

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

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Abstract

We find that division managers who are connected to the CEO are substantially less likely than others to depart from the firm and are more likely to be promoted. Connected managers are protected when performance is poor, and they display no special ability to improve performance given this protection. Connections matter more in weak governance/incentive environments, and the external labor market and stock market appear skeptical of connected managers' talents. While much of the evidence suggests inefficient favoritism, connected managers are protected more in peripheral segments, suggesting a possible efficiency benefit in helping to resolve intrafirm information problems.

*We thank Anup Agrawal, Ran Duchin (the editor), Byoung-Hyoun Hwang, Lei Kong, Shawn Mobbs, Denis Sosyura, Dek Terrell, Xiang Zheng, two anonymous referees, and seminar participants at Auburn University, Babson College, Idaho State University, the Universities of Alabama, Connecticut, and Pittsburgh, the 2022 University of Alberta Frontiers of Finance Conference, and the 2023 Midwest Finance Association meetings for their helpful comments and suggestions. All errors remain our own.

I. Introduction

The CEO is usually a firm's most important and visible decision-maker. Thus, as we would expect, many aspects of CEOs' careers and incentives have been exhaustively studied. Moving down the hierarchy, 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 literature on conglomerate firms (e.g., Rajan, Servaes, and Zingales (2000)). However, despite the importance of the senior executive team, we have only limited evidence on how the composition and incentives of this group are determined.

Certainly, career considerations should play a significant role in incentivizing non-CEO senior managers. These individuals are highly compensated, so avoiding losing their positions is sure to be an important concern. At the same time, given the convexity of pay and power structures in corporate hierarchies, they should also be motivated to move up to higher positions in the firm or elsewhere. Existing research demonstrates that senior manager career outcomes are significantly related to quantitative performance measures, incentivizing these individuals to perform well on these metrics. However, given prior related evidence, one might also suspect that the *relationship* between a senior executive and the CEO could play an important role in governing the executive's career progression and incentives. In this paper, we provide evidence on the importance of these relationship-specific factors.

To investigate this issue, we study the job outcomes of division managers for a large set of public firms. 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. In our sample, we find that relationships with the CEO appear quite important. Specifically, holding other factors constant, the estimated probability that a division manager departs from the firm in an outcome that appears to be, on

average, much less-than-voluntary is on the order of 40% lower when the CEO has a school, past employment, or social connection with the CEO compared to when no connection exists.

Moreover, while there is a strong relationship between divisional performance and turnover for unconnected division managers, no similar relationship exists for connected division managers.

Evidently, having friends in high places offers substantial career protection.

If CEOs tend to protect their connections from dismissal, it is reasonable to suspect that they may favor these same managers in promotion decisions. Holding performance and other factors constant, we find that managers with connections to the CEO are significantly more likely to be internally promoted, with an increase on the order of 75%. Thus, job stability and internal mobility prospects both appear to be positively related to sharing a connection with the CEO.

The connections we study include a mix of cases in which the CEO likely selected the manager and cases in which the CEO inherited the manager. Some of our findings hint at a stronger effect for managers selected by the CEO. However, when we restrict attention to inherited managers for which the CEO was less likely to be involved in the selection, connections to the CEO remain associated with sharply lower rates of turnover, indicating that our evidence does not solely reflect the role of CEOs in favoring connected managers whom they select.

There are different channels through which connections to the CEO may influence a subordinate's internal career prospects. One possibility is that CEOs are less objective when evaluating their friends and, as a result, inefficiently favor these subordinates. Alternatively, CEOs may work more effectively with connected subordinates, leading to differences in internal career outcomes that reflect efficient behavior. Given the strong role of connections in turnover

and promotions in our data, we certainly can rule out that neither of these hypotheses is empirically relevant, an important finding in our view.

Consistent with the evidence and perspective of Duchin and Sosyura (2013), we suspect that the inefficiency and efficiency hypotheses are both present to varying degrees in the population of firms. A natural question is whether we can identify situations in which one of these explanations is dominant, as well as whether one is more pronounced in an average sense. We adopt a multipronged approach to investigate by considering (a) division performance dynamics, (b) market-based evidence, (c) post-separation labor-market activity, and (d) subsamples sorted by salient firm and division characteristics.

The evidence that turnover has no relation to performance for connected managers is one of the strongest pieces of evidence favoring the inefficiency hypothesis. To explore more, we investigate whether divisions run by connected managers who are not dismissed following poor performance tend to exhibit abnormally sharp performance improvements, as might be expected if CEOs possess superior soft information regarding the talents of these managers. The data offers no support for this efficient patience scenario. In fact, the opposite relation appears evident in the data. Moreover, we find that when a CEO selects a connected division manager, there is no improvement in performance compared to other appointments. Additionally, there is no sample-wide positive relation between divisional performance and connections. Thus, on balance, the evidence on performance offers stronger support for inefficiency-based explanations.

We proceed to consider news releases informing the market of the promotions of a division manager. Here, we find that the market, on average, reacts negatively and significantly to promotions of connected division managers, a significant difference from the average neutral market reaction to other promotions. Consistent with the performance evidence, these market-

based findings appear to offer stronger support for inefficiency scenarios. Proceeding to the post-separation labor market, we reason that if connected division managers are favored for reasons unrelated to their contribution to the firm, the dismissed pool of connected managers should be of particularly low ability. Consistent with this expectation, we find that the likelihood of re-employment to a senior executive position for connected managers after a job separation is particularly low.

Finally, we consider sample splits that we expect will sort observations by the potential costs and benefits of CEO-division manager connections. These splits offer positive support for both sides of the efficiency debate. When we separate firms by measures of governance and incentives, we uncover evidence that connections matter more in firms with relatively weaker governance/incentives. This adds to the support from our other tests suggesting that a substantive part of the role of connections in job outcomes reflects an inefficient bias towards connected managers.

When we separate division managers into those who work in a segment that is closely related to the firm's core focus (core segments) versus others (peripheral segments), we detect a substantially stronger role for connections in division manager turnover in the peripheral segments. This is consistent with the notion that a CEO's ability to monitor and understand peripheral segments is more limited, resulting in a longer leash for connected division managers who can facilitate more effective within-firm information flows in relatively opaque interactions. We conclude that connections certainly seem to matter a great deal in internal labor market decisions, with costs and benefits that vary in different scenarios. In our view, the collective evidence offers a stronger case for the presence of a net inefficiency in an average sense, but since each test has its limitations, caution is appropriate.

While the focus of our study concerns the role of CEO-division manager connections, the richness of our data also allows us to fill in some details on division manager careers that could be more useful for understanding multi-unit firms. We identify the career paths that lead each sample division manager into their role and uncover interesting heterogeneity in these paths. We also characterize promotion paths out of the divisional manager role and find that division managers often move into general corporate positions very close to the CEO. However, if a manager leaves the firm without immediately moving to a new employer, their subsequent labor market opportunities appear, on average, to be poor.

The rest of the paper is organized as follows. In Section II, we discuss the related literature and motivate our investigation. In Section III, we outline our sample selection and data collection and provide an overview of the sample. Our main findings on the role of connections in division manager turnover are presented in Section IV, while in Section V, we study the role of connections in division manager promotions. Section VI presents tests related to efficiency issues underlying our findings, and Section VII offers concluding remarks.

II. Literature, Motivation, and Empirical Strategy

A. Careers and Incentives of CEO Subordinates

Several studies examine the compensation incentives of senior executives below the CEO, revealing that pay levels for these managers are high in an absolute sense but low relative to the CEO, creating the potential for strong tournament-like incentives. For many of these executives, for example, the CFO, it can be challenging to identify individual performance measures. Valiant attempts have been made, 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 and firm-wide performance (e.g., Aggarwal and Samwick (2003)).

In addition to compensation-induced incentives, non-contractible labor market mechanisms (e.g., retention decisions and internal/external promotions) may generate powerful career-concern incentives for senior executives. Evidence reported by Fee and Hadlock (2003), (2004), Hayes, Oyer, and Schaefer (2006), and Cichello, Fee, Hadlock, and Sonti (2009) offers support for this general hypothesis. Collectively, these studies indicate that a manager's labor market outcomes are significantly affected by updated beliefs regarding the manager's ability as they are observed in a role over time.

One specific type of senior executive, division managers, has been studied in more detail (Aggarwal and Samwick (2003), Cichello et al. (2009)). Some of the interest in this group arises from evidence indicating that divisional incentive problems may harm firm value (e.g., Berger and Ofek (1995)). A key practical advantage to studying these executives is that segment-level accounting disclosures allow researchers to measure important unit-level outcomes, most notably divisional performance. Consequently, much of the evidence on the role performance measures in evaluating, assigning, and incentivizing senior executives is based on studying these managers.

B. Connections in Labor Markets

A growing body of literature emphasizes that personal relationships may significantly impact job allocation decisions. Of note, several studies find that interpersonal connections play a substantive role in how many rank-and-file employees are hired, with mixed evidence on whether this reflects the adverse effects of favoritism or the positive effects of superior flows of information within connected networks (e.g., Topa (2011), Burks, Cowgill, Hoffman, and

Housman (2015), Pallais and Sands (2016), Hoffman, Kahn, and Li (2018), and Hadlock and Pierce (2021)). One might suspect that the influence of personal factors would diminish when hiring very senior-level personnel, but little direct evidence exists.

There is certainly reason to suspect that personal connections will affect labor market decisions in the top executive ranks, as researchers have found that personal relationships and experiences do play a role in other executive-level decisions. For example, Shue (2013) finds that interactions between classmates during and after business school significantly affect high-level corporate policy decisions.¹ In a different vein, Hwang and Kim (2009) demonstrate that personal connections between board members and the CEO play a significant role in CEO compensation and turnover in a manner that is consistent with connections compromising the independence of board oversight.²

C. CEO-Subordinate Interactions

Since the output of the set of individuals at the top of the corporate hierarchy has important team-production aspects, personal factors may affect how well the team works together. Fee and Hadlock (2004) report an abnormally high rate of top-5 manager turnover around the time of a CEO change, consistent with a CEO's preference to assemble a team to their liking. Whether assembling these teams includes reliance on personal factors and whether any such reliance is beneficial to the firm is unclear.

¹ Fracassi (2017) reports related evidence. See also Engelberg, Gao, and Parsons (2012), who report evidence suggesting that firm-bank relationships can be affected by personal connections.

