A ROAD LESS TRAVELED: INVESTIGATING THE OUTSIDE DIRECTORS OF AMERICA'S CORPORATE BOARDS

A Dissertation

by

RICHARD H. LESTER

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2003

Major Subject: Management

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ABSTRACT

A Road Less Traveled: Investigating the Outside Directors of America's Corporate Boards.

(August 2003)

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Using human capital theory and social capital theory, I develop a model to explain the circumstances surrounding outside director appointments, patterns of outside board affiliations and outside director exits. I investigate why individuals become outside directors, why they continue to serve as directors after appointment, and why they terminate their service on boards. I find that an executive's home firm career and prestigious affiliations predict the likelihood and patterns of outside directorship service. Outside directors are critical to effective corporate governance, and to understand the board-governance process we need a better understanding of outside director service.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my family for their unwavering support and encouragement during the last four years. It was with a bit of trepidation that I entered the Ph.D. program, forsaking a comfortable lifestyle and career. However, the urge for a new and more invigorating life coupled with a keen interest in understanding social phenomenon drove me to undertake this endeavor. I am therefore eternally grateful to my children, Shawn his wife Stacy, and Kristen for their patience, as I have been somewhat unavailable during my studies. Additionally, my wife Linda has been extremely patient and understanding during our time in College Station. While she wanted to move out of Houston, I'm not sure a Ph.D. program was what she envisioned. Nonetheless, here we are and about to embark upon what is likely to begin the concluding chapters in our professional lives. Their love has kept me afloat in a sea of uncertainty.

Second, I feel so very fortunate that Bert agreed to chair my dissertation committee. He tells me that the work he did is what he gets paid for; if so he needs a big raise. His encouragement, knowledge, and guidance are so valuable that I cannot imagine making it through this process without him. I will never forget, and likely never be able to repay, his kindness and effort in getting me through this program. Bert was not only my chair; he is also a mentor, friend, and counselor. He has only to ask of me anything in the future and I will gladly come to his assistance.

Third, the balance of my committee was also extremely influential in this process, each in their own unique way. Trevis has become a very important person in my

academic life. I cannot imagine where I would be if he had not agreed to an independent study with me in his first year at A&M and then subsequently joined my committee. He has allowed me to join him in many projects with exciting potential. His research skills and networks are a great source of guidance and inspiration. I consider him a friend and am hopeful he is able to do the same with me. Also, Angelo, Dick W., and Dudley provided insight, calm, and patience during my tenure at A&M, always at just the right moments.

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Finally, but certainly not least, I wish to express my gratitude to those who were influential into my acceptance into the program in 1999. I recognize that I was a high-risk candidate at the time, however individuals on the D.P.C. had faith that I could be successful. My thanks goes out to Ricky Griffin and Adrienne Collella in particular as well as to the rest of the committee at that time, Mike Hitt, Len Bierman, Jing Zhou, and Javier Gimeno. I will always be appreciative of the opportunity.

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INTRODUCTION

Board service, particularly when associated with large public corporations, is a highly visible endeavor. While directorships of the largest corporations are widely considered prestigious (D'Aveni, 1990), service inures to its participants risks as well as benefits. At stake is the director's reputation, affiliation with the home institution, and web of network contacts. Consequently, the individuals who choose to join the directorship ranks are a particularly interesting subset of the corporate upper echelon. Why is it that certain officers of corporations become outside directors while others do not? This study investigates the phenomenon of corporate officers of large public corporations who serve as outside directors of other firms.

I selected corporate officers as the focus of this study because they represent a majority of the outside directorships held in public corporations and they bring to board service a set of unique capabilities (Lorsch & MacIver, 1989). One of the reasons that officers of large firms are highly recruited for board service is their ability to contribute quickly based on previous experiences as a member of a corporate elite. Moreover, securing corporate executives for outside directorship signals a firm's ability to attract quality executive talent. For the directors, outside board service also provides benefits. Service broadens the individual's range of influential and prestigious contacts, increases exposure to different business situations and conditions, and increases the linkages available to the home institution. Therefore, studying corporate officers who also serve

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This dissertation follows the style and format of the ***Academy of Management Journal.***

as outside directors provides a setting whereby I am able to more definitively focus on the motives for both the firm and the individual.

Research on corporate governance is dominated by the view that the separation of ownership and control leads to interest conflicts between those charged with managing the firm (i.e. executives) and the residual risk bearers (i.e. shareholders) (Berle & Means, 1932; Fama & Jensen, 1983b; Jensen & Meckling, 1976). A frequent assumption in the literature is that unless constrained by large, independent shareholders, CEOs will strongly influence the outside director selection and replacement process, and through that influence, exert substantial control over the entire governance process. Further, much empirical evidence supports this view (see Johnson, Daily, & Ellstrand, 1996, for an excellent review). However, evidence suggests that certain individuals see outside directorship service in ways that prove beneficial to their own personal interests, such as the ability to secure board positions after retirement (Brickley, Linck, & Coles, 1999) or as a means of expanding one's network of influential individuals (Mizruchi, 1996). This recent work opens to further contention the notion that directors are merely in place to do the bidding of the CEO or act as "rubber stamps" (Herman, 1981). Outside directors bring to board service their own individual egos, reputations, and histories. It is illogical to presuppose these individualized influences will not come into play during board service. This leaves open the question as to why certain persons serve on corporate boards outside their home affiliation.

This study takes the perspective of the individual outside director and seeks to understand why individuals seek service as outside directors and how they secure board

positions. Another focus of this research is to investigate multiple board appointments. Why is it that some individuals serve on only one outside board while others obtain multiple directorship positions, or alternatively, some obtain none at all? Once a board position is secured, why would we expect service to continue, expand, or end? The ultimate objective of this research is to further our understanding of those individuals who choose to serve as outside directors of firms other than their own. In order to develop this understanding, we must know more about the characteristics and influences that surround outside directorship appointments and terminations. By better understanding why individuals seek outside directorships and what factors are pertinent to their service, we can better understand the entire governance process. It is my contention that an important way to improve our knowledge about the corporate governance process is through a detailed understanding of the individuals who comprise boards.

I draw upon two theories – human capital (e.g. Becker,1993; Davenport, 1999) and social capital theory (e.g. Bourdieu, 1983; Coleman, 1988; Lin, 2001a) – to frame the discussion. Human capital theory argues that investments made by individuals are rewarding in the sense they allow individuals to reap the benefits of their investments. A human capital explanation for individual accomplishment rests upon the notion of differences in individual ability, knowledge, skill, or talent. In the past, this explanation has been offered as a way to differentiate between those who succeed and those who do not. However, Burt (1997: p. 339) argues that while "human capital is surely necessary to success, it is useless without the social capital of opportunities in which to apply it".

Social capital is a quality created between people whereas human capital is a quality of the individual (Burt, 1997). Social capital therefore comes about through relations among individuals, in particular, relations that facilitate action.

Through an examination of corporate officer's human capital and social capital, I seek to improve our understanding of those who serve as outside directors. While others have examined corporate boards from perspectives such as board composition and broad director demographics, little work has been directed at understanding the individuals who make up the board. I argue that attention should be paid to the characteristics of individuals who comprise boards, in addition to their ability to fit into various typologies of roles and / or responsibilities.

Purpose

Recent research on boards of directors found ambiguous relationships between various measures of board leadership, structure, composition, and performance (Dalton, Daily, Ellstrand, & Johnson, 1998). I argue that part of past failures to identify outcome-oriented relationships is the paucity of work directed at understanding the complexities of the board / outside director alignment process. Firms desire certain individuals to serve, but those chosen and who accept outside directorships also expect to gain from the relationship. Put differently, when we observe a person joining a board we can conclude two things directly: that the person was identified as a desirable outside director; and that the person concluded that service on this particular board was in his or her best interest.

Moreover, according to Pettigrew (1992), the inability to identify an unambiguous relationship between board composition and important firm outcomes is

largely because the influence of the board is complex and indirect rather than simple and direct. The present study argues that to better understand the governance process we must gain a fuller understanding of the persons who achieve directorship status. As such, I examine why they serve, what makes them attractive as outside directors, what do they gain from service, and what do they contribute to the firms they serve?

Contributions

This study makes several contributions to research on corporate governance in general and strategic leadership in particular. First, it improves our understanding of the relationship between the firm and the director. Previous work (Westphal & Zajac, 1995) has argued that the CEO largely influences new director selection and that, by and large, directors are beholden to the person who supported their nomination (Westphal & Zajac, 1997). This leaves unanswered questions such as why, if corporate boards prefer sitting CEOs (Lorsch & MacIver, 1989) would these individuals be willing to submit themselves to the direction of another? In this study, I analyze directorships over time and investigate the logic surrounding director appointments and exits.

Second, I seek to redirect board of director research focused on finding an unambiguous relationship between board and firm. Dalton et al. (1998) argue that further research examining the relationship between board composition, board leadership structure, and financial performance is unlikely to be fruitful. Further, they find little evidence that there are significant moderating influences yet uncovered. In addition, as noted by Daily (1994), attempting to account for firm outcomes by examining the full board does not capture the subtle and complex nature of the board process. Much of the

previous research in strategic leadership has attempted to identify outcomes in terms of executive's economic or non-social resources (Castanias & Helfat, 1991; Hambrick & Finkelstein, 1987) or their demographic characteristics such as group size, age, functional background and formal education (Hambrick & Finkelstein, 1987; Kesner, 1988; Smith et al., 1994; Wiersema & Bantel, 1992). I argue that we must investigate the alignment between director and firm to better grasp how the board affects the firm. To do this I take a fine-grained approach to understanding the governance process and those individuals who reside at the pinnacle of corporations.

Third, I contribute to a limited but growing body of research that examines the career success and career mobility of executives. While the career of business executives has garnered considerable interest in the public press, little empirical work has been extended to the boardroom. Why are some executives more successful than others? Examination of the executive career literature reveals that researchers have predicted success using a few variables in piecemeal fashion (Gattiker & Larwood, 1989; Judge & Bretz, 1994; Judge, Cable, Boudreau, & Bretz, 1995). Jaskolka, Beyer and Trice (1985) argued that career success is an evaluative concept, meaning the outcome (success) depends upon who does the judging. However, others have evaluated career success more objectively through metrics such as pay and promotion. Because a career encompasses a sequence of positions throughout one's lifetime, identifying the key events that occur throughout this sequence and the impact upon the executive's career because of those events is of theoretical and empirical interest. Additionally, service on

corporate boards potentially extends an individual's career because directorship does not necessarily end with retirement from the home institution (Brickley et al., 1999).

Fourth, I extend executive succession research to the boardroom. Previous work focused on understanding power relationships between board members and the selection of new directors (Westphal & Zajac, 1995), board tenure following CEO succession (Farrell & Whidbee, 2000; Ward, Bishop, & Sonnefeld, 1999) and board membership following firm distress (Daily & Dalton, 1994b, 1995). Much of the prior work has revolved around the relations between the CEO and his or her governance team. I investigate directorships from the perspective of the individual executive irrespective of his or her relationship to the firm's CEO. This permits me to establish human capital and social capital rationales for directorship appointments, losses, and prestigious affiliations. Additionally, using a longitudinal study to examine board succession helps to identify how organizations staff boards with new directors.

Fifth, this study contributes to the small body of research investigating the accumulation of directorships (Maman, 2000). Most prior research examining persons who serve on multiple boards has focused on understanding the phenomenon of interlocking directorates and their impact on a firm or an industry (Barringer & Harrison, 2000; Haunschild & Beckman, 1998; Lang & Lockhart, 1990; Richardson, 1987; Stearns & Mizruchi, 1986; Zajac, 1988). Little work has focused attention on the directors themselves and how multiple appointments are secured (Kesner & Sebora, 1994). One aim of this study is to identify those who achieve their first directorship and then subsequent to that event join multiple boards. The underlying reasons for why some

accumulate directorships and others do not is an intriguing question that has received little attention in the literature. Additionally, directorships are lost as well as gained, and I investigate the events surrounding these occurrences. The antecedents to director appointments and director mobility within elite circles remain a largely unexplored phenomenon.

Unit of Analysis

While human capital is rooted in analyzing resources at the disposal of the individual, social capital is explained in relationships between and among individuals. It is possible to investigate social capital relationships at various levels (Bourdieu, 1983; Burt, 1997; Coleman, 1988; Lin, 2001b). By focusing on the individual, social capital takes the perspective of how individuals access and use resources embedded in social networks to achieve gains.

This study focuses on the individual corporate officer. This is done for two reasons: first, evidence obtained by examining the relationships between the board and the firm as collectives has been shown to be ambiguous; and second, by focusing on the individual officers of large public firms, I examine the dynamics of director selection and retention from that group of directors who represent the largest contingent of those who serve.

Research Questions

As noted, the present study examines the movement of corporate executives regarding directorships, focusing on human capital and social capital assets as both

antecedents and consequences of appointments. A model is created to explain how an individual is likely to receive his or her first board appointment and to additionally predict the factors important to continuing service. Additionally, the model examines the notion of director / firm prestige alignment. The overarching questions this research investigates are threefold:

1. What human capital and social capital characteristics affect the likelihood that corporate executives will accept outside directorships?

2. What is the pattern (the sequence of directorships acquired and the linkages among the sequential directorships) of outside directorships observed over a corporate officer's career?

3. What factors (from the perspective of either the firm or the individual) affect the likelihood that corporate officers who sit on outside boards will end their service on those boards?

Overview of the Research Method

The theory and hypotheses developed in this dissertation are tested by using a sample of corporate executives and directors obtained from *Fortune* 1000 companies. A base year of 1990 was chosen to provide a sufficient window from which to analyze executive movements. Information about each officer and director came from the firm's annual reports and various proxies for the years 1988 through and including 2001,

making the study period window 14 consecutive years. I also relied upon Compustat and CRSP for firm financial data. After deleting firms with missing values (either not a public corporation, or not reporting for at least five years of the study window) the sample contained 871 useable organizations.

Human capital and social capital variables were primarily obtained from the Dun & Bradstreet's Reference book of corporate managements (Dun & Bradstreet, Inc., 1990). The reference book provides, by firm, a listing of each officer and a biographical sketch of that person's career. Typical listings include both the executive's educational and work experience.

I analyzed the data by estimating a discrete-time event history analysis (Allison, 1984; Yamaguchi, 1991). Event history models treat tenure as survival time, which allows me to analyze those individuals who stay, leave, and accept multiple appointments.

Organization of the Dissertation

Chapter II examines previous literature on boards of directors, human capital and social capital theories. Chapter III develops the theory and hypotheses. Chapter IV discusses the methodology. Chapter V explores the results from the empirical analysis. Conclusions and discussion are included in Chapter VI.

CHAPTER II

LITERATURE REVIEW

This research study investigates important events that occur during the lives of corporate executives, which affect their ability to secure outside directorships. These events are proposed to shape and influence the individuals as well as their firm. The focus is on individual human and social capital and firm performance. To support the theory developed in Chapter III, the following sections provide an overview of the relevant literature on boards of directors, human capital, and social capital.

Boards of Directors

All public companies have boards of directors, presumably to oversee the workings of the firm. Although there is no definitive answer as to what the proper role of the board should be, there are some generally accepted guidelines. According to state incorporation laws in the United States, boards have overall legal responsibility for the management of a company. Directors are therefore required to uphold generally accepted principles as described by a duty of diligence, a duty of loyalty, and a duty of obedience (Conger, Lawler, & Finegold, 2001). This mandate opens up directors to a host of potential liability claims.

While each board member has a fiduciary responsibility to serve the best interests of investors, individual board members influence the firm in different ways. For example, key activity areas requiring board involvement include giving strategic advice, overseeing strategy formulation and implementation, monitoring performance, preventing and managing crises, and securing needed resources. Therefore, directors are

likely to undertake various board roles through the experiences and expertise they bring to the board. While their role seems straightforward, researchers have raised numerous questions regarding not only the effectiveness of boards but also their value to the firm (Daily & Dalton, 1997; Dalton et al., 1998; Dalton, Daily, Johnson, & Ellstrand, 1999).

Research on Board and Firm Influence

Research reviews (Dalton et al., 1998; Johnson et al., 1996; Zahra & Pearce, 1989) have consistently found equivocal relationships between boards and firm outcomes. For example, Zahra and Pearce (1989) found unclear relations between what boards actually do, how they are evaluated, and the nature of their strategic role. Moreover, Johnson et al. (1996) could not find consensus on how boards measures are operationalized regarding director dependence or independence, performance, or roles, and Dalton et al. (1998) could not identify clear empirical consistency between board composition or board leadership structure and firm performance. Pettigrew (1992) observed that, in many studies of boards, great inferential leaps are made from input variables such as board composition to output variables such as board performance with no direct mechanisms which presumably would link the inputs to the outputs. He further suggests that research on boards should supplement our knowledge of what boards look like with what boards actually do. The conclusion to be reached by the empirical inability to consistently demonstrate a strong relationship is likely because the influence of the board on performance is not simple and direct, but more likely complex and indirect.

Corporate boards are assigned an important role in the governance of firms. There is growing pressure from investors, regulators, employees, communities, and consumers. Often there is a tension between maximizing shareholder value and the demands of the firm's other stakeholders. Similarly, debate heightens regarding the board's effectiveness when the popular press reports governance failures (e.g., Enron, see Goldberg, 2002). Critics then analyze board structure and composition in an effort to understand the links that allow bad performance to go unaltered. Conversely, good performance suggests the governance structure is functioning effectively and the top management team gets just rewards for a job well done. It is in the intersection of these two paths that the trail becomes murky. There is often very conflicting information that emerges when research on firms and boards is aggregated. While it is relatively easy to identify a board packed with cronies of the CEO in a single firm, it is a much more difficult task to attempt this over a broader range of firms.

Additionally, research has often used multiple and at times conflicting theoretical bases that investigate the board / firm relationship. Agency theorists emphasize the role of the board in monitoring the behavior and performance of executives (Fama & Jensen, 1983b; Jensen & Meckling, 1976). Resource dependence theorists (Pfeffer & Salancik, 1978) view boards through their member networks with other organizations, which assist the firm in obtaining key resources such as capital or influential contacts. Legal scholars focus on the role of the board in fulfilling its responsibilities as the overseer representing shareholders. Other scholars argue that the board must provide the firm with leadership to ensure improvements in firm effectiveness and provide strategic

advice to promote the company's reputation externally (Lorsch & MacIver, 1989). Social class theorists have focused on managerial elites and board interlocks (Mizruchi & Stearns, 1988; Useem & Karabel, 1986). Yet, directors often see themselves differently. Korn / Ferry, in their annual survey of corporate directors (1996) found differences in role expectations between inside and outside directors and differences in their degree of attention to shareholder interests. Insiders saw themselves as responsible to the board while outside directors felt more beholden to the firm's investors. Therefore, not only do researchers differ as to director responsibilities and obligations, but so do the directors themselves.

Director Roles and Responsibilities

In a review of board research, Johnson et al. (1996) developed a typology of director responsibilities consisting of three roles: (1) control - which entails directors monitoring managers as fiduciaries of stockholders, hiring and firing executives and determining executive pay; (2) service- involves advising executives on administrative and other managerial issues as well as actively initiating and formulating strategy; and (3) resource dependence- which views the board as facilitating the acquisition of resources critical to firm success. The following briefly summarizes these roles.

The Control Role. The control role has received the largest relative volume of scrutiny from researchers. Since Berle and Means (1932) first discussed the separation between ownership and control, scholars have been interested in the relationship between owners and managers. However, for directors to exert the control responsibility they must be separate from management influence. The issue then involves director

independence and the degree to which the director is obligated and beholden to the CEO. Director independence research has relied largely on classifying directors based on affiliation such as insider, outsider or gray. Insiders serving on the board are questioned regarding their effectiveness as directors primarily because of a perceived inability to properly monitor firm activities, or in essence their ability to monitor themselves (Johnson et al., 1996). However, agency theorists (Fama & Jensen, 1983b) envision a limited role for a few insiders by providing to the balance of the board valuable information that assists in monitoring the affairs of the firm and the CEO. Without such insider information outside directors are disadvantaged due to the information asymmetry of the CEO.

Outside directors are believed to be the most effective monitors of firm management, but research suggests that their independence from influence remains questioned. Those with personal or professional affiliations to the CEO (commonly referred to as gray) are suspected of being less effective than those without such relationships (Davis, 1991). Another proxy for independence is whether the outside director was hired during the tenure of the current CEO, which might engender social exchange and feelings of reciprocity (Wade, O'Reilly, & Chandratat, 1990). Kesner (1987) reported a positive relationship between the proportion of outsiders and firm performance while others concluded that no such relationship existed (Daily & Dalton, 1995). An opposite relationship was found by Pearce and Zahra (1992) when they concluded that poor performance leads to more stringent oversight, as outsiders were added during periods of poor performance. However, Boeker (1992) identified that in

poorly performing firms powerful CEOs were not dismissed and Boeker and Goodstein (1993) found that firms with more insiders were less likely to elect outsider CEO replacements thereby leading to the notion that insiders attempt to resist change. Another force in the control role is the institutional investor who represent over 50% of the outstanding shares in the U.S. (Useem, 1993). Activism on their part has lead to more reform-minded boards aimed at improving the monitoring of management. In sum, there does not seem to be any assurance that an independent director would be an effective director and vice versa.

The Service Role. Support for the service role comes primarily from accounts of directors and managers that a key role of the board is to give advice and counsel to the CEO (Lorsch & MacIver, 1989). Agency theorists (Fama & Jensen, 1983a) argue that it is precisely because directors are experts that allow them to effectively evaluate management proposals. Several studies have supported this argument (Lorsch & MacIver, 1989; Mace, 1971), concluding that directors are actively involved in the advice and counsel role with a trend towards involvement in strategy formulation. Davis (1991) and Mizruchi and Stearns (1988) reported that diffusion of interlocking directorates affected director decisions. Additionally, Judge and Zeithaml (1992) found that board involvement in the strategic decision process was positively related to firm performance. Moreover, Pearce and Zahra (1992), based on survey data, found that more powerful boards, especially participative ones, outperformed weaker boards. It does appear that boards impact the strategic management process through their review of strategic initiatives and even in some cases, strategy formulation.

The Resource Dependence Role. The resource dependence perspective views the board as a means of securing access to resources critical to firm success. In this role directors secure resources through linkages to the external environment. Resource dependence theorists (Pfeffer & Salancik., 1978) suggest that corporate boards are a mechanism for managing external dependencies and reducing environmental uncertainty. Studies of directors serving in a resource role examined relationships with capital providers (Mizruchi & Stearns, 1988), competitor interlocks (Zajac, 1988), affiliated vs. non-affiliated outsiders and board size (Westphal, 1998), bankruptcy filings (Daily & Dalton, 1994a) and several notions of board interlocks (Lang & Lockhart, 1990). A common thread in this perspective is director network affiliation. *Ceteris paribus*, those individuals with relatively more prestigious and influential networks will be in higher demand for board positions than those with lesser networks. The resource dependence role allows for two distinct perspectives regarding outside director impact on the firm: (1) the director assists the firm in meeting its current or projected resource needs; and (2) the director, by virtue of the resources that he or she possesses, may be in a position to subtly alter the firm's strategic direction.

Overall, there is strong support for this perspective. Directors can and do add resources that firms consider important to their success. While it might seem that firms must then accordingly find and secure as many directors as possible, results of this are additionally equivocal. Pfeffer (1972) found that firms with greater external needs generally had larger boards. The larger board size arguably allowed for additional expertise to co-opt resources and reduce uncertainty. However, a meta-analytic review

(Dalton et al., 1999) found no consistent relationship between board size and firm performance. Moreover, it has been shown that co-optation strategies work both ways (Pfeffer, 1972). For example, a director who represents a bank or a law firm might be more inclined to recommend business that benefits their respective professions or companies than others. Thus, while directors can be a significant influence for the firm in reducing external uncertainty, there is also the possibility that serving as an outside director might fulfill their own personal needs and interests.

Recent Attempts at Identifying Board Influence

In the last few years there have been two more significant attempts aimed at the elusive board vs. firm outcome relationship. In 1998, Dalton et al. performed a meta - analysis when they assembled all the studies dealing with board composition, board leadership structure, and firm performance. Two prior extensive studies were unable to identify significant or consistent relationships (Hambrick & Finkelstein, 1995; Zahra & Pearce, 1989) and mixed results were the norm in the literature. The Dalton et al. (1998) study found no consistent relationships of a meaningful nature and additionally, by using subgroup moderators such as firm size, found no evidence of moderating influences.

Another study (Bhagat & Black, 1999) examined the growing trend of supra-majority independent boards- those with few insiders and dominated by nonaffiliated outsiders. Interestingly, firms with supra majority boards (mostly nonaffiliated outsiders) performed worse that those with a few insiders. The study did not control for industry, firm life cycle, or the context of board turnover. However, this study is intriguing because its results contradicts the current sentiment of institutional investors and the

popular press to install as many outsiders as possible on the board. The average firm in 1997 had 80% outside directors, but this study reminds us that this trend may go too far.

Dalton et al. (1998) conclude their meta-analysis of board composition and leadership structure by stating that they are not optimistic further research in the general area of board composition / leadership structure and firm performance would be fruitful. Nor do they feel that further investigations into moderating influences would be worthwhile. While the overall results of these studies are mixed and inconclusive, the area remains a favored topic. Researchers have been called to extend upper echelon theory to the board in an effort to provide a finer grained analysis of this complex and dynamic association (Finkelstein & Hambrick, 1996).

The Outside Director

Outside directors, or non-executive directors, are believed to be more effective monitors of the CEO and the firm on behalf of the shareholders, because they are perceived as more independent. Outside directors with personal or professional relationships with the firm or its management may be less effective than those without such relationships (Johnson et al., 1996). The Securities and Exchange Commission (SEC) has categorized the definition of an affiliated director as one who meets any of six criteria, and if so, requires disclosure in proxy statements. Additionally, beginning in the 1960's, both the New York and the American Stock Exchanges have required that all listed firms have a minimum of two outside board members. It has also become common practice in the United States and a requirement of the New York Stock Exchange

(NYSE) that the audit committee of the board be comprised of outsiders only, with the intention of reducing the influence of management.

Daily and Schwenk (1996) speak of a board dominance configuration, which links the preponderance of insiders or outsiders to the strategic focus of the firm. In this model varying roles of the CEO, board chair, and top management team are mixed in order to provide the best fit with the organization's environment. For example, large institutional holders might prefer that two different people hold the board chair and the CEO title. This, in their opinion, would maximize the board's oversight role. An insider-dominated board might be thought of as a homogeneous top management team while an outsider-dominated board would be the functional equivalent of a heterogeneous top management team (Daily & Schwenk, 1996). Studies of board dominance structure and its relationship to performance have been highly inconsistent. Some have reported that outsider-dominated boards are poorer performers (Vance, 1978), some have reported that outsider-dominated boards are better performers (Kesner, Victor, & Lamont, 1986) and one study reported no evidence of any systematic relationship between board composition and corporate financial performance (Chaganti, Mahajan, & Sharma, 1985).

