quality position. Predictions along these lines do not arise as naturally from the alternative hypothesis regarding the motivations for connection-biased internal labor market policies.[6]

To investigate, for each division manager that departs from a firm, we identify the first post-separation position where the individual resurfaces using a categorization procedure that follows the approach of Fee, Hadlock, and Pierce (2018) (details in appendix). We focus on two types of external labor market outcomes. First, we consider cases in which a departed manager resurfaces in an executive capacity at another public. In most cases, these new positions are quite clearly inferior to the individual's prior position as a division manager. However, given the pay and prestige associated with executive positions at public firms, these

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[6] There are some scenarios in which favoritism towards connected managers is good for shareholders while also leading to a particularly poor pool of dismissed managers with connections to the CEO, but most of these scenarios appear, to us, to be less plausible.

should capture most of the more favorable labor market outcomes for departed/dismissed division managers.  The second outcome we consider are cases in which an individual resurfaces in an executive capacity at any other firm, including public firms, substantive private non-financial firms, and prestigious private consulting/financial firms and funds. Importantly, we exclude in this latter category cases in which an individual appears to establish his/her own consulting firm or joins a small boutique fund or consulting firm.  The window for identifying these new positions is 3-years post the separation event.

The overall rates of resurfacing in a public executive job or any executive job over this selected window are 17.94% and 43.49%, respectively, indicating that many division managers seek and eventually obtain new positions with substantial managerial responsibilities after a job separation event.  If we break these figures down by whether the departed manager was a friend of the CEO at the firm where they served as division manager, we find that the resurfacing rates are substantially lower for the CEO's friends versus non-friends (8.33% versus 18.95% for public executive job resurfacing rates, 28.33% versus 45.09% for any executive job resurfacing rates.  This univariate evidence is consistent with our expectations under the scenario in which favoritism leads to an inefficient positive bias towards managers that are connected to the CEO.

To investigate whether this evidence is robust to including control variables, we present in Table 5 logit models predicting whether an executive gets a public job (columns 1-3) or any executive job (columns 4-6).  The models in columns 1 and 4 are initial baseline models that do not include any variable related to the connections between the CEO and the division manager.  The initial model for resurfacing at a public firm (column 1) indicates that divisional performance in a division manager's last full year in office is a substantial predictor of re-employment, helping to confirm that these external labor market outcomes are indicators

of (relatively) positive inferences regarding a manager's abilities. This observation does not extend to the model predicting any executive job, public or private (column 4), suggesting that many of the private firm jobs may be relatively less desirable. The age variable is negative and significant in all models, as we would expect based on natural supply and demand considerations.

The subsequent models add the friend variable, where first we simply add the variable to the baseline model (columns 2 and 5), and next, we take out all control variables that are in all cases insignificant to see if this affects the magnitude or precision of the estimates on the key variable of interest (columns 3 and 6). As we report, in all cases, the coefficient on the friend variable is negative and significant. In the public executive job (any executive job) models, the estimated decrease in the probability of obtaining a new position of the indicated type after a departure/dismissal is more than 11% (20%). These figures represent a more than 45% reduction relative to the overall rate of securing new positions, a large and highly significant decrease.

## 6.2 Friends with shareholder benefits?

As a second approach to further investigate shareholder welfare issues associated with a more favorable internal labor market for division managers who are connected to the CEO, we search for direct evidence of a relation between CEO-manager connections and divisional or firm performance. If these connections are good for shareholders because of productivity benefits associated with close relationships, we would expect to observe a positive relation.

To conduct this analysis, we run regression models predicting the change in divisional or firm performance (ROA), measured two full fiscal years after the year that a division manager starts in office compared to the performance level in the fiscal year immediately

before this starting year.  To control for possible mean reversion, we include the starting level

of performance as a control variable.  The only other explanatory variable in these models is

the key variable of interest, an indicator of whether the new division manager was connected

to the CEO.  We estimate these models both at the divisional level and at the firm level and

include year fixed effects.