² Fracassi and Tate (2012), Coles, Daniel, and Naveen (2014), and Cai, Nguyen, and Walkling (2022) report similar evidence on the role of connections in CEO-director interactions, as do Ishii and Xuan (2014) for interfirm director-director connections in an M&A context. However, the evidence reported by Hoitash and Mkrtchyan (2022) suggests that connections between directors and non-CEO executives may aid boards in monitoring the CEO.

Turning to the effect of team characteristics on firm decisions, researchers have investigated whether the relationship between the CEO and a firm's division managers affects the capital allocation process. In an important paper, Duchin and Sosyura (2013) provide compelling evidence that CEOs allocate more capital to a division when they share professional, educational, or social connections with the division's manager.³ These findings extend to cases in which connections are governed by exogenous forces, suggesting that selection is not the sole explanation for their findings. Auxiliary evidence suggests that these capital allocation patterns often reflect agency-related favoritism rather than increases in efficiency enabled by superior information flows, although the latter hypothesis is supported in some settings.

While the Duchin and Sosyura (2013) evidence indicates that CEOs sometimes favor their connections, the findings of Xuan (2009) suggest that CEOs are constrained in the use of favoritism in budgeting decisions. In particular, Xuan (2009) reports that CEOs with divisional roots do not tend to steer capital toward the division they came from and may do the opposite.⁴ Thus, even if friendship matters, its influence has apparent limits.

D. Empirical Strategy

Our investigation borrows heavily from the themes in the literature outlined above and the specific empirical treatments in two studies. Borrowing from Cichello et al. (2009) (CFHS hereafter), we select a sample of division managers that we can cleanly match to business segment accounting information. We then use those authors' baseline models of job outcomes

³ Gaspar and Massa (2011) and Glaser, Lopez-de-Silanes, and Sautner (2013) report related evidence that is broadly consistent with Duchin and Sosyura (2013). Recent evidence by Duchin, Simutin, and Sosyura (2021) indicates that divisional budgeting allocations may also be affected by gender dynamics, while Duchin, Goldberg, and Sosyura (2017) provide intrafirm evidence that connections between division managers can play a role in compensation.

⁴ However, Ang, de Jong, and van der Poel (2014) find that CEOs may favor these divisions in divestiture decisions.

for division managers, augmented to include information on the relationship between the CEO and division managers.

To characterize connections between the CEO and sample division managers, we follow the treatment by Duchin and Sosyura (2013) (DS hereafter). Following those authors, we categorize connections using multiple data sources to 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 labor market outcomes and models borrowed from the CFHS study.

III. Data and Sample Selection

A. Selecting the Initial Sample

We select our initial sample from the universe of all Compustat observations for firms in the S&P 1500 index at the start and end of a fiscal year, with January 2000 to December 2015 as our sample period (extending to 2018 when considering the post-separation labor market). Regulated utilities (SIC codes 4900-4999), financial firms (SIC Codes 6000-6999), and foreign firms are excluded from the sample. We match firm-level records to Compustat segment data and eliminate nuisance/inconsequential/unusable segment records by dropping 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 the sample, we hand-collect data on firm and segment (division) leaders. The algorithm we use follows the approach outlined by CFHS. Specifically, we closely read each firm’s financial filings (10-K statements, annual reports, and proxy statements) and

attempt to identify the individual(s) who heads up the firm’s activities that are captured by a given segment accounting record. We supplement this information with organizational mappings in the Directory of Corporate Affiliations and business descriptions in other sources (e.g., Bloomberg). If we can make a clear match, we refer to the identified individual as the “division manager” for a given firm year and the corresponding segment as the “division” that they manage. 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 aggregate up to a division managed by an individual. In these cases, we aggregate the segment accounting information to create a division-level record.

We are deliberately conservative in matching 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, we cannot make an unambiguous match because the reported managerial structure of the firm does not closely agree with the firm’s segment-level disclosure policy. After matching managers to firms, we drop all firm years in which we cannot identify a divisional manager under the age of 63 for at least 2 divisions of the firm. The resulting sample, described in Table 1, is composed of 2,191 firms and 5,986 division-manager years. The median firm has 3 divisions, with median firm sales and assets hovering close to \$3 billion.⁵

[Insert Table 1 Around Here]

B. Managerial Backgrounds and Connections

⁵ We impose an age restriction throughout our analysis to minimize the incidence of natural retirements in our predictions of job changes. While our final sample is substantially larger than in the DS study of S&P 500 firms from 2000-2008, it is not as large as one might expect in a proportionate sense, likely owing to a combination of (a) the imposed age restriction, (b) a decline over time in conglomerate firms, (c) a lower propensity for firms not in the S&P 500 to have multiple divisions, and (d) possible differences in hand-collection data procedures.

After identifying the sample, we use biographical sketches in financial filings, along with information from our other data sources, to ascertain each division manager's tenure at the firm and in their current position. As we report in Table 1, the median division manager we study is 51 years old. Given their relative youth, many of these individuals should have strong incentives induced by career concerns.

We use information on shared educational, social, and employer networks to identify connections between CEOs and division managers following the general approach outlined by DS. The choices we make in identifying these connections, which we detail in Appendix A, tend to rely on the more conservative options/definitions that DS consider in their analysis (e.g., insisting that connections were formed in the more distant past and that past common employment experiences were directly overlapping). The underlying data sources for coding these variables include Boardex, Bloomberg, Reuters, biographies in press releases, 10-Ks, and proxy statements. 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 friends of some type, with work friends being the most common. These figures appear broadly consistent with what DS report.

[Insert Table 2 Around Here]

To ascertain whether friends tend to cluster in certain firms, we regress a friend indicator variable for all but the firm's largest division against year dummies and the friend variable for the firm's largest (in sales) division (if a division has multiple managers, we use the eldest). 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 significant, 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 the within-manager correlation of the different types of friend variables, which 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.

C. Job Outcomes

For each firm year, we ascertain whether an individual experienced a job change during the observation year. 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. Details on the procedures used to make these assignments are reported in Appendix B.

Despite substantially different samples, the relative breakdown of division manager job changes, as reported in Panel B of Table 2, is similar to CFHS. By far, the most common job change is a generic departure in which an individual leaves the firm and does not quickly resurface at another employer in a senior executive role (annual rate of 10.60%). The evidence in CFHS, Fee and Hadlock (2004), and Fee, Hadlock, Huang, and Pierce (2018) strongly suggests that generic departure events for non-retirement-age executives typically represent negative career outcomes. We present additional evidence along these lines below. Overt firings and demotions of division managers appear rare, while internal promotions are not uncommon (a

3.19% annual rate when combining definite and probable promotions together), far outnumbering direct jumps to new employers.

D. Resurfacing After Departure

To gain insights into the career consequences of turnover, we use the procedure of Fee, Hadlock, and Pierce (2018) to identify each departed executive's first post-separation position within three years of departure (details in Appendix C). As we report in Panel A of Table 3, 17.94% of departed executives eventually resurface in executive roles in another public firm. Given the pay and prestige associated with these types of positions, we are confident that these resurfaces capture most of the more favorable labor market outcomes for departed/dismissed division managers. Consistent with this hypothesis, we show later that divisional performance pre-separation is a significant predictor of these resurfacing events.

[Insert Table3 Around Here]

Job titles and employer profiles suggest that even these relatively favorable outcomes are typically a step down for departed managers. To investigate, we collect base salary data for the executive at the new and old employer. If a salary is unavailable because an individual is not in a disclosed top-5 position, we assume their salary equals the lowest proxy-disclosed pay at the employer. After inflation adjusting, the ratio of the base salary at the new employer relative to the old has a median of 0.863, suggesting that the typical manager who resurfaces at a public firm experiences a salary decrease (additional details in Appendix D). The propensity to serve in a top-5 position is higher when individuals are in the division manager role relative to when they resurface, suggesting that imputing missing salaries using the lowest disclosed salary is a conservative approach. However, if we are more conservative and assume that a manager's salary always increases when they leave a non-top 5 position and resurface in a top-5 position,

the sample median ratio of new to old salary ratio of 0.883 is still well below 1, again indicating a negative career outcome on average (in addition to any jobless stint between positions).

Turning to a broader set of resurfacing events, we report in Panel A of Table 3 that 43.49% of departed executives resurface in an executive capacity when we also include instances of an individual appearing at a substantive private non-financial firm or a recognized private consulting/financial firm or fund. Thus, many departed division managers seek and eventually obtain new positions with substantial managerial responsibilities. As we report later, prior performance is not a strong predictor of obtaining non-public firm positions, suggesting that these are relatively less positive resurfacing outcomes.

To provide additional context on the new position obtained after departure, we report in Panel A of Table 3 information on the types of jobs obtained at new employers and the size characteristics of the new employer. For the public resurfacers, the overwhelming majority (84.07%) end up in positions below the C-Suite level. At the median, the (inflation-adjusted) sales of these new employers are slightly less than one-third (0.315) of the sales of the old employer and roughly equal to the old division's sales (median ratio of new firm sales to old division sales of 1.055). These figures are consistent with the salary ratio data that suggests that public resurfacers tend to take a moderate step down in the managerial labor market on average.

The data for resurfacing at private firms suggest that these individuals often become bigger fish in much smaller ponds, with 37.89% obtaining CEO-level positions and roughly another quarter ending up in the C-Suite. The remaining 38.51% of these resurfacers land in positions below the C-Suite. However, at the median, these new employers are roughly one-fortieth of the size of the old employer and one-tenth of the size of the old division the manager departed from. These tabulated size ratios are based only on the 37.3% of new private employers listed in the D&B Million Dollar directory, which has a minimum size for inclusion of \$9 million

in sales. If we assign the remaining observations a size of \$9 million, the median ratio of new firm size to old firm size drops to below one-two-hundredths, and the ratio of new firm size to old division size drops to below one-fortieth. While it is challenging to quantify the relative quality of two positions, the very small sizes of the new private employers relative to the old employer appear, to us, to indicate a significant move down in the labor market, even though more than 60% of these individuals obtain a higher-level position at the new employer.