Some research has argued that the existence of social ties between the CEO and outside directors might diminish the effectiveness of directors by limiting their control over management in the decision making process. However, Westphal (1998) found the opposite conclusion is also possible. His study argued that social relationships actually increase involvement by encouraging collaboration between top managers and outside directors in strategic decision-making. The argument was that CEO-board collaboration

and control are independently and positively related to subsequent firm performance. Social ties between the CEO and outside directors can therefore be beneficial to effective firm performance through the collaboration and bonding that occurs. This effectiveness link should remain in place as long as the social connection remains effective or is broken through turnover.

Additional research has investigated the outside director who is also a CEO of another firm. This may play a pivotal role in whether the board adapts a passive or active orientation (Westphal & Zajac, 1997). Through norms of reciprocity, these dual CEO / board members represent a social psychological barrier that hampers board independence. This implies a social obligation and empathetic attitude by the director. The CEO-director network is an arena likely to be characterized by generalized reciprocity among top managers and CEO-directors. Given that corporate CEO's are a relatively homogeneous group (Useem, 1984) the CEO-director may have a tendency to support fellow CEOs in times of turbulence or strife.

The next two sections describe two distinct forms of individual capital, human and social. Note that this study utilizes capital in the sense of an investment of resources, which will have an expected payoff. This payoff may come in various ways. One may reap the rewards of investments for a personal sense of accomplishment (e.g. investment in training to win an Olympic gold medal) or such an investment may be put to use in order to obtain additional payoffs (e.g. leveraging a gold medal into future opportunities) Thus, an individual's capital is called upon for different reasons (Lin, 2001b). In the first sense, resources are being accumulated, produced, or altered as an investment for the

future (human capital) while in the second sense, these altered resources are offered for gain (social capital).

Human Capital

Human capital theory is based on the concept that people possess skills, experience, and knowledge that can be viewed as a form of capital (Flamholtz & Lacey, 1981). The term human capital appeared in a 1961 *American Economic Review* article "Investment in Human Capital," by Nobel Prize-winning economist Theodore W. Schultz. This focused on individual productive efforts and worker quality. However, the influence of human capital, even though not termed as such, dates back to at least the 18th century and the writings of Adam Smith. In his popular work, *Wealth of Nations* (1776), Smith wrote at length about the influence of a worker's knowledge, skills, and quality of output in the production process. For example, he wrote that for the determination of a worker's wage one needs to consider education and learning as an investment. He therefore argued that higher earnings of skilled workers were justified because of these investments.

The concept of human capital has gained prominence in recent years. Thompson (1967) describes how the human variable affected organizational actions while Hambrick and Mason (1984) put managers into a wider role with their discussion regarding the upper echelons. Therefore, the capital that resides in humans has taken on a heightened importance and is regarded as a critical ingredient in not only firm level success, but also individual-level success. The notion that humans possess capital has important implications for firms and individuals. For the firm, recruiting and retaining

individuals who possess high levels of human capital may serve as a source of competitive advantage. For the individual, accumulation of high levels of human capital can be a source of mobility and career advancement.

The Contributions of Becker

Various empirical studies during the 1960's identified eight phenomena that either baffled investigators for lack of a theoretical foundation or were given ad-hoc interpretations. These were the following: (1) Earnings typically increase with age at a decreasing rate. (2) Unemployment rates tend to be inversely related to the level of skill. (3) Firms in underdeveloped countries appear to be more paternalistic toward employees than those in developed countries. (4) Younger persons change jobs more frequently and receive more schooling and on-the-job-training than older persons do. (5) The distribution of earnings is positively skewed, especially among professional and other skilled workers. (6) Abler persons receive more education and other kinds of training than others. (7) The division of labor is limited by the extent of the market. (8) The typical investor in human capital is more impetuous and thus more likely to err than is the typical investor in tangible capital (Becker, 1993: p.30). From these observations, Becker sought to formulate a theoretical argument. He summarized his thoughts in discussions regarding on-the-job-training, schooling, information, and health.

It is common knowledge that workers attempt to improve their productivity by learning new skills and perfecting old ones while on the job. Becker's thoughts on this are split in two general arenas: general training and specific training. General training is useful in many organizations beyond those who provide the training. For example, a

doctor trained at one hospital will likely find his or her skills applicable to a wide range of other hospitals. While the marginal benefit of on-the-job-training improves the worker, it also presumably improves the marginal output of the firm. This assumed that the costs of general training are borne by the employee as they receive less in wages than available elsewhere during their training. The military establishment is a classic example. “Employees” are paid below market for the skills that are developed and “graduates” leave the organization in large numbers as their training is completed and their skills arguably reach their highest level. Firms are willing to provide general training as long as the benefit is at least as great as the cost of providing the training (Becker, 1993, p.34).

However, completely specific training results in skills obtained by the employee that are virtually useless in another firm. In actuality, most on-the-job-training is neither completely specific nor completely general. As in the military example above, training in machining technology would have broad applications in the private sector. However, training dedicated to missile launching might find less broad applications in a non-military environment. The willingness of workers or firms to undergo specific training depends closely upon the employee’s likelihood of turnover. As investment in specific training is lost when an employee leaves for any reason, it is logical to conclude that only those employees who the firm finds likely to continue employment will receive such training. Rational firms will pay employees who have received general training similar wages, but those employees who have received specific training will likely receive higher wages.

Schooling receives special mention in Becker's work, as returns to education were an initial focus of his research efforts. A school is an institution specializing in the production of training. Some schools, like those that train welders, specialize in one area, while others, such as universities, offer a wide and diverse curriculum. Additionally, the type of training to be learned is dependent upon the type of knowledge that is to be mastered. For example, it is still commonplace for those in the construction industry to gain learning from on-the-job-training. In contrast, a scientist requires immersion in an intense field of study for a prolonged period. An additional consideration for schooling is the wage differential and cost. Schooling has direct and indirect costs. Direct costs such as tuition and books are only a portion of the real cost. Indirect costs such as foregone wages and lower on-the-job experience must also be considered. The impact of participating in schooling would steepen the age-earnings profile, introduce a negative relation between the permanent and current earnings of young persons, and implicitly provide for depreciation of invested human capital (Becker, 1993).

Information is another way in which individuals are able to raise their potential. Becker envisions information gathering as an investment that potentially affects the returns to individual capital. By investing the time and resources to gather information individuals are able to improve their knowledge. Take for instance job hunting. A worker in search of new employment might invest in a recruiting firm, search the classified ads, or visit a potential employer. The point is that the attempt to gain this information is not without a cost. These expenditures constitute an investment with the hope of yielding a return.

Becker's last way to invest in human capital is through improving emotional and physical health. A better diet improves strength and stamina, thereby improving earnings potential. Such workers have the capability to be more productive. This assumes that the productivity of a worker is dependent upon not only their ability and skill but also their motivation, intensity, and desire.

What Is Human Capital?

Human capital encompasses both innate abilities and acquired skills (Maman, 2000). The former includes genetic differences affecting intelligence, health, and interpersonal attractiveness, while the latter includes education, job training, tenure, and work experience (Shanahan & Tuma, 1994). Much of the past research on human capital is the result of an attempt to explain the differences in income and productivity between individuals. Expenditures on education, training and health are seen as investments from which returns are expected to flow in the form of increased productivity and earnings in the future. There has been a consistent and strong correlation between education and earnings (Becker, 1993). The theory also attempts to explain why individuals choose to invest in themselves and how such investments affect their potential. Theory has also been extended from the individual to the firm. This allows researchers to predict differences in firm performance and firm growth rates as a function of the human capital of organizational participants.

Understanding the Components of Human Capital

Davenport (1999) depicts human capital by analyzing what he terms as its key elements: ability, behavior, effort and time.

Ability in his model means proficiency in a set of activities or forms of work, which comprises three components. The first is knowledge, defined as a command of a body of facts required to do a job. Knowledge is a broader concept than skill as it represents the intellectual context within which a person performs. Second, to become a successful corporate executive requires a specific skill in the business. However, that same individual must also compliment his or her skills with a general knowledge of the other business functions such as management, marketing, engineering, and accounting. Skill then is the means and methods of accomplishing a particular task. Skills may range from physical strength and dexterity to specialized learning. Most executives have acquired the ability to analyze financial statements and accurately assess the firm's abilities to undertake declared goals and objectives. And third, besides knowledge and skill an individual must possess the talent to put the two together. Talent is an inborn faculty for performing a specific task. The executive must exhibit a talent for not only understanding a firm's competitive advantage, but must also have the talent to communicate a vision and follow through to achieve desired results.

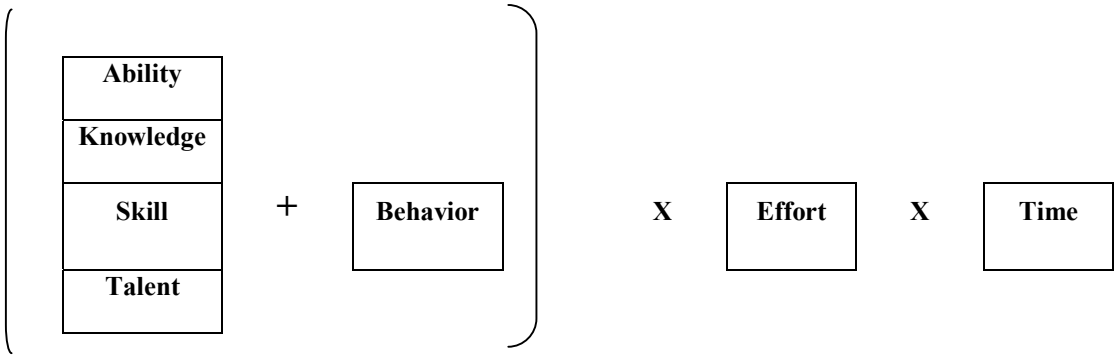
The second component of Davenport's model is behavior. Behavior is described as observable ways of acting that contributes to the accomplishment of a task. This combines inherent and acquired responses to situations and situational stimuli. The way we behave indicates our ethics, beliefs, and reactions to the world in which we live. An executive who displays confidence and achieves objectives is exhibiting behavior employees consider relevant to the organization.

The third component is effort, which is the conscious application of mental and physical resources toward a particular end. Effort is the epitome of work ethic. Effort activates skill, knowledge, and talent through behavior to call forth the individual's investment in human capital. Without effort, the investment in human capital has no meaningful contribution.

Lastly, human capital requires the context of time. Time refers to the chronological element of human capital investment as in hours per day, years in a career, or any unit in between. The most talented, skilled, knowledgeable, and dedicated executive will produce little without investing time into the endeavor.

Therefore, the combination of ability, behavior, effort, and time produce performance, which is the result of personal investment. The elements described are displayed below in Figure 1, reproduced from Davenport (1999: p19).

Fig 1 Human Capital Process



A point worth noting is that without corresponding effort and time, the investment in ability, knowledge, skill, and talent are worthless. This is important in considering those individuals who join outside boards as certain human capital assets require different investments from the individual in order to be mobilized for directorship seats.

Human Capital and Corporate Executives

Human capital of a manager derives from their experience, education, and tenure (Finkelstein & Hambrick, 1996). Additionally, leveraging this into individual advantage requires investing their effort and time. For example, the best education, intelligence, and training will allow an executive to progress only so far.

Most past research that considered human capital and executives focused on compensation. Human capital becomes important in pay issues to the extent that it is recognized and valued within the firm. Research on human capital and compensation, however indicates little evidence of a strong correlation. Finkelstein and Hambrick (1989) found some evidence that general managerial skills were linked to compensation while Aggarwal and Samwick (1999) found a significant relation between job related experience and pay. Additionally, Fisher and Govindarajan (1992) reported that years of education were important in the consideration of compensation for business unit heads.

However, human capital endowments are important to the sorting of positions in corporations (Leonard, 1990). This finding is evidence that individuals are slotted into the corporate hierarchy according to human capital attributes, which then purportedly manifests itself into performance. While human capital attributes are important to

obtaining positions within the corporate hierarchy, there is a dearth of work offered whether this same sorting of executives and attributes might be important in obtaining outside directorships.

In sum, human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways (Coleman, 1988). For human capital, the person who invests the time and resources in building up this capital will likely reap at least some benefits.

Social Capital

A human capital explanation for individual accomplishment rests upon the notion of differences in individual ability, knowledge, skill or talent. In the past, this explanation is a way to differentiate between those who succeed and those who do not. For example, versus others in the firm, those executives who make it to the upper echelons might be considered smarter, better educated or more experienced. However, Burt (1997:p.339) argues that while "human capital is surely necessary to success, it is useless without the social capital of opportunities in which to apply it". Burt (1997) further argues that it is possible to distinguish human capital from social capital in both its etiology and its consequences.

With respect to its origin, social capital is a quality created between people whereas human capital is a quality of the individual (Burt, 1997). As the term capital implies, social capital is a resource, available and at the disposal of the individual. Like other forms of capital, social capital is productive, making possible the achievement of

certain ends that in its absence would not be possible (Coleman, 1988). It therefore comes about through changes in the relations between individuals that facilitate action.

Differing Research Perspectives

Social capital is a relatively recent development in theory and research. Most attention to the subject arose as a result of sociologists including Bourdieu, Coleman, Burt, and Lin (Seibert, Kraimer, & Liden, 2001). Scholars typically examine social capital from one of two camps; the individual or the group. Focusing on the individual, social capital takes the perspective of how individuals access and use resources embedded in social networks to achieve gains. Here social capital is depicted similarly to human capital in that the relationship is an investment made by the individual. Studies examine how individuals invest in relations and how this investment is mobilized to initiate a return.

Lin (1982) distinguished between personal resources and social resources and argued that social resources far outweigh personal resources in usefulness to the person. Meanwhile, Flap (1991) contended that social capital includes mobilized social resources. He argued that there are three elements of social capital: (1) the number of persons within one's social network who are prepared or obliged to help you when called upon to do so; (2) the strength of the relationship indicating readiness to help; and (3) the resources of these persons. Burt's (1992) analysis furthered the concept of individualized networks through a discussion of location. Network locations of individuals became ways to achieve competitive advantage through structural holes. The

person occupying that position gained valuable capital by means of providing information and access otherwise unavailable to other participants in the network.

A perspective of social capital that focuses on group relations seeks to understand how groups develop as a collective asset and how this asset, once created, is able to affect group members. Bourdieu (1983) argued for the existence of capital in three forms: (1) economic capital; (2) cultural capital; and (3) social capital. He described social capital as consisting of social obligations or connections and argued that its meaningfulness is dependent upon the size of ones connections and the volume or amount of capital these connections possess. Therefore, social capital is considered a collective asset shared by members of a defined group with clear boundaries, obligations and expectations, and mutual recognition. Additionally, Coleman (1990) sees social capital as consisting of two elements: (1) as an aspect of a social structure; and (2) as a facilitator of actions by individuals within the structure. In order for an individual to gain from the relationship, he or she engages in exchanges and transfers of resources. Thus for Coleman and Bourdieu, dense or closed networks are the means by which social capital is maintained and reproduced.

While the perspectives seem contradictory, they all share a commitment to the view that it is the interaction of individual members that makes social capital possible. They additionally share the view that resources are embedded in social relations and social structure, which may be mobilized as the individual desires when seeking purposeful ends. Like human capital, participation in social relations is an investment, which is undertaken as a way to increase the likelihood of success in purposeful action.

But unlike human capital, social capital is created by relationships, through which the resources of other members may be accessed and borrowed (Lin, 2001a). The notion then has two important components: (1) it represents resources embedded in social relations rather than individuals; and (2) access and use of such resources resides with individuals.

It is also possible to distinguish human capital from social capital in another way. For human capital, the person who invests the time, effort, and resources to accumulate these human capital assets is expected to reap the benefits. Those who expend the effort, go to the best schools, work the hardest, or seek additional training will achieve a higher degree of success than others. However, such is not the case with social capital. Because social capital consists of relations among persons, a disruption in these relations affect not only one individual who severs ties but also all who had previously associated with that individual.

The Additive Value of Social Capital

While the premise behind social capital is fairly straightforward (investment in social relations with expected returns) and consistent with scholars who have contributed to the theory (Bourdieu, 1983; Burt, 1992; Burt, 1997; Coleman, 1988; Flap, 1991; Lin, 2001ba; Portes, 1998), the lines between human capital and social capital are easily blurred. Is it the familial connections (social capital), which lead to an individual's likelihood of becoming a corporate director, or is it the individual's investment in him or her self (human capital)? For instance, it is relatively easy to find examples of persons from modest means that through hard work and perseverance achieve phenomenal

success, yet we are also able to find persons born into prestigious families who seem advantaged largely because of family connections.

Recent research has generally found four main explanations as to why resources accruing from social capital enhance the outcomes of actions beyond that expected from human capital (Lin, 2001b). First, the flow of *information* is facilitated throughout the network. Connections located in certain spots in the network are better informed and able to provide useful information. This information flow is able to reduce the transaction costs for the individual by virtue of easier access thereby leveraging the potential of other human capital resources.

Second, social capital and its associated ties are able to provide *influence* over members or other actors who play a role in important decisions. Some ties in the social capital network are able to provide strategically more important influence than others (Burt, 1992). Such influence is able to not only empower holders of social capital but will also serve to constrain their behavior through norms and sanctions emanating from the association.

Third, an individual's ability to call upon social capital resources provides the person with a set of *social credentials*, which reflect an ability to access a certain network. The credentialing that comes from social capital allows the individual to present him or her with resources beyond their individual ability to muster. The social capital network is "standing behind" the person, which serves to reassure relevant audiences of the person's capability to add resources beyond their immediate human capital.

Fourth, social capital is expected to *reinforce* the person's identity and recognition. Being able to call upon social capital provides both emotional support and public acknowledgement of ones capabilities. By virtue of access to social capital, one is able to lay claim to certain resources unavailable to others.

Analyzing Social Capital

Social capital has been previously defined as resources embedded in a social structure that are accessed and or mobilized in purposeful action (Lin, 1982). This definition provides for three distinct phases: (1) resources are embedded in a social structure; (2) social resources are accessible by individuals; and (3) resources are used or mobilized in the pursuit of purposeful action. However, this seemingly straightforward list masks some of social capital's more controversial subjects.

The divergence of analyzing social capital at both the group and individual levels has created theoretical and methodological confusion (Lin, 2001a). For example, Bourdieu (1983) aggregates group size to determine the amount of social capital available to its members which makes sense only if one assumes that all members share similar ties in the network. Yet Bourdieu, in the same study, describes how individuals interact and reinforce mutual recognition in purposeful action. Coleman (1990), while emphasizing how individuals use resources to obtain favorable outcomes, also devotes discussion to the collective nature of social capital through norms, sanctions, and trust. Some of the more revealing controversies surrounding social capital theory are summarized by Lin (2001: p.26) and are presented in Appendix E, Table 1.

The first controversy deals with whether social capital is a collective or individual good. It appears that most scholars agree it is both; that is, institutionalized social relations with embedded resources are expected to benefit both the collective and the individual. The difficulty seems to arise when social capital is examined in context with trust, norms, sanctions, or other collective resources.

The issue surrounding the type of network is whether the network should be open or closed. Bourdieu (1983) sees the network engaging in mutual recognition and protection and Coleman (1990) additionally views network closure as a distinct advantage in enhancing social capital. However, to argue that closure is most advantageous is a narrow and potentially misleading approach. Much work has shown the benefits of open networks in facilitating information and influence (Burt, 1992; Granovetter, 1973). A blend of the two appears most relevant depending upon the circumstance of the network or the individual. For preserving or maintaining resources regarding interpersonal influence over decisions, a denser network might be the most advantageous, while if the objective were to search for and obtain resources, then an open network would be preferable.

The third controversy deals with Coleman's assertion (1990) that social capital is defined by its function and it is not a single entity but a variety of different entities having different characteristics. This functional view is why Lin (2001) characterizes the statement as tautological. The potential cause of social capital can only be captured by its effect. Whether it is an investment depends upon the return for a specific individual in a specific action. This should not argue that a functional relationship does not exist in

social capital, for example, social networks embedded in resources enhance job opportunities, but the concepts become murky when not segregated.

Coleman (1990) additionally questions whether social capital will become a useful quantifiable and verifiable theory. To become viable, researchers must be able to distinguish cause from effect or the theory would lose parsimony and predictability quickly.

While the potential for investigating various treatments of social capital is problematic, I follow the research of Lin (2001a) and investigate social capital as the private good of an individual. Lin redefines social capital by arguing for individual treatment. He argues that social capital is best described as an investment in social relations. Therefore, individuals gain access to embedded resources, which enhance expected returns of instrumental or expressive actions.

Social Capital and Corporate Executives

The basic argument of social capital and corporate executives revolves around a core principle: individual social capital may be utilized to secure better positions. While I have discussed the notion that human capital is important in sorting people into hierarchical positions, this study argues that social capital is used to obtain the most prestigious positions. Individual social capital is most valuable to the uppermost levels in the organization because social capital expands interactions with the external environment, links to powerful influences, and channels to key information resources (Erickson, 2001).

Parsing of social capital assets from other individual level assets has proven difficult for researchers. While the use of social capital assets is accepted as influential in obtaining employment (Granovetter, 1995), how this affects executives in particular has undergone little treatment. Recent research identified the relevance of integrating social capital theory with research on careers (Seibert et al., 2001) through emphasizing network structures as a way for individuals to access information, additional resources, and career sponsorship.

I examine in detail two linkages between corporate executives and social capital. Interlocking directorate studies focus on how social assets facilitate the diffusion of corporate policies and structures such as: poison pills (Davis, 1991); charitable donations (Galaskiewicz & Burt, 1991); and multidivisional structures (Palmer, Jennings, & Zhou, 1993). However, this research mainly focuses on firm outcomes rather than the individual antecedents and how interlocks form in the first place. Additionally, executive prestige (status bestowal beyond hierarchical title) is a social capital asset, which may be leveraged to an individual's advantage (D'Aveni & Kesner, 1993). Prestige is formed through affiliation with a prestigious institution or other such relation.

Interlocking Directorates as a Source of Social Capital. Director interlocks have received a great deal of attention. Early work focused on their anticompetitive potential as an instrument of communications between competitors. Attempts to address interlocking behavior resulted in passage of the Clayton Act Section 8 (1914), which prohibits interlocks among competitor firms. As a result, a sharp decline in the number

of competing interest interlocks was observed in the years following the act's passage (Herman, 1981).

Director interlocks are classified as either direct or indirect. A direct interlock occurs between two companies when a single individual is on the board of both. An indirect interlock exists when two directors of two different firms both sit on the board of a third firm. In an indirect interlock the director meets only with the other indirect director whereas in a direct interlock a director meets with the entire board. A special case of interlocks is one that includes the officers of corporations. Whether direct or indirect, officer interlocks are likely to be more significant in terms of benefits to the firm or the individuals than those interlocks mediated by outside directors who are not officers of other corporations. An officer interlock means a more direct connection between the powerful interests in the two firms.

Studying director interlocks has produced ambiguous results. Their effects have been studied as a way for firms to: cooperate and collude (Burt, 1983; Koenig, Gogel & Sonquist, 1979); reduce dependencies or control others (Mizruchi & Stearns, 1994; Pfeffer & Salancik, 1978); promote upper class cohesion or enhance personal careers (Zajac, 1988); promote legitimacy (Selznick, 1957); or become a source of information about business practices (Davis, 1991; Useem, 1984) (for a complete overview see Mizruchi, 1996). More germane to the present study is the influence potential of interlocks at the individual level.

Zajac's (1988) analysis argued that interlocks, as an interorganizational strategy to improve firm performance, are not supportable. Moreover, he suggested that previous

work had obscured rather than illuminated the potential of interlocking ties because of misspecification. He went on to suggest two viable explanations: (1) class alliance in which board members use interlocks to further their elite class interests; or (2) as a way for personal advancement. In a personal advancement model the individual desires the rewards of interlocks such as economic advantages, furthering ones career, and a desire for prestige (Zajac, 1988). In this way the corporate officer enriches his or her social capital asset stock as a result of membership in corporate boards.

Executive Prestige as a Social Capital Asset. Prestige has been used in the sociological literature to represent both the status of structural affiliations (e.g. Harvard, Chairman of the Board) and the status of individuals (e.g., being a Rockefeller) (Lin, 2001b). A socially regarded structural position bestows upon an individual prestige by his or her association in that high status group. Social capital theory assumes that an uneven distribution of resources will flow to those considered prestigious, of high status, or of high reputation. An occupant in a position of high standing with respect to one resource is also likely to occupy a relatively high position with respect to other resources (Lin, 2001a).

Previously, I discussed that actors access social capital through interactions to promote purposeful actions. Thus, an actor when motivated for action seeks two paths, gaining resources and maintaining resources. Attendance at a prestigious university, arguably, does not substantially add human capital to an individual beyond that obtainable from a slightly lesser considered institution. However, both perceived and direct access to the social resources from a prestigious affiliation likely expands relations

in elite circles. Additionally, promotion to the upper echelons widens the circle of potential relations from which the individual is able to draw. An important source of prestige is the ability of the individual to influence other's perceptions of his or her influence. In this way, association with prestigious individuals serves to legitimize (Meyer, Scott, & Deal, 1983) those who associate with the individual. Preferred partners for interactions are those occupying slightly higher social status (Laumann, 1966) and those in possession of prestigious credentials are sought out for association.

D'Aveni (1990: p.121), who defines prestige as the "property of having status", argues that prestige helps to maintain an illusion of competence and control through influencing interpersonal reactions to the individual. Moreover, D'Aveni and Kesner (1993) suggest that prestigious individuals are viewed as competent, credible, and trustworthy. Being prestigious then is a multidimensional construct, which is generally associated with membership in some elite network. While human capital describes ways in which actors position themselves (e.g. acquiring education), social capital describes the way in which human capital is mobilized for action. Prestige is a way for actors to present themselves as those with whom it would be rewarding to associate (Homans, 1958). The reciprocity nature of prestige likely serves the interest of both parties as those who associate with prestigious individuals seek to gain prestige from that association for themselves (Lin, 2001b).

Research on social capital and managerial elites investigating board composition depicts a capitalist class emerging from the interactions amongst directors (Useem, 1984). A class hegemony approach assumes that only the most influential and

prestigious individuals are invited to sit on boards (Mills, 1958; Zahra & Pearce, 1989). Through exclusion of lesser-prestigious individuals, the dominant class is perpetuated. Being considered prestigious and inclusion into a corporate board is a way of establishing and maintaining contact with other influential persons (Mariolis & Jones, 1982). Inclusion into a web of corporate boards provides intangible rewards and prestige important to those in the business elite (Davis, 1993; Mizruchi, 1983). Membership in the managerial elite is an indication of success and implies that the person is someone with whom it would be rewarding to associate (Finkelstein & Hambrick, 1996). Therefore, elites who associate with poorly performing firms may threaten their own position. This idea is consistent with Fama and Jensen (1983b) who argued that a primary motivation of directors was to protect and build their reputations.

Prestige as a mechanism for accumulating social capital is also consistent with the resource dependence perspective given that prestige provides the individual with power (Pfeffer & Salancik, 1978; Thompson, 1967). At the firm level, Thompson (1967) argued that increased levels of power enable firms to negotiate terms that are more favorable with key organizational constituents such as suppliers and customers. In fact, Thompson (1967: 33) suggests, “acquiring prestige is the ‘cheapest’ way of acquiring power.” Moreover, at an individual level, prestigious managers are better able to attract personnel, suppliers, and customers (Perrow, 1961; see alsoSchoorman, Bazerman, & Atkin, 1981).