For brevity, we do not tabulate these estimates, as they are quite straightforward to

describe.  The evidence for mean reversion is very strong, as start of period performance has a

negative and highly significant estimated coefficient in predicting performance changes at

both the divisional and firm levels.  The coefficient on the connection variable is small in

magnitude, insignificant, and negative in the models predicting the change in divisional and

firm performance.  These findings are unaltered if we measure the change in performance

based on the performance at the end of a manager's first full fiscal year in office (rather than

the second year).  Thus, there is no convincing evidence of substantive performance benefits

arising from connections between a division manager and the CEO, casting additional doubt

on the positive welfare interpretations of our evidence on internal labor market decisions

related to division manager careers.


## 7.  Conclusion

In this paper, we find that internal career outcomes of senior executives near the top of

the corporate hierarchy are significantly related to the individual's relationship with the CEO.

Specifically, we present evidence indicating that CEOs are less likely to remove division

managers with whom they share a connection and simultaneously are more likely to promote

these same managers.  There are no significant differences in this behavior for managers that

the CEO inherits compared to managers that he/she selects, strengthening the case for a causal

interpretation of these findings.  In many cases, the magnitude of the estimated role of a connection on job outcomes is quite large, even larger than the estimated effect of a two-standard deviation perturbation in divisional performance.

Our evidence that relationships matter for labor allocation decisions at the top of the corporate hierarchy complements the related literature regarding capital allocation decisions. To ascertain whether the relations we detect are good or bad for shareholders, we note that the sensitivity of division manager turnover to performance appears to be large and highly significant for unconnected managers, but effectively non-existent for connected managers, a difference that points strongly to the presence of inefficient favoritism arising from connections.  Adding some support to the inefficiency hypothesis, we find that division managers who are connected to the CEO have relatively poor prospects for obtaining prestigious jobs at new employers compared to their unconnected counterparts, suggesting that the ability floor that triggers dismissal of a connected manager is particularly low.  IN addition, we find no evidence that newly appointed division managers who are connected to the CEO are associated with substantial improvements in divisional or firm performance, casting doubt on an efficiency-based interpretation for the role of connections in division manager turnover and promotions.

The findings we report also demonstrate that received insights regarding the role of relationships in internal labor markets for rank-and-file workers are likely relevant even at the highest rungs of the corporate hierarchy.  While policy prescriptions are premature at this stage, it appears that a general discouragement of reliance on personal connections in job assignments and the selection of senior executives may, in some cases, be advantageous in a net sense.  Hopefully, future research can identify the situations in which connections are beneficial rather than detrimental for within-firm personnel economic interactions so as to

provide more refined guidance.

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**Table 1: Sample Composition and Summary Statistics**

| Panel A: Sample Composition & Managerial Characteristics | |
|---|---|
| Sample Period | 2000 to 2015 |
| Number of Firms | 367 |
| Number of Firm Years | 2,191 |
| Number of Division Years | 5,738 |
| Number of Manager Years | 5,986 |
| Mean Number of Managers Per Division | 1.08 |
| Mean Number of Divisions Per Firm | 2.86 |
| Mean Number of Segments Per Division | 1.05 |
| Division Manager Age - Mean | 51.17 |
| Division Manager Age - Median | 51 |
| CEO Age - Mean | 57.49 |
| CEO Age - Median | 57 |

| Panel B – Sample Firm Characteristics | Mean | Median | Std. Deviation |
|---|---|---|---|
| Firm Size (Assets) | 9,177.29 | 2,937.13 | 16,235.97 |
| Firm Size (Sales) | 9,631.64 | 2,957.41 | 17,830.52 |
| Division Size (Assets) | 2,039.96 | 704.65 | 3,599.68 |
| Division Size (Sales) | 2,597.98 | 880.21 | 4,994.28 |
| Division ROA | 14.95% | 12.76% | 16.35% |
| 1-Year Change in Division ROA | 0.04% | 0.45% | 10.57% |
| 3-Year Change in Division ROA | 0.47% | 0.72% | 14.13% |
| Counterpart ROA | 14.92% | 13.24% | 14.33% |
| Industry ROA | 4.63% | 6.11% | 6.81% |
| Firm ROA | 9.29% | 9.10% | 5.62% |
| Industry-adjusted stock return | 1.79% | -1.08% | 40.50% |