Since many sample managers do not resurface in tracked roles, it may be that they tend to start new firms and that some of these firms find notable success. To investigate, we inspect LinkedIn profiles, if available (412 of 630 cases), for any reference to the word “founder” or “owner,” and otherwise Google first page search results using the individual’s name and keywords associated with founding a firm (e.g., “found,” “startup,” etc.). For 6.35% of departed division managers (40 out of 630), we uncover some evidence that the individual owned or founded a private entity within 5 years of their departure. In most cases, these appear to be instances of the individual starting a one-person or very small consulting operation or purchasing a small franchise associated with the prior employer. Very few of these organizations have a LinkedIn profile, significant web presence, or substantive Crunchbase listing. After inspecting each case, we conclude that four departed sample executives started substantive and moderately successful firms, with three (one) being unconnected (connected) to their prior CEO. Thus, departure events do not appear to precipitate a flurry of successful entrepreneurial activity.

E. More on Division Manager Careers

While the preceding evidence indicates that division managers will be highly incentivized to avoid being pushed out of the firm, they should also be motivated to move up in the organization. As we report in Panel B of Table 3, it is rare for a division manager to be promoted

directly to the CEO position (5.98% of promotions). However, it is common to jump to a position directly below the CEO in the form of the President and/or COO roles (43.48% of promotions). While a few managers end up in other C-level positions (5.43%), the bulk of the remaining promotions (45.11%) entail assuming a role with a broader set of responsibilities, often accompanied by a title upgrade (e.g., Senior VP to Executive VP).

For the relatively few executives who directly jump to a new employer, the figures on Panel C of Table 3 reveal that they tend to move to very senior jobs, with more than half (53.70%) obtaining a CEO position, typically at smaller firms, and roughly another quarter (27.78%) landing C-suite roles. To better understand these job movements, we analyze the individual's base salary at the new employer relative to the old, assuming that the salary for a non-top-5 position is equal to the lowest disclosed salary. In cases with available data (which excludes the many jumps to private and foreign firms), the median inflation-adjusted ratio of new salary to old salary of 1.08 is consistent with the notion of direct jumps representing relatively good career outcomes. If we adopt the more conservative approach of assuming that a manager's pay always decreases if they move from a top-5 position to a non-top-5 role, the median salary ratio remains above 1. Clearly, jumping ship is the more pleasant way for a division manager to leave a firm.

While our paper focuses on exits from the division manager role, we briefly consider how individuals enter the division manager role. As we report in Panel D of Table 3, 70.41% of division managers enter the role as firm insiders, with a mean (median) firm tenure of 12.11 (9.00) years. This indicates that many individuals slowly work their way up through the internal ranks, eventually rising to the division manager level. Interestingly, the internal route taken appears quite varied, with slightly less than one-third (31.30%) being promoted from within the division. Based on Boardex job titles/descriptions, the remaining internal hires are roughly

evenly split between those coming from a non-divisional role and those coming from a different division/group within the firm. This suggests that firms value experience heterogeneity when selecting divisional heads.

Turning to division managers hired from the outside, more than two-thirds (69.16%) come from private firms (Panel D of Table 3), with a fair number of outside hires (25.45%) serving at the CEO/Chair level and some others coming from C-suite level corporate roles (7.66%). This suggests that many outside hires come from very senior-level positions at smaller, frequently private firms, sometimes via an acquisition. We use the D&B Million Dollar Directory to calculate the ratio of the sales of the old employer to the inflation-adjusted sales of the hiring division. When the outside division manager hired served in a C-suite role (including CEO/Chair), this ratio has a median of less than one quarter (.23), indicating that these managers are invited to head up a substantially larger operation than their prior assignment. The corresponding ratio for all other outside hires is 1.42, indicating that many of these hires come from more junior positions at firms larger than the division they are selected to lead.

IV. Friends in High Places and Division Manager Turnover

A. Baseline Evidence on CEO Connections and Division Manager Turnover

To provide 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 substantially lower than the corresponding 12.88% figure for managers with no such connection. These univariate differences suggest a significant role for connections with the CEO in 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 departure/dismissal event and 0 if the division manager stays with the firm in any capacity.⁶ Following CFHS, control variables in this regression include divisional performance (industry-adjusted ROA), firm performance (market-adjusted stock return), relative division size, firm size, and a manager's age and tenure with the firm, along with year and industry effects. We report estimates of the marginal change in probability of departure for a one-unit change in the explanatory variables, holding other variables at their sample means.

In model 1 of Table 4, we report estimates for an initial model that includes only the control variables. As expected, the estimated marginal effect on divisional performance as measured by the division's industry-adjusted-ROA is negative and highly significant, indicating that a departure/dismissal is 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 many levels of an organization are sensitive to quantitative 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 departures to be largely unrelated to performance.

[Insert Table 4 Around Here]

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 voluntary retirements as division manager age increases, a phenomenon widely reported in the

⁶ All other events are coded as missing values. If we instead assign a value of 0 for the dependent variable when these other events occur, the Table 4 results are substantively unchanged. The findings are also unaltered if we treat the internal demotion events as equivalent to a dismissal/departure in the coding of the dependent variable. The promotion model estimates in Table 7 are also substantively unchanged if dependent variables with missing values are replaced with 0s.

CEO turnover literature (to account for this, we have excluded managers aged 63 or over from the estimated models). However, most division managers are far from retirement age, and, as we discuss above, the job prospects of departed/dismissed managers are generally poor. Thus, most departure events should reflect non-retirement involuntary turnover, with age controlling for some residual voluntary early retirements for the more seasoned division managers approaching traditional retirement age.

In model 2 of Table 4, 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 departure model. Consistent with the univariate figures, the highly significant estimated marginal effect on the connection variable indicates that the probability of a division manager's departure/dismissal declines sharply when a connection with the CEO exists. The point estimate on this decline of 4.25% is large (almost 40%) relative to the sample mean departure rate of 10.89%, suggesting that connections play a prominent role in how division managers are treated by CEOs in dismissal decisions. To provide a context on the magnitude of this effect, we note that the implied increase in the probability of departure/dismissal in this baseline model when divisional performance falls from the sample 90th percentile to the 10th percentile is 1.52%.

Logit models predicting turnover do not lend themselves to the inclusion of unit-level fixed effects. However, 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 unique friend variable that 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 unique friend variable in place of the baseline friend variable, the estimated marginal effect, reported in model 3 of Table 4, is quite similar in magnitude to

what we estimate in the baseline model.⁷ Thus, our results do not appear to reflect a firm-specific factor that drives a firm's tolerance of connection-based job allocations and its cultural resistance to dismissals.⁸

Since CEOs often make managerial changes soon after their appointment, we augment the baseline model by including a dummy indicator for whether the CEO was replaced during the current or past year, along with a CEO tenure variable. As we report in model 4 of Table 4, including these variables has no material effect on the connection estimate. Simply excluding observations with a new CEO in the current or prior year also has no substantive effect (model 5, Table 4).⁹

B. Performance and Turnover

The finding above that division managers with connections to the CEO depart at an unusually low rate suggests that connected managers are provided a longer leash than their unconnected counterparts. A natural question that follows is whether the decision to remove these managers depends on performance in a way that is consistent with efficient updating concerning the manager's ability to lead the division. To investigate, we estimate baseline models predicting departures/dismissals separately for connected and unconnected managers.

⁷ Motivated by DS, we have also experimented with creating a within-firm relative friendship/connection variable by subtracting from the friend with CEO variable the average level of this variable for a firm's other division managers in the same observation year. Using this variable in place of the friend variable has no substantive effect on our Table 4 and Table 7 baseline model findings.

⁸ We can even hold division characteristics completely constant by considering the 43 observation pairs in which a division has a friend and a non-friend as co-managers. We observe departures for 3 (8) of the 43 friend (non-friend) observations. This difference is almost significant using a test of proportions ($p=.1086$ using Stata's `prtest`).

⁹ If we consider cases in which a CEO leaves the firm in what appears to be a natural retirement (leaving at age 63 or older), we find that 3 of the 4 division manager friends depart in the subsequent year, while 5 of the 53 non-friends depart in the next year. This difference in rates that is highly statistically significant. While the numbers are small, this evidence is consistent with a loss in job protection when a connection exogenously ends.

As we report in models 6 and 7 of Table 4, in the case of connected division managers, the estimated marginal effect of divisional performance on turnover is small in magnitude, of the wrong sign (positive), and insignificant. In contrast, for unconnected division managers, the marginal effect estimate for performance is large, of the correct sign (negative), highly significant, and significantly different from the connected manager estimate ($t=2.74$). We have also experimented using the change in divisional ROA over different windows and an indicator for very poor (bottom decile) performance to predict turnover for connected division managers. In many cases, the marginal effect estimate on performance remains of the wrong sign, and in all cases, the estimated effects are small and far from significant. Thus, having a connection to the CEO appears to both lower the risk of losing one's position and eliminate the role of performance as a determinant of any remaining risk.

As a robustness check, we have also experimented with including a term interacting the connection variable with divisional performance in the baseline departure model. Given the concerns raised by Ai and Norton (2003), we follow the Radean (2023) generalization of the Norton, Wang, and Ai (2004) procedure to assess interactive effects in logit models. The mean interaction effect calculated across all observations is negative and significant at the 5% level, indicating significantly different turnover-performance sensitivities across the two groups.

To further explore, we report in Table 5 departure rates by performance quintile for both populations of managers. The data show a clear monotonic pattern of lower turnover as performance improves for unconnected managers and a flat to perhaps slightly upward pattern for connected managers. While the turnover rate is lower for the connected managers in all quintiles, the decrease is quite large for the worst performance quintile (10.67%) and is smallest in the best performance quintile (3.33%). Thus, the protections offered by connections appear to be particularly large when performance is quite poor.

[Insert Table 5 Around Here]

C. Different Types of Friends

The evidence above suggests that CEOs have allegiance to managers with whom they share a connection. We might expect these allegiances to be particularly strong when the CEO plays a significant role in selecting the manager. To investigate, we first divide the sample into selected and inherited division managers, where selected division managers (SDMs) are those who become division managers during the CEO's tenure, and inherited division managers (IDMs) are ones already in place when the CEO starts in office. Since some division managers may have already been penciled in to lead the division based on traditional promotion patterns in the firm, we also divide the sample into selected managers (SMs) who are those who started at the firm in any capacity after the CEO began in office, and the complementary group, which we refer to as inherited managers (IMs).¹⁰

We report estimates for these subsamples in the first four models of Table 6. The estimate on the friend variable is positive and significant for both parts of each sample partition, with no evidence of economically or statistically significant differences between the selected and inherited groups. The finding of a significant estimated friend effect for the inherited subsamples indicates that our baseline evidence is not solely a reflection of CEOs selecting friends that they are subsequently reluctant to dismiss.