In sum, prestige at an individual level depicts the person as someone who is desirable in interactions. As well, individuals gain a halo effect by association with

prestigious structural affiliations, such as attendance at the best universities or acceptance into the corporate elite of the most highly valued corporations.

Summary

The relationship and differences between human capital and social capital theories, especially in the context of corporate executives, is theoretically important. Certain scholars (Bourdieu, 1983; Coleman, 1988) have proposed that social capital assists in the production of human capital. A wealth of family connections and social ties enhances the opportunities for individuals to obtain better education, training, skills and knowledge credentials. Alternatively, it is also clear that human capital assists in the acquisition of social capital. Better-educated, better-trained, and more skilled individuals tend to move in social circles that are rich in improved social resources. The intriguing question then becomes which one is more important.

Several studies find that social capital is more important than human capital (Lin, Ensel, & Vaughn, 1981; Marsden & Hurlbert, 1988) while others show the opposite (De Graaf & Flap, 1988). These studies have examined different stages of industrialization and education systems with no clear results. Contrasting explanations from different contexts still are unresolved.

Another intriguing situation is the potential interaction effects between human capital and social capital. Boxman, De Graaf, and Flap (1991) found that human capital had its greatest effect on income when social capital was high. In a further study of the same Dutch managers, Flap and Boxman (1998) found that for top managers, social capital leads to higher income at all levels of human capital, but the returns on human

capital decrease at higher levels of social capital. This appears to suggest that human capital supplements social capital in status attainment. Therefore, when social capital is high, resultant status is high, regardless of human capital attainment; and when social capital is low, human capital exerts a stronger influence on status attainment. However, it is conceivable that given certain minimal levels of both human capital and social capital, social capital would be the more important factor in accounting for status attainment (Lin, 2001b).

Human capital is resources in the possession of an individual who can make decisions about their usage and disposition. Alternatively, social capital is resources attached to other actors, and interactions with these others allows for the possibility that their resources may be borrowed. Borrowed resources must be returned, replaced, or reciprocated. Additionally, human capital is accumulated by actions of the individual. Each action taken generates an amount of human capital that is subsequently available for use.

Meanwhile, social capital is generated by creating and maintaining social ties. The extent of access to social capital depends upon what resources are at the disposal of the network ties and network members willingness to share those resources. As the pool of social ties expands, the potential for additional social capital expands as well. Thus, by networking, access to resources is able to grow rapidly.

Identifying the effects that human capital and social capital have on the ability of corporate executives to secure outside directorships is the heart of this study. On the one hand, successful investments in human capital assets are important way for executives to

secure their position in the corporate upper echelon (Leonard, 1990). However, on the other hand, there is wide and observable differences between individuals in the corporate upper echelon, especially in the context of those who accept outside directorships and those that do not. Legally directors are chosen when incumbent directors nominate a director who is then elected by the firm's shareholders. Practically however, selecting directors oftentimes is left to the CEO (Lorsch & MacIver, 1989). It is generally acknowledged in directorship research that the fastest way to obtain an outside directorship is through social network contacts with powerful influences at that firm (Davis, 1993; Zajac & Westphal, 1996). While research finds strong support for this conclusion, how executives are placed in the potential pool and subsequently chosen remains largely unexplored.

CHAPTER III

THEORY AND HYPOTHESIS BUILDING

As noted earlier, I use human capital and social capital theories to develop a model of outside director service on boards. I selected social capital theory, because an overwhelmingly prominent view in the literature is that CEOs dominate boards of directors, and that they use a social mechanism to do so (Johnson et al., 1996). The social capital lens will help us to understand what individual outside directors gain in this exchange relationship, i.e. the accumulation and mobilization of social capital assets. I selected human capital theory because it helps us to understand why outside directors, as individuals, make some of the decisions they do regarding their investment in human capital assets. It is important to set the context for the model – the corporate board setting and the probable motivations of those involved in boards.

From the corporation's standpoint, there are three overarching objectives in the selection of outside directors. First, the board serves as a reflection of the corporation to outside observers. Therefore, all else equal, corporations will select those individuals with the highest visibility, best reputations, and most prestige as outside directors (Lorsch & MacIver, 1989). Second, those in powerful positions in the firm are concerned about establishing and/or maintaining a social exchange relationship with outside directors, and will strive to select directors that facilitate this process (Westphal & Zajac, 1995). Third, directors provide important resources to the firm. (Pfeffer & Salancik, 1978). Well-connected individuals and those with the ability to reduce

important uncertainties or provide important resources to the firm will be preferred to those with fewer such contacts or capabilities (Hillman, Cannella, & Paetzold, 2000).

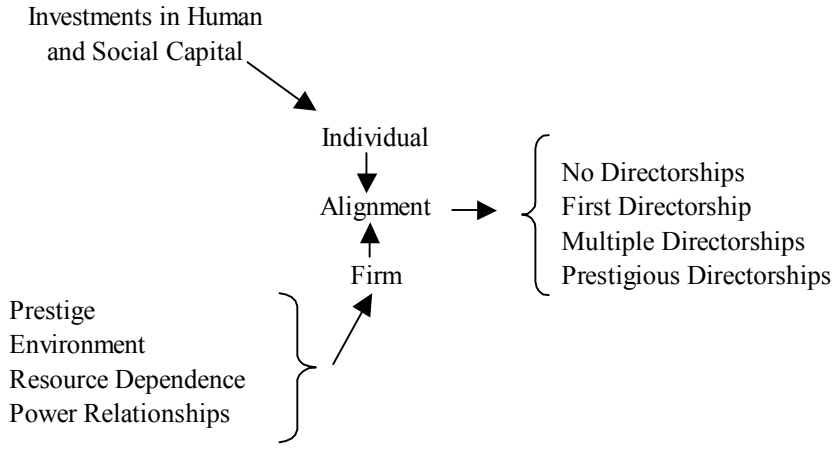
From the outside director's standpoint, there are similar overarching objectives. First, directors are concerned with their external visibility and reputations (Fama & Jensen, 1983b). Therefore, individuals provided with several opportunities to serve as outside directors will select those with the highest visibility and prestige, as this will further their own reputations and careers. Second, directors are also concerned about the social exchanges deriving from their board service, and they are likely to look for opportunities where they feel comfortable and at ease. It is important to remember that directorships are voluntary in the sense that an individual director can both refuse an opportunity to join a board or and resign from a board if desired. Due to data availability limitations I am unable to ascertain whether or not a person was asked to join a board and refused. Therefore, this study focuses only on those individuals who serve as outside directors and the relationships that affected their likelihood of serving and exiting.

I turn now to the development of a model of outside directorship, which includes three key phases: (1) *Likelihood of Joining Outside Boards,* where human capital and social capital assets affect the likelihood that certain individuals will become outside directors; (2) *Patterns of Outside Directorship*, investigates observable differences in the lives of those serving on outside boards that affect the likelihood a directorship seat will be added or lost; and (3) *Likelihood of Outside Directorship Exit*, examines events likely to create a reassessment of service. This reassessment may come from either the individual or the firm. I propose that an alignment or matching process occurs between

firms in need of outside directors and the pool of potential candidates. After joining a board(s), as change occurs with the outside director individually, or as a reassessment of needs inside the firm for outside directors, a reevaluation of the firm-director relationship will periodically occur.

The three phases of service condense into the following. Personal investments in human and social capital legitimate the individual as a potential director. As directorship opportunities arise, a matching and alignment occurs between the individual and the firm. Over time, successful matching and alignment may afford an individual the opportunity for additional appointments. Conversely, investments in human and social capital that do not match a prospective firm reduce the likelihood of a directorship at that firm. Below, Figure 2 illustrates an alignment model between firm and individual regarding outside director appointments.

Fig 2 An Alignment Model of Outside Director Service



In Figure 2, director service is the result of a matching process between the firm and the individual. The individual makes investments throughout his or her life in terms of both human and social capital. These investments potentially legitimize a person for directorship. Alternatively, possessing the right credentials or networks of contacts is worthless in the pursuit of a directorship without the benefit of an opportunity a firm provides. An important ingredient in this model is the matching or alignment process. The individual and the firm must both be motivated to enter into a directorship relationship. The individual must see service as rewarding in the sense that his or her goals for the future will be met through this association (Beach, 1998). Alternatively, the firm must see extending directorship offers as beneficial to its interests. These interests may manifest themselves through overall firm needs or because of powerful interests in the firm, which at times may be at odds with each other. Powerful CEOs for example, may want directors willing to assist them in consolidating their positions (Westphal & Zajac, 1995). This might lead to the appointment of one director whereas if examined from the perspective of another influential stakeholder it might lead to a very different decision regarding whom to appoint.

Accordingly, the following sections develop theory around corporate outside directors. In the first section, I discuss the likelihood of becoming an outside director and argue: (1) home firm affiliation is important in gaining outside directorships; and (2) prestigious executives are more likely than others to become outside directors. The second section investigates the influence of two main patterns of outside directorships:

(1) the impact of important life changes in the director; and (2) how prestige affects the accumulation of directorships. In the third and final section, I examine the likelihood of outside director exit. This section focuses on significant changes in the director, which create a reassessment of tenure and increase the likelihood of discontinued board service.

Likelihood of Joining Outside Boards

The model in Figure 2 implies that individuals considering an outside directorship evaluate opportunities in terms of anticipated benefits to themselves. The notion here is that those individuals who are likely to consider directorship opportunities are those who have the requisite human capital and / or social capital to do so. Further, opportunities to serve as an outside director will not arise randomly but will involve situations in which individuals evaluate potential opportunities in terms of these anticipated benefits to themselves. I utilize human capital and social capital contextual factors considered important to outside directorship. These are antecedents to outside directorship and serve to legitimate certain individuals, thereby placing them in the pool of potential candidates for board service.

Additionally, events occur in firms, which over time make it amenable to certain types of prospective board members. In order to examine the importance of both the firm and the individual the following section is broken into three categories: (1) home firm career; (2) gender and specific business expertise; and (3) prestigious external affiliations.

Home Firm Career

Appointment to a corporate board in part rests on the notion that human capital and social capital investments are often rewarding in the sense that such investments are recognized and mobilized for gain. These investments may come from an individual's career, education, network contacts, or skill set, and as such manifest themselves in the ability to climb the corporate ladder. Therefore, ascension to, and success in, the upper echelon signals to others that a person's achievements are worthy of being recognized and that the person is someone with whom it might be rewarding to associate.

Home Firm Career-Title. An executive's career is marked by choices that create paths along which come their progress, success, and rewards. Differential career choices demonstrate that an individual is actively engaged in activities that change and shape their career paths. Once an individual has begun a particular career path, their progress is largely determined by their abilities, skills, and behavior, which affect how far they progress and which deviations they may take (Melamed, 1996). Those individuals who choose paths not conducive to their skills and abilities or choose organizations incongruent with their expectations or needs are prone to turnover and / or job dissatisfaction (Bretz & Judge, 1994). Therefore, individuals who make it to the corporate upper echelons may be considered products of successful investments.

Past research investigating the careers of directors has relied upon arguments that typically emphasize education and background. In particular, research has focused on demographic characteristics where alignment occurs between the directors (Useem & Karabel, 1986) and between the chief executive officers and the board (Westphal &

Zajac, 1995; Zajac & Westphal, 1996). While the firm-director alignment is important, another way to assess directorship potential in executives is their current position. Ascendancy to the upper echelons implies that the individual has been rewarded for past investments and success.

A good indicator of executive potential and desire is hierarchical standing in the home institution. Special recognition from the home firm signals that the individual has been accepted into a narrower group of elites. Additionally, promotion to the home firm elite signals competence and credibility to others outside the firm. The theory of human capital implies that the process of sorting individuals into executive positions is significantly influenced by their accumulation of human capital stocks (Leonard, 1990). Executives are rewarded for their experience and education. Therefore, the premise that individuals sort into positions through human capital assets leads to the conclusion that there will be observable differences between executives.

Research investigating these differences is often directed at understanding pay differentials. The most widely used theoretical perspective regarding pay differentials is the tournament model (Lazear & Rosen, 1981). The tournament model for top managers translates into an expectation that as one rises through the hierarchical level of an organization, rewards will increase thereby motivating the person to work hard and perform better, vis-à-vis their peers. For example, Mann, O'Reilly, and Wade (1993) found that the number of vice-presidents (an indication of tournament scope and intensity) was positively associated with CEO compensation. Each successive step in the organizational hierarchy is rewarding not only through pay differential, but also

recognition among others that the individual is successful and competent. The ultimate attainment of winning the tournament is the title of chief executive officer. The CEO title is the pinnacle of most organizations and one with an expectation of the greatest reward (Rosen, 1986). To some extent, winning a tournament at each successive stage in the hierarchy is also a signal of the shifting nature of the power distribution within the firm (Finkelstein & Hambrick, 1996). However, titles do not always provide a clear indication of those who are regarded as the most powerful influences in a firm.

Finkelstein (1992) argued that power among executives is often distributed unequally. His notion is similar to that espoused by Thompson's (1967) proposition that the inner circle of a company often includes only a subset of top executives. Research on power is important because those with the most power have the greatest likelihood of affecting strategic choice (Child, 1972). Strategic decisions are often unstructured and ambiguous (Mintzberg, 1983) and those able to execute effectively such decision-making capabilities are highly sought for outside directorships (Conger, Lawler, & Finegold, 2001).

Active CEOs are the most widely sought after individuals for outside directorships (Conger et al., 2001). However, firms are finding it increasingly difficult to recruit all the CEOs they require (Conger et al., 2001; Lorsch & MacIver, 1989) due to the time requirements and demands of board service. This has left open opportunities for non-CEOs to join outside boards. A prominent position in the corporate hierarchy is one expected to ascend to the title of CEO. Vancil (1987) found that heirs apparent virtually always hold the position of president or chief operating officer. Additionally, the

placement of an individual into one of these positions sets up an expectation of ascendancy (Cannella & Shen, 2001), thereby increasing the visibility of the heir apparent.

One way to differentiate members of the firm's upper echelons is to identify those with the most prestigious titles and the greatest overall power to affect the strategic direction of the company (Finkelstein & Hambrick, 1996). An individual's title (top positions such as heir apparent- in line to succeed CEO, chief operating officer (COO), president, chief executive officer (CEO) and / or nomination to the home firm's board of directors) represents a visible demonstration of power and recognition (Finkelstein, 1988). This has the potential of demonstrably influencing the executive's career potential and standing. By virtue of accepting a top title and / or home directorship, the executive becomes experienced in corporate affairs and is visible to outsiders. In particular, the same human and or social capital attributes that sorted individuals into positions within the corporate hierarchy (Leonard, 1990) will be useful in obtaining outside directorships and accordingly predict that an executive's career at the home firm is influential in obtaining an outside directorship.

> *Hypothesis 1a: Holding the titles of Chairman of the Board, Chief Executive Officer, President, or Chief Operating Officer will increase the likelihood of joining an outside board.*
>
> *Hypothesis 1b: Serving as an inside director on the home firm's board will increase the likelihood of joining an outside board.*
>
> *Hypothesis 1c: Promotion to Inside Director, Chairman, Chief Executive Officer, or President / Chief Operating Officer will increase the likelihood of joining an outside board.*

Conversely, just as the impact of promotion and / or nomination to the board within the home firm should have an additive effect upon the individual's human capital and social capital, loss or perceived deterioration of human capital is expected to have the reverse effect. While human capital encompasses both innate abilities and acquired skills (Maman, 2000), I argue that one's perception of human capital stock is largely a function of one's current position. For example, consider the CEO of a firm who rose to that position due to superior performance in previous positions. Such performance was presumably a result of education, job training, tenure, work experience (Shanahan & Tuma, 1994) and the executive's acquired network contacts. Yet, when performance deteriorates, the impact on an executive's human and social capital is less certain.

The most consistent predictor of CEO turnover is poor firm performance (Boeker, 1992; Wagner, Pfeffer, & O'Reilly, 1984). However, human capital theory (Becker, 1993) would argue that there should be a loose coupling between firm performance and CEO dismissal, as those in power should take into consideration the potential loss of the CEO's human capital to the firm. Therefore, a CEO terminated because of poor performance implies that the value of their capital asset stock was not considered sufficient to remain in spite of the performance issues. I hypothesize that this perceived loss of human and social capital will result in diminished opportunities for outside directorships. The investments made in capital over a career manifest themselves through ones position. However, if that position is lost for non-voluntary reasons, a portion of the capital stock aligned with that position is also lost.

Hypothesis 1d: CEO dismissal decreases the likelihood of joining an outside board.

The Role of Gender and Home Firm Type

Resource dependence theorists assert that an outside director provides specific resources to the board such as expertise, advice, legitimacy, and experience (Pfeffer & Salancik, 1978). Through an observation such as gender or business expertise, I can make predictions as to the kinds of resources that an individual will bring to board service and the types of firms that would be desirous of such resources.

Gender. Women's routes to career success are different from those of men. They are characterized by differences in job specialization, interrupted careers, and more radical career changes (Melamed, 1996). Past research has attributed this to cultural, social, legal, and practical gender-specific barriers that women must overcome to achieve the same relative career success as men (Adler, 1993; Burke & McKeen, 1992; Melamed, 1995).

Women are also represented differently in their home firms than men. Women are more likely to be found in service industries whereas men are more likely to be found in manufacturing industries (Central Statistical Office, 1994). Melamed (1996) suggests that women seem to gravitate more to service industries because their policies are more sensitive to women's career paths. Additionally, it has been reported that even when women make the "right" career choices by obtaining equal education or other

appropriate qualifications, their careers still lag behind their male counterparts regarding salary and promotion (Stroh, Brett, & Reilly, 1992).

In 1973, approximately 10% of corporate boards had at least one woman serving as director, whereas in 1998 their representation had grown to 72% (Korn Ferry, 2000). Some research has identified that this explosive growth in representation has come from non-business environments such as law and academics (Hillman, Cannella, & Harris, 2002). However, little if any work has been directed at investigating women business executives and their path to corporate boards (for an exception see Daily, Certo, & Dalton, 1999). Theoretically, a resource dependence role (Johnson et al., 1996) speaks to overall director differences regarding expertise, legitimacy, and ties to external contingencies. It does seem reasonable to expect that women will bring different resources and expertise to outside directorship than men.

One initial resource women are expected to bring to board service is legitimacy. Most organizations are under pressure from outsiders to conform to the diversity of the culture in which they participate. This call for diversity has led to more women sitting on corporate boards, as Korn Ferry (2000) reports. Adding women to the board also signals sensitivity in the firm that it is responsive to women's issues (Suchman, 1995). However, if legitimacy were the only reason for adding women to the board it would be easy for a firm to comply. Resource dependency arguments also involve other resources directors bring to the board, such as expertise.

Common demographic characteristics of an executive expertise is typically occupation, career path, functional background, or occupation (Daily & Dalton, 1994b).

While the existence of executive women is a relatively recent phenomenon, their representation is still small in comparison to white males (Daily et al., 1999). Research on women and promotion patterns in organizations has concluded that the "glass ceiling" does exist and limits their upper mobility (Daily et al., 1999; Judge et al., 1995; Kanter, 1977), and therefore those few who do make it to the top are unique. Because directors are overwhelmingly chosen from executive ranks (Conger et al., 2001; Lorsch & MacIver, 1989), those few women who achieve top executive positions are expected to be in high demand. This demand should be especially evident where gender plays a crucially important role. Firms who have women as important influential stakeholders will in all likelihood attempt to recruit executive women to outside positions on their boards.

It is likely that firms looking to fill outside directorships will highly value those individuals able to serve in multiple director roles. Accordingly, women executives are expected to fill both a resource expertise and a legitimacy role as an outside director. Thus, I argue that women executives are more likely to serve on boards where their expertise in corporate governance and as women has value.

Hypothesis 2: Women executives are more likely to serve on the boards of firms that have women as important stakeholders.

Business Expertise. Just as the human or social capital of each executive contributes in a unique way to their home firm, so does an outside director bring to an

organization a unique set of attributes and capabilities (Kesner, 1988; Kosnik, 1990). This reasoning is similar to Hambrick and Mason's (1984) contention of a linkage between executive characteristics and their decision-making capabilities. Additional evidence by Westphal and Zajac (1997) discovered that the personal experiences of executives may be used to predict what kinds of initiatives they will support in their role as outside directors.

In a resource dependence role, outside directors connect the firm to external factors, which creates a sense of uncertainty or dependency. Theory suggests that survival is dependent upon the organization dealing with these sources of uncertainty or dependency (Pfeffer & Salancik, 1978; Thompson, 1967). Therefore, having directors able to bridge this gap is important. However, outside directors also bring their own resources to any given board situation. Each director has a unique set of human and social capital assets such as education, experience, skills, access and an individualized set of network contacts. These unique bundles of assets and capabilities serve in different ways. Pfeffer and Salancik (1978) asserted benefits that arise from the existence of a board's environmental linkage (e.g. outside directors), for example provide resources, channel communication, aid in obtaining resource commitments, and legitimacy. In this vein, firms obtain these resources through their board members. Co-opting the board through outside directors will likely result in additive expertise to the board through both the affiliation and experience of the individual director. In some firms, functional expertise might be extremely valuable while in others a connection through legal or financial channels might be more appropriate. Regardless, it is logical to

assume that incumbent boards will attempt to recruit new members who are able to add needed resources.

I suggest one way an incumbent board will assess a potential director is their ability to add resources and increase the board's scope of potential opportunities, or reduce contingencies that the firm might face in its environment. In this way, there is a balance between the interests of the firm and that of the individual. Outside directors from corporate executive ranks fill a business expert role (Hillman et al., 2000). They are able to do this because of investments made in their industry and firm specific training, education, and tenure (Becker, 1993).

Additionally, business experts provide expertise to the board on competition, decision-making and problem solving. Individuals in this role also assist in strategy formulation and may well serve as a legitimacy vehicle demonstrating the firm's ability to attract corporate executives. To fulfill this role as an outside director, the business expert must be familiar with the firm's basic business model. Theories of human capital argue that investments in firm specific activities raise the specificity of an employee's human capital. All else equal, such investments should result in a closer fit between the needs of the firm and the unique capabilities of the individual (Phan & Lee, 1995). Translated into obtaining outside directorships, I expect executives with specialized knowledge and expertise to be more highly valued in their own business sector than others. Since the road to success is dramatically different between service firms and manufacturing firms, I expect that executives who possess these specific capabilities will be most desired where they provide the greatest expertise.

Hypothesis 3a: Executives of manufacturing firms who join outside boards are more likely to accept directorships on manufacturing firms.

Hypothesis 3b: Executives of service firms who join outside boards are more likely to accept directorships on service firms.

Prestigious External Affiliations

D'Aveni (1990: p.121) defines prestige as the "property of having status" and argues that prestige helps to maintain an illusion of competence and control through influencing interpersonal reactions to the individual. D'Aveni and Kesner (1993) suggest that prestigious individuals are viewed as competent, credible, and trustworthy. Prestige represents a mechanism by which actors present themselves as those with whom it would be rewarding to associate (Homans, 1958). The reciprocity nature of prestige likely serves the interest of both parties, as those who associate with prestigious individuals seek to gain prestige from that association for themselves (Lin, 2001).

Empirical work supports the notion that preferred partners for interaction are those occupying slightly higher social statuses (Galaskiewicz & Burt, 1991). This behavior has been coined the prestige effect (Laumann, 1966). The implication is that interaction with prestigious parties will enhance the prestige of the less advantaged actor. This halo effect is only applicable as long as the tie between the two actors is in place and there is no appreciable decline in prestige of the advantaged partner. While

preference in association may be quite different from interactions arising from those associations, Laumann's principle does explain why individuals tend to pursue association with individuals of similar, or slightly higher socioeconomic status.

It is not uncommon for the upper echelons of corporations to be defined as having elite status. Giddens (1972) defined elites as those individuals who occupy formally defined positions of authority at the head of a social organization or institution. However, it is readily apparent that not all members of the corporate upper echelons are the same. Significant differences are found between members based not only on titles, but also previous work experience, educational experience, and other affiliations. The following sections examine the influence of three types of prestige that may be distributed unequally among various executives: educational prestige, home firm prestige, and family prestige.

Educational Prestige. D'Aveni (1990) additionally argues that individual prestige may contribute to the legitimacy of firms by influencing social exchanges on three levels: interpersonal relationships; interorganizational transactions; and societal-level (intra-class) interactions. This contributes to the belief that association with prestigious individuals is to be trusted and that actions taken will conform to acceptable standards of behavior.

While extensive research has investigated the impact of educational quantity on careers (Becker, 1993), other work has established the link between educational prestige and service as an outside director. As noted by Useem and Karabel (1986), an educational institution may bestow three distinct types of capital upon its graduates: (1)

scholastic capital (e.g. the amount of knowledge accumulated); (2) social capital (network ties, personal contacts); and (3) cultural capacity (the value society places on symbols of prestige).

Research on social class theory and business elites suggests that the composition of the board is reflective of a class of individuals that develops from interactions among directors (Useem, 1984). The directorship is a way for influential individuals to keep in contact with each other and perpetuate their elite status. The implication of this is that directors may be appointed to boards because of their personal connections in a community of individuals (Mintzberg, 1983).

The prestigious nature of an educational institution is important in determining the extent of an individual's connections and status (D'Aveni & Kesner, 1993). Individuals graduating from elite educational institutions often develop important social contacts, which are part of that individual's social capital for life. D'Aveni (1989) argued that individual prestige (enhanced from the educational institution attended) represents a valuable resource because of the elite social contacts made available to organizations.

Hypothesis 4a: Executives with prestigious educational credentials are more likely to join an outside board.

Home Firm Prestige. As mentioned earlier, corporate boards are visible reflections of the corporation's ability to attract prestigious and important people, and all

else equal, directors who bring more prestige to the board are preferred to those who bring less prestige. Of course, individuals who are seeking board appointments also see their directorships as reflections of their own capabilities. That is, all else equal, individuals will seek out service on the most prestigious boards that they can. As Blau notes, "The reason that one person will associate with another is that he has impressed others as someone with whom it would be rewarding to associate" (1968:20).

Moreover, Fama and Jensen (1983b) argue that directors are motivated to uphold shareholder interests because their reputations are important to them. This logic also suggests that directors will be very concerned about the reputation and prestige of the firms with which they associate. For example, Mace (1986) reports that executives accept outside directorships to signal that their peers have accepted them. Poorly performing firms and those with histories of shareholder lawsuits or negative press reports bring a potential for stigma that may be transferred to the organization's executives and directors. There is some evidence that executives of poorly performing firms are less likely to join outside boards than are managers of better managed, more successful firms (Kaplan & Reishus, 1990). Individuals who accept directorships for such firms do so at some risk, because their own reputations may suffer as the firm's performance suffers. Conversely, firms with truly outstanding reputations will be more attractive to potential directors, and with a bigger pool of directors to choose from, will tend to select those who also have high prestige.