**Table 2: Summary Statistics on Connection Rates and Division Manager Job Outcomes**

| Panel A – Friend Frequencies and Correlations | Frequency | Within Firm Correlation | School Correlation | Social Correlation |
|---|---|---|---|---|
| School Friend Rate: | 5.07% | 0.083 | 1 | 0.255 |
| Social Friend Rate: | 6.07% | 0.054 | 0.255 | 1 |
| Work Friend Rate: | 11.14% | 0.345 | 0.169 | 0.147 |
| Any Friend Rate: | 17.95% | 0.211 | | |
| | | | | |
| **Panel B – Job Outcomes** | Number | Frequency | Mean ROA | Median ROA |
| Total Manager Years | 5,783 | 100% | 0.103 | 0.076 |
| No Change | 4,734 | 81.86% | 0.105 | 0.079 |
| Job change/turnover | 1,049 | 18.14% | 0.093 | 0.066 |
| Depart - Jump | 54 | 0.93% | 0.099 | 0.092 |
| Depart - Exogenous/Restructuring | 27 | 0.47% | 0.092 | 0.098 |
| Depart - Forced/Demote | 17 | 0.29% | 0.081 | 0.045 |
| Depart - Generic | 613 | 10.60% | 0.086 | 0.066 |
| Stay - Demotion | 15 | 0.26% | 0.042 | 0.016 |
| Stay - Ceremonial | 19 | 0.33% | 0.084 | 0.035 |
| Stay - Lateral | 120 | 2.08% | 0.120 | 0.070 |
| Stay - Probable Promotion | 83 | 1.44% | 0.094 | 0.055 |
| Stay - Definite Promotion | 101 | 1.75% | 0.111 | 0.078 |

## Table 3: Predicting Division Manager Departures – Logit Model Marginal Effects

| Explanatory Variable | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 |
|---|---|---|---|---|---|---|---|---|---|
| Friend with CEO | | -.04538*** (.01148) | | -.04620*** (.01119) | -.04895*** (.01182) | | | -.04917*** (.01280) | -.05920*** (.01798) |
| Best friend (BFF) | | | -.04448*** (.01241) | | | | | | |
| Inherited division manager | | | | | | | | .01649 (.01435) | |
| Inherited division manager friend | | | | | | | | .01397 (.03104) | |
| Inherited manager | | | | | | | | | -.00762 (.01025) |
| Inherited manager friend | | | | | | | | | .02968 (.03830) |
| Division performance | -.07145*** (.02689) | -.07376*** (.02654) | -.07257*** (.02654) | -.07324*** (.02729) | -.05129* (.03031) | .02141 (.03384) | -.1026*** (.0306) | -.07379*** (.02721) | -.07226*** (.02739) |
| Division manager age | .00358*** (.00084) | .00342*** (.00083) | .00345*** (.00083) | .00347*** (.00081) | .00402*** (.00089) | .00019 (.00120) | .00432*** (.00096) | .00345*** (.00081) | .00348*** (.00081) |
| Division manager tenure | -.00029 (.00161) | -.00001 (.00161) | -.00000 (.00161) | -.00035 (.00160) | -.00071 (.00177) | .00239 (.00191) | -.00058 (.00188) | -.00097 (.00188) | .00053 (.00160) |
| Division relative size | -.00841 (.02150) | -.00569 (.02118) | -.00383 (.02109) | -.00325 (.02107) | -.00904 (.02253) | .02506 (.02614) | -.01570 (.02566) | -.00255 (.02107) | -.00237 (.02109) |
| Firm size | .00073 (.00402) | .00123 (.00393) | .00103 (.00398) | .00009 (.00395) | .00135 (.00415) | .00811 (.00438) | .00029 (.00452) | .00015 (.00392) | .00029 (.00393) |
| Firm industry-adjusted stock return | -.01351 (.01159) | -.01409 (.01152) | -.01295 (.01155) | -.01374 (.01147) | -.01128 (.01221) | -.02528 (.02515) | -.01119 (.01311) | -.01365 (.01146) | -.01348 (.01150) |
| CEO tenure | | | | -.00134* (.00077) | | | | -.00097 (.00078) | -.00153 (.00080) |
| CEO turnover dummy | | | | .01121 (.01402) | | | | .01145 (.01402) | .01140 (.01402) |
| Lagged CEO turnover dummy | | | | .02630* (.01523) | | | | .01968 (.01649) | .02685 (.01534) |
| Log pseudolikelihood | -1,826.90 | -1,818.04 | -1,821.59 | -1,812.21 | -1,449.49 | -195.15 | -1,602.04 | -1,811.09 | -1,811.64 |
| Observations | 5,364 | 5,364 | 5,364 | 5,364 | 4,432 | 926 | 4,426 | 5,364 | 5,364 |
| Which observations | All | All | All | All | No CEO turnover | Friends Only | Non-friends only | All | All |