[Insert Table 6 Around Here]

It is unclear whether all connections are created equal when it comes to job protection. One might suspect, for example, that work connections result in a deeper bond than simply

¹⁰ A different type of selection could be at play if CEOs tend to join firms where they share connections with existing managers. We have calculated friendship rates assuming CEOs join the closest industry-size match in the sample annual cohort rather than the actual employer (placebo rates calculated using solely Boardex information). Rates of friendship are similar for the placebo and actual matches, offering little support for this selection channel.

having attended the same school or having been associated with the same non-work organization. This deeper bond could result in a greater degree of inefficiency, for example, a reduced willingness to dismiss an underperforming manager when there has been close past overlap, or greater efficiency, such as larger gains from working together and retaining a manager when past interactions have fostered trust and understanding. Given this reasoning, one might suspect school and social connections to be less important in how managers fare under a CEO, but ultimately, this is an empirical question. These latter two types of connections may proxy more for similarity in backgrounds, but ample evidence exists that favoritism biases based on similarity can play a significant role in labor markets (e.g., Giuliano, Levine, and Leonard (2009)), and similarity may also allow individuals to work more effectively together (McPherson, Smith-Lovin, and Cook (2001)).

In the last three models of Table 6, we report estimates of turnover models in which we categorize friendship based solely on one of the three friendship types. The estimates on all three friendship types are negative. In the case of work friends and social friends, they are highly significant and similar in magnitude, indicating that both types of connections are associated with a slightly over 5% annual reduction in the probability of departing. The fact that our main finding holds when restricting attention solely to work friends suggests that it is more than just similarity that underlies our turnover findings. However, the negative marginal effect estimates for the other friend types are consistent with similarity also playing a role.

To shed additional light on the role of similarity, in untabulated results, we have experimented with supplementing the baseline model with an indicator variable for whether the CEO and division manager are of the same gender, as gender captures a different type of similarity. With the most common grouping, a male CEO and male division manager (MM), as the omitted category, we find that indicator variables for the two groups with dissimilar genders

(i.e., FM and MF) are small in magnitude and statistically far from significant, offering little evidence that similarity/dissimilarity on this dimension plays a substantive role in turnover. The marginal effect estimate on the rarest group, a female CEO and division manager (FF), is positive and highly significant, suggesting that this alternative type of similarity is associated with a particularly tough, rather than lenient, dismissal process. We leave a more extensive analysis of gender dynamics to future work.¹¹

V. Moving Up Rather than Out

As discussed above, some 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. Since CEOs appear resistant to dismissing their friends, we may expect the mechanism leading to this behavior also to lead them to be relatively eager to promote connected managers. To investigate, we group probable and definite promotion events together and examine the relationship between these promotion events and connections. A simple univariate comparison offers initial support for our suspicion, as the annual promotion rate for friends of 6.20% is almost double the 3.16% rate for non-friends.

We next estimate multivariate models that parallel our departure models, with a dependent variable that assumes a value of 1 for promotions and 0 if the division manager stays in their position and is not promoted. The initial model in model 1 of Table 7, which does not include the connection variable, reveals that younger managers, managers at a firm's larger division, and managers at larger firms are more likely to be promoted. The estimate on divisional performance, while positive, is not significant. Given the findings of CFHS, this is not

¹¹ Only 0.15% of all sample observations represent a female-female pairing, and thus, a full examination of this issue would need to be conducted in a setting with more gender heterogeneity.

altogether surprising, as tournaments for relatively rare top-level promotions may reward only small differences in within-firm relative performance and only in a conditional sense (i.e., when a job opening arises), limiting the prominence of performance as a predictor in simple unconditional linear models. If friends are favored in promotion contests, this will further weaken the role of performance, as promotions will represent outcomes from heavily handicapped tournaments.

Adding the connection variable, the baseline promotion model in model 2 of Table 7 reveals a strong positive relation. Friends have an implied 2.49% elevation in promotion rates relative to non-friends, a sharp (over 75%) increase relative to the sample baseline promotion rate of 3.19%. The estimated effect is substantively unchanged if we replace the friend variable with the unique friend version (model 3 of Table 7). Thus, connections to the CEO do appear to significantly improve a division manager's internal promotion prospects.

While rare, some division managers are awarded board seats at their employers. Since these can also be viewed as favorable internal outcomes, we may expect to see a similar connection effect for these events. Investigating, we find that 71.43% of the board seats awarded during the sample period (10 of 14) were to managers connected to the CEO, a rate far higher than the sample-wide connection rate of 17.95%. Similarly, when we examine cases where a sample division manager had a board seat at the firm in the first year they appear in our sample, we find that 47.06% (16 of 34) were connected to the CEO when they initially obtained the seat. While the number of board positions obtained is small, these significantly elevated rates echo the promotion findings, suggesting that connections increase the likelihood of favorable internal labor market outcomes.

To explore selection issues, we again partition the sample into selected and inherited groups, with estimates for each group reported in the last four models of Table 7. For both the

selected division managers and selected managers (models 4 and 6), the estimated marginal effect on the friend variable is large (greater than 3%) and highly significant. In contrast, for the inherited division managers (model 5), the estimate is small and insignificant, while for inherited managers (model 7), it is moderate in size (1.77%) and not quite significant at the 5% level ($p=.052$). Tests for the difference in Table 7 marginal effect estimates for friendship between the SDM and IDM (SM and IM) groups are significant at the 10% level (insignificant at conventional levels). This evidence weakly hints at a higher degree of allegiance in promotions to connected individuals selected by the CEO.¹²

[Insert Table 7 Around Here]

Since jumps to a new employer are often external labor market promotions, it is interesting to consider these job movements. We would expect connections to the CEO to play no role in these events unless connections are proxying for unmeasured general managerial ability. In an untabulated model, we have estimated a regression that parallels the baseline promotion model, with the dependent variable assuming a value of 1 for jumps to a new employer rather than for an internal promotion. The estimated marginal effect on the friend variable in this model of .08% ($p=0.820$) is negligible in economic magnitude, providing no evidence that a connection to the CEO affects external promotions in the same way that it does for internal moves upwards.

We also estimate separate promotion models for each friend type (full estimates not tabulated for brevity). The estimated marginal increase in the likelihood of promotion is 1.27% ($p=.183$) for work friends, 4.54% ($p<.01$) for social friends, and 1.03% ($p=.323$) for school friends. Thus, it appears that the overall positive role of friendship in predicting promotions is

¹² If we estimate models that interact the friend variable with the selected group indicators, the mean interaction effect is insignificant when comparing the SDM managers with the IDM managers and the SM managers with the IM managers.

most heavily driven by the social connection variable. This contrasts somewhat with the model predicting turnover in which both work and social connections appear of fairly equal importance.

VI. Costs and Benefits of Friendship

The evidence above is consistent with CEOs favoring connected division managers in retention and promotion decisions. However, it is unclear whether this is good or bad for shareholders. Much of the prior literature emphasizes the dark side of connections in which inefficient favoritism leads to decisions that destroy value. However, there are theoretical channels in which a personal connection may increase firm performance and shareholder wealth, for example, through superior information flows between connected individuals leading to enhanced joint productivity. We explore these two distinct possibilities via several additional tests, with an a priori view that both types of effects are likely to be present to varying degrees depending on the economic setting.

A. Evidence Based on Divisional Performance

The evidence earlier that departures of connected managers are unrelated to performance supports the inefficiency hypothesis, as we would expect negative performance signals to result in a downward revision in a manager's assessed ability, even if the manager has a natural productivity advantage working with the CEO. However, patience with these connected poor performers may be merited and efficient if they are relatively more successful in turning around their poorly performing units. To investigate, we focus on divisions in the bottom performance decile of the sample and ask whether subsequent performance changes are related to the connected status of the manager and the retention decision.

Limiting attention to cases in which we can measure performance two years after the turnover observation window (year +2), we find that only 1 of the 35 connected division managers heading an extremely poor performing division loses their job in the year after the episode of very poor performance. This rate contrasts sharply with 17 departures out of 135 for unconnected managers, consistent with our earlier findings. Turning to subsequent performance improvements based on year +2 performance compared to the year of extreme poor performance, the figures in Panel A of Table 8 indicate that the connected managers are not particularly successful in improving the bad situation. In fact, they support the opposite conclusion. While divisions led by both connected and unconnected managers experience performance improvements, as is expected given well-known mean reversion in operating performance, the connected group underperforms the unconnected group by 8.40% in means and 1.98% in medians, differences that are significant at the 5% level.

[Insert Table 8 Around Here]

This initial comparison does not condition on whether the manager departed, and thus, it offers unconditional insights into differences in the role of the turnover mechanism in guiding performance improvements across the connected and unconnected manager pools. As an alternative, we conduct a conditional analysis by comparing the subset of connected and unconnected managers who were retained. In this case, the figures in Table 8 again reveal relatively poorer performance improvements for the connected group relative to the unconnected group, with mean and median differences of 9.21% and 4.34%, respectively, both significant at the 5% level. We conclude that there is no evidence that the retained connected managers are especially effective at righting the ship, as the data supports the opposite conclusion.

An alternative way to assess whether connected managers have a productivity advantage working with the CEO is to see if performance abnormally improves after they are appointed.

However, we detect no supportive evidence, as reported in Panel B of Table 8. The change in divisional performance after selecting a connected manager is slightly better than for unconnected managers in means and worse in medians, but these very small differences are both economically and statistically insignificant.¹³

B. Market-Based Evidence

Many of the promotion events in our sample are accompanied by a press release or news article, providing us with an opportunity to examine the market's view of these events.¹⁴ To do this, we conduct Factiva searches for all sample division manager promotions to identify announcements in which the promotion was the focal point of a news release or article. We use these dates to conduct a standard event study, focusing on the three-day cumulative abnormal return over the day -1 to day +1 window centered on the news release date. Abnormal returns are measured using the value-weighted market model, with model parameters estimated over a 200-day window ending 10 days before the announcement date, with a minimum of 140 return days required for estimation.

As we report in Table 9, the mean and median market reactions to promotion announcements for the friend group are both slightly below -1% (-1.33% and -1.10%, respectively), and both are highly significant. In sharp contrast, the mean and median reactions for non-friend promotions are positive, very small in magnitude, and far from significant. Differences in mean and median reactions between groups are significant at the 5% level. These

¹³ The findings on connections for all comparisons in Table 8 are substantively unchanged if we regress performance changes against the initial level of performance (to adjust for mean reversion) and an indicator for the connected status of the manager. The overall sample correlation between division performance changes and levels with connected status is very slightly negative.