Firm prestige will consist of various combinations of factors such as the size of the firm, its perceived market standing, the reputations of the firm's executives, the

nature of the business, and the firm's overall status or standing in the business community. Individual prestige will derive from such executive characteristics as the executive's title, prestige of the executive's employer, educational accomplishments, and additional affiliations. Just as individuals are protective of their reputations, so are firms. How executives see themselves coupled with the needs of firms for prestigious individuals will likely result in a search for compatible outcomes.

Hypothesis 4b: Among executives who join outside boards, home firm prestige is positively associated with outside firm prestige.

Family Prestige. Clearly, not all theorists agree with the interpretation that human capital is the result of hard work and self-determination (Bourdieu, 1983). The human capital (e.g., education) of some may be the cultural capital (e.g., attending Harvard) of others. A theory of cultural class or cultural capital defines culture as a system of symbolism and meaning (Jenkins, 1992). Bourdieu (1983) argues that a society's dominant class imposes its culture by engaging in pedagogic action (e.g., proliferation of the elite family unit), which internalizes the dominant symbols and meanings in the next generation, thus reproducing the prominence of the next generation. The result is an internalized and durable reproduction of the cultural unit. The desire and need for status and prestige in one generation is likely to extend to the next.

I have noted that the top members of the largest companies in America have bestowed upon them a certain degree of prestige simply as a result of their inclusion into the corporate elite. However, while corporate executives have elite status, not all members share status equally. Some are afforded prestige due to their titles (Giddens, 1972; Mills, 1958), and some because they are considered to be part of an inner circle even amongst the managerial elite (Useem & Karabel, 1986; Zeitlin, 1974). This differentiation is due in part to a social stratification within the elite (Allen, 1974). For instance, being publicly included in the *Social Register* clearly sets one apart from another. Thus, an individual corporate executive would be included into a select group that has as its historical tenants grounding in prestige and status. It is therefore likely that outside directorship is important to those individuals with elite family status as an additional means for prestige enhancement and / or maintenance.

Organizational prestige is often depicted by a single explanatory variable. *Fortune* Magazine's survey of The Most Admired Companies uses seven different criteria but develops reputation as a simple average of those. This assumes that all the criteria utilized are equally valuable. Sociologists perhaps have the richest tradition of identifying orderings in organizations dating to the works of Weber (1957) who suggested that social stratification also had a status dimension. Besides some institutional categorical determinant, another way of acquiring organizational prestige is through association.

Empirical support has been received for the notion that preferred partners for interaction are those occupying slightly higher social statuses (Laumann, 1966). This

behavior has been coined the prestige effect. The implication is that interaction will enhance the prestige of the less advantaged actor. This halo effect is only applicable as long as the tie between the two actors is in place and there is no appreciable decline in prestige of the advantaged partner. While preference in association may be quite different from interactions arising from those associations, Laumann's principle does explain why individuals tend to pursue association with individuals of similar, or slightly higher socioeconomic status.

In sum, corporate elites have bestowed upon them a certain degree of prestige simply as a function of their inclusion into the corporate upper echelons. However, not all elites are equal. Differences in education, home firm affiliation, and family connection serve to segregate those at the pinnacle of corporations. Therefore, I hypothesize:

Hypothesis 4c: Executives with elite family prestige are more likely to join an outside board.

Hypothesis 4d: Among executives who join outside boards, elite family prestige is positively associated with outside firm prestige.

The preceding section argues that certain individuals are more likely to become outside directors than others, and implies that if asked to join, the individual will in fact do so. In actuality and as previously noted, becoming an outside director is a voluntary

exercise. One may just as easily turn down an offer as accept. Unfortunately, due to the difficulty of observing both a request to join and a subsequent refusal, identifying the reason for refusal is beyond the scope of this research. I am only able to identify those who join from those who do not, and leave the reasons for not joining to future endeavors.

However, I argue that holding and maintaining certain career credentials increases the ability to obtain outside directorships. Moreover, executives also become outside directors because they bring unique human and social capital resources to the firm's board. Lastly, I investigated the importance of prestige as an asset in joining the directorship ranks. I consider the executive's prestige as arising from the educational affiliations, the home firm and the family unit. All else equal, prestige factors should be influential in determining the outside directorship opportunity(s) an individual will be nominated for, and accept.

Patterns of Outside Directorship

Theory developed so far implies that outside board membership, when viewed from the perspective of a director, is influenced by a person's human capital (career, gender, experience) and social capital (affiliations). However, once appointed as an outside director, not all outsiders will view service equally. For some the chance to serve on an outside board is recognition of accomplishment and provides the ability to nurture influential contacts. Conversely, others might view service as a large commitment of time, arguably a scarce commodity of the corporate elite. Estimates range from 100 to 150 hours per year is required of a director serving on the board of a large public

company (Conger et al., 2001). Moreover, 60 percent of CEO's responding to a recent Korn Ferry survey (2000) said that they had turned down a board invitation within the last twelve months largely because of the time commitment (Lear, 2000). Therefore, why is that we are able to observe some individuals serving on multiple boards while others serve on only one? Moreover, what are some of the precipitating events in director's lives that lead them to different patterns of directorship than others? The following section investigates reasons why we observe differences between those who choose to serve as outside directors on corporate boards.

There are three potential outcomes that may occur to a director once an initial directorship has been obtained. First, the director may come to value service and seek additional directorships. Second, the director may be content with one directorship and continue to serve at the pleasure of the firm's incumbents. Finally, the director may reevaluate service and leave the board(s). Accordingly, I discuss the first scenario as the second is theoretically uninteresting and the third remains for the next section.

Changes in Home Firm Affiliation

Often and perhaps usually, the decision to join a board is a voluntary one, not importantly driven by financial need. Incumbent directors for large publicly traded companies have already distinguished themselves prior to obtaining a board seat (Lorsch & MacIver, 1989). Therefore, reasons for board service are varied and complex. Amongst those implied here: ability to gain future board seats; attributions of prestige; and recognition as an accomplished business professional. However, due to above

average age, it is likely that personal life changes will occur to this group in somewhat disproportionate amounts compared to the general public.

As corporate executives progress throughout their careers opportunities for change occur. Some appear randomly while others appear more organized or planned. Whether the former or the later, the potential for change is likely to create a reassessment of where one is in their life and how they see themselves in the future (Beach, 1998). Individuals possess a core of principles, morals, and values, as well as a set of goals and plans that guide and constrain their decisions about (and therefore their behavior with respect to) forming, adapting, and terminating relationships (Taylor & Giannantonio, 1993). Therefore, as one's life evolves, it is logical to expect that reevaluations occur as the individual assesses the array of opportunities and trade offs that accompany them.

As this study concerns sitting executives, the most observable life event deals with ones career at the home firm. Significant shifts which create the ability of an executive to refocus their time are likely to result in a evaluation of one of two outcomes: join another board; or leave a seat currently occupied. Similar to the previous discussion, significant changes in the executive's home firm career are expected to alter that individual's human and social capital stock and thereby alter their patterns of outside directorships.

Important Life Changes-Retirement. Executive departures come in many different ways, each of them interesting in their own right. However, retirement from the home firm, whether voluntary or mandatory, provides an intriguing set of predications

when put in the context of its impact on the individual's ability and desire to be an outside director. Early departures or retirements probably do not occur randomly. Some occur as the result of a personal desire to spend more time in other activities, some to join other organizations, and some even at the insistence of the board (Finkelstein & Hambrick, 1996).

Fama (1980) was among the earliest to argue that external career concerns are an important consideration for both the firm and the executive. He found that the external labor market was able to effectively reward and punish executive behavior. Those with better performance received higher rewards. However, others have found that the prospect of diminished careers will motivate executives to engage in opportunistic behavior (Butler & Newman, 1989) but these results do not hold up in all cases (Murphy & Zimmerman, 1993). The intriguing point is that most prior research has depicted an executive's career as ending with retirement from the home firm. However, I suggest retirement from the home firm is but a continuing step in the career progression of certain executives. Continued patterns of outside board service have the potential to appreciably add to the executive's human and social capital asset stock post retirement. However, the context of that person's retirement from the home firm is important. For example, scandal, bankruptcy and the like will alter the executive's capital stock to the degree their reputation becomes impacted by the event. To provide consistency with prior succession research I focus my analysis upon the firm's CEO. Therefore, the context of an CEO's retirement is important in determining their pattern of outside

directorship opportunities and the appreciation, or depreciation, of their human and social capital assets.

Hypothesis 5a: A CEO retirement from the home firm increases the likelihood of changes in their outside board affiliations (both exits and entries).

Vancil (1987) reports that in a normal succession (no evidence the CEO left due to performance issues) 44 percent of CEO's shedding the title retain membership on the board as chairman. Sonnefeld (1988) argued that indeed it was the CEO who made the decision to stay on the board or leave. Additionally, he asserted as did Jensen and Murphy (1990), that in cases of forced departure from the CEO position, an executive may be allowed to remain as a face saving mechanism or because their vision was unfulfilled. These findings are in opposition to Brickley et al. (1999) who find evidence that home firm performance is important in obtaining post-retirement outside directorships.

In theory, concerns about ones career potentially mitigate agency problems between managers and owners in the last few years of a career (Fama, 1980). This is because, as stated above, the external labor market provides a CEO with outside opportunities and the internal labor market determines how and on what terms the CEO moves through the hierarchy. Therefore, managers concerned about their post retirement careers understand that if they perform poorly, the number and quality of opportunities available to them after leaving the home firm will be limited. Post-retirement board

service has been identified as a source of managerial incentive (Brickley et al., 1999). Brickley et al. (1999) identified that both the likelihood that a retired CEO will serve on his own board and the likelihood of serving on outside boards is positively associated with his or her recent performance in the home firm. Furthermore, this study leaves open the question as to how the type of succession affects the ability of CEOs to gain outside directorships.

In Vancil's (1987) opinion the relay in an executive succession event is the healthiest for the firm. The typical process includes an heir apparent who is selected before the incumbent's departure and is readied for transition to the number one spot in the firm. This process likely frees up the incumbent CEO's time for other activities, both within and outside the firm. Additionally, a CEO who stays on the home firm's board, post retirement, signals to onlookers that service as an outside director is desired. Healthy retirement processes, those with favorable attributions to the departing CEO, should allow them to leave with their reserve of human capital assets in place. This high reservoir of human capital might then be leveraged into directorship opportunities.

Hypothesis 5b: A CEO retirement from the home firm when coupled with a relay succession increases the likelihood of joining an outside board.

Hypothesis 5c: Among CEOs who retire from their home firm, staying on as a director in the home firm increases the likelihood of joining an outside board.

Prestigious Affiliations

Human capital theory (e.g.Becker, 1993) and social capital theory (e.g.Coleman, 1988) imply that board membership, when viewed from the perspective of a director, will continue as long as the associations of board service fit the investments made by the director and the director views service as being personally rewarding. As long as service is beneficial to the individual and to the firm, we might logically expect tenure to continue.

Social capital is also interpreted as the standing one has in a social organization and the ability of an individual to draw upon that standing to influence the actions of others (Friedman & Krackhardt, 1997). From this perspective, individual attributes are not as critical to success as the way in which an individual is embedded in a web of relations that provide information and support (Brass, 1994). Therefore, the notion of social capital describes the likelihood of attraction between similar others (Tsui & O'Reilly, 1989).

While there is strong evidence that human capital is important in obtaining a position (Becker, 1993), results have confirmed that social capital is important in obtaining better positions (Erickson, 2001). To understand this requires examining social capital from its dual sides. First, employers value potential employees with social capital because they can convert individual social capital into organizational advantage. Second,

employees with social capital see this asset as valuable because it increases the chance of getting a better position. Hence, social capital might be more important in higher levels in the organization where the need to access social capital and its benefits is the greatest.

Executive Prestige. Upper echelon business executives, particularly the CEO, are the most sought after outside directors (Lorsch & MacIver, 1989). Executives serve as outside directors for various reasons such as: intellectual stimulation; a way to better serve their home firm; accumulate social and human capital; or prolong their careers (Conger et al., 2001). Many firms today require executives to leave the corporation at a mandatory retirement age, normally between 60 and 70. Post retirement service is important to corporate executives as research found that 88 percent of all retiring CEO's hold at least one board seat and 42 percent hold three or more (Brickley et al., 1999). Additionally, Brickley et al. (1999) discovered that the prevalence of these opportunities was partially contingent upon home firm performance.

While there has been some research on multiple directorships (Brickley et al., 1999; Hillman et al., 2002; Maman, 2000), minimal effort has examined the accumulation of directorships among executives other than the CEO. Holding top positions in large public corporations implies the possession of a prestigious social capital asset. Moreover, recruiting individuals to boards from prominent executive positions signals to the relevant environment that the firm is able to attract individuals of high quality and gain access to additional needed resources (Mizruchi, 1996).

Further research on multiple directorships is scarce but the few studies that do exist predict the likelihood of accepting multiple nominations depends upon the

individual's human and social capital (Burt, 1992; Davis, 1993; Lorsch & MacIver, 1989; Useem & Karabel, 1986). To answer who might accumulate multiple directorships, I utilize individual attributes. This implies that certain individuals are more apt to receive and accept multiple nominations than others. I have argued previously that individuals who accept outside directorships are likely to be those who view service as prestige enhancing and valuable for their accumulation of social capital. I continue in that vein by arguing that similar logic applies to the accumulation of multiple directorships, in that only those who most highly valued prestige and status will take the time and exert the effort required to serve multiple times. Accordingly, I hypothesize that the most prestigious individuals are the ones likely to accumulate directorships.

Hypothesis 6: Among executives who join outside boards, executive prestige is positively associated with the likelihood of multiple directorships.

A theory of human capital (Becker, 1993) argues that the human capital assets one accumulates are a reflection of education, experience and career. These are important in understanding, among other things, positions within the hierarchy (Leonard, 1990). These positions may be a source of advantage or disadvantage depending upon context (e.g., way in which one departs their home firm career). Alternatively, social capital reflects the executive's ability to draw upon a web of relations. I argue that both

of these capital asset stocks are influential in assessing the context of those who serve on outside boards.

Likelihood of Outside Director Exit

General models of employee turnover hold that three main components are involved in the turnover decision: (1) job dissatisfaction, (2) a search for alternatives before leaving the organization and (3) alternatives are processed using a subjective utility model (Lee, Mitchell, Wise, & Fireman, 1996). However, factors other than affect can initiate the turnover process, employees may or may not compare a current job with another, and a compatibility judgment is used rather than a subjective utility model (Beach, 1998). Once an occupational goal has been achieved (e.g. attainment of and tenure in an outside director position(s)) individuals will periodically evaluate their progress. When forecasted and desired outcomes diverge substantially, this discrepancy will trigger a search for alternatives.

Outside directors differ from normal firm employees regarding exit. They usually have various options and are generally not concerned with their next employment opportunities. Additionally, dissatisfaction with the position may not be present. The exit of an outside director may come for various legitimate reasons such as death, illness, retirement, time pressures, or new position with competing firm. Further, the director may be requested to exit irrespective of any health, performance, or other issue.

From a social capital perspective, an outside director is desirous of a board position as a means to profit from the relationship. Viewed from this lens, while the financial rewards may be attractive in board service in relation to other types of part time

work, the primary draw will come from the expected future rewards of affiliations, which lead to attainment of the individual's future goals. To this end, a break in board service signals that continued tenure might be in conflict with where the director sees him or herself in the future. Poor performance, public displays of firm misbehavior, board conflict, and CEO dismissal, highlight events that might alter the impression the outside director has for continued service. Accordingly, the next two sections discuss social capital influences that might cause a director to reassess continued service: shifts in individual or firm prestige; and shifts in a firm's internal power structure.

Changes in Prestige

Prestige Shifts. I previously argued that board positions are prestigious and desired. Given this premise, it is difficult to understand why irrespective of a natural or forced exit (death, illness, retirement, or request to leave) a director would vacate a directorship. Instances of directors serving long past a normal retirement age are replete in the popular press. In such instances, it is often the case that only failing health or forced graceful exits are the drivers that extricate these executives from their positions. Nevertheless, there are additional factors that may create an alignment mismatch and a desire to reassess board service.

Instances of prestige enhancing or prestige reducing events may occur during the tenure of the outside director. Prestige enhancing might come as a result of being elected CEO, wealth accumulation, or family status. Conversely, the opposite might derive for prestige reducing events. The loss of a CEO position or officership, financial problems at the home corporation, or a family crisis might send negative signals. Therefore, the

characteristic of such an event will frame the episode into a positive or negative image. A CEO fired for poor performance will certainly engender different assumptions on a firm's board than would a CEO who retired with a successful record of accomplishment. As has been suggested in this study, the association of networks is also a critical element in appointing board positions. Directors who serve on multiple boards will likely have linkages to other boards upon which they might sit. The reputations acquired from one board will logically transfer to other boards and influence prestige standing, which will likely affect current and future board opportunities.

Research suggests that the rate of executive turnover is higher for poorly performing firms than for superior performing firms (McEarchern, 1977). Outside directors are also disciplined in the market, as those from financially distressed firms were found to hold fewer other outside directorships following their exit from displaced firms (Gilson, 1990). Bankruptcy filings also play a role in director exit as it was found that firms had smaller boards following the filing of a bankruptcy petition. It appears that some of the reduction in size is due to directors voluntarily leaving the firm to distance themselves from the risk and problems associated with financial crisis (Gales & Kesner, 1994). Yet, outside directors are generally respected leaders in their businesses and communities whose reputations suffer when they are associated with failing firms. Outside directors thus have an incentive to ensure the effective running of the company because being directors of well-run companies signals their competence to the market (Weisbach, 1988).

A paradox for outside directors develops in the association of their personal prestige and that of the firm. In instances of failing performance, fraud, mismanagement, bankruptcy, or bad press, it is important for the director to attempt a disassociation between themselves and the circumstances. Yet, directors are acknowledged as the instrument of choice in attending to problems of a major magnitude. Therefore, they must attempt a disassociation of the stigma, but try to retain credibility as an effective leader. In such circumstances, it is likely that directors will assess the potential damage through continued association with their beliefs about the efficacy of that decision regarding personal future goals and plans.

In large publicly held corporations, most items of note happen visibly and much of the popular press is keenly alert to changes that happen in the boardroom (ala Enron). Situations of both positive and negative news are generated for public consumption, with the result that director reputations are associated not only with their overall personal performance but also with that of the firm or firms with which they have aligned their interests. As outside directors serve, occasions of prestige change will create a reassessment of board service. When an out of alignment situation manifests itself, it is likely that board service will be reassessed.

Mace (1971) argues that outside directors are chosen, in part, because of the titles and prestige of the candidates. Thus, by examining circumstances surrounding outside director exit, I am able to test the importance of human and social capital assets to the executive. First, directors covetous of their capital assets will, all else equal, align their interests with the most prestigious and ostensibly the most personally advantageous

firms possible. In this regard, employment with the firm is perceived as additive to their capital asset stock. Second, the firm attempts to gain organizational advantage through utilization of the executive's social capital. However, social capital is fungible. Significant changes in the prestige of the executive of the firm will likely result in a reassessment of service. The alignment that originally occurred when the director was elected to the board is altered. Outside directors faced with the loss of capital that accrued to them through firm affiliation will likely reassess continued service in light of the potential impact upon themselves. Alternatively, firm advantage gained through association with a prestigious executive, which is altered will also result in a likelihood of outside director exit.

Hypothesis 7: A significant decline in prestige, either on the firm's side or on the director's side, increases the likelihood of outside director exit.

Internal Power Shifts. An additional influence on outsider exit will be a shift in the internal power structure of the firm. This shift may come from one, or a combination of any of these three factors: 1) CEO succession, 2) the emergence of powerful outside shareholders, and 3) an alteration of the board's social network. The dynamics of these may be related, for example, a large institutional shareholder may be successful in replacing the CEO and reconfiguring the board with additional board members. This would certainly constitute a disruption in the social configuration of the board.

Alternatively, the board may take it upon itself to remove the CEO. Regardless of the specific circumstances, power shifts disrupt the existing cohesiveness (whatever the degree), and this will likely cause an outside director to reexamine his or her continuity of board service.

A tendency for cohesiveness has been shown to relate to effective group interaction. Power shifts will likely result in moves from cohesion and toward uncertainty. It follows that a loss of cohesiveness will affect the attraction of members to the group. On boards with low levels of cohesiveness, members may choose not to stand for reelection or resign (Forbes & Milliken, 1999). Cognitive conflict refers to task oriented differences in judgment among group members. Such conflict can arouse negative emotions that serve to diminish interpersonal attractions among members. Many directors respond to high levels of cognitive conflict on the board by reducing their commitment to the board (Mace, 1986).

Moreover, changes in board composition may motivate or precipitate changes in strategic direction. Of particular importance may be changes directed at altering the mix of insiders or outsiders on the boards. A reduction in outside directors may be seen as furthering the interests of the CEO in favor of shareholders, while an increase in outside representation might lead to a form of governance more in tune with the interests of stockholders. The board may also face the exit of the firm's CEO. The characteristics of that exit will signal the market as to the type of change required. Regardless of the conditions surrounding CEO exit (forced, retirement, etc.), board composition has been shown to change dramatically following the exit. Ward, Bishop, and Sonnefeld (1999)

discovered that the greatest turnover in board composition came after a forced CEO exit, but that in all cases of a CEO exit, board turnover was in excess of the rate for average attrition.

The process of executive succession additionally provides an important mechanism through which organizational inertia may be overcome (Pfeffer & Salancik, 1978). Turnover on a board will shift power dynamics and may lead to new ideas and interests which may reduce the risk of strategic myopia (Hambrick & Mason, 1984). As shown, this tendency for strategic stability is a result of board cohesiveness in combination with tenure. The characteristics of a CEO entry are likely to spur change. The new CEO, especially one from the outside, will attempt to consolidate power and influence by adding outside board members who will be in agreement with his or her new strategic direction.

The exit of a CEO will also engender various social psychological feelings in the incumbent board members. Those who ascended to the board during the tenure of the CEO are likely to feel the loss of a confederate. The board is also likely to undergo a loss of cohesiveness. Various new factions or cliques will develop as the power balance has been disturbed and may reemerge in an altered form with a new coalition. Therefore, alterations to the status quo associated with disrupted shifts in power are likely to cause a reassessment of board service.

Social capital is a function of brokerage opportunities available in a network (Burt, 1997). Most notable, Granovetter (1973) drew upon tie strength while Burt (1992) examined structural holes to explain how individuals seek to gain advantage through

associations. An individual's position in this structure becomes a social capital asset and is dependent upon connections in the network. When one becomes disconnected through changes in network ties, there will likely be a search for alternatives.

Hypothesis 8a: Changes in the internal power structure of either the home, or outside firm, increases the likelihood of outside director exit.

Hypothesis 8b: CEO succession in either the home, or the outside, firm, increases the likelihood of outside director exit.

Hypothesis 8c: Disruptive CEO succession in either the home, or the outside firm, (dismissal, forced retirement) increases the likelihood of outside director exit more than non-disruptive succession.

The decision of an outside director to exit the organization voluntarily results from the normal occasions of death, illness, retirement, or through a process of selective matching that stems from a scan of the environment and processing those scanned images (Beach, 1998). Additionally, it has been argued that prestige enhancing or prestige-reducing events will likely influence the decision to stay. Therefore, the decision to exit a board position is not a decision undertaken lightly. To a certain degree

social and human capital will deteriorate as disconnections occur in the network. Social connections dissipate over time resulting in previously strong associations becoming weak ones (Granovetter, 1982). Disruptions will likely engender a reevaluation of motivations to serve because the previously important links to the executive's human and social capital are disconnected.

Summary

The present chapter is organized around the guiding premise of the study. The likelihood of a corporate executive becoming, and serving, as an outside director is due to identifiable human capital and social capital assets. Accordingly, important characteristics of an executives human and social capital were investigated such as: education, career events, gender, home firm affiliation, educational prestige, and family prestige.

I expect that human capital and social capital assets will affect outside directorships in three phases. The first is the ability of an individual to become an outside director. The second phase concerns those who are outside directors. Here I examine different patterns of outside directorships. Third, I look at the various contexts of outside director exit. Human capital and social capital are each influential in unique ways.

CHAPTER IV

METHODOLOGY

This chapter provides a description of the methodology used to test the hypotheses developed in chapter III. Accordingly, the following is organized into four sections: (1) sample description; (2) organization of the data sets; (3) measures; and (4) statistical methods.

Sample

The sample used in this study originated from the *Fortune* 1000 list in 1990. In 1990 *Fortune* published two lists, the *Fortune* 500 Industrials and the *Fortune* 500 Service. These were combined to establish the original candidate sample. I choose 1990, to provide a long window since the study concerned executive careers and directorships. Additionally, I use only publicly traded firms for the following two reasons: (1) information on officer and director characteristics is normally available for only the largest companies, and (2) research on boards primarily targets large publicly traded firms for data accessibility and comparison purposes. A listing of each company used is contained in Appendix A with its appropriate CNUM and PERMNO. Often companies go through name changes and this sample is no exception. During the twelve year window studied, I found firms with up to four name changes. For parsimony, I list only the first name. Additionally, Appendix A is sorted alphabetically by company name. 871 firms began the data analysis in 1990.

The sample was identified as follows. First, I obtained the text listing of the 1000 firms that made the *Fortune* list in 1990. These 1000 firms are the candidates for the

duration of the study period. The *Fortune* list is comprised of both public and private firms as it utilizes size (assets and sales) for primary inclusion into that years report. For each public firm reported in 1990, I obtained officer and director data through publicly available corporate filings. Using the criteria described yielded 871 firms.

Financial and management information was extracted from Securities and Exchange Commission (SEC) filings. They include public companies that trade stock on the New York Stock Exchange, American Stock Exchange, NASDAQ, or over-the-counter markets. To be included a firm must provide direct goods or services and file with the SEC. This effectively eliminates firms such as management investment companies, mutual funds, real estate limited partnerships, and oil and gas drilling funds. Companies are included only after appropriate registration filings have been made with the SEC. Data was extracted from various public corporate records such as 10-K, 20-F, 10-Q, 8-K, Proxy Statements, Registrations Statements, Annual report to shareholders, and Williams Act filings.

As mentioned, the original *Fortune* 1000 list became 871 firms after culling for the above criteria. Data was extracted on these 871 firms for all years between and including 1990 to 2001. This twelve-year window effectively provides the sample with all officers and directors reported over that timeframe for the sample firms. Due to mergers, acquisitions and the like, there are 549 companies in the data set at the end of the study period, 2001. The total number of firm years over the entire study period is 10,112.

A second data source used in this study is COMPUSTAT. I used this source to collect industry segment and various market based or accounting based performance measures. Compustat, developed by Standard & Poors, is a database consisting of over 10,000 active and 11,000 inactive U.S. companies. In addition, the data set includes financial ratios, growth rates, profitability, and relative market performance.

Third, I utilized the 1990 Dun & Bradstreet's Reference Book of Corporate Management to identify demographic variables for the various officers in the study. The 1990 volumes list, by company, all officers and a biographical sketch. A typical listing includes year of birth, universities attended, previous employment and positions, years with current firm, and previous executive titles. From this information I extract age, tenure, education achievements, and experience.