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Note.- The unit of observation for each estimated model is a division manager year with all explanatory variables measured as of the start of the observation year. The dependent variable in each model assumes a value of 1 if a division manager departs from the firm during the observation year for any reason other than immediately jumping to a new employer or departing as a consequence of a large restructuring event. The dependent variable takes a value of 0 if the division manager does not depart from the firm. Coefficients are derived from estimated logit models where the reported marginal effects in the table are the implied change in the probability of a division manager departure event when each selected variable is perturbed by one unit holding all other variables at the sample mean. For continuous explanatory variables, the perturbation is one unit from the sample mean, and for discrete variables, the perturbation is a change in value from 0 to 1. Robust standard errors clustered by firm and derived from the Delta method as implemented by Stata 17.0 are reported in parentheses under each coefficient estimate. All models include year effect dummies. Variable definitions are detailed in the text and appendix. Model 5 restricts attention to observations in which there was no CEO turnover in the observation year of the year preceding the observation year. Model 6 (model 7) restricts attention solely to observation years in which the division manager was a friend (not a friend) of the CEO. Friend with CEO takes the value of 1 if the CEO and division manager were connected via social, employment, or education (as detailed in the text) and 0 otherwise. Best Friend (BFF) takes a value of 1 if a division manager is connected to the CEO and all other division managers at the firm are not connected to the CEO and takes a value of 0 otherwise. Inherited division manager takes a value of 1 if the division manager was already leading the division when the CEO assumed the his/her position and 0 otherwise. Inherited division manager friend takes a value of 1 if the CEO and division manager is connected (as described above) and if the division manager was already leading the division when the CEO assumed his/her position and 0 otherwise. Inherited manager takes a value of 1 if the division manager was already somewhere at the firm when the CEO was awarded the CEO position and 0 otherwise. Inherited manager friend is takes a value of 1 if the CEO and division manager is connected ( as described above) and if the division manager was already somewhere at the firm when the CEO was awarded the CEO position and 0 otherwise. Division performance is division ROA less the median division industry ROA at the two digit SIC code level. Division manager age is the age of the division manager at the start of the fiscal year. Division manager tenure is the number of years that the division manager has been head of the division as of the start of the fiscal year. Division relative size is the asset size of the division divided by the entire assets of the firm. Firm size is total assets. CEO tenure is the number of years the CEO has been in that position as of the start of the fiscal year. CEO turnover is a dummy variable that takes a value of 1 if the CEO turned over in the current fiscal year and 0 otherwise. CEO lagged turnover takes a value of 1 if the CEO turned over in one fiscal year prior to the fiscal year in question and 0 otherwise. Adjusted stock return is defined in Table 1. *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

**Table 4**
**Predicting Division Manager Internal Promotion - Logit Model Marginal Effects**

| Explanatory Variable | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| Friend with CEO | | .02424*** (.00799) | | .02802*** (.00922) | .02887** (.01257) |
| Best friend (BFF) | | | .02432** (.01010) | | |
| Inherited division manager friend | | | | -.00980 (.00879) | |
| Inherited manager friend | | | | | -.00453 (.00785) |
| Division performance | -.00085 (.01302) | .00251 (.01278) | .00006 (.01291) | .00287 (.01281) | .00289 (.01272) |
| Division manager age | -.00141*** (.00047) | -.00132*** (.00045) | -.00133*** (.00046) | -.00132*** (.00045) | -.00129*** (.00045) |
| Division manager tenure | .00073 (.00086) | .000475 (.00084) | .00047 (.00087) | .00078 (.00085) | .00054 (.00085) |
| Division relative size | .02963*** (.00964 | .02698*** (.0095) | .02565*** (.00966) | .02678*** (.00944) | .02667*** (.00947) |
| Firm size | .00547*** (.00170) | .00499*** (.00167) | .00511*** (.00171) | .00501*** (.00167) | .00502*** (.00167) |
| Firm industry-adjusted stock return | -.01190 (.00729) | -.01129 (.00712) | -.01192 (.00716) | -.01140 (.00710) | -.01133 (.00711) |
| Log pseudolikelihood | -756.17 | -748.79 | -751.72 | -748.17 | -748.63 |
| Observations | 4,918 | 4,918 | 4,918 | 4,918 | 4,918 |