¹⁴ Clean announcements of division manager appointments are much less widely available.

findings are substantively unaltered if we use simple market-adjusted returns instead of market-model abnormal returns. The market's pessimism for connected promotions is consistent with an agency-based inefficiency explanation for the preferential treatment given to connected division managers in sample promotions, at least viewed in an average sense.

[Insert Table 9 Around Here]

C. Life After Departure/Dismissal

Next, we consider differences in post-separation labor markets. If a connected division manager is dismissed despite a CEO's bias toward this type of individual, we reason the manager is likely to have a particularly low level of ability compared to their unconnected counterpart. 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 efficiency-based explanations for our main turnover findings.¹⁵

Turning first to cases of resurfacing as an executive at a public firm, outcomes which appear to be the best on average, the resurfacing rate for connected division managers of 8.33% is far lower than the corresponding rate of 18.95% for unconnected managers. A similar large difference, 28.33% versus 45.09%, is evident for all executive resurfacing events, which includes joining private organizations. This univariate evidence appears broadly consistent with our expectations if connected low-ability managers are inefficiently retained.

In Table 10, we present multivariate estimates predicting whether an executive obtains a public job (models 1-3) or any executive job (models 4-6). The initial model for resurfacing at a public firm (model 1) indicates that divisional performance before departure is a substantial predictor of re-employment, a finding that does not extend to all executive resurfacings (model

¹⁵ There are possible scenarios in which connections benefit shareholders while also leading to a particularly low-ability pool of connected dismissed managers. Most of these scenarios appear, to us, somewhat implausible. The approach of using the external labor market to assess inferences regarding individual ability has a long tradition (e.g., Kaplan and Reishus (1990), Fos and Tsoutsoura (2014)).

4). This supports the notion that public resurfacings are the relatively better post-separation outcomes, as they are obtained by managers who have signaled relatively higher ability via performance. The age variable is negative and significant in all models, consistent with natural supply and demand considerations.

[Insert Table 10 Around Here]

The other models in Table 10 include the friend variable. First, we add the variable to the initial models (models 2 and 5), and next, we remove insignificant control variables to maximize potential precision (models 3 and 6). The estimated effect on the friend variable is negative and significant in all cases. In the public (any) executive job models, connections are associated with an estimated decrease in the probability of obtaining a new position of more than 11% (20%), implying a reduction of more than 45% relative to the overall sample rate of securing these positions (17.94% and 43.49%, respectively.)

One might be concerned that these resurfacing findings are particularly noisy for managers departing from smaller firms, as press coverage of these job movements may be limited. Given this concern, we re-estimate the resurfacing models on firms with inflation-adjusted book assets above the sample median. The estimated marginal effects for connections in this subsample are very similar to what we report for the sample as a whole.

D. Corporate Governance and Incentives

In the spirit of a test offered by DS, we next separate the sample into firms with relatively weaker and stronger governance and incentive structures. If the behavior we uncover above has a large inefficient favoritism component, we would expect a stronger role for connections in firms with relatively weaker governance and incentive structures. We limit these tests to models

predicting departures, as marginal effect estimates in departure models are more precisely estimated owing to the relatively more common occurrence of these events.

Paralleling the DS approach, we begin by creating a governance score based on an equally weighted average of the firm's entrenchment index (E-index) value, level of institutional ownership, and level of managerial ownership. As in DS, we measure these variables in percentile terms relative to the annual cohort before taking averages. We invert the percentile ranking of the E-index score so that all components of the overall governance score reflect anticipated better governance (lower E-index values, higher institutional and managerial ownership). Additional details are reported in Appendix E. We create an initial sample division based on whether a firm's score lies below or above the sample median.

As DS point out, incentives induced by high CEO ownership may be particularly important in curbing agency problems. Similarly, an extensive literature indicates that active outside blockholders can play a significant monitoring role in minimizing managerial agency problems (Shleifer and Vishny (1986)). Thus, if a firm has a high CEO ownership position (more than 1%) or at least one blockholder that Hadlock and Schwartz-Ziv (2019) characterize as an unaffiliated individual or a strategic investor, we move the firm to the strong governance/incentives group, even if their initial governance score alone would not qualify them for this assignment.

At the same time, a substantial literature illustrates that firms with dual-class shares and unequal voting rights often have governance problems that dwarf what is captured in governance indexes (for an overview, see Bebchuk and Kastiel (2017)). Thus, we move firms into the weak governance/incentives group if they have dual-class shares or shares with unequal voting rights, even if their initial governance score alone would not land them in this group.¹⁶ After making

¹⁶ For the few cases with high CEO/block ownership and shares with different voting rights, we assign the

these adjustments, the sample is split roughly in half, with 2,575 (2,761) observations in the weak (strong) governance/incentives subsample.

As we report in models 1 and 2 of Table 11, the estimated marginal effect of connections in reducing departure/dismissal rates is economically and statistically larger for the weaker governance/incentives group. The estimated differences are large in economic magnitude (marginal reductions of 6.64% versus 1.59%), and they are statistically significant ($t=2.23$) for a test of equality of marginal effects. This conclusion is unaltered if we use the Radean (2023) procedure to estimate an average interaction effect in a single model that allows the departure-connection sensitivity to vary across the two groups. This evidence of a stronger role for connections in firms with weaker governance and incentives adds additional support to the hypothesis that part of the role of connections we detect in our sample is driven by inefficient favoritism.¹⁷

[Insert Table 11 Around Here]

E. Information and Efficiency

The tests in the subsections above support the notion that the role of connections in job changes has a substantial component related to inefficient favoritism. However, we certainly would suspect there to be substantive benefits to CEO-division manager connections in some settings. Testing for the presence of these benefits is challenging, as it is unclear how to identify situations in which these benefits are likely to be particularly large. One commonly hypothesized benefit is that information may more freely flow between a connected subordinate

observation to the weak or strong groups solely based on their initial governance score. If we remove the CEO ownership from the managerial ownership measure in creating the initial governance score, the Table 11 findings are substantively unchanged.

¹⁷ If we separate firms solely by below/above median governance scores with no adjustments for CEO/blockholder ownership or differential voting rights, the marginal effect point estimates on connections for the weak group are much larger and more significant than for the strong group, but the difference is not statistically significant at conventional levels.

and a superior, enabling more efficient intrafirm economic interactions. DS provide evidence for this benefit in the context of capital budgeting, and we attempt a similar investigation here, focusing on variation across divisions rather than firms.

We expect CEOs to experience more challenges sharing information, monitoring, and interacting effectively with divisions that are more peripheral from the firm's primary focus, as the CEO is less likely to be intimately familiar with these divisions. In these interactions with higher levels of asymmetric information, the benefits of connections may be elevated if the connection fosters more transparent information sharing and a higher degree of trust. To explore, we separate the sample into peripheral (core) divisions based on whether the division's primary 3-digit industry SIC code differs from (is the same as) the firm's primary SIC code. The 3-digit choice separates the sample approximately in half.

As we report in models 3 and 4 of Table 11, the data do reveal a difference in the role of connections across these two groups, with connections in peripheral segments having a much larger and more significant estimated marginal effect on departure rates (a reduction of 6.40% for peripheral segments versus 1.88% for core segments). These estimates are statistically different from one another ($t=2.17$ for a test of equality of the marginal effects), a finding that is unaltered if we instead estimate a parallel model with an interaction term for connections and peripheral status. This evidence offers support for the presence of efficiency gains from connections in intrafirm interactions characterized by a high degree of information asymmetry. Coupled with the evidence above on inefficient favoritism, it suggests that the net efficiency effect from the presence of connections will depend on the relative magnitude of both types of effects, which will vary systematically across economic settings.

VII. Conclusion

In this study, 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 robust evidence indicating that division managers who are connected to the CEO are substantially less likely than others to depart from the firm in events that appear less-than-voluntary, and they are much more likely to be promoted. We believe these findings strongly reject the null hypothesis that personal connections are irrelevant in CEO-division manager interactions and division manager incentives. Relationships appear to matter quite substantially.

While it appears advantageous for a division manager to be connected to the CEO through a connection, it is less clear whether this is advantageous for shareholders. We present several pieces of evidence supporting the presence of inefficient favoritism underlying at least some of our evidence. In particular, departures for managers connected to the CEO are completely divorced from divisional performance, even though these managers show a subpar ability to recover from extremely poor performance. The market reacts negatively to the news of connected division manager promotions, with no similar reaction for their unconnected counterparts. In addition, connected managers appear particularly unlikely to resurface in prestigious positions after departure, consistent with a dim labor market view of their abilities. Finally, connected managers appear to be more protected from turnover in firms with relatively weak governance/incentive structures. While none of these single findings is conclusive, in aggregate, the evidence appears strongly supportive of the presence of inefficient favoritism underlying a substantial part of our findings.

We certainly expect that there are some settings in which there are large joint productivity benefits of connected individuals working together, which would justify their preferential treatment in the internal labor market on efficiency grounds. One way that joint productivity

may be enhanced is through more efficient information sharing owing to higher levels of trust or more compatible communication styles. Consistent with this hypothesis, we find that connections afford more protection from turnover in firms' peripheral segments compared to core segments, as we expect informational frictions between the division and headquarters to be particularly high for these peripheral units.

Our evidence that relationships matter for labor allocation decisions at the top of the corporate hierarchy complements the related literature regarding capital allocation decisions, most notably Duchin and Sosyura (2013). Like those authors, we find evidence consistent with the hypothesis that division managers with a connection to the CEO benefit from this relationship, with additional evidence supporting both sides of the efficiency debate. We uncover significant evidence that the preferential treatment of connected managers may be inefficient, so certainly, firms should be cautious in their tolerance of these types of relationships. However, since there are potential offsetting benefits and some evidence for their presence, extreme limits on these relationships would appear unwise. Hopefully, future research can more precisely identify the situations in which connections are beneficial rather than detrimental in a net sense to provide more refined guidance.

Appendix A. Identifying Division Manager-CEO Connections

We identify connections between CEOs and division managers using a procedure that parallels the approach of Duchin and Sosyura (2013) (DS). Following those authors, we consider three types of connections based on social ties, educational ties, and common prior employers. We identify these connections using the same Boardex data exploited by DS and supplement it with additional biographical information from Bloomberg, Reuters, and biographical sketches in press releases and financial filings.