Fourth, I consulted the Lexis-Nexus on-line data information system to assist in filling gaps in information from the previous sources. Additionally, firm proxy reports of all U.S. publicly held corporations were investigated to obtain additional board seats for officers holding outside directorships beyond those firms contained in the 1990 firm sample.

Data Organization

The present study is primarily concerned with the careers of executives and various factors that influence their ability and desire to serve as outside directors. In order to test the hypotheses predicted in this research I employ a variety of methods. Accordingly, the testable analysis is presented in a way consistent with the methodology and the sample of data upon which that analysis was undertaken. The main difference

between the samples utilizing event history methodology concerns who is at risk during the sample window. Additionally, the samples that are cross sectional in nature model relationships between a given executive and outside board positions and do not model likelihood functions in any way. Following are descriptions of the six data sets created to perform the tests as outlined in the theory and hypothesis chapter. I discuss each of these in turn plus a summary is located in Appendix B.

Sample 1. This is the main hazard function dataset and is an event-history dataset. Each executive identified through Dun and Bradstreet will be included in the dataset each year between 1990 and 2001, unless I know of the death of the executive. All independent variables are updated each year, except those that are time-invariant like educational prestige or family prestige. The key dependent variable is coded 1/0, and indicates whether the executive joined one (or more) outside boards in the following year. This will establish temporal precedence. For example, all independent variables for 1990 are coded as of fiscal year end 1990, but predict whether the executive joined at least one outside board in 1991. Those who did not join an outside board during 1991 are coded as censored. The variable denoting whether an executive joined a board in any given year was constrained between 0 and 4 to minimize the influence of outliers.

Sample 2. This dataset includes one observation per Dun and Bradstreet executive, per outside board affiliation. It tests hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset, covering the entire 12-year window of the dataset and only includes those executives who joined an outside board subsequent to 1990.

Sample 3. This dataset is a subset of sample 1 and consists only of CEOs who have served, or are serving, as an outside director. As in sample 1, this is set up as an event history data set. The dependent variable of interest is whether a given officer exits from his or her outside board position. The basic dataset, with one observation per executive, per year, matches only those executives that are reported in Dun and Bradstreet for which there is complete demographic information. This data set is a bit different from others in that the unit of analysis is the executive year and his or her outside firm. It is possible for the executive to have more than one outside firm affiliation in any given year so exit board can only be a 1 or a 0, for any given executive, outside board, year, pair.

Sample 4. This dataset is a subset of sample 2 and is cross sectional in nature. Observations are collapsed over time representing one observation per executive. It establishes the maximum number of boards that any given executive served on in any given year over the entire twelve-year sample window. The number of boards was set to identify those who serve on multiple boards during any given year. An executive who served on either 1 board, or 0 boards, during the sample window is coded 0. Otherwise, I code as 1 those who served on more than one board during any given year.

Sample 5. Sample 5 investigates officers who joined and exited the boards of other firms included in the original Fortune 1000 sample. The original Fortune 1000 sample consisted of those firms on the list in 1990. I subsequently tracked each firm for the next 12 years collecting all officer and director data. This afforded me the opportunity to model board exits in the context of changes that occurred to both the

home firm and the outside firm. Executives may be listed more than once in this sample if they hold more than one outside board position on another Fortune 1000 company.

Sample 6. This dataset is designed to model CEO succession in the executive's home firm. It contains one observation per CEO per year. When a succession occurs the departing executive is tracked to the end of the sample window noting his or her age at exit. Additionally, the new CEO is monitored until another succession event occurs or the observation is censored at 2001. The organization of this data set affords me the opportunity to model succession context such as retirements, dismissals, and whether or not the departing CEO remains on the home firm board. Certain variables such as staying on as director or board chair are investigated each year and will shift from 0 to 1 as appropriate. Others like age, increment each year while variables denoting time invariant characteristics remain fixed (e.g. dismissal, retirement, age at which CEO exited as an officer).

Measures

Variables used in the analysis vary from sample to sample, particularly between those designed for analysis with event history and those that are cross sectional. Below I summarize the variables of interest as to the methodology utilized in their analysis. Accordingly, this section is divided into two main categories: (1) variables used in event history methodology, and (2) variables used in cross sectional analysis.

Event History

The event history data sets analyze the likelihood that a given executive will either join a firm as an outside director, or once serving as an outside director exit a

given outside directorship. There are four event history data sets and the differences between them regards the at risk population of each specific sample and the dependent variable. Two of the data sets (Samples 1 & 6) test hypotheses concerning the likelihood that a given executive will join as an outside director and the other two data sets (Samples 3 & 5) look at outside board exit.

For example, Sample 1 contains one observation for each executive listed in the 1990 Dun and Bradstreet for every year of the sample window (1990-2001) (n= 57,776); Sample 3 is a subset of sample 6 and contains only those CEOs at the home firm who serve as outside directors (n=12,737); Sample 5 has as its unit of analysis a Fortune 1000 firm and includes all officers and directors of the Home Fortune 1000 firm who also serve as outside directors on another Fortune 1000 firm. Their officerships and directorships are observed throughout the sample window (1990-2001) (n=9,704); and Sample 6 contains only those executives who are listed as being the top officer of their home firm and is carried for every year the executive's firm is included in the sample (n-9,734). Table 2 found in Appendix E contains a summary of the variables for each sample and the following section provides a description of each.

Dependent Variables

Join a Board indicates whether or not an executive joins a board as an outside director in the following year. As this study concerns executives who become outside directors, I am interested in identifying those individuals in the sample who achieve board appointments, accumulate multiple board appointments, lose board seats, as well as the associated time lag between these events if such an event exists. Accordingly, the

join a board variable represents a snapshot of each individual for each year and whether or not that executive attained at least one outside directorship during the following year. For example, every unique outside directorship will be scored as a 1 during the year an outside directorship is secured and 0 otherwise. This will allow me to include in the risk set those who hold no outside director positions as well as those who hold multiple outside directorships. Additionally, this affords me the opportunity to extract the corresponding time-periods that the directorships were obtained.

Exit a Board variable is coded when I observe an individual who has attained an outside directorship leave that position during the next year. Exit a board is coded for those executives who serve on at least one outside board, represented by 1 or 0.

Independent Variables

Elite Family Ties (*Social Register*) is a dichotomous variable that measures whether the executive is included in the social register. The social register is an annual directory purporting to list the most prestigious members of society in the United States. It is administered and published by the Social Register Association since its founding in 1887.

Educational Prestige is a dichotomous variable that assigns a 1 to any executive that attended a prestigious university for any of his or her degrees and a 0 to all others. I use Finkelstein's (1992) list of elite institutions to measure this component of prestige. The University list is detailed in Appendix C.

Home Director denotes whether or not the executive is a director at the home firm. It is generally well established that the distribution of power within the top

management team is not evenly divided and therefore some members are more influential than others (Finkelstein & Hambrick, 1996). This is a dichotomous variable represented by a 1 if the executive is on the home firm board and 0 otherwise.

CEO / Chair and Pres / COO represents the title of the executive. Titles are represented as a dichotomous variable indicating 1 if the executive holds the corresponding title and 0 otherwise.

Promotion to CEO/Chair or President / COO or Inside Director are a series of dummy variables indicating whether or not the executive was promoted to the corresponding position during the previous year.

Dismiss is an indicator variable signifying whether or not he person was dismissed as CEO of the home firm. Only those CEO's completely leaving the firm prior to age 63 were considered to be dismissed. If they retained a seat on the board, even as a non executive officer, they were reasonably considered to be still in favor with the firm and may be considered part of a healthy succession event (Vancil, 1987). If appropriate, this variable is carried with the executive until the censoring event occurs which is 2001.

Stay on as Chair (*Staych*) comes from a sample of executives who previously held the title of CEO and subsequently relinquished that title during the sample window. This variable indicates that the executive has retained the chairman title and no longer serves as CEO of the home firm. This designation stays with the executive as long as the chairman title is held. All those who hold this designation are also directors in the firm.

Stay on as Director (*Staydir*) additionally comes from the sample of executives who previously served as CEO in their home firm. The variable indicates that the

executive has remained on the home firm as a director but relinquished any officer position and is carried throughout the sample window as long as the position is held. This variable is coded as 1 or 0.

Relay succession is coded 1 to indicate those successions in which the outgoing CEO remained on the board but not an officer, and 0 otherwise. The relay variable is specific to the type of transition and remains constant until the next succession event, if one occurs, rather than staych or staydir, which change as the executive's position within the firm changes.

Retired is concerned with if, and how, a CEO left the home firm. Most publicly traded firms have stated retirement policies for their executives. This typically occurs between the ages of 60 to 65. I utilize age 62 or greater as a signal of executive retirement. The categorization of this is dichotomous, 1 if retirement and 0 otherwise. An executive in this category must not remain as an executive officer but could retain the title of board chair or vice chair.

Firm Prestige Change measures changes in prestige over the sample period. This is identified by observing variations in sales performance year to year. Firms significantly different from their industry are considered to have undergone a change that has influenced onlooker's perceptions. An index score is calculated for each firm by comparing its sales vs. all other firms within its industry for every year the firm is in the sample window. A positive score reflects a favorable outcome for the firm and a negative value an unfavorable firm outcome. For example, Firm A is ranked in the bottom quartile (4) vis-à-vis its industry counterparts in 1991 and is ranked versus its

industry counterparts in the second quartile (2) during 1992. This is depicted as favorable to Firm A (4-2=2).

Relative prestige is measured as an index constructed from observing the differences between the home firm and the outside firm. I subtract the outside firm sales industry quartile in year t from the home firm sales industry quartile in year t. A positive score signals that the home firm is more prestigious than the outside firm and vice versa.

Succession is a characteristic measured for both the home firm and the outside firm. It indicates whether the firm has undergone a succession event in the last three years. It is a dichotomous variable represented by a 1 if there existed a CEO succession event in the last three years and a 0 otherwise. Three years was chosen for two important reasons: (1) new executives initially devote a great deal of time to initiating substantive action early in their tenure (Finkelstein & Hambrick, 1996), and (2) the typical term of an outside director is three years, so logically for turnover to occur it is most likely when the director's term expires if not earlier.

Ex-CEO Stay on as Chair (*X-CEO Staych*) is a firm level characteristic for both the home firm and the outside firm. It indicates whether the exiting CEO stayed on the board in the role of Chairman or not. This variable indicates that the firm's former CEO has retained the chairman title and no longer serves as top officer at the home firm.

Ex-CEO Stay on as Director (*X-CEO Staydir*) is similar to the X-CEO remaining as board chair except in this case the departing CEO remains on the board without any special designation other than director. This variable serves as an indication of the power distribution within the firm (Finkelstein, 1988) and an indicator of the type of succession

the firm has undergone. This variable is identified for both the home firm and the outside firm when applicable.

Ex-CEO Retired is concerned with how an exiting CEO left the firm and depicts a characteristic of both the home firm and the outside firm. Most publicly traded firms have stated retirement policies for their executives. This typically occurs between the ages of 60 to 65. Previous research suggests that age is one way to differentiate between retirement and involuntary separation (Cannella & Shen, 2001; Ocasio, 1994; Puffer & Weintrop, 1991). I utilize age 63 or greater as a signal of executive retirement. The categorization of this is dichotomous, 1 if retirement and 0 otherwise. An executive in this category must not remain as an executive officer or as a director in the firm. This variable is identified for both the home firm and the outside firm.

Ex-CEO dismissal is a firm level characteristic that identifies whether or not the previous CEO was dismissed in either or both the home firm or the outside firm. Previous research on CEO turnover has often relied upon the age of the incumbent in determining succession intent. This allows for a differentiation between a normal succession and one considered to be more contentious. Age 63 is often used as an indicator if deciding whether the incumbent left office voluntarily (Ocasio, 1994; Puffer & Weintrop, 1991). Only those individuals completely leaving the firm prior to age 63 were considered to be dismissed. If they retained a seat on the board, even as a non executive officer, they were reasonably considered to be still in favor with the firm and may be considered part of a healthy succession event (Vancil, 1987).

Control Variables

Firm Size is calculated as the natural logarithm of the firm's total sales during each fiscal year. Size has been found influential in performance (Porter, 1980) and this is included as a control. While several methods have previously been employed to measure size (Finkelstein & Hambrick, 1990; Hoskisson, Johnson, & Moesel, 1994), I elected to use the log of sales due to the nature of my sample (*Fortune* 1000). This is, where appropriate, calculated for either or both the home firm and the outside firm.

Executive Age is coded in years.

Company exit is controlled, as approximately one third of the original *Fortune* firms in 1990 did not survive through to 2001 and is coded 0 or 1. Each executive though was retained throughout the 12-year window to identify any potential outside directorships. Therefore, it is important to identify any mitigating factors that might result in obtaining, or losing, an outside directorship due to the executive's home company leaving the data set.

Officer Tenure is a measure reflecting the years of service of an executive in their home firm. This equates to Becker's (1993) notion of specific knowledge in that individuals who have spent the majority of their career in one firm or one industry are likely to have common experiences with other such experienced executives (Hitt & Tyler, 1991). Those executives who have largely remained at one firm are expected to have fewer social capital assets than those who have moved from firm to firm during their careers.

Executive exit measures whether and when an executive leaves his or her home firm. Outside directorships, if any, were tracked for all executives in the original 1990 list. However, as to be expected with a 12-year window, I observed certain executives leaving their home firm, and executive exit measures that phenomenon.

Home CEO Tenure and *Outside CEO Tenure* reflects the years of service that the current CEO of a firm has accumulated in their firm. This equates to Becker's (1993) notion of specific knowledge in that individuals who have spent the majority of their career in one firm or one industry are likely to have common experiences with other such experienced executives (Hitt & Tyler, 1991).

Return on Assets (*ROA*) is identified as an operating measure for firm performance (Boyd, 1994; Cannella & Lubatkin, 1993; Zajac, 1990) ROA was calculated by as annual income before extraordinary items and discontinued operations divided by net assets, calculated as a percentage. This measure is established for both the home firm and the outside firm.

Cross Sectional Data Sets

The following data sets utilized cross sectional analysis and therefore are not to be interpreted as suggesting likelihoods, rather they represent relationships between various variables of interest. Table 3 found in Appendix E provides a summary of the variables included in Samples 2 and 4.

Dependent and Independent Variables

Female reflects the identification of each executive as male or female.

Outside and home firm type represents whether a given executive is associated with a predominantly manufacturing or service oriented firm. Home firm type is designated as a 1 if the executive belongs to a manufacturing oriented firm and a 0 otherwise (representing a service oriented firm). The designation emanates from the SIC listing at a one-digit level. Firms with one-digit SIC codes between 1 and 4 inclusive are designated as manufacturing oriented and firms with one-digit SIC codes between 5 and 9 inclusive are designated as service oriented. For a complete listing of SIC codes refer to Appendix D.

Educational Prestige is the same variable as that used in the event history models. I measure the executive's educational prestige through a dichotomous variable that assigns a 1 to any executive that attended a prestigious university for any of his or her degrees and a 0 to all others. I use Finkelstein's (1995) list of elite institutions to measure this component of prestige. A specific listing of the universities used in listed in Appendix C.

Home and *Outside Firm Prestige* assesses the alignment between the executive and the firms they represent, either as an officer or as an outside director. I argue that firms will attempt to match the prestige of the individual as represented by their home firm standing with the types of firms they join as outside directors. To establish a measure of firm prestige I first create a ranking of each firm in my sample to its related firms within a two-digit industry SIC as reported in Compustat. I then calculate in which quartile my sample firm lies within its industry. I create this measure for sales, employees, assets, and return on assets. For example, those firms with the highest sales

in its two-digit industry SIC code will be aligned in quartile 1 and those firms with the lowest sales in an industry will be aligned in quartile 4. A measure for both the home firm and the outside firm are calculated.

Elite Family Ties (*Social Register*) is the same variable as used in the event history models and measures whether the executive is included in the social register. The social register is an annual directory purporting to list the most prestigious members of society in the United States. It is administered and published by the Social Register Association since its founding in 1887.

Number of boards is a dichotomous variable represented by a 1 if the executive sits on more than one board during the year and 0 otherwise. Serving on multiple boards is a way for executives to increase their human and social capital. While service as an outside director is a time consuming proposition, I argue that only those most interested in advancing, or at a minimum, maintaining their personal prestige will serve on multiple boards.

Sample Descriptives

The following section provides a summary of the various data sets employed by this study and accordingly organizes the discussion around the data samples. Event history data sets and cross sectional data sets are discussed in turn and characterized by Pearson correlations, means, standard deviations, and ranges.

Event History-Sample 1

Table 4 found in Appendix E reports means, standard deviations, ranges, and Pearson correlations for the variables identified in sample 1. This is a summary of all

observations for all years over the entire study period (1990-2001), which equates to one observation for each executive for each year. As a reminder, Sample 1 consists of executives identified in Dun and Bradstreet *Corporate Reference Book of Management* in 1990 and who also served as an officer at a 1990 *Fortune* 1000 firm. These executives (n=5,185) were traced for 12 years to identify all public outside directorship affiliations. The resulting executive, year, outside directorship observations total 57,776. The table provides a summary of the individuals in our sample and should be interpreted with care, as executives are listed more than once in the sample. This is because any given executive may join any number of outside boards either multiple times in a single year or over the entire sample window (1990-2001).

Given this reservation, the table *suggests* that the executive's average age is 59, ranging from 31 to 102. In actuality, due to the large size of the sample, I did not discretely identify whether each executive was still living at the time of the observation. Therefore, I carry each executive throughout the sample window unless he or she was listed as deceased in the company proxy statement. Observing those in the sample listed as over the age of 80 suggests that they should not be influential in the final analysis. Thirty-three individuals covering 268 observations represent executives listed as greater than age 80. After reaching that age, only 3% joined a board and 27% continued to serve as a director at their home firm while 75% had previously exited their company.

The dependent variable is this sample is join a board and is set to a 1 when I observe an executive join an outside board(s) during the following year and set to 0 when no outside board affiliations occur during the next year.

Additionally, 2% of the executives are included in the social register, 35% attended a prestigious university, 20% attained the status of inside director, 10% held the title of CEO and / or Chair of the Board, 6% held the tile of President and / or Chief Operating Officer, and about 3% of the sample went through a promotion incident. I controlled for both the exit of the company and the exit of the executive from the home firm. While 59% of the executives were observed as leaving their home firm during the sample window, 17% of the firms represented by these executives also did not survive the sample duration. Lastly, those executives in the sample averaged almost 14 years of tenure at their home firm as officers. Company tenure was held constant if the executive left the home firm.

Event History-Sample 3

Table 5 located in Appendix E reports means, standard deviations, ranges, and Pearson correlations for the variables identified in Sample 3. This sample data set consists of executives who are the top officers (CEO) at their firms and who during the sample window served on an outside board. It was created to model CEOs who leave outside directorship positions. Overall, 17% of our sample CEOs exited a board during the sample window. The age of Sample 3 is a bit older (61) than Sample 1 owing to the limitation of using only a firm's top officer. Additionally, these executives accumulated an average of almost 18 years of officer tenure at their home firms, 26% were involved in a relay succession and 74% left their firm after age 63.

Event History-Sample 5

Table 6 found in Appendix E reports means, standard deviations, ranges, and Pearson correlations for the variables identified in Sample 5. This sample data set consists of executives who were officers of a 1990 Fortune 1000 firm in 1990 and additionally held a position as outside director at another of the Fortune 1000 firm during the sample window. This was done to establish a succession history for both the home firm and the outside firm since the data set included all officers and directors of these firms over a twelve-year period.

Overall, 11% of this sample exited a board during the observation window and were on average approximately 62 years of age. Prestige change was measured by constructing an index of sales change vs. the relevant industry lagging the results for three years. As each of these firms were in the Fortune 1000 using sales as an indicator of prestige is relevant given the way each firm is ranked within the *Fortune* 1000 system. For each year, for each firm, I rank the sales of a given firm with that of its rivals based on a two-digit SIC classification. I then developed the respective quartile for each firm in each specific year. Both the home and outside firm appear to be relatively stable on average. All three-year lags produced similar results. As the sample originated in the *Fortune* 1000 there is correspondingly a high percentage of these firms that are in the first quartile of their industry. Interestingly, when comparing the home firm to the outside firm (*relative prestige*) there is a slightly negative mean suggesting that executives tend to affiliate as outside directors with firms that are slightly bigger than their home firm.

Event History-Sample 6

Table 7 found in Appendix E reports means, standard deviations, ranges, and Pearson correlations for the variables identified in Sample 6. This data set consists of the top officer for each firm and investigates those who join a board. The top officer (CEO) was selected to provide consistency with prior executive succession research. Executives in this sample are typically listed more than once. As this data set models CEO succession, each CEO is modeled throughout his or her tenure as an officer. For example, if a given CEO remains CEO between 1990 and 2001 then there will be one observation per year depicting that CEO's status in the firm. However, when and if a succession occurs, the predecessor is tracked to the end of the window with both time invariant variables such as dismissed or retired and time changing variables such as age or titles. Each succession event is tracked as it occurs. Since this data set provides time invariant variables over multiple observations I am unable to interpret many of the means from Table 7.

Cross Sectional -Sample 2

Table 8 reports means, standard deviations, ranges, and Pearson correlations for the variables identified in Sample 2. This dataset includes one observation per Dun and Bradstreet executive, per outside board affiliation. It tests hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset and includes 6,858 discrete executive / outside board affiliations. To be included the executive must be observed joining a board subsequent to 1990.

A view of Table 8, found in Appendix E, suggests that most executives serve on firms which classify their primary SIC as manufacturing oriented. This is both for the home firm (77%) as well as any outside firm affiliations (66%). The original *Fortune* 1000 (comprised of 500 industrial and 500 service firms) sample became 871 in 1990 after culling for public corporations and 549 in 2001 owing to attrition due to mergers, acquisitions, and the like. The data suggests that more service-oriented firms fell off the list rather than their manufacturing counterparts.

Home and outside firm prestige is measured through the firm's sales rank within its industry. A 1 indicates that a particular firm is in the top quartile of its industry and a 4 depicts firms in the bottom quartile. As expected, sample home firms are mostly in their top quartile (mean = 1.10; s.d. = .35) since the list originated from the *Fortune* 1000. However, there is a much wider dispersion in outside firm affiliations (mean = 1.82; s.d. = 1.07) suggesting more variety in terms of the types of boards executives of the *Fortune* 1000 join. Individual prestige as measured by educational prestige and inclusion in the social register also provides some interesting insight into those executives who join outside boards as 44% attended a prestigious university while only 3% are included in the social register.

Cross Sectional -Sample 4

Table 9 located in Appendix E reports means, standard deviations, ranges, and Pearson correlations for the variables identified in Sample 4. This data set contains one observation per executive and identifies the maximum number of outside boards served on during the sample window. It consists of 5,131 discrete executive observations.

Several measures were used to proxy executive prestige. Overall, 24% of the executives in this sample served on more than one outside board during the study period. Additionally, 2% of the executives were female, 34% attended a prestigious university, 2% were included in the social register, and 20% were over the age of 63 at the time they served on more than one outside board.

Statistical Methods

In addition to general descriptive statistics, I employ two primary methods to test the hypothesis in Chapter III. The first is event history analysis (Allison, 1984; Yamaguchi, 1991) and is used to investigate data collected in Samples 1, 3, 5, and 6. This method is designed to analyze longitudinal data when the dependent variable is a discrete event and the timing of the event is of interest. The year of the observation is the underlying time-based variable. The analysis was conducted using Stata 7.0, and the survival-time analytical procedures (stset and streg). These provide maximum likelihood estimation of both monotonic and nonmonotonic parametric models of duration dependence (1999). A parametric model is appropriate with the data used because time is of importance to the analysis. In other words, my origin of time begins with the sample window employed (1990) and therefore the likelihood of joining a board could not precede that date nor come after 2001.

I additionally choose an exponential distribution because it assumes the baseline hazard is constant (Allison, 1984; Cleves, Gould, & Gutierrez, 2002). I therefore assume that each executive is at risk each year for either joining an outside board or exiting an outside board if serving on one. Additionally, I assume that the time period in question

(1990-2001) is a relatively short period in an executive's overall career and that my variables of interest are more powerful in explaining outside directorships than the mere passage of time.

The second method of analysis utilizes a series of significance tests compared against a theoretical Chi-square distribution. Significance testing in this study investigates Samples 2 and 4. Chi-square is a family of distributions commonly used for significance testing. This statistic is used to test the hypothesis of no association of columns and rows in tabular data. Chi square analysis is more likely to find significance to the extent that (1) the relationship is strong, (2) the sample size is large, and/or (3) the number of values of the two associated variables is large (Hamilton, 1992).

I conduct hypothesis tests utilizing contingency tables in order to decide whether or not effects are present. Effects in a contingency table are defined as relationships between the row and column variables; that is, are the levels of the row variable differentially distributed over levels of the column variables. Significance in this hypothesis test means that interpretation of the cell frequencies is warranted. Non-significance means that any differences in cell frequencies can be explained by chance.

CHAPTER V

RESULTS

This chapter is divided into two main sections. The first presents results of hypotheses tested with event history methods and the second discusses results obtained through cross sectional analyses.

Event History Analysis

I present evidence, which indicates the likelihood a given executive will join or exit a corporate board as an outside director. The section following begins with a brief overview of each sample. Thereafter, I discuss relevant hypothesis testing for each particular data sample in turn.

Sample 1

This is the primary event history database and consists of one observation per executive per year for the entire sample window (n=57,776) (1990-2001). It was formed by identifying the officers of the *Fortune* 1000 firms in 1990 and then tracking their corporate career at their home firm as well as obtaining any outside directorship affiliations they might have during the sample window. If an executive left his or her home firm, I continued to collect outside directorship information and control for the firm exit up until 2001. Additionally, the 1990 total officer sample was reduced from 11,397 to 5,185 executives. This is due to the lack of available executive demographics in the 1990 Dun and Bradstreet *Reference Book of Corporate Management*.

Sample 1 was constructed in order to test hypotheses concerning an executive's home firm career and their prestigious affiliations to investigate whether these influence the likelihood a given executive will join a corporate board as an outside director.

The results of hypotheses concerning the likelihood an executive will join a board are reported in Appendix E, Table 10. Note that the coefficients reported are odds ratios. It is relatively straightforward to interpret odds ratios represented by a dummy independent variable. In that case, the odds ratio is the likelihood of the event for a person with the dummy variable equal to 1, divided by the likelihood of the event for a person with the dummy variable equal to 0. For example, in Table 10, the odds ratio for the variable director is 2.32. This means that an executive who holds the title director, in his or her home firm, is 2.32 times more likely to join an outside board in a given year as an executive who does not hold the director title.

The evidence in Table 10 provides partial support for my arguments. Hypothesis 1a predicts that holding one or more of the top titles in the home firm will increase the likelihood that an executive will join an outside board. The results for those holding the title of CEO or Chairman (odds ratio=3.03; $p<.001$) support this hypothesis. Moreover, the results for those holding the title of President and or COO are also significant but at approximately one half the rate (odds ratio = 1.43; $p< .001$) of those with the CEO or Chair title. Therefore, Hypothesis 1a receives strong support for those in the uppermost positions in the corporate hierarchy.