Note.- The unit of observation for each estimated model is a division manager year with all explanatory variables measured as of the start of the observation year. The dependent variable in each model assumes a value of 1 if a division manager stays with the firm and experiences a job change event that appears to be either a probable or definite promotion using the algorithm outlined in the appendix. The dependent variable assumes a value of 0 for all other observations in which the division manager stays with the firm and missing for cases when the division manager departs from the firm. Coefficients are derived from estimated logit models where the reported marginal effects in the table are the implied change in the probability of a division manager departure event when each selected variable is perturbed by one unit holding all other variables at the sample mean. For continuous explanatory variables, the perturbation is one unit from the sample mean, and for discrete variables, the perturbation is a change in value from 0 to 1. Robust standard errors clustered by firm and derived from the Delta method as implemented by Stata 17.0 are reported in parentheses under each coefficient estimate. All models include year effect dummies. Variable definitions are detailed in the text and earlier tables. *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

**Table 5**
**Predicting New Positions After Departure - Logit Model Marginal Effects**

| Explanatory Variable | Dependent Variable - Gets Public Job | | | Dependent Variable - Gets Exec. Job | | |
|---|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Friend with CEO | | -.11465*** (.03175) | -.11456*** (.03256) | | -.20467*** (.07916) | -.20779*** (.07743) |
| Division performance | .15314** (.07623) | .17378** (.07200) | .18034*** (.06824) | -.04338 (.13078) | -.01251 (.12528) | -.00223 (.12559) |
| Division manager age | -.01107*** (.00262) | -.01216*** (.00252) | -.01146*** (.00246) | -.02551*** (.00467) | -.02746*** (.00468) | -.02774*** (.00466) |
| Division manager tenure | -.01217** (.00547) | -.01047* (.00538) | -.01144** (.00536) | -.01972** (.00845) | -.01822** (.00085) | -.01762** (.00085) |
| Division relative size | .02552 (.06505) | .03126 (.06329) | | -.11723 (.10812) | -.09526 (.10932) | |
| Firm size | .01225 (.01069) | .01304 (.01052) | | .03035* (.01572) | .03361** (.01574) | .03656** (.01527) |
| Firm industry-adjusted stock retur | .02236 (.03469) | .02177 (.03530) | | -.00042 (.06204) | -.00042 (.06204) | |
| Log pseudolikelihood | -271.33 | -266.93 | -267.94 | -390.99 | -386.73 | -387.11 |
| Observations | 630 | 630 | 630 | 630 | 630 | 630 |

Note.- The unit of observation is the career outcome after departure of a division manager who departs from the firm for any reason except immediately jumping to a new employer or leaving during a restructuring event. The dependent variable in models 1-3 assumes a value of 1 if a departed division manager resurfaces within 3 years in an executive capacity at another public firm. The dependent variable in models 4-6 assumes a value of 1 if the departed manager resurfaces in an executive capacity at any other firm, including public firms, substantive private non-financial firms, and prestigious private consulting/financial firms and funds. Coefficients are derived from estimated logit models where the reported marginal effects in the table are the implied change in the probability of a division manager resurfacing event of the indicated type when each selected variable is perturbed by one unit holding all other variables at the sample mean. For continuous explanatory variables, the perturbation is one unit from the sample mean, and for discrete variables, the perturbation is a change in value from 0 to 1. Robust standard errors clustered by firm and derived from the Delta method as implemented by Stata 17.0 are reported in parentheses under each coefficient estimate. All models include year effect dummies. Variable definitions are detailed in the text and earlier tables. *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level