For each CEO and division manager in the sample, we determine all post-secondary institutions from which the executive earned a degree. If a CEO and a division manager both have a degree from a common school, we consider these individuals to have an educational connection. As we report in Table 2, 5.07% of division managers are connected to the CEO via an educational tie. We do not consider more granular measures of educational ties, as DS report quite low measures of overlap when placing additional restrictions on this measure.

Following DS, we define a social connection to be a case in which a CEO and a division manager share an association with a common organization (excluding employers) when first appearing at a sample firm. Organizational associations are based on identified current or past memberships or leadership roles, as indicated by our biographical data sources. These organizations include religious organizations, charitable foundations, other nonprofits, social clubs, and trade/industry/professional organizations. To be conservative, we insist that all social connections were established before the CEO took office. These connections are slightly more common than educational connections, with a sample-wide frequency of 6.07% (reported in Table 2).

After identifying each sample executive's reported career history, we consider a CEO and division manager to be connected via work/employment if they shared a common full-time

employer (not including the current employer) during an overlapping period at some point in the past. DS report that when executives share a common past employer, there is usually an overlapping time window in which both individuals worked at the employer. This observation, coupled with the DS evidence that their capital budgeting findings hold when requiring a career overlap at a prior employer, leads us to use this relatively strict definition from the set of DS employment connection categorizations. Employment connections are the most common type of connection in our sample, with an overall frequency of 11.14%, as reported in Table 2.

Appendix B. Categorizing Job Changes

For each division-manager-year in the sample, we use our data sources to determine whether the division manager at the start of the fiscal year was still in the same position at the end of the fiscal year. If so, we refer to this as a “no change” observation, and the dependent variable is coded as a 0 in all estimated departure and promotion logit models. In all other cases, we assign the job change to one of several mutually exclusive categories, following the approach of Cichello, Fee, Hadlock, and Sonti (2013) (CFHS) in these categorizations. Our categorization of these job changes relies on information in financial filings (10-Ks, proxy statements), Factiva news article searches, and job titles listed in our data sources.

If the division manager stays with the firm but experiences a substantive change in job title, we examine the manager’s new and old job title to assess whether the job change likely reflects an upward or downward move within the firm. We categorize a job change as a “definite promotion” if the individual’s new job title is CEO, president, COO, CFO, Chief Technology Officer, Chief Marketing Officer, or any other title suggesting a very senior leadership role working closely with the CEO. We categorize as “probable promotions” all cases in which the division manager either (a) assumes a senior position with apparently general corporate oversight

responsibilities (e.g., Senior Vice President of Strategic Development and Execution, Vice President of Global Strategy and Operations, etc.), or (b) becomes the division head of a relatively larger division at the firm (measured by divisional assets).

Turning to more negative events in which the executive remains with the firm, we place a job change in the “demotion” category if the individual’s new job title suggests a position of relatively less responsibility (e.g., being assigned to a relatively smaller division at the firm). As noted by CFHS and many other authors studying internal labor markets, clear demotions are exceedingly rare. If the individual’s new job title suggests a largely ceremonial role (i.e., a position with no apparent executive responsibilities such as “head of special projects”), we categorize the job change as “ceremonial.” Similar to demotions, these events are rare. All other job changes in which the individual’s new title is neither clearly superior nor inferior to their prior position are placed in a “lateral movement” category. Given the rarity of outright demotions, we suspect these events are more often moves up rather than down in the corporate hierarchy, but we follow the agnostic and conservative CFHS treatment.

Turning to events in which a division manager departs from the firm during the fiscal year, we assign to the “jump” category all job changes in which an individual leaves the firm and immediately accepts a position elsewhere (i.e., takes a position in another firm within one month of separating from the current employer). Prior research (Fee and Hadlock (2003), (2004)) suggests that these events usually represent career moves up in the external labor market. We place all departures in which news articles indicate that an executive was forced from office or is demoted and leaves shortly thereafter into the “forced” category. These events are quite rare, almost surely reflecting limited press coverage and/or frankness in disclosures about division manager departures. A small number of departures are placed in a separate “exogenous”

category if the departure appears to have taken place for exogenous reasons that are unlikely to reflect a deliberate decision by the firm (e.g., health, death, etc.).

The final departure category represents the most common job change event by far. These “generic” departures are cases in which we find little or no press account of the departure, or the departure is categorized by the press or a press release in very generic terms such as that the individual resigned, stepped down, left to pursue other interests, early retirement, etc. Previous research indicates that most generic departures for executives below retirement age represent involuntary changes in which an executive was eased out of the firm, but the categorization of the event is reported in a generic or non-descript way to be respectful or for legal/public relations reasons. Surely, a few of these events for older division managers are voluntary retirements, and thus, we include age controls in all models.

Appendix C. Categorizing Post-Separation Labor Market Outcomes

For each division manager who departs from the firm, we search for the individual’s first post-departure full-time employment position by searching for the individual’s name on Factiva and our other data sources over a 3-year window following the departure event. Requiring that a resurfacing appears in one of these data sources assures that these new positions have consequential executive responsibilities. We categorize the post-departure labor market outcome of the individual based on the identity of the first identified new employer (if any). If the first new employer detected using this procedure is a public firm, we categorize this as a “gets public job” resurfacing event. In most of these cases, the individual’s title at the new employer suggests a position with a relatively senior executive role. If the individual first resurfaces at a non-public employer, and the employer appears to be a substantive private non-financial firm or an established private consulting/financial firm or fund, we include these events along with the

public job events in the broad “gets executive job” job outcome category. The only identified new jobs that are excluded from this category are cases in which it appears likely that the individual started their own consulting/financial firm or fund, as this option would appear open to virtually all sample executives and does not provide insight/information on the external labor market’s assessment of the individual’s talents. The prevalence and success of any post-separation founded organizations are described in the text.

Appendix D. Division Manager Employers and Compensation After Exits and Before Entry

In all salary comparisons, we use the individual’s annual base salary for a full year of service as reported in the firm’s proxy statement. When an executive’s compensation is not reported, we use the firm’s lowest disclosed base salary for a full year of service, which is typically the firm’s fifth highest-paid executive. We inflation-adjust all salary figures by calculating the median annual growth rate of executive base salaries in Execucomp each year and using the resulting inflation factors to the inflation-adjust salaries.

All information on division managers’ prior titles and employers is entirely derived from Boardex information. For both internal and external hires, prior job responsibilities are categorized based on reading Boardex titles and descriptions. For outside hires, the listing status of the employer is derived from Boardex. The sales of the prior employer in the year before starting as division manager are collected from the D&B million-dollar directory and are restricted to cases in which the employer is available in that publication (available for 64.44% of all observations). The sales of the division when a manager first leads the division, when not directly available from the sample data, is inferred by multiplying the firm’s sales figure in the first service year by the ratio of division sales to firm sales for the first available sample year.

Sales figures are inflation-adjusted using the annual median sales growth rate calculated for the Compustat universe.

Appendix E. Measuring Governance/Incentives

We create a firm's entrenchment or E-index value in a given year by adding the 6 different entrenchment indicators identified by Bebchuk, Cohen, and Ferrell (2009) and collected from the available ISS governance data (new and legacy) on WRDS. In years for which this data is unavailable, we use the most recent preceding year with data available. We use E-index values, as G-index values following the approach of Gompers, Ishii, and Metrick (2003) cannot be constructed for much of our sample period due to the discontinuation of many of the index components in ISS. Institutional ownership is collected from Thomson Reuters, and managerial ownership is from Execucomp. If these ownership variables are missing in a given year, we infer values from a linear interpolation between the closest available years that sandwich the observation year. We convert each of these raw variables to percentiles relative to the annual cohort, reversing the E-index values so that higher percentile scores on each of the three components indicate better governance. The firm's initial governance score is set as the equally weighted average of these (percentile) components. If one component is missing in a given year, we fill in a value with the sample median. If two or three are missing, we code the initial governance score as missing.

In making adjustments after the initial governance score sorts, we use CEO ownership data from Execucomp and blockholder ownership data from Hadlock and Schwartz-Ziv (2019). The unaffiliated individual blockholders and the strategic investor blockholders (a group that includes activist hedge funds and private equity firms) are the blockholders they track that appear most likely to engage in close monitoring of the firm. The presence of dual-class shares and

unequal voting are taken from the ISS data.

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Table 1
Sample Composition and Summary Statistics

Table 1 reports sample characteristics for a sample that includes all S&P 1500 firms from 2000-2015 with at least two divisions with identifiable division managers under the age of 63 that can be matched to Compustat segment data. Divisional data is for all divisions with managers under the age of 63 at sample firms. All non-ratio variables in the paper are inflation-adjusted to 2015 dollars (dollar units are in millions). All continuous financial variables used in the paper are winsorized at the 1% tails. Financial information is derived from the Compustat firm and segment files. Using Compustat variable labels in parentheses, the financial variables include firm assets (AT), firm sales (SALE), division sales (SALES), and division assets (IAS). We define division ROA as division operating profit (OPS) divided by division assets (IAS) measured from the same segment-year record. Firm ROA is defined as Operating Income After Depreciation (OIADP) divided by firm assets (AT) measured from the same firm year record. The market-adjusted stock return is the prior twelve-month buy-and-hold return (including dividends) less the CRSP equal-weighted return over the same period.