Hypothesis 1b predicted that officers who are insider directors are more likely to join outside boards. This hypothesis also receives strong support from the evidence in

Table 10. The odds ratio of 2.32 is highly significant (p<. 001) and suggestive that being on the home firm board significantly increases the likelihood that an executive will join an outside board.

Hypothesis 1c predicted that the promotion to insider director, CEO, Chairman, and COO or President would provide a "bump" in the likelihood of joining an outside board. The results in Table 10 are mixed. An executive who relinquishes the CEO title but retains the Chair position does increase his or her odds of nomination to an outside board in the year of the title change (odds ratio = 1.25; p<. 05). However, promotion to director (odds ratio= 1.02; n.s.) and promotion to president / COO (odds ratio=1.03; n.s.) although both positive are both not significant. Interestingly, the promotion to CEO / Chair (odds ratio= .83;p<. 05) significantly reduces the likelihood of accepting an outside board appointment in the year of the appointment, contrary to hypotheses H1c.

Hypothesis 4a and 4c predicted the likelihood a given executive would join a board is influenced by the nature of their prestigious affiliations (educational and family, respectively). Results from Table 10 provide mixed support. Those who attended a prestigious university have an increased likelihood of joining a corporate board as an outsider (1.11; p < .01). Alternatively, those with elite family ties are significantly less likely to join a board as an outsider than others (odds ratio = .75; p=.01).

As expected firm size, age of the executive, and tenure as an officer are also influential in obtaining outside directorship positions. Interestingly, an executive who leaves his or her home firm does change the likelihood that he or she will join a corporate board (odds ratio = 3.31; p < .001). In contrast, whether the executive's

company remains viable (e.g. merger, acquisition, bankruptcy, take-over) throughout the sample window is not influential. This finding is likely more complex than tested here. However, it is interesting to note that executives who leave a *Fortune* 1000 firm improve their odds of joining a board, which stands in contrast to whether their home firm remains as a separate entity or not.

To further explore the exit of an executive from his or her home firm, I analyzed various interactions, notably prestige and size. Interactions with the variables representing prestige and the exit of an executive were not significant. However, the interaction of firm size and executive exit was influential in obtaining board positions (odds ratio=1.25; p>.001). This suggests that those executives who leave the largest home firms significantly increase their likelihood of joining corporate boards.

Sample 3

This sample data set consists of those executives listed as the top officer (CEO) at their firm and who during the sample window served on an outside board. The data set is limited to top officers to model retirements consistent with prior research (e.g. Cannella & Lubatkin, 1993). It was created to investigate those who leave outside directorship positions and executives are listed more than once when they serve on more than one board. Table 11, found in Appendix E, presents the results of the event history models and models of outside director exit. Care should be taken when interpreting the results. Due to the presence of high multicollinearity between variables, Models 2, 3, and 4 are run independent of each other.

Hypothesis 5a predicted that CEO retirements from the home firm would affect directorship opportunities. Additional hypotheses, tested in Sample 6, argue that the context of the retirement influence these opportunities. However, the retirement event in and of itself is worthy of investigation to ascertain the logical direction of effect. Therefore, Hypothesis 5a is divided into two sections: one in Sample 3 investigating retirement effects upon outside board exit; and one in Sample 6 investigating outside board entries.

Hypothesis 5a-1 regarding outside board exit predicted that an executive retirement event would influence the individual's outside board affiliations. In support of this, I found those executives who left their home firm and were 63 years of age and older are significantly less likely to join an outside board after that event (odds ratio= .60; p<. 001).

While not specifically predicted, I investigated the impact of retirement context upon outside director exit. If a CEO is involved in a relay succession (coded when an executive relinquished their position as an officer and stayed on the board as either a director or as a director and board chair) the CEO is significantly more likely to exit existing outside boards than others (odds ratio=1.79; p<. 001). A relay succession indicates a normal and healthy transition in the firm (Vancil, 1987) and additionally identifies those CEOs predisposed to continuing board service, at least at the home firm. Further, noting the strong association between a relay succession and a retirement event, the interaction between the two was tested. In contrast to that expected, a CEO who stays

on the home firm board at retirement, significantly enhances the likelihood that he or she will exit other directorships (odds ratio= 1.40; p<. 01).

Sample 5

This data set has as its base Fortune 1000 firms in 1990, which are subsequently tracked for 12 years. Each firm contains observations for all officers and directors. Sample 5 models those executives who are officers at one *Fortune* 1000 firm and serve on the board of another *Fortune* 1000 firm during the observation window. The sample contains a unique observation for each officer / outside directorship and models their exit from that outside position. The executive observation period starts either in 1990 or when they join the outside board. The executive observation ends either through censoring in 2001, or when the executive exits an outside board. Therefore, each observation models a unique executive, home firm, outside firm, year match, as appropriate (many executives did not join the board of another *Fortune* 1000 firm).

Table 12, located in Appendix E, displays the results of an event history analysis where the dependent variable of interest is outside board exit. Hypothesis 7 predicted that significant declines in prestige at either the home firm or the outside firm would increase the likelihood that a given executive would terminate their relationship with the outside firm. Although not reported separately, there is a significant tendency for those executives who are in the 2^{nd}, 3^{rd}, or 4^{th} quartile of their industry to align themselves with outside firms who are in the 1^{st} quartile of their industry (χ^2= 48.95; p<. 001). This suggests that outside directorships might serve as a means for executives who join boards to enhance their own prestige through alignment with prestigious outside boards.

Additional testing on Hypothesis 7 received mixed support. To further test prestige change, I analyzed the sample *Fortune* 1000 firms in three distinct ways, depicted by Model 2 in Table 12. First, home firm prestige change measured variations in a firm's overall revenue generation, which is the foundation for inclusion into the original *Fortune* 1000 list. Each firm in the sample was lagged for three years and an index was created to assess differences. This index score was created to provide a picture of the firms overall profile in line with the *Fortune* ranking system (i.e. those with the most sales are highest on the list). The index I created measures the firm's net sales as compared with its industry counterparts. It is then subsequently placed into its respective industry / sales quartile. Three years was chosen in order to provide a large enough window to gauge any fundamental changes in the firm's revenue profile. A positive score reflects a favorable outcome for the firm and likewise a negative value signals an unfavorable outcome. Results of this analysis suggest that changes in home firm prestige are not influential in whether an executive would exit his or her outside board position (odds ratio=.92; n.s.).

To further test prestige change, I preformed the same analysis on the outside firm. Interestingly, results contradict that predicted by suggesting that when outside firms significantly improve their prestige board exits increase (odds ratio= 1.52; $p< .01$). In contrast to that expected, instead of declines in prestige increasing the likelihood of board exit, increases in prestige increase the likelihood of exit. Prestige gains in the outside firm apparently suggest changes in their board composition.

Third, I determined a relative prestige measure, which looked at the difference between the prestige levels of the home firm relative to the outside firm. I utilized the firm / industry quartile ranking system discussed previously. A positive score reflected that the home firm was more prestigious than the outside firm, while alternatively a negative score reflected the home firm was less prestigious than the outside firm. Results of this test reflect an insignificant relationship (odds ratio=.99; n.s.). This suggests that relative differences between the home and outside firm are not significant influences on executive exit from outside board positions.

Models 3 and 4 in Table 12 test Hypotheses 8a and 8b, which deal with power shifts in the upper echelons of the organization. I performed two separate tests of upper echelon changes through a CEO succession event. First, I analyzed the impact of a succession event at both the home firm and the outside firm. Models 3 and 4 provide mixed support for Hypotheses 8a and 8b. A home firm succession significantly reduces the likelihood that an executive will terminate his or her outside board position (odds ratio= .38; p<. 001). Conversely, a succession event at the outside firm significantly increases the likelihood that a given executive will exit his or her outside board position (odds ratio= 1.23; p. >01). This may suggest that instability in the home firm creates the need to continue outside affiliation while instability in the outside firm initiates board changes as predicted. Additionally, and contrary to what was expected, when the exiting CEO retains the position of board chair in the outside firm there is a significantly increased likelihood of board exit (odds ratio= 1.56; p<. 001). This does not hold if the

exiting CEO merely remains on the board as a non-executive director (odds ratio=1.15; n.s.) or leaves the firm altogether and retires (odds ratio= 1.01; n.s.).

Finally, Model 5 in Table 12 reports results testing Hypothesis 8c. In Model 5, I test the impact of a CEO dismissal upon board exit and find that neither a dismissal in the home firm (odds ratio= .92; n.s.), nor a dismissal in the outside firm (odds ratio= .92; n.s.), will significantly influence outside board exit. This seems to contradict the results regarding succession instability at the firm. However, the results might be indicating the influence of power shifts at the firm. It is likely that the board is becoming more influential and "taking charge" during a CEO dismissal thereby consolidating and enhancing its role in firm outcomes.

As expected the age of the executive is influential in all 5 Models of outside board exit (odds ratio= 1.16; $p<.001$). As the executive ages, he or she is more likely to leave an outside board position. However, the size of the home firm and size of the outside firm are not influential. Sample 5 additionally controlled for firm performance by measuring return on assets. This was done because of the unique nature of this sample and its use of firm characteristics vs. an individual level of analysis in the other event history models. In all models, home firm performance is insignificant in determining board exit (odds ratio= .99; n.s.), while there is some significant relationship between performance and the outside firm however, the influence appears slight (odds ratio=. 99; $p<.05$).

Sample 6

This sample data set consists of those executives who are listed as the top officer (CEO) at their firm and who during the sample window served on an outside board. The data set is limited to top officers to model retirements consistent with prior research (e.g. Cannella & Lubatkin, 1993). It was created to investigate those who accept outside directorship positions. Hypotheses 1d, 5a, and 5c predicted that exits from the home firm would affect future directorship opportunities. A companion hypothesis for retirement events is tested in Sample 3, which modeled outside directorship exits. In Sample 6, I model the likelihood that the context of a CEO exit from the home firm will be influential in the likelihood that CEO will obtain additional directorships beyond that possessed at the time of firm exit.

Table 13, located in Appendix E, displays the results of an event history analysis where the dependent variable of interest is outside board entry. Hypotheses 1d, 5a, and 5c predicted that a CEO retirement event would influence that individual's outside board affiliations.

Hypothesis 1d predicted that CEOs dismissed by their home firms would be less likely to join outside boards. Consistent with prior work (Cannella & Lubatkin, 1993; Ocasio, 1994) I identified those executives who served as the top officer of their firm (typically the CEO) and who left the firm before turning age 63. 63 has been shown as a break point between those exits, which are voluntary vs. those that are not. Contrary to my prediction, Model 2 in Table 13 suggests that CEOs who left the firm before age 63 (traditionally accepted as a sign of dismissal) significantly enhanced the likelihood they

will serve on additional outside boards (odds ratio=5.36; p<. 001). It appears the dismissal event creates the need for external linkages to restore, to the degree possible, the executive's human capital and enhance their social capital network.

In addition, hypotheses 5a-1 and 5c predicted that an executive retirement would influence directorships and that the context of the retirement would be influential. Model 3 in Table 13 presents evidence for these two complementary hypotheses. Initially I tested the main effect of retirement upon joining a board and found a significant but negative relationship (odds ratio= .24; p < .001). Those top executives of a firm who exited their firm after retirement age significantly reduced the likelihood of joining a board subsequent to that event. This suggests that events prior to CEO retirement are more influential in gaining board appointments that post-CEO service.

However, when a retirement is coded as a relay succession (CEO relinquished officer status but remained on the board as a director), the likelihood of joining subsequent outside boards is significantly increased (odds ratio = 1.65; p < .001). This is in keeping with my prediction that those who remain on their home firm boards are more desirous of board service than others. Due to the naturally high colinearity between retirement and relay succession a mediating effect was not investigated.

As expected, both firm size and executive age are positively and significantly related to the likelihood of joining an outside board and consistent with prior analysis (respectively odds ratio= 1.31; p< .001: odds ratio = 1.06; p <. 001). Neither the company exiting the sample (odds ratio = .00; n.s.) nor the CEO's tenure as an officer (odds ratio = 1.00; n.s.) was important in obtaining outside board appointments.

Cross Sectional Analysis

I analyze Samples 2 and 4 through establishment of a series of contingency tables. A contingency table is a table showing the responses of subjects to one categorical variable as a function of another categorical variable. For instance, to investigate the types of boards executives in my sample join, I produce a contingency table, which utilizes the characteristic of the home firm and those of the outside firm. The entries show the number of subjects at each category and examine the relationship between subjects' scores on two qualitative or categorical variables.

If the columns are not contingent on the rows, then the rows and column frequencies are independent. The chi square test of independence is used to test the relationship between rows and columns for significance. The null hypothesis is that there is no relationship between row and column frequencies.

Sample 2

This dataset includes one observation per Dun and Bradstreet executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset, covering the entire 10-year window of the dataset and consists of 6,858 observations. Each of these observations represents a unique executive / outside board pairing.

Hypothesis 2 predicted that due to the unique characteristics that women executives bring to directorship service, they would tend to join outside boards of firms that place additional value not only on their ability to bring legitimacy to the board but

also to serve the interests of their firm's influential stakeholders. I argued that women executives, when serving in outside directorship positions, would likely be aligned with service oriented firms rather than manufacturing oriented firms. To test this, I identified each executive's home firm affiliation through a one digit SIC code (reference Appendix D). Alternative tests were conducted at a two-digit level with substantially the same results.

Table 14, found in Appendix E, presents the contingency table and Chi-Square results investigating if those executives coded as female tend to join as outside directors the boards of firms who are more likely to have women as important stakeholders. Accordingly, Hypothesis 2 predicted a positive relationship. No support was found for this prediction (χ^2= 3.82; n.s.). Women executives appear randomly dispersed between firms that list their primary industrial classification as manufacturing and those characterized as service. In addition, those who did join an outside board seemed to favor firms whose primary industrial classification is listed as manufacturing. Approximately 66% of the total joined the boards of manufacturing firms while the remaining 34% joined the boards of service firms, regardless of gender.

Hypotheses 3a and 3b investigate the types of boards that executives join in relation to their home firm. Theory argued that the resources an executive brings to board service through their human and social capital would be most valued where their expertise would be of greatest benefit to the outside firm. Therefore, Hypothesis 3a predicted a positive relationship between those executives who originate from manufacturing firms and the likelihood they will accept outside board appointments of

other manufacturing firms. Support was found for this prediction (χ^2= 111.08; p<. 001) as those executives who came from manufacturing firms are more likely to accept positions as outside directors on other manufacturing oriented firms. Approximately 70% of executives who have manufacturing as their home firm choose to join the boards of firms categorized similarly.

Hypothesis 3b argued likewise for those executives who have service oriented home firms. I predicted that the same specific human and social capital important for manufacturing oriented firms would be present for service oriented firms. Table 15 in Appendix E reports the results on my findings. While significant difference between means was observed (χ^2= 111.08; p<. 001), the direction was not as anticipated. Table 14 suggests that executives who list their home firm as service are more likely to align their outside board directorships with manufacturing firms. While the difference is not as varied as manufacturing executives, there still is a significant difference. 55% of those who have service as a home firm designation choose manufacturing firms for their outside directorships while the remaining 45% choose to join other service firms.

Hypothesis 4b predicted that the prestige of the home firm would shape the type of outside board affiliation. In other words, those executives who originate from firms that are more prestigious will seek to align themselves with outside boards of equivalent status. Table 16 presents evidence of a significant difference between the prestige of the home firm and the outside firm. To assess prestige, I used a ranking of the firm sales within its industry and then characterized its position relative to that industry. For example, if the home firm was first in sales within its primary two digit SIC

classification, it was placed into quartile 1. If the firm was last in sales within its industry it was placed in quartile 4. This process was duplicated for the outside firm.

Results from Table 16, found in Appendix E, suggest significant differences between the prestige of the home firm and that of the outside firm (χ^2= 44.28; p<. 001). Examination of Table 16 reveals that there is a tendency for those executives who come from prestigious home firms to align themselves with the most prestigious outside firm. However, 45% of those executives who come from the most prestigious home firm also align themselves with outside firms in quartiles 2, 3, and 4. Of note is quartile 4, the lowest category of sales ranking within an industry. For all categories of home firm prestige, there was a larger representation of executives who joined boards of outside firms in quartile 4 than in quartile 3. Additionally, there appears to be a pattern of moving up from lower status to higher status. For executives of home firms in quartile 2, 3, and 4 there is a tendency to align themselves with higher status firms than that of their home firm.

The last hypothesis tested with Sample 2 is 4d, which predicted that individual executive prestige such as having prestigious family connections would influence the types of outside board positions a given executive would accept. Following the previous hypothesis, I measured outside firm prestige as that firms sales ranking within in industry, measure at a two digit SIC classification level. Table 17, located in Appendix E, displays two types of executive prestige, previous educational affiliations and family connections. Hypothesis 4d concerning family connections is not supported (χ^2= 3.34; n.s.). Prestigious family connections do not appear influential in deciding which board

opportunities to undertake. This implies that those who belong to prestigious families are just as likely as those who do not belong to a prestigious family to join an outside firm as director.

To further test prestige alignment, I investigated the impact of whether a given executive attended a prestigious university or not. Table 17 also presents the results of this analysis. I find a significant difference (χ^2= 21.29; p<. 001) between those who did, and those who did not, attend a prestigious university and their outside board affiliations. Executives with prestigious educational credentials are more likely to align themselves with higher status outside firms than those without prestigious educational credentials.

Sample 4

This dataset is a subset of Sample 2 and identifies those executives who serve on multiple boards. There is one observation per executive per outside board affiliation and in the case of multiple years, I keep only the observation during which the executive served on largest number of boards. The data set consists of 8,862 observations. While the range of boards joined within any given year ranges from 2 to 12, over 95% of the executives served on 6 outside boards or less.

This database investigates those who join multiple boards. Theory presented in Chapter III argued that those who served on multiple boards sought to increase, and or sustain, prestigious affiliations. Accordingly, I investigated various executive prestige measures as to their relationship to those who join multiple boards. Hypothesis 6 predicted that executive prestige would be positively associated with individuals who served on multiple outside boards.

Table 18, located in Appendix E, reports Chi-square testing on those executives who are observed serving on more than one board in any given year. Theory developed in Chapter III argued that those who do so place higher emphasis on prestige and advantage gained through increases in ones social capital. I assigned any executive who joined less than two boards a zero score to differentiate them from those with multiple observations. I tested prestige, consistent with previous tests, in two ways. First, I performed Chi-square testing on the number of boards an executive joined vs their previous attendance at a prestigious university. I find significant differences (χ^2= 80.69; p<. 001) suggesting that attendance at a prestigious university indicates a disposition towards serving on outside boards multiple times. Second, I tested prestigious family connections and find small significance (χ^2= 20.71; p=. 04), however this relationship turns insignificant in the likelihood ratio chi-square test (χ^2= 18.34, p>.05).

Summary

This chapter presents empirical evidence concerning executives and outside directorships. A summary of all Hypotheses is presented in Appendix E Table 19. This table recaps each prediction with its appropriate finding and direction. The Table additionally provides an introduction into the discussion chapter which is organized around the three original research questions posed at the beginning of this study: likelihood of joining an outside board; patterns of outside directorship affiliations; and likelihood of exiting an outside board.

I find consistent and strong support for hypotheses that predict the likelihood of joining a corporate board based on human and social capital emanating from the home firm. I additionally find consistent and strong support for the contention that prestige in certain context matters; those with prestigious home firms tend to align themselves with other prestigious firms when accepting outside directorship opportunities. Additionally, there is strong and consistent support for the contention that those who value prestigious affiliations such as those who have attended a prestigious university also desire association as an outside director. However, those with prestigious family connections do not join or exit boards with the same regularity discovered with other individuals. Because this study explores an important but relatively under researched area, antecedents of directorship, the findings are encouraging and informative. In the following Chapter, I discuss how my findings contribute to furthering our understanding of the corporate upper echelons.

CHAPTER VI

DISCUSSION

"*The study of managerial elites is one of the most important, yet neglected areas of social science research*" (Pettigrew, 1992 : p.163)

Following Pettigrews' call for more in depth investigation into managerial elites, this study examines the antecedents to outside board service by focusing on the executives themselves in concert with firm characteristics. Accordingly, the findings of this study have important implications for research examining boards of directors. The following is organized around the three main theoretical questions that this research investigated. The first section concerns the likelihood a given executive will join an outside board. The second section concerns those executives who choose to join and examines their differential patterns of service. Third, I examine those who serve as outside directors and investigate the likelihood of exiting outside board positions.

Likelihood of Joining and Outside Board

Much of the literature on outside directors has proceeded from the assumption that appointments are a means for gaining access to resources critical to firm success (Pfeffer & Salancik, 1978). In particular, appointing corporate executives could be a way for firms to reduce uncertainty in their environment. My empirical results suggest, in partial support of this theory, that corporations are staffing their boards with proven executives who have business acumen as demonstrated by their ascension to the pinnacle of America's largest corporations. Additionally, I find that those executives who make

the requisite investments in their human and social capital will likely reap the rewards of those investments. This finding also supports the contention of Brickley and Coles (1999) who suggest that performance in the last two years of a CEO's career is influential in their ability to garner outside board appointments. Those with better performance at the home firm improved their chance vis-à-vis outside the firm. However, there are differences between the upper echelons and timing is of critical importance in the decision to join an outside board or not.

Home Firm Career

For example, I find that holding the title of CEO or chair is significantly related to an executive joining an outside board. Additionally, holding the title of president or COO is also significant, however the influence of President or COO is approximately half that of the CEO or Chair. In a post hoc analysis, I additionally investigated those who hold a title other than CEO, chair, president, or COO and find that there is a significant and negative likelihood of becoming a corporate director in an outside firm. The ladder of hierarchy that legitimizes executives for board service appears to begin at the first or second level in the organization. This finding also brings into question the available human and social capital assets stocks of those who have not reached the top pinnacles in their organizations.

My collection of outside directorships covered all publicly held corporations in the U.S. for the period of 1990 to 2001, which afforded me the opportunity to identify directorships in a wide range of sizes and industries. It is interesting to note that firm size is a large positive and significant influence on gaining an outside board position. The

odds of executives from larger firms joining a corporate board are approximately 1.5 times that of other executives.

Also captured in the analysis were those executives who left their home firm, the reason for which was beyond the scope of this study. It is worthy to note though, that the odds of these executives gaining outside board positions is 3.31 times greater than executives who remain with the home firm. I additionally conducted a post hoc analysis on this data utilizing an interaction with firm size and find that those executives who left the largest firms and the ones most likely to gain outside directorships. Leaving the largest of the *Fortune* 1000 is an important antecedent to joining another corporate board. The true nature of this relationship is weakly understood at present, since where and why these executives left their home firm is unknown. What I do know is that leaving the largest of the *Fortune* 1000 firms is a significant predictor of whether or not an executive will join another firm as an outside director.

I expected, consistent with human and social capital theory, a promotion event would provide a "bump" to the executive's prospect of gaining outside directorships. While I only examined the first year of promotion, the results seem informative. In the first year after being promoted to CEO and or chairman, there is a decreased likelihood that the new CEO will join an outside board. What this suggests is that once the CEO becomes entrenched in the organization (after the initial year of service), then they are more likely to proceed with external ties such as outside board appointments. This supports previous research that has discussed the "going in mandate" of a new CEO (Gabarro, 1987) and that until their power is taken for granted, new CEO's are focused

largely on internal tasks. Promotion to President and / or COO provided no discernable advantage to gaining outside directorships. While in contrast to that predicted, I suspect the result is largely an artifact of the time constraint imposed upon the promotion event and the attainment of an outside directorship. In the first year after promotion to heir apparent (President / COO) there is a period of assimilation during which the heir apparent is either promoted to the top position or exits the firm. While the relay succession is the most common in firms, it is not out of the realm of possibility that the heir apparent will exit the firm due to issues such as low firm performance or high CEO power (Cannella & Shin, 2001). During this time the newly appointed President / COO is likely focused on internal tasks and the potential for promotion to the CEO slot.

An executive's transferable skills lead to an individual's relative ease of movement in the job market (Becker, 1993). Human capital theory holds that transferable skills can lead to an individual's relative movement within an appropriate labor market. I therefore predicted that an executive retirement, specifically a CEO, would influence both board exits and entries. Consistent with the prediction, I find that retiring CEOs are significantly less likely to join new outside boards post retirement than others. While this intuitively requires further analysis, the data supports the contention that the retirement event is not influential in joining; rather it dampens the prospects. It appears that pre-retirement board appointments are the most influential, in other words, the time before retirement is the most crucial to outside directorships post retirement. A previous study found that running a tight ship in the years prior to retirement paid off handsomely in terms of outside board appointments (Brickley et al., 1999). The authors

found that rising stock prices and return on assets just prior to a CEO retirement event lead to not only the executive improving the likelihood of staying in the firm as a director but also brought about a stronger possibility of being appointed to outside boards.

In addition, CEO dismissals were contrary to my hypothesized relationship. I expected that the loss of human capital and social capital that accompany an executive dismissal would translate into subsequent losses of outside board positions. However, I find a significant and positive effect among those CEOs characterized as dismissed. The strength of this finding suggests that dismissed CEOs who have not achieved retirement age are more likely to affiliate and make new allegiances with outside boards than others. It is likely that outside board affiliations might be a ladder of future opportunity for those executives who have left their previous firm under cloudy circumstances. Not only does the outside board provide access to social networks (Uzzi, 1996) which provide the potential for new opportunities (Granovetter, 1995), it also provides some foundation for the perceived loss of human capital that came with the departure from the previous firm (Becker, 1993).

Interestingly, as examined above, leaving the firm altogether, either through retirement or dismissal, is influential in the likelihood a given executive will join an outside board. However, both in different directions than originally hypothesized. On the other hand, when the executive remains at the firm as a non-executive (e.g. remains as a non-executive director) the direction and magnitude are as expected. There is a significantly enhanced likelihood that those executives who leave as CEO but retain a

seat on the board will join an outside board. The content of these executives's human and social capital is likely in demand at the home firm by virtue of their remaining as a non-executive director, which subsequently translates into opportunities at other firms.

Prestige

Equally interesting is the contradictory findings of prestige in predicting the likelihood that a corporate executive will join an outside board. Education is a classic human and social capital variable that serves as a signal of ability to the job market (Spence, 1973) thus enhancing an individual's actual ease of movement. The evidence suggests that previous attendance at a prestigious university significantly improves the odds of becoming an outside director. This seems in line with previous empirical work (D'Aveni, 1990; D'Aveni & Kesner, 1993; Davern, 1999), which regarded the influence of prestige as vital to not only the organization but also to the individual. Prestige is critically important to those individuals who have it and their access to improved networks and channels of information (Granovetter, 1995).

However, possessing prestigious family connections is negatively related to joining an outside board. This measurement of prestige must be cautiously interpreted, as the number of executives who fit this category is relatively small compared to the total. The individuals who reside on the social register are also a distinctly different class of executive than others. Inclusion implies that the executive has substantial family wealth and therefore may be unmotivated to pursue corporate interests other than that afforded by the home firm.

The results of prestige were unchanged when an interaction term was undertaken with firm size. I suspected that prestigious education credentials or family connections would be more pronounced when the executive came from a larger firm. However, both interaction terms were non-significant and in the same direction as the main effect. This argues that the prestige measure is robust across a wide selection of firms of various sizes and is not influenced significantly by the organization.

Summary

I find empirical support for the prediction that those at the pinnacle of their own organizations are most likely to join outside boards, mixed support for the contention that executives with prestigious credentials are sought after for corporate board service as outside directors, and support for the contention that the context of a succession event is influential in obtaining outside board positions. Additionally, promotion to the highest echelons of the firm presents either a negative, or a non-statistically significant result on joining a corporate board as an outsider in the year following promotion.

Patterns of Outside Directorship

This section investigates differential patterns of service for corporate executives. The model of outside director service argues that executives will tend to join the types of boards to which they can add the most value and conversely, firms attempt to co-opt directors for specific tasks. Much of the prior work in board composition and structure has come from the premise that outside directors, in particular, are used as a means to co-opt external influences, provide control expertise, and be of service to executive

management (Johnson et al., 1996). Board structure refers to the formal organization of the board and board composition refers to the affiliation of each member.

Rooted in sociological theory, resource dependence arguments (Pfeffer & Salancik, 1978) assert that firms attempt to reduce uncertainty in their environments and therefore try to acquire critical resources in order to mitigate this uncertainty to the degree possible. Over time, there has been relatively strong support for this perspective (Boeker & Goodstein, 1991; Mizruchi & Stearns, 1988; Pearce & Zahra, 1992; Pfeffer, 1972; Stearns & Mizruchi, 1993). Although co-optation strategies are generally described as mechanisms to reduce uncertainty for the firm, little work has assumed this from the perspective of the individual director. What work has been done generally investigates issues such as the effects of interlocks on the home firm (Baysinger & Butler, 1985; Zajac & Westphal, 1996) and the effect of outside firm performance (Hermalin & Weisbach, 1988; Pearce & Zahra, 1992). However, evidence is often contradictory and inconsistent.

Another common explanation for the way boards are staffed lies in theories of social class and managerial elites. According to this work, a homogenous culture develops from the interactions among directors (Useem, 1984) and an individual's power and status emanates from inclusion into this "club". Fama and Jensen (1983b) contend that a primary motivation for directors is protection of their reputations. To the extent that directors are not successful in this endeavor argues for an *ex post* "settling up" that exacts a price in terms of director reputation and the potential impact upon their careers (Finkelstein & Hambrick, 1996). However, prior research appears inconsistent

and contradictory (Gilson, 1990; Hambrick & D'Aveni, 1992; Hermalin & Weisbach, 1988; Walsh & Kosnik, 1993).

I view the composition of the board, not from the view of the firm, but from the perspective of the individual outside director. This change in unit of analysis affords me the opportunity to ask similar questions in different ways with the hope in resolving some of the open questions from prior research. The model of outside board service suggests two main impacts regarding patterns of affiliation: (1) females are more likely to be associated with particular types of boards; and (2) there is likely a home firm / outside firm matching process in outside director selection and consent to join.

Gender Effects

Consistent with the model of outside director service, I predicted that women executives would most likely be asked, and subsequently accept, outside board positions where their value as women will be most influential. Women executives bring not only their expertise gained through a successful executive career but also the capacity to serve in a legitimacy-enhancing role. The model of outside director service additionally proposes that adding women to the board signals sensitivity in the firm that it is responsive to women's issues (Suchman, 1995). Because directors are overwhelmingly chosen from executive ranks (Conger et al., 2001; Lorsch & MacIver, 1989), those few women who achieve top executive positions are expected to be in high demand.

However, I find those female executives in my sample who served as outside directors were fairly evenly dispersed industry wise. No statistical significance was uncovered at a one-digit or at a two-digit SIC classification. The results suggest that

those female executives who choose to serve as outsider directors likely served because of reasons other than a classification of firm type. Additional caution must be taken as the sample of women executives is very small compared to men. Only 1% of the sample of the 1990 Fortune 1000 officers who were also listed in the Dun and Bradstreet *Reference Book of Corporate Management* were female. This small sampling might also be an indication of the null results. A post hoc analysis was conducted to assess gender likelihood to join boards or exits boards and no statistical significance was found. It appears that either gender plays no role in additions to corporate boards or the sample under represents the population of female executives who serve as outside directors. It is noteworthy that women are likely more highly represented in the corporate upper echelons today than they were in 1990.

The types of boards that executives join looks at two patterns of affiliations: (1) firm type as represented by either a manufacturing or service orientation; and (2) prestige alignment between the executive, the home firm, and the outside firm.

Firm Type

My model of outside director service argued that the value of human and social capital is most valuable in the context of the executive's primary home orientation. A test of this assumption utilized the SIC classification at a one digit level to identify both the home firm and the outside firm as either a manufacturing or service oriented firm. I follow logic consistent with commitment to the status quo (Hambrick, Geletkanycz, & Fredrickson, 1993), which argues that top executives become entrenched in the status quo as a result of their industry and organizational tenure. They therefore seek ways in

which their human and social capital will be most valuable. However, investigating this notion in the context of outside firm linkages appears untested.

I find that organizational tenure is significantly and positively related to the likelihood that an executive will join an outside board. While caution must be taken to assure this result is not merely an artifact of the executive aging and thereby becoming more accessible and amenable to outside board positions, it is intriguing nonetheless. Commitment to the status quo in one industry may translate into more predictable outside directorships.

Additional analysis of firm type identified a strong and significant relationship between the executives of home firms and outside firms when both are oriented to manufacturing. However, executives from service firms were evenly split between the two. While the finding for manufacturing oriented executives was expected, the finding for service executives was not. SIC classifications of manufacturing orientation were overwhelmingly represented in my sample (66% vs. 34%), which may present some challenges to the results. Nonetheless, those in service-oriented firms find themselves relatively spread out in terms of the outside directorships they accept. This might be an indication of indirect or direct linkages in which their directorships become important links back to their home firm as potential suppliers or customers.

Prestige Alignment

Outside director service has been previously discussed as a potentially prestigious undertaking. Those accepting outside directorships do so at some risk to their reputations and careers. Fama and Jensen (1983b) argue that directors are motivated to

uphold shareholder interests because their reputations are important to them. It is logical to conclude, and the model of outside director service predicts, that both the firm and the executive will be concerned about which associations each chooses.

Home Firm to Outside Firm Alignment. I find a significant relationship between the prestige of the home firm and the outside firm. Executives of more prestigious home firms tend to associate with outside firms of at least equal prestige. My findings also reflect a tendency for executives to move up in prestige. Executives of firms in the second, third, and fourth quartile of their industry seek outside board positions in firms more prestigious than their own. This is likely reflective of the difficulty those firms are having in recruiting new directors (Lorsch & MacIver, 1989). In order to find candidates, firms seeking directors are not able to identify enough willing candidates amongst their peers in the corporate world. Therefore, they seek firms of lesser status and prestige than themselves in order to get the complement of corporate executives they feel they need.

This is also a way for executives to increase their standing and prestige amongst their peers. An executive from a lesser prestigious firm that obtains an outside directorship on a more prestigious firm stands to significantly enhance their reputation and standing due to this association.

Executive Prestige and Outside Firm Prestige. An additional way for executives to enhance or maintain their prestige, irrespective of their home firm, is through their individual characteristics. As Laumann argued (1966), preferred partners for interaction are those that will enhance the prestige of the less or equal actor.

Individuals therefore, tend to pursue association with individuals of similar, or slightly higher socioeconomic status. Prestigious characteristics such as those who attended a prestigious university or have family connections in the social register are likely candidates for other prestigious affiliations.

I find educational prestige does predict an executive's likelihood of outside director affiliation. Those who attended a prestigious university are significantly more likely to affiliate with outside firms that are the most prestigious in their industry. Also, they are more likely to be associated with multiple boards. The prestigious nature of their individual characteristic appears to carry over to external prestigious affiliations.

However, the same does not hold for prestigious family connections. In both the prestige of the outside firm and the likelihood of multiple boards, I find null results. While family listings in the social register is arguably an extremely prestigious affiliation, those included who are also in the corporate elite do not appear to translate their family prestige into outside directorships. As might be expected, the magnitude of executives who fall into this category is relatively small, representing less than 2% of all those who serve as outside directors.

Summary

Patterns of service investigated those who serve as outside directors and sought to understand some of the differing patterns of association. I find: executives from prestigious home firms tend to align themselves with outside firms of equal or higher prestige; executives with prestigious educational credentials seek to align themselves with the more prestigious outside firms; executives with prestigious educational

credentials obtain more outside directorships than others; and inclusion in the social register is not influential in either prestige alignment or serving on multiple boards. The finding regarding prestigious family connections are similar to that investigated about joining a board, i.e., not influential in either case. The findings do identify a significant trend of prestige alignment among executives and the firms they tend to join as outside directors. This seems consistent with past work on prestige (D'Aveni, 1990). Outside directors serve the interests of the firm in enhancing their prestigious standing in the community of firms and executives seek to enhance their prestige through affiliation with the most prestigious outside firm possible.

Likelihood of Exiting an Outside Board

The model of outside director service and the theory developed in Chapter III argue that outside directors differ from normal firm employees regarding exit. They have options not generally available to the traditional employee and are generally not concerned with their next employment opportunities. The following is organized into two discussion areas: (1) shifts in prestige that influence exit; and (2) the impact of shifts in power at either, or both, the home firm and the outside firm.

Prestige Shifts

I investigate prestige shifts in much the same way as discussed in the section on patterns of affiliations. In that section, executives were significantly influenced by the nature of their prestigious affiliations. However, the impact of prestige upon outside directorship exit exhibits a different pattern.

In opposition to that expected, a positive shift in prestige increased outside director exit when it occurred in the outside firm. Changes at the home firm and changes between the home firm and the outside firm respectively appear to have no influence. Results suggest that when the outside firm is in significant transition, vis-à-vis its prestigious standing, it may be expected to significantly alter the make up of its board. This supports the theories of resource dependence (Pfeffer & Salancik, 1978). When the firm changes its profile, the requirement for certain types of directors' change with it. However, this finding seems in contrast to social class theorists (Mizruchi & Stearns, 1994) who argue that the board is a social network of like-minded individuals who are expected to perpetuate the elite status of each other. Support for social class theorists predications would argue that board make-up would not alter substantially when prestige enhancements occurred. Rather, the expectation would be that the make-up of the board would remain relatively constant, as all members would receive a prestige "boost" as an artifact of their associations. However, this is not the case. As firms grow and prosper their needs for directors change and subsequently the likelihood of director turnover is increased.

Succession Context

Few events that occur in organizations are as substantively important or as open to strife within the organization as chief executive succession (Boeker & Goodstein, 1993). The replacement of the CEO has the potential to significantly enhance or reduce the power of other organizational members and may have important consequences for the firm's future strategy and structure (Pfeffer, 1981). I define power as the capacity of

individual actors to exert their will over others, which is consistent with other scholar's views (Haleblian & Finkelstein, 1993; Pfeffer, 1981). Their will in the current context deals with outside director turnover.

Following earlier arguments, I consider it likely that changes in the power structure of a firm will affect outside board positions and that such changes would disrupt the social structure of the upper echelons. Accordingly, I find that a succession event in either the home firm or the outside firm is influential in outside directorship exit. In the first case, home firm succession, I find when the incumbent CEO is replaced, regardless of how, there is a significantly reduced likelihood that the executives of that home firm will exit their outside directorship positions. This suggests that turmoil due to change in the CEO at the home firm creates the need for the executives in that firm to maintain connections to other firms. Rather that focus internally, executives are expected to seek self interested behavior as their future with a new power structure in their home firm is in doubt.

As expected, succession in the outside firm significantly increases the odds that outside directors will exit their positions. Significant changes in the power structure places demands upon those in power to consolidate their positions in the firm and may attempt to do this with director realignment. This finding supports other work in the area of increased turnover after a CEO change (Ward et al., 1999).

Further investigation into CEO succession revealed some interesting findings. When the CEO retired (left the firm) or remained on the board as a non-executive director, results suggest non-significant impact upon director turnover within three years

of that event. However, if the ex-CEO relinquishes the title of CEO but retains the title of Chair, the likelihood of outside director is significantly enhanced. In other words, if the outgoing CEO remains as an officer and a director of the firm, turnover is greater than if he or she leaves altogether or relinquishes the officer position for a director position. This supports the power circulation of control model (Shen & Cannella, 2002). Results suggest that power contestation between the outgoing CEO and the new incumbent CEO is in play at the firm, and the newly elected CEO might be attempting to staff the board in different ways than the predecessor.

CEO dismissal at the home firm and the outside firm was also expected to influence board turnover. Prior research (Daily & Dalton, 1994b; Hambrick & D'Aveni, 1992) found different patterns of turnover in bankruptcy situations when firms are in distress. However, the results of this study suggest that CEO dismissal will have little influence on outside director turnover. This may indicate that the board has assumed power of the firm's governance situation and consistent with Fama and Jensen's (1983b) arguments will stay with the firm to protect their reputations as experts in decision-making. As noted earlier, I only measured turnover within three years of the succession event when the board and the new CEO are likely reorganizing and reshaping the firm in their own ways.

Summary

I find that as firms improve in prestige there is a need for different directors. This suggests that firms who are growing and improving are sensitive to who is staffing their boards and subsequently are expected to exhibit higher levels of turnover than others.

Additionally, the context of CEO succession is influential in analyzing outside director turnover. If the ex-CEO remains as an executive officer and board chair, turnover is more likely. Conversely, if the ex-CEO retires completely from the firm, or dismissed, or remains a non-executive officer, results suggest that turnover is not significantly influenced.

CHAPTER VII

CONCLUSIONS, LIMITATIONS, AND IMPLICATIONS

Research on corporate governance in general and boards of directors in particular is an important strategic issue for all firms (Finkelstein & Hambrick, 1996). In order for firms to better manage their governance practices, it is necessary for them to understand more fully the individuals that populate their boards and how their motivations for service might eventually influence strategic decision-making. The present study is an endeavor in that direction. This concluding chapter summarizes both the theory and empirical evidence presented previously, discusses its limitations, and points out its implications for further discovery and use.

Conclusions

To my knowledge, this study represents the first attempt to systematically analyze the antecedents of board service. The literature review in Chapter II concluded that both human and social capital assets would be influential in profiling those corporate executives who choose to serve as outside directors. However, previous research primarily has taken the role of the outside director as defined by the firm, is largely influenced by the incumbent CEO, and subsequently investigated its consequences for firm performance (Boeker, 1992; Finkelstein & Hambrick, 1996; Johnson et al., 1996; Westphal & Milton, 2000; Zahra & Pearce, 1989). Consequently, research concerning outside directors often dichotomizes them into groups such as insiders, affiliated or related parties, and outsiders. The present study seeks to understand director service from the perspective of the director, then the firm.

Following an individual unit of analysis, a model of outside director service was developed in Chapter III which highlights an under researched phenomenon, the individual director and their motivations for service. The model proposes that individuals face a wide range of information regarding service and if offered a position on a board, or boards, must choose between alternatives. Since service is time consuming (Korn Ferry, 2000) and corporate executives are the most sought after for service (Lorsch & MacIver, 1989), it is likely that potential directors and firms will seek an alignment or fit, where the needs and motives of both are considered.

Empirical evidence provides both support for the current outside director service model and new insights into improving it. Strong support was found regarding the existence of an executive's home firm career as influential in obtaining outside board seats. As predicted, those at the uppermost echelons are the most likely to join. Additionally, holding a directorship in the home firm is a more likely route to outside service. However, promotion had either no effect, or a negative effect, during the first year in a new position, suggesting that outside service requires some demonstrated accomplishment rather that just mere title. The evidence presented suggests that executives in early career face diminished prospects of joining outside boards.

Strong support was also found for those executives from the largest firms. They are more likely than others to accept outside board seats. This is somewhat surprising given the fact that outside board seats were searched for all U.S. public corporations, so a wide range of outside firm sizes was investigated. Nonetheless, those in the largest home firms certainly command the most attention.

Ending service at the home firm as an officer yielded some very interesting results. Retirements do not significantly affect an executives either joining, or exiting, outside boards. This seems to suggest that executive's outside board appointments during their full time career are the ones they most likely retain post full time executive careers. However, remaining on the board opens the model of service up to question. If the executive remains as a director in the home firm they are more likely to accept new outside director positions. On the contrary, if the CEO relinquished his or her title for board chair under a succession, turnover on the board increases. More insight into this phenomenon might yield some clearer results but there are likely issues of power and control currently not identified.

Additionally, CEO dismissal resulted in findings in opposition to the model and theory hypothesized. Utilizing past research on CEO succession (Cannella & Lubatkin, 1993; Cannella & Shen, 2001; Shen & Cannella, 2002) theory suggested that the loss of human capital associated with an executive dismissal would translate into fewer opportunities as well as lost opportunities in the external labor market. However, I find that dismissal increased the odds of joining an outside board. Also, dismissal of the outside firm's CEO suggested a negative but insignificant relationship to board exit. The data suggests that executives dismissed from their firm will seek new opportunities for rebuilding their human and social capital and that outside board service is a way in which this might be accomplished.

The model of outside director service also predicted a strong association between prestige, the executive, their home firm, and their outside firm. For the most part, strong

support was found for this premise. Those executives who attended a prestigious university were found to join more boards and be more likely to serve on multiple boards. In addition, coming from a prestigious home firm is a significant predictor of joining the board of a prestigious outside firm. There is also a tendency for less prestigious executives to attempt to improve their standing through association with those of equal or higher status (Laumann, 1966). I find no support for a connection between those executives who come from prestigious families and outside board service. There was either a negative relation or none at all. I suggest this might be attributable to the small sample size of this group or possibly the nature of this prestige is more complicated than the model depicts. It is possible that for this group of individuals, outside boards service is not really seen as a prestigious endeavor.

Limitations

Importantly, this paper is concerned in part with the likelihood that a corporate executive will join, serve, and exit an outside board. As such I investigated the previous number of boards that an executive sits upon. This control was significant and positive during many of the statistical runs denoting the potential that the likelihood of joining is conditioned upon the premise that the executive is already serving on an outside board. The previous number of board appointments was also highly correlated with many of the independent variables. This leaves open the question as to the attainment of the first board position. How is the first position attained and is there a progression ladder from small to large directorships depending upon an individual's affiliations and accomplishments?

While the theoretical foundations developed herein would support this contention, future empirical work is needed to better understand this issue. In addition, for an executive to accept outside directorships, his or her organization must become an enabler to such duty. Recent anecdotal evidence suggests that board service is becoming less valued by corporations as executives are increasingly required to focus their energy on the home firm. For example, General Electric has gone so far as to not permit any of their senior executives to serve on outside boards. Other companies such as Johnson & Johnson have set policies, which limit service to only one board seat in addition to their own. Due to the size of my sample, I was unable to ascertain each and every firm's policy on outside board service.

Additionally, nearly 60% of CEO's responding to a recent Korn Ferry survey said that they had turned down a board invitation within the last twelve months (Lear, 2000). The top reasons given for rejecting offers to serve were time demands, conflicts in meeting dates, and perceived business conflicts with their home organization. While these restrictions may be important for a small number of firms as suggested earlier, my evidence suggests that a preponderance of firms allow their executives to acquire and retain outside board seats. Corporations seem to be very forgiving in allowing their executives to participate in joining outside boards. It is conceivable that not only is outside board service part of a perk to allow executives to gain status and visibility, it might also represent a portion of a training program for high potential executives who are being groomed for the uppermost executive suite.

Finally, this study argues that certain individuals are more likely to join, serve in different patterns and exit other firms as outside directors than others, and implies that if asked to join, the individual will do so. In reality, however, becoming an outside director is a voluntary exercise. Not all offers are likely to be accepted. Unfortunately, due to the difficulty of observing both a request to join and a subsequent refusal, identifying the reason for refusal is beyond the scope of this research. I am only able to separate those who join from those who do not, and leave the reasons for not joining to future research.

Implications

I believe that the effects of prestige are most likely the result of a relationship that is more complex than tested in the model. For example, future research might examine board prestige in total as a potential moderator of my hypotheses. More specifically, it may be that boards with low levels of prestige (e.g., few board members with prestigious families or educational backgrounds) are not very concerned with obtaining prestigious directors. Alternatively, boards with higher levels of prestige may be more interested in perpetuating the economic elite and, as such, may be more interested in obtaining the services of executives with prestigious backgrounds.

In addition, future research might also examine the influence of CEO prestige as a moderator of our proposed relationships. CEOs with lower levels of prestige may be reluctant to fill their boards with prestigious directors as this prestige may provide the board with more power. Alternatively, CEOs with prestigious backgrounds may highly value the connections provided by prestigious directors and may feel less threatened by these credentials.

Additionally, future research in this area should more closely examine the role of performance (e.g., accounting and market) in the executives' home firms as independent variables. It may be that executives serving as the heads of high-performing companies may represent more attractive candidates to boards of directors attempting to fill vacant board seats. In addition, firm performance may interact with my hypothesized variables and future research would benefit from examining these relationships.

Additional research could also investigate what I might call serial directors. I identified in this study that certain individuals are sitting on multiple boards and joining several at once. The antecedents of this phenomenon are intriguing and worthy of future consideration.

Implications for Theory Development

By examining the antecedents of outside director service from an individual level of analysis, the present study provides some new insights to our understanding of board service. It is several implications for both academic research and managerial practice.

As far as I know, a theoretically full model of outside director service has not been undertaken. Given the importance of outside directors to the overall governance process it appears critical for research to grasp this important topic. One of the most important contributions of this work is to identify who is populating America's corporate boards and some of their motivations for doing so. This has significant implications for research on corporate governance, top management teams, board dynamics, strategic decision-making, and CEO succession.

First, the present study suggests a re-conceptualization of research in corporate governance. Extent research as been heavily influenced by agency theory in that boards are seen as a way for the most powerful influences in the firm to achieve self interested ends (Berle & Means, 1932; Fama & Jensen, 1983b; Lorsch & MacIver, 1989). The present study challenges this notion by arguing for a perspective of service from the viewpoint of the individual member. Motives for service on outside boards have wide ranging implications for both the home firm and the outside firm.

Second, the present study has both theoretical and methodological implications for CEO succession research. Theoretically, it challenges the basic notion of identifying successors based on a dichotomy of insider or outsider. Instead of treating succession as merely an extension of who is the predecessor and follower, I identify forces that follow the decision of the predecessor to remain on the board as chair, director, or retire altogether. Alternatively, more clarification on post-executive service, especially for those dismissed from a firm is needed. How executives attempt to regain their damaged human and social capital through outside affiliations might inform future work in this area.

Methodologically, and also theoretically, the present study highlights the importance of taking a longitudinal approach to the study of executive movements among firms. Most previous work has taken a static, cross-sectional approach. I demonstrate that analyzing an executive's career over a window of time is an influential element in the decisions to join, serve in different ways, and exit outside boards. Indicative of this is the evolutionary nature of service. Those in lower organizational

levels must pay their "dues" in terms of improving human and social capital before they are afforded the opportunity to advance their status through outside board appointments. Therefore, it is important for governance researchers to incorporate dynamic elements into their models and testing.

Implications for Managerial Practice

The present study has important implications for managerial practice. First, it suggests that executives who serve differ importantly from those who do not. When choosing an outside board to join, a given executive appears aware of the prestigious nature of the affiliation. This maybe especially true given the turmoil in the governance ranks of late. Picking the right directors, retaining those who perform, and shedding those who do not, is of critical importance to the firm. Alternatively, choosing the right firm from the director's standpoint is also critically important. Since prestige may be gained or lost through affiliation, executives must take care to choose wisely among given alternatives.

Second, firms undergoing a CEO succession must take heed concerning the impact upon their board. I demonstrated that depending upon the context of the succession, the effect upon board members occurred in different patterns. A high performing board going through a succession event needs to evaluate its membership differently from that of a low performing board facing the same situation. However, my initial findings question this as performance influences appear inconsequential to board exit. Both low performing and high performing boards seem to have similar turnover rates. This might be informative in and of itself.

Third, service limitations by companies might be influential in the board / performance relationship. If the governance practices of a particular firm limits its executive's service regarding outside boards, then an assessment of this policy seems warranted. Service accrues to the executive and their firm certain advantages, not the least of which is influential network contacts and opportunities that come from meeting other executives facing different business challenges. On the other hand, outside board service takes time and attention away from the home firm. It is important that prudent judgment for executive service be initiated, particularly regarding those executives found serving on many boards during their executive careers. Given the prestigious nature of board service, it would be desirable for firms to balance the demands at home and away, use controls where necessary, and incentives as appropriate.