Panel A: Sample Composition & Managerial Characteristics	
Sample Period	2000-2015
Number of Firms	367
Number of Firm Years	2,191
Number of Division Years	5,738
Number of Division 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%
Firm ROA	9.29%	9.10%	5.62%
1-year market-adjusted stock return	1.76%	-1.08%	40.50%

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

Table 2 reports statistics on connections and job outcomes for all sample division-manager-year observations with the additional requirements that a division must exist at the start and end of the observation fiscal year. Panel A reports the rates of connections between division managers and CEOs. School friends are cases where the division manager received a degree from the same university or college as the CEO. Social friends are cases in which the division manager and CEO share a membership in the same organization (professional, social, educational, etc.). Work friends are cases where the division manager and the CEO had a prior career overlap at a different employer. The Any Friend variable captures cases in which the division manager and the CEO share a connection of at least one of these three types. The reported within-firm correlation figures are obtained by regressing each respective friend variable for all but the firm's largest division as measured by sales against year dummies and the same respective friend variable for the firm's largest division (if multiple managers lead a division, the friend variable is coded based on the eldest manager). The resulting regression coefficient is reported in Panel A as the within-firm correlation. The other correlations in Panel A are simple correlations of friendship status calculated across all division-manager years. Each row of Panel B pertains to a specific set of observations in which the indicated type of job change (or lack of job change) occurred. Frequencies in Panel B are measured as a percentage of all division manager observation years. The no-change observations are cases in which the division manager served as the head of the division at the beginning and end of the fiscal year in question with no substantive change in job title or responsibilities. The job change/turnover category flags all other cases, including cases in which there was a change in the identity of the division manager or a substantive change in an individual's job title/responsibilities during the observation year. The depart cases are job changes in which a division manager leaves the firm, with details on each category of departure reported in the text and appendix. The stay cases are job changes in which the division manager does not leave the firm, with details on each type of change described in the text and appendix. For each observation, ROA is calculated as division operating profit (OPS) divided by division assets (IAS), measured from the segment-year record for the annual period immediately prior to the 1-year job change observation window.

Panel A – Friend Frequencies and Correlations	Frequency	Within Firm Correlation	Correlation with school friend	Correlation with social friend
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%	0.149	0.127
No Change	4,734	81.86%	0.151	0.128
Job change/turnover	1,049	18.14%	0.142	0.122
Depart - Jump	54	0.93%	0.141	0.118
Depart - Exogenous	27	0.47%	0.144	0.133
Depart - Forced/Demote	17	0.29%	0.121	0.095
Depart - Generic	613	10.60%	0.137	0.121
Stay - Demotion	15	0.26%	0.098	0.090
Stay - Ceremonial	19	0.33%	0.144	0.115
Stay - Lateral	120	2.08%	0.166	0.132
Stay - Probable Promotion	83	1.44%	0.153	0.128
Stay - Definite Promotion	101	1.75%	0.150	0.137

Table 3
Careers of Division Managers

Table 3 reports information on sample division manager careers. The job outcomes in Panel A are based on identifying new employment and entrepreneurial success in the tracked sources described in the text and appendix. The job categories in Panel B (Panel C) are based on the title of the internal (external) position the person is promoted into (jumps to). The figures in Panel D are based on the immediately preceding role of the individual before becoming division manager coded from Boardex information on job titles and employer identities.

Panel A: Obtaining a new position after a non-jump departure		
Obtains new executive employment at a public firm in < 3 years	17.94%	
Obtains new executive employment in a tracked position in < 3 years	43.49%	
	<u>Public Jobs</u>	<u>Private Jobs</u>
Obtains a CEO/Chair level position (as a percentage of the resurfacing group)	8.85%	37.89%
Obtains non-CEO C-Suite level position (president or title with prefix “chief”)	7.08%	23.60%
Obtains other position (as a percentage of the resurfacing group)	84.07%	38.51%
Median Ratio of new employer sales to firm sales of old employer	0.315	0.0240
Median Ratio of new employer sales to division sales of old employer	1.055	0.0995
Undertakes some detectable entrepreneurial activity	6.35%	
Finds a firm that has detectable and notable success	0.64%	
Panel B: Life after an internal promotion		
Obtains CEO position	5.98%	
Obtains President and/or COO role	43.48%	
Obtains position with “Chief” in title prefix, excluding P/COO	5.43%	
Obtains other position	45.11%	
Panel C: Life after a jump		
Obtains CEO position	53.70%	
Obtains non-CEO C-Suite level position (president or any title with prefix “chief”)	27.78%	
Obtains other position	18.52%	
Panel D: Life before becoming a division manager		
Inside hire	70.41%	
Outside hire	29.59%	
Mean (Median) tenure at the firm at the time of appointment – inside hires only	12.11 (9.00) yrs.	
Employed at the same division (as a percentage of inside hires)	31.30%	
Employed in a non-divisional role (as a percentage of insider hires)	36.83%	
Employed at a different division (as a percentage of inside hires)	31.87%	
Hired from publicly traded firm (as a percentage of outside hires)	30.84%	
Hired from a private firm (as a percentage of outside hires)	69.16%	
Corporate role – CEO/Chair level (as a percentage of outside hires)	25.54%	
Corporate role – C-Suite level, except CEO/Chair (as a percentage of outside hires)	7.66%	
Corporate role – Below C-Suite (as a percentage of outside hires)	46.56%	
Divisional role – Division head (as a percentage of outside hires)	11.39%	
Divisional role – All other (as a percentage of outside hires)	8.84%	

Table 4
Predicting Division Manager Departures - Logit Model Marginal Effects

Table 4 reports estimates for models predicting division manager departures. 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. All models are restricted to division managers under the age of 63 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 an exogenous event. The dependent variable takes a value of 0 if the division manager does not depart from the firm. Marginal effect estimates are derived from logit models where the reported 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 other variables at their sample means. 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 are reported in parentheses under each estimate. Models 1-4 include year and divisional 2-digit SIC industry fixed effects (1-digit is used if there are less than 50 observations at a given 2-digit level). Models 5-7 include year and divisional 1-digit SIC industry fixed effects. Model 5 restricts attention to observations in which there was no CEO turnover in the observation year or 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. The Friend with the CEO variable 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. The Unique friend variable 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 otherwise is assigned a value of 0. Division performance is division ROA as of the start of the observation year, less the median ROA of all Compustat segments in the same two-digit SIC code level in the same year. Division relative size is the division's assets divided by the total assets of the firm. Firm size is the natural log of the firm's total book assets. A firm's market-adjusted stock return is the firm's twelve-month buy-and-hold return in the period immediately prior to the observation year, less the CRSP equal-weighted return over the same period. CEO turnover is a dummy variable that takes a value of 1 if the CEO turned over during the observation year and 0 otherwise. CEO lagged turnover takes a value of 1 if the CEO turned over in the year prior to the observation year and 0 otherwise. All other variable definitions are detailed in the text and appendix. *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

Explanatory Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Friend with CEO		-.04246*** (.01174)		-.04352*** (.01141)	-.04660*** (.01195)		
Unique friend			-.04106*** (.01273)				
Division performance	-.07606*** (.02825)	-.07762*** (.02788)	-.07589*** (.02801)	-.07780*** (.02861)	-.05078* (.02986)	.01514 (.03024)	-.10281*** (.03065)
Division manager age	.00378*** (.00083)	.00361*** (.00082)	.00366*** (.00083)	.00364*** (.00081)	.00401*** (.00089)	.00008 (.00122)	.00438*** (.00097)
Division manager tenure	.00033 (.00161)	.00055 (.00161)	.00055 (.00162)	.00087 (.00159)	-.00000 (.00179)	.00266 (.00194)	-.00025 (.00191)
Division relative size	-.00336 (.02147)	-.00141 (.02115)	.00005 (.02111)	.00039 (.02093)	.00034 (.02279)	.03264 (.02437)	-.01009 (.02581)
Firm size	.00027 (.00376)	.00068 (.00369)	.00049 (.00375)	-.00047 (.00373)	.00228 (.00407)	.00740* (.00412)	.00075 (.00447)
Market-adjusted 1-year return	-.01256 (.01160)	-.01293 (.01152)	-.01202 (.01156)	-.01262 (.01146)	-.01200 (.01190)	-.02213 (.02230)	-.01234 (.01299)
CEO tenure				-.00132* (.00077)			
CEO turnover dummy				.01231 (.01549)			
Lagged CEO turnover dummy				.02804 (.01778)			
Log pseudolikelihood	-1,808.02	-1,800.26	-1,803.53	-1,794.58	-1,442.65	-189.11	-1,598.65
Observations	5,364	5,364	5,364	5,364	4,432	926	4,426
Which observations	All	All	All	All	No CEO turnover	Friends Only	Nonfriends only

Table 5
Departure Rates by Performance Quintile

Table 5 reports departure rates for a quintile sort of all observations that enter the Table 4 regressions sorted by the division's performance in the year prior to the turnover window. The figures in the table indicate the percentage of observations in which we observe a departure as a fraction of all observations with a non-missing value for the departure dependent variable. The friend (not a friend) observations are for cases in which the division manager is (is not) connected to the CEO as of the start of the observation year. P-values for differences are based on Stata's `prtest` for a difference in proportions.

	Friend with CEO	Not a Friend with CEO	Difference: Nonfriend minus Friend	p-value for difference
Performance Quintile 1 – Worst performance	4.88%	15.55%	10.67%	.0000
Performance Quintile 2	5.85%	13.79%	7.94%	.0001
Performance Quintile 3	8.21%	12.19%	3.98%	.0789
Performance Quintile 4	6.12%	12.53%	6.41%	.0019
Performance Quintile 5 – Best performance	7.14%	10.47%	3.33%	.1521

Table 6
Predicting Departures for Different Manager Types

Table 6 reports estimates from logit models predicting departures using the same modeling and variable choices as in the Table 4 departure models unless otherwise indicated. Estimates indicating marginal effects in predicting a departure event holding all other variables at their sample means are reported in the table with robust standard errors clustered at the firm level report in parentheses. All models include year and divisional 1-digit SIC industry fixed effects. Model 1 restricts attention to observations in which the division manager started in their position after the CEO assumed their position, and Model 2 restricts attention to all other observations. Model 3 restricts attention solely to managers who started at the firm sometime after the CEO assumed their position, and Model 4 restricts attention to all other observations. Models 5-7 include all observations but include an indicator for the presence of each specific type of connection between the CEO and division manager separately in place of the default choice of an indicator for a connection of any of the three types. *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

<u>Explanatory Variable</u>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>
Friend with CEO	-.04352*** (.01267)	-.05082** (.02070)	-.05012*** (.01660)	-.04097*** (.01458)			
Work Friend					-.05157*** (.01326)		
School Friend						-.02446 (.02158)	
Social Friend							-.05466*** (.01402)
Division performance	-.04460 (.03018)	-.17217*** (.05287)	-.05581 (.03766)	-.08808** (.03766)	-.07815*** (.02789)	-.07646*** (.02815)	-.07630*** (.02802)
Division manager age	.00304*** (.00097)	.00436** (.00176)	.00181 (.00128)	.00426*** (.00107)	.00368*** (.00082)	.00373*** (.00082)	.00373*** (.00082)
Division manager tenure	-.00082 (.00238)	-.00248 (.00277)	.00150 (.00297)	-.00025 (0.00191)	.00041 (.00160)	.00042 (.00162)	.00062 (.00160)
Division relative size	-.00798 (.02358)	.03783 (.04312)	.00057 (.02997)	.00379 (.02672)	-.00091 (.02121)	-.00325 (.02140)	-.00054 (.02123)
Firm size	-.00231 (.00420)	.01009* (.00574)	-.00172 (.00481)	.00269 (.00501)	-.00016 (.00367)	.00043 (.00376)	.00116 (.00373)
Market-adjusted 1-year return	-.00889 (.01196)	-.03243 (.02788)	-.00586 (.01603)	-.02420 (.01586)	-.01282 (.01149)	-.01246 (.01160)	-.01246 (.01143)
Log pseudolikelihood	-1366.37	-429.415	-657.48	-1140.81	-1799.72	-1807.23	-1802.74
Observations	4,183	1,181	2,042	3,322	5,364	5,364	5,364
Which observations	Selected Division Managers	Inherited Division Managers	Selected Managers	Inherited Managers	All	All	All

Table 7
Predicting Division Manager Internal Promotions - Logit Model Marginal Effects

Table 7 reports estimates from logit models predicting division manager promotions. 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. All models are restricted to division managers under the age of 63 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 we characterize as either a probable or definite promotion using the algorithm outlined in the text and appendix. The dependent variable assumes a value of 0 if the division manager experiences no job change event and is missing for any other type of job change. Estimated marginal effects are derived from 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 are reported in parentheses under each estimate. All models include year effects, and all models except models 4 and 5 include divisional 1-digit SIC industry fixed effects (inclusion of industry effects is not feasible when estimating Model 5). Model 4 restricts attention to observations in which the division manager started in their position after the CEO assumed their position and Model 5 restricts attention to all other observations. Model 6 restricts attention solely to managers who started at the firm sometime after the CEO assumed their position, and Model 7 restricts attention to all other observations.
*Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

<u>Explanatory Variable</u>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>
Friend with CEO		.02490*** (.00799)		.03096*** (.00972)	.00351 (.01096)	.03526*** (.01206)	.01766* (.00908)
Unique friend			.02398** (.01038)				
Division performance	.00044 (.01260)	.00391 (.01238)	.00129 (.01253)	.01742 (.01406)	-.04794** (.02414)	.02330 (.01530)	-.00776 (.01622)
Division manager age	-.00137*** (.00047)	-.00127*** (.00046)	-.00129*** (.00047)	-.00090* (.00054)	-.00239*** (.00076)	-.00116** (.00051)	-.00131** (.00058)
Division manager tenure	.00073 (.00085)	.00049 (.00084)	.00050 (.00086)	.00140 (.00108)	-.00011 (.00148)	.00341*** (.00103)	-.00065 (.00115)
Division relative size	.02873*** (.00978)	.02633*** (.00956)	.02519*** (.00978)	.02676*** (.01013)	.02914 (.01914)	.03949*** (.01020)	.01002 (.01431)
Firm size	.00547*** (.00176)	.00497*** (.00172)	.00510*** (.00176)	.00463** (.00185)	.00597** (.00294)	.00300 (.00204)	.00460** (.00233)
Market-adjusted 1-year return	-.01246* (.00719)	-.01176* (.00701)	-.01242* (.00708)	-.00696 (.00784)	-.01994* (.01074)	-.00830 (.00691)	-.01345 (.01011)
Log pseudolikelihood	-754.34	-746.67	-750.02	-583.079	-149.25	-232.72	-493.74
Observations	4,918	4,918	4,918	3,864	975	1,826	3,041
Which observations	All	All	All	Selected Div. Mgr.	Inherit. Div. Managers	Selected Manager	Inherited Managers

Table 8
Performance Dynamics

Table 8 reports statistics on division performance changes after specific events. For Panel A, we identify all cases of bottom decile divisional performance and report figures (means and medians) on division performance in the year starting two years after the poor performance is observed less the division's performance in the year of bottom decile performance. Figures reported for friends/nonfriends are based on whether the division manager leading the firm immediately after reporting the extremely poor performance is connected to the CEO. Figures for retained friends/nonfriends are for the subset of these observations in which the division manager remained in office in the year immediately subsequent to the extremely poor performance. The figures in Panel B are for a division's performance for the annual period two years after they start in office less performance in the year before they start in office. P-values for tests of differences in means are based on simple t-tests with unequal variances, and for medians, p-values are based on rank sum tests.

Panel A – Performance changes subsequent to extremely poor performance	Mean	Median	Obs.
All friends	.06460	.06894	35
All nonfriends	.14862	.08873	135
Difference (friends – nonfriends)	-.08402	-.01979	
p-value for difference	0.0192	0.0457	
Retained friends	.06373	.07114	34
Retained nonfriends	.15582	.11458	118
Difference	-.09209	-.04344	
p-value for difference	0.0140	0.0204	
Panel B: Performance changes after division manager is hired			
Friend hire	.00733	.00050	95
Nonfriend hire	.00053	.00492	395
Difference (friends – nonfriends)	.00680	-.00442	
p-value for difference	0.6851	0.8989	

Table 9
Market Reactions to Division Manager Promotions

Table 9 reports announcement return statistics for division manager promotions based on the -1 to +1 trading day window centered on the day of the announcement. Market model daily abnormal returns are calculated from market model parameters estimated over the day -210 to -10 window, and they are then cumulated to arrive at the three-day market model cumulative abnormal return (CAR). We report figures for the mean and median CARs separately for division managers who were connected and not connected to the CEO in the year of the promotion. P-values for means are based on simple t-tests with unequal variances, and for medians, p-values are based on rank sum tests. Market-adjusted returns are derived analogously, except daily abnormal returns are calculated as the firm's return minus the value-weighted market return.

	Friend with CEO	Not a Friend with CEO	P-value for difference
Mean CAR, market-model	-.01330	.00173	0.0166
Std. error of the mean CAR, market-model	.03289	.04398	
Median CAR, market-model	-.01104	.00055	0.0160
Number of Observations	52	110	
Mean CAR, market-adjusted	-.01184	.00230	0.0251
Std. error of the mean CAR, market-adjusted	.03240	.04538	
Median CAR, market-adjusted	-.01386	-.00330	0.0272
Number of Observations	52	110	

Table 10
Predicting New Positions After Departure - Logit Model Marginal Effects

Table 10 reports estimates from logit models predicting subsequent career outcomes of division managers who depart from a firm before the age of 63 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 (0) if a departed division manager resurfaces (does not resurface) within 3 years in an executive capacity at another public firm. The dependent variable in models 4-6 assumes a value of 1 (0) if the departed manager resurfaces (does not resurface) in an executive capacity at any other firm, as revealed in our data sources, including public firms, substantive private non-financial firms, and prestigious private consulting/financial firms and funds. Details on sources tracked to find these positions are reported in the text and tables. Estimated marginal effects are derived from 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. Robust standard errors are reported in parentheses under each estimate. All models include year and divisional 1-digit SIC industry fixed effects. 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

Explanatory Variable	Dependent Variable: Gets Public Job			Dependent Variable: Gets Executive Job		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Friend with CEO		-.11398*** (.03003)	-.11469*** (.03061)		-.20234*** (.07767)	-.20526*** (.07609)
Division performance	.22173*** (.07177)	.24409*** (.07093)	.24876*** (.06686)	-.01457 (.13481)	.01982 (.13258)	.02871 (.13321)
Division manager age	-.01090*** (.00259)	-.01197*** (.02496)	-.01135*** (.00248)	-.02544*** (.00469)	-.02736*** (.00473)	-.02761*** (.00471)
Division manager tenure	-.01155** (.00529)	-.00957* (.00523)	-.01052** (.00520)	-.01945** (.00836)	-.01786** (.00845)	-.01720** (.00835)
Division relative size	.02357 (.06484)	.02946 (.06285)		-.11269 (.11023)	-.09122 (.11121)	
Firm size	.01162 (.01029)	.01219 (.01011)		.03155** (.01601)	.03510** (.01603)	.03820** (.01541)
Market-adjusted 1-year return	.02097 (.03457)	.01903 (.03483)		-.00107 (.06216)	-.00431 (.06175)	
Log pseudolikelihood	-265.62	-260.85	-261.74	-389.63	-385.52	-385.86
Observations	630	630	630	630	630	630

Table 11
Predicting Departures – Subsample Analysis

Table 11 reports estimates from logit models predicting departures using the same modeling and variable choices as in Table 4. Estimates indicating marginal effects in predicting a departure event holding all other variables at their sample means are reported in the table with robust standard errors clustered at the firm level report in parentheses. All models include year and divisional 2-digit industry fixed effects. Models 1 and 2 are based on a sample partition into weak versus strong governance/incentive groups based on Entrenchment index values, managerial ownership, institutional ownership, CEO ownership, block ownership, and unequal shareholder voting rights using the partition algorithm described in the text. Models 3 and 4 are based on whether a division has a different primary 3-digit SIC code from the firm (peripheral segments) or shares the same main SIC code with the firm (core segments). *Significant at the 10% level, **Significant at the 5% level, ***Significance at the 1% level

	Agency Tests: Governance/Incentives Sorts		Information Tests: Peripheral/Core Sorts	
	Model 1	Model 2	Model 3	Model 4
Friend with CEO	-.06637*** (.01389)	-.01592 (.01784)	-.06404*** (.01435)	-.01875 (.01515)
Division performance	-.06874* (.03964)	-.08865*** (.03232)	-.05337 (.03779)	-.11427*** (.03976)
Division manager age	.00459*** (.00126)	.00276*** (.00100)	.00306*** (.00115)	.00388*** (.00097)
Division manager tenure	.00178 (.00208)	.00010 (.00210)	.00185 (.00213)	.00035 (.00203)
Division relative size	-.02449 (.02931)	.01098 (.02641)	-.05450 (.03812)	.01481 (.02516)
Firm size	-.00044 (.00486)	-.00071 (.00484)	.00374 (.00477)	-.00082 (.00435)
Market-adjusted 1-year return	-.01176 (.01841)	-.01628 (.01436)	-.01509 (.01832)	-.00898 (.01529)
Log pseudolikelihood	-863.04	-895.24	-800.35	-961.49
Observations	2,575	2,761	2,450	2,861
Which observations	Weak Governance/ Incentives	Strong Governance/ Incentives	Peripheral segments	Core segments