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APPENDIX A

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
817826	77015	7 ELEVEN INC	026375	13056	AMERICAN GREETINGS CORP
831865	19852	A O SMITH CORP	026609	15667	AMERICAN HOME PRODUCTS CO
808194	69199	A SCHULMAN INC	030954	65859	AMERICAN INFORMATION TECH
002824	20482	ABBOTT LABORATORIES	026874	66800	AMERICAN INTERNATIONAL GR
217016	59248	ADOLPH COORS CO	027429	46754	AMERICAN MEDICAL INTERNAT
007903	61241	ADVANCED MICRO DEVICES IN	31734L	29049	AMERICAN PETROFINA INC
007869	18147	AEROQUIP VICKERS INC	00202M	65111	AMERICAN PRESIDENT COMPAN
008117	46850	AETNA INC	029404	85447	AMERICAN SAVINGS BANK FSB
008262	57349	AFFILIATED PUBLICATIONS I	029717	10372	AMERICAN STANDARD COS INC
001054	68806	AFG INDUSTRIES INC	030096	17558	AMERICAN STORES CO
001055	57904	AFLAC INC	001957	10401	AMERICAN TELEPHONE & TELE
009158	28222	AIR PRODUCTS & CHEMICALS	030700	10797	AMERIFIRST BANK A FEDERAL
009269	51721	AIRBORNE FREIGHT CORP	030900	13980	AMERITRUST CORP
011659	28804	ALASKA AIR GROUP INC	030789	44548	AMES DEPARTMENT STORES IN
013068	42083	ALBERTO CULVER CO	031105	10460	AMETEK INC
013104	50032	ALBERTSON S INC	031905	19553	AMOCO CORP
013750	85244	ALCO HEALTH SERVICES CORP	031825	14091	AMOSKEAG CO
451713	48514	ALCO STANDARD CORP	031897	27051	AMP INC
013817	24643	ALCOA INC	001765	21020	AMR CORP
014476	63845	ALEXANDER & ALEXANDER SER	032165	62770	AMSOUTH BANCORPORATION
014482	11691	ALEXANDER & BALDWIN INC	032172	10479	AMSTAR CORP
017175	71271	ALLEGHANY CORP	032177	10487	AMSTED INDUSTRIES INC
016900	75002	ALLEGHENY LUDLUM CORP	032375	64151	ANACOMP INC
017361	10137	ALLEGHENY POWER SYSTEM IN	032837	11241	ANCHOR BANCORP INC
019411	26331	ALLIED PRODUCTS CORP	033038	75031	ANCHOR GLASS CONTAINER CO
438516	10145	ALLIED SIGNAL INC	035229	59184	ANHEUSER BUSCH COS INC
01975T	40935	ALLMERICA PROPERTY & CASU	035290	46077	ANIXTER INTERNATIONAL INC
020011	75795	ALLSTATE FINANCIAL CORP	037389	61735	AON CORP
026351	48397	AM GENERAL CORP	037829	85551	APPLE BANCORP INC
001723	18980	AM INTERNATIONAL INC	037833	14593	APPLE COMPUTER INC
023127	10161	AMAX INC	039483	10516	ARCHER DANIELS MIDLAND CO
023164	67969	AMBASE CORP	040157	10843	ARGONAUT GROUP INC
023905	60046	AMDAHL CORP	040422	70359	ARISTECH CHEMICAL CORP
023551	28484	AMERADA HESS CORP	040790	77595	ARKANSAS BEST CORP
023608	24985	AMEREN SERVICES CO	042170	17566	ARMCO INC
023657	80778	AMERICA WEST AIRLINES INC	042384	19692	ARMSTRONG WORLD INDUSTRIE
349631	10225	AMERICAN BRANDS INC	043339	21143	ARVIN INDUSTRIES INC
024898	54332	AMERICAN CAPITAL CORP	043413	10364	ASARCO INC
025321	23341	AMERICAN CYANAMID CO	044204	24272	ASHLAND INC
025537	24109	AMERICAN ELECTRIC POWER C	048535	15625	ATLANTIC FINANCIAL FEDERA
025816	59176	AMERICAN EXPRESS CO	048825	10604	ATLANTIC RICHFIELD CO
025932	60687	AMERICAN FINANCIAL GROUP	053015	44644	AUTOMATIC DATA PROCESSING

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
053807	27684	AVNET INC	095177	55108	BLOUNT INC
054303	40416	AVON PRODUCTS INC	096650	18551	BOATMEN S BANCSHARES INC
054350	10360	AVONDALE INDUSTRIES INC	097023	19561	BOEING CO
382388	12140	B F GOODRICH CO	097383	42024	BOISE CASCADE CORP
057224	75034	BAKER HUGHES INC	099599	16571	BORDEN INC
058459	33347	BALFOUR MACLAINE CORP	099724	17590	BORG WARNER CORP
058498	57568	BALL CORP	102183	66130	BOWATER INC
05873C	58480	BALLY ENTERTAINMENT CORP	105423	19095	BRANIFF INC
210371	24221	BALTIMORE GAS & ELECTRIC	109043	17961	BRIGGS & STRATTON CORP
06423A	65138	BANC ONE CORP	110122	19393	BRISTOL MYERS CO
694058	16548	BANCORP HAWAII INC	146227	40352	BROADWAY STORES INC
059790	35781	BANCWEST CORP NEW	115637	29938	BROWN FORMAN CORP
060505	59408	BANK OF AMERICA CORP	115885	53786	BROWNING FERRIS INDUSTRIE
06605R	51772	BANK OF BOSTON CORP	116881	19589	BRUNO S INC
063840	16695	BANK OF NEW ENGLAND CORP	117043	10874	BRUNSWICK CORP
064057	49656	BANK OF NEW YORK CO INC	12189T	50227	BURLINGTON NORTHERN INC
065068	16716	BANK SOUTH CORP	122014	75333	BURLINGTON RESOURCES INC
066050	58827	BANKAMERICA CORP	123655	19992	BUTLER MANUFACTURING CO
066365	48354	BANKERS TRUST CORP	067383	46877	C R BARD INC
303698	29532	BANNER INDUSTRIES INC	127055	46690	CABOT CORP
066821	16890	BANTA CORP	128026	66456	CALFED INC
068055	61284	BARNETT BANKS INC	129894	59432	CALIBER SYSTEM INC
071707	26518	BAUSCH & LOMB INC	131271	51414	CALMAT CO
071813	27887	BAXTER INTERNATIONAL INC	133429	61954	CAMERON IRON WORKS INC
072723	17196	BAYBANKS INC	134429	25320	CAMPBELL SOUP CO
05527L	19052	BB&T FINANCIAL CORP	139859	30330	CAPITAL CITIES ABC INC
073902	68304	BEAR STEARNS COMPANIES IN	744061	53081	CAPITAL HOLDING CORP
074077	17953	BEATRICE CO	142339	27334	CARLISLE COMPANIES INC
075887	39642	BECTON DICKINSON & CO	98155F	53524	CAROLINA FREIGHT CORP
077852	22323	BELL & HOWELL CO	743263	23114	CAROLINA POWER & LIGHT CO
92343V	65875	BELL ATLANTIC CORP	144285	20618	CARPENTER TECHNOLOGY CORP
079860	65883	BELLSOUTH CORP	256605	40707	CASTLE & COOKE INC
081437	43772	BEMIS CO INC	149123	18542	CATERPILLAR INC
081721	19377	BENEFICIAL CORP	124800	59686	CBI INDUSTRIES INC
082072	10958	BENJ FRANKLIN FEDERAL SAV	12490K	15368	CBS CORP
083739	42438	BERGEN BRUNSWIG CORP	124845	20730	CBS INC
084670	17778	BERKSHIRE HATHAWAY INC	124883	25137	CCH INC
086551	58018	BEST PRODUCTS CO INC	151883	69243	CENTERIOR ENERGY CORP
08658U	10989	BESTFOODS	152312	53831	CENTEX CORP
087509	10786	BETHLEHEM CORP	152357	23851	CENTRAL & SOUTH WEST CORP
087851	47992	BEVERLY ENTERPRISES	153469	22075	CENTRAL FIDELITY BANKS IN
089671	44409	BIG THREE INDUSTRIES INC	155177	27158	CENTRAL SOYA CO INC
090324	17962	BINDLEY WESTERN INDUSTRIE	15640L	75043	CENTRUST SAVINGS BANK

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
156879	11105	CERTAINTEED CORP	204912	25778	COMPUTER ASSOCIATES INTER
158525	21397	CHAMPION INTERNATIONAL CO	205363	40125	COMPUTER SCIENCES CORP
808513	75186	CHARLES SCHWAB CORP	205887	56274	CONAGRA FOODS INC
161241	52652	CHARTER MEDICAL CORP	206813	24707	CONE MILLS CORP
161610	41718	CHASE MANHATTAN CORP	208108	10967	CONNER PERIPHERALS INC
16161A	47896	CHASE MANHATTAN CORP NEW	208368	71765	CONRAIL INC
163596	64194	CHEMED CORP	209115	11404	CONSOLIDATED EDISON CO OF
165159	21960	CHESAPEAKE CORP	209615	21821	CONSOLIDATED NATURAL GAS
166751	14541	CHEVRON CORP	209759	26586	CONSOLIDATED PAPERS INC
167155	77476	CHICAGO & NORTH WESTERN H	210902	39335	CONTEL CORP
170032	14955	CHIQUITA BRANDS INTERNATI	211113	57250	CONTINENTAL BANK CORP
171196	11260	CHRYSLER CORP	211327	46658	CONTINENTAL CORP
171232	59192	CHUBB CORP	216669	21979	COOPER INDUSTRIES INC
125509	64186	CIGNA CORP	216831	27430	COOPER TIRE & RUBBER CO
172062	23473	CINCINNATI FINANCIAL CORP	218412	21290	CORDANT TECHNOLOGIES INC
598709	22680	CINCINNATI MILACRON INC	218695	27263	CORESTATES FINANCIAL CORP
172576	48047	CIRCLE K CORP	219350	22293	CORNING GLASS WORKS
172862	65525	CITADEL HOLDING CORP	22160K	64064	COSTCO COS INC
173034	47079	CITICORP	224399	20204	CRANE CO
172967	70519	CITIGROUP INC	225224	62164	CRAY RESEARCH INC
173124	23705	CITIZENS & SOUTHERN CORP	226091	79354	CRESTAR FINANCIAL CORP
126335	23836	CITIZENS SAVINGS FINANCIA	227901	87090	CROSSLAND SAVINGS FSB
181396	18446	CLARK EQUIPMENT CO	228219	31042	CROWN CENTRAL PETROLEUM C
189054	46578	CLOROX CO	228255	17726	CROWN CORK & SEAL CO INC
125896	23229	CMS ENERGY CORP	229070	68363	CRYSTAL BRANDS INC
12612W	41929	CNF TRANSPORTATION INC	126408	62148	CSX CORP
19039M	86714	COAST SAVINGS & LOAN ASSO	231021	41080	CUMMINS ENGINE CO INC
190441	38893	COASTAL CORP	126650	17005	CVS CORP
191216	11308	COCA COLA CO	232528	75051	CYCLOPS INDUSTRIES INC
191219	70500	COCA COLA ENTERPRISES INC	232809	87127	CYPRUS AMAX MINERALS CO
194162	18729	COLGATE PALMOLIVE CO	235811	11607	DANA CORP
196864	11332	COLT INDUSTRIES INC	235851	49680	DANAHER CORP
197648	11340	COLUMBIA ENERGY GROUP	237688	57592	DATA GENERAL CORP
404119	76171	COLUMBIA HCA HEALTHCARE C	87612E	49154	DAYTON HUDSON CORP
198274	92567	COLUMBIA PICTURES ENTERTA	254653	28186	DCNY CORP
198415	68339	COLUMBIA SAVINGS & LOAN A	242361	63554	DEAN FOODS CO
200273	18999	COMBUSTION ENGINEERING IN	244199	19350	DEERE & CO
200336	61524	COMDISCO INC	247361	26112	DELTA AIR LINES INC
200340	25081	COMERICA INC	247904	11062	DELTA WOODSIDE INDUSTRIES
200525	25129	COMMERCE BANCSHARES INC	248019	61743	DELUXE CHECK PRINTERS INC
201647	86861	COMMERCIAL FEDERAL CORP	248631	31181	DENNISON MANUFACTURING CO
201723	30680	COMMERCIAL METALS CO	233331	11674	DETROIT EDISON CO
904911	20853	COMMONWEALTH EDISON CO	252165	45874	DEXTER CORP

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
252747	75053	DIAMOND SHAMROCK INC	922944	15456	F W WOOLWORTH CO
254394	29867	DIBRELL BROTHERS INC	307351	40811	FAR WEST FINANCIAL CORP
253849	43916	DIGITAL EQUIPMENT CORP	31428X	60628	FDX CORP
254067	49429	DILLARD DEPARTMENT STORES	313549	21338	FEDERAL MOGUL CORP
25429Q	10594	DIME BANCORP INC	313693	25371	FEDERAL PAPER BOARD CO IN
255519	10886	DIXIE GROUP INC	314099	18550	FEDERATED DEPARTMENT STOR
257183	30430	DOMINION BANKSHARES CORP	315405	21135	FERRO CORP
25746U	64936	DOMINION RESOURCES INC VA	316773	34746	FIFTH THIRD BANCORP
344822	41515	DOSKOCIL COMPANIES INC	810022	10016	FIGGIE INTERNATIONAL INC
260003	25953	DOVER CORP	317441	46084	FINANCIAL CORP OF SANTA B
260543	20626	DOW CHEMICAL CO	317916	75291	FINEVEST FOODS INC
260561	58990	DOW JONES & CO INC	G9618E	68419	FIREMAN S FUND CORP
261018	54279	DOWNEY FINANCIAL CORP	758940	35044	FIRST ALABAMA BANCSHARES
261597	19254	DRESSER INDUSTRIES INC	318900	35175	FIRST AMERICAN CORP TENN
264399	27959	DUKE ENERGY CORP	902973	66157	FIRST BANK SYSTEM INC
615369	48506	DUN & BRADSTREET CORP	319356	75880	FIRST BRANDS CORP
26633L	76635	DURACELL INTERNATIONAL IN	898402	35263	FIRST CAPITAL CORP
895927	19828	DWG CORP	319455	53858	FIRST CHICAGO CORP
263534	11703	E I DU PONT DE NEMOURS &	31945A	56450	FIRST CHICAGO NBD CORP
269157	43342	E SYSTEMS INC	319591	75344	FIRST CITY BANCORPORATION
811039	11936	E W SCRIPPS CO	55261F	35554	FIRST EMPIRE STATE CORP
269803	21872	EAGLE PICHER INDUSTRIES I	320195	52505	FIRST FIDELITY BANCORP IN
277461	11754	EASTMAN KODAK CO	320264	35722	FIRST FLORIDA BANKS INC
278058	11762	EATON CORP	320548	26550	FIRST INTERSTATE BANCORP
278749	31536	ECHLIN INC	320806	35888	FIRST MARYLAND BANCORP
278865	70578	ECOLAB INC	318906	35204	FIRST OF AMERICA BANK COR
281020	15720	EDISON INTERNATIONAL	336072	53903	FIRST PENNSYLVANIA CORP
714046	42200	EG&G INC	336294	36274	FIRST SECURITY CORP
285661	83596	ELECTRONIC DATA SYSTEMS C	337162	36397	FIRST TENN NATIONAL CORP
532457	50876	ELI LILLY & CO	337358	36469	FIRST UNION CORP
291011	22103	EMERSON ELECTRIC CO	337477	52265	FIRST VIRGINIA BANKS INC
292004	70586	EMPIRE OF AMERICA FEDERAL	929771	68443	FIRST WACHOVIA CORP
29266M	24096	ENERGY EAST CORP	33761C	53209	FIRST WISCONSIN CORP
292973	71124	ENESCO GROUP INC	33761R	35474	FIRSTFED MICHIGAN CORP
292845	62834	ENGELHARD CORP	339030	47159	FLEET BOSTON CORP
293561	23317	ENRON CORP	339099	46295	FLEETWOOD ENTERPRISES INC
293567	25056	ENSERCH CORP	339130	47271	FLEMING COS INC
29358L	47750	ENSTAR GROUP INC	34065c	36944	FLORIDA FEDERAL SAVINGS &
29364G	24010	ENTERGY CORP	341018	37007	FLORIDA NATIONAL BANKS OF
294441	33305	EQUITABLE BANCORPORATION	302571	24205	FLORIDA POWER & LIGHT CO
296683	66544	ESSELTE BUSINESS SYSTEMS	341109	22496	FLORIDA PROGRESS CORP
297659	42550	ETHYL CORP	343496	49031	FLOWERS INDUSTRIES INC
302051	79780	EXIDE CORP	576206	26382	FLUOR CORP

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
344775	37189	FOOD LION INC	92552R	19721	GREYHOUND CORP
345370	25785	FORD MOTOR CO	398048	77142	GREYHOUND LINES INC
347460	54754	FORT HOWARD CORP	400181	21274	GRUMMAN CORP
347471	61583	FORT JAMES CORP	362320	21004	GTE CORP
350244	18112	FOSTER WHEELER CORP	401321	75256	GUARDIAN BANCORP
351604	27860	FOXBORO CO	401794	54770	GUILFORD MILLS INC
354623	10037	FRANKLIN SAVINGS ASSOCIAT	402550	23405	GULF STATES UTILITIES CO
592907	76563	FRED MEYER INC	359694	37875	H B FULLER CO
356714	62877	FREEPORT MCMORAN INC	008677	56266	H F AHMANSON & CO
G3682L	71984	FRUIT OF THE LOOM INC	423074	23077	H J HEINZ CO
591695	25961	FUQUA INDUSTRIES INC	404073	57832	HAL INC
458506	18278	FURNITURE BRANDS INTERNAT	406216	23819	HALLIBURTON CO
361428	41953	GAF CORP	410306	44468	HANDY & HARMAN
364730	47941	GANNETT CO INC	411631	27924	HARCOURT BRACE JOVANOVICH
368145	75295	GAYLORD CONTAINER CORP	412822	70033	HARLEY DAVIDSON INC
361582	62236	GEICO CORP	413345	32563	HARNISCHFEGER INDUSTRIES
368682	20765	GENCORP INC	413875	25582	HARRIS BANKCORP INC
369550	12052	GENERAL DYNAMICS CORP	415864	25304	HARSCO CORP
369604	12060	GENERAL ELECTRIC CO	417119	22250	HARTMARX CORP
370118	23253	GENERAL INSTRUMENT CORP	417434	38770	HARVARD INDUSTRIES INC
370334	17144	GENERAL MILLS INC	418056	52978	HASBRO INC
370442	12079	GENERAL MOTORS CORP	423236	27879	HELENE CURTIS INDUSTRIES
36225X	22541	GENERAL PUBLIC UTILITIES	962901	10278	HENLEY GROUP INC
370563	62252	GENERAL RE CORP	427056	18016	HERCULES INC
370838	12095	GENERAL SIGNAL CORP	600544	54114	HERMAN MILLER INC
372460	46674	GENUINE PARTS CO	427866	16600	HERSHEY FOODS CORP
440452	32870	GEO A HORMEL & CO	428040	84663	HERTZ CORP
373200	75222	GEORGIA GULF CORP	428236	27828	HEWLETT PACKARD CO
373298	23915	GEORGIA PACIFIC CORP	428656	41807	HIBERNIA CORP
373712	25910	GERBER PRODUCTS CO	431573	52716	HILLENBRAND INDUSTRIES IN
374478	32205	GIANT FOOD INC	432848	23309	HILTON HOTELS CORP
375766	16424	GILLETTE CO	432899	72055	HIMONT INC
376365	75397	GITANO GROUP INC	434390	85335	HOECHST CELANESE CORP
381197	67563	GLENFED INC	435071	39669	HOLIDAY CORP
380804	10178	GOLDEN BOOKS FAMILY ENTER	435767	50729	HOLLY FARMS CORP
381317	53479	GOLDEN WEST FINANCIAL COR	437076	66181	HOME DEPOT INC
382550	16432	GOODYEAR TIRE & RUBBER CO	43739D	66202	HOME FEDERAL SAVINGS & LO
389908	66579	GREAT AMERICAN BANK A FED	437292	42359	HOME OWNERS FEDERAL SAVIN
389893	54340	GREAT AMERICAN MANAGEMENT	438092	42439	HON INDUSTRIES INC
390064	26657	GREAT ATLANTIC & PACIFIC	438506	18374	HONEYWELL INC
39054L	39889	GREAT LAKES BANCORP A FED	44107P	46703	HOST MARRIOTT CORP
390568	32379	GREAT LAKES CHEMICAL CORP	441815	20124	HOUSEHOLD INTERNATIONAL I
391090	25160	GREAT NORTHERN NEKOOSA CO	75952J	21792	HOUSTON INDUSTRIES INC

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
443782	68945	HUDSON FOODS INC	487836	26825	KELLOGG CO
444859	48653	HUMANA INC	488044	57437	KELLWOOD CO
446150	42906	HUNTINGTON BANCSHARES INC	488152	47379	KELLY SERVICES INC
96647R	38973	IC INDUSTRIES INC	488396	47395	KEMPER CORP
451841	76263	ILLINOIS CENTRAL RAILROAD	492386	25769	KERR MCGEE CORP
26816Q	23720	ILLINOIS POWER CO	493267	64995	KEYCORP
452308	56573	ILLINOIS TOOL WORKS INC	494274	47715	KIMBALL INTERNATIONAL INC
449669	75259	IMC FERTILIZER GROUP INC	494368	17750	KIMBERLY CLARK CORP
452540	72100	IMO DELAVAL INC	499040	48960	KNIGHT RIDDER INC
452722	27000	IMPERIAL CORP OF AMERICA	501044	16678	KROGER CO
453096	11874	IMPERIAL HOLLY CORP	505336	48347	LA Z BOY CHAIR CO
44977F	43976	INB FINANCIAL CORP	505862	65656	LAFARGE CORP
456866	12431	INGERSOLL RAND CO	515062	33646	LANDMARK LAND CO INC
78375P	12458	INLAND STEEL INDUSTRIES I	521894	26489	LEAR SEATING CORP
457659	16053	INSILCO CORP	524660	60943	LEGGETT & PLATT INC
880915	65293	INSPIRATION RESOURCES COR	527288	20415	LEUCADIA NATIONAL CORP
458104	61990	INTEGRA FINANCIAL CORP	527364	52564	LEVI STRAUSS ASSOCIATES I
458140	59328	INTEL CORP	532716	64282	LIMITED INC
458665	44768	INTERFACE INC	533900	81678	LINCOLN ELECTRIC CO
458683	44792	INTERGRAPH CORP	534187	49015	LINCOLN NATIONAL CORP
458702	15747	INTERLAKE CORP	538021	26294	LITTON INDUSTRIES INC
459200	12490	INTERNATIONAL BUSINESS MA	539320	49905	LIZ CLAIBORNE INC
459362	46199	INTERNATIONAL CONTROLS CO	539830	21178	LOCKHEED CORP
459506	40272	INTERNATIONAL FLAVORS & F	540424	26710	LOEW S CORP
561232	12511	INTERNATIONAL MINERALS &	541535	54551	LOMAS & NETTLETON FINANCI
460043	53129	INTERNATIONAL MULTIFOODS	542312	89675	LONE STAR TECHNOLOGIES IN
460146	21573	INTERNATIONAL PAPER CO	49337W	24360	LONG ISLAND LIGHTING CO
460321	45437	INTERNATIONAL SHIPHOLDING	543162	53612	LONGS DRUG STORES CORP
460690	53065	INTERPUBLIC GROUP OF COS	543213	50092	LONGVIEW FIBRE CO
450911	12570	ITT CORP	543859	33785	LORAL CORP
445658	42877	J B HUNT TRANSPORT SERVIC	546268	33814	LOUISIANA LAND & EXPLORAT
708160	18403	J C PENNEY CO INC	546347	56223	LOUISIANA PACIFIC CORP
616880	48071	J P MORGAN & CO INC	548661	61399	LOWE S COS INC
475086	46448	JEFFERSON SMURFIT CORP	502129	75231	LPL INVESTMENT GROUP INC
478129	16707	JOHNS MANVILLE CORP DE	502161	48267	LSI LOGIC CORP
478160	22111	JOHNSON & JOHNSON	502210	25507	LTV CORP
478366	42534	JOHNSON CONTROLS INC	549271	43721	LUBRIZOL CORP
481088	42104	JOSTENS INC	549866	22373	LUKENS INC
46624E	85735	JPS INDUSTRIES INC	552078	75444	LYONDELL CHEMICAL CO
466265	46288	JWP INC	410522	43238	M A HANNA CO
482584	12749	K MART CORP	554511	50703	MACK TRUCKS INC
483548	47002	KAMAN CORP	559177	11184	MAGMA COPPER CO
485170	12650	KANSAS CITY SOUTHERN INDU	559424	75596	MAGNETEK INC

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
565004	51351	MANUFACTURERS NATIONAL CO	608554	54827	MOLEX INC
565097	43668	MAPCO INC	71713U	18382	MONSANTO CO
568287	19043	MARINE MIDLAND BANKS INC	617446	69032	MORGAN STANLEY DEAN WITTE
569790	47837	MARION LABORATORIES INC	618447	55079	MORRISON KNUDSEN CORP
570387	67328	MARK IV INDUSTRIES INC	620076	22779	MOTOROLA INC
571154	44169	MARLEY CO	626717	28345	MURPHY OIL CORP
571748	45751	MARSH & MCLENNAN COMPANIE	62952P	76597	NABISCO GROUP HOLDINGS CO
571834	51706	MARSHALL & ILSLEY CORP	629579	28118	NACCO INDUSTRIES INC
572900	20562	MARTIN MARIETTA CORP	629853	41179	NALCO CHEMICAL CO
574599	34032	MASCO CORP	631158	56040	NASH FINCH CO
574670	51800	MASCO INDUSTRIES INC	635405	56232	NATIONAL CITY CORP
577081	39538	MATTEL INC	636316	20570	NATIONAL GYPSUM CO
577730	24715	MAXUS ENERGY CORP	05349F	19019	NATIONAL INTERGROUP INC
577913	34067	MAXXAM INC	88033G	52337	NATIONAL MEDICAL ENTERPRI
577778	13100	MAY DEPARTMENT STORES CO	637640	51377	NATIONAL SEMICONDUCTOR CO
578349	63669	MAYFLOWER GROUP INC	637657	22066	NATIONAL SERVICE INDUSTRI
578592	13119	MAYTAG CORP	638539	70885	NATIONAL WESTMINSTER BANC
552653	27086	MCA INC	638612	84644	NATIONWIDE LIFE INSURANCE
579780	52090	MCCORMICK & CO INC	63934E	12503	NAVISTAR INTERNATIONAL CO
580037	64629	MCDERMOTT INC	628850	47773	NCH CORP
580135	43449	MCDONALD S CORP	628862	19537	NCR CORP
580169	26729	MCDONNELL DOUGLAS CORP	640808	66659	NERCO INC
580645	17478	MCGRAW HILL COS INC	650111	47466	NEW YORK TIMES CO
552673	50404	MCI COMMUNICATIONS CORP	651229	60986	NEWELL CO
581556	25646	MCKESSON CORP	651639	21207	NEWMONT MINING CORP
582834	19895	MEAD CORP	653520	24184	NIAGARA MOHAWK HOLDINGS I
584404	50972	MEDIA GENERAL INC	654106	57665	NIKE INC
585055	60097	MEDTRONIC INC	655664	57817	NORDSTROM INC
58551A	59379	MELLON BANK CORP	655844	64311	NORFOLK SOUTHERN CORP
587342	52821	MERCANTILE BANCORPORATION	656559	49752	NORTEK INC
587533	22891	MERCANTILE STORES CO INC	664161	58166	NORTHEAST SAVINGS F A
589152	52920	MERCHANTS NATIONAL CORP	664397	44206	NORTHEAST UTILITIES
589331	22752	MERCK & CO INC	98389B	23931	NORTHERN STATES POWER CO
589433	42796	MEREDITH CORP	665859	58246	NORTHERN TRUST CORP
589580	52944	MERIDIAN BANCORP INC	666807	24766	NORTHROP CORP
590188	52919	MERRILL LYNCH & CO INC	62945J	21485	NORTHWEST AIRLINES CORP
591908	68574	METROPOLITAN FINANCIAL CO	75952U	58393	NORTHWESTERN NATIONAL LIF
594563	53402	MICHIGAN NATIONAL CORP	668605	39300	NORTON CO
59780E	53891	MIDLANTIC CORP	949746	38703	NORWEST CORP
598130	53939	MIDWAY AIRLINES CORP	670346	34817	NUCOR CORP
601073	54181	MILLIPORE CORP	670768	66018	NYNEX CORP
604059	22592	MINNESOTA MINING & MANUFA	674599	34833	OCCIDENTAL PETROLEUM CORP
553107	51781	MNC FINANCIAL INC	676346	34841	OGDEN CORP

CNUM	PERMNO	COMPANY NAME
337932	23026	OHIO EDISON CO
677401	55642	OHIO MATTRESS CO
679833	59345	OLD KENT FINANCIAL CORP
680223	59396	OLD REPUBLIC INTERNATIONA
680293	59409	OLD STONE CORP
680665	13610	OLIN CORP
681919	30681	OMNICOM GROUP INC
68763F	75423	ORYX ENERGY CO
690020	20394	OUTBOARD MARINE CORP
690368	51457	OVERSEAS SHIPHOLDING GROU
69073F	24811	OWENS CORNING
690768	13661	OWENS ILLINOIS INC
691497	34948	OXFORD INDUSTRIES INC
377316	57154	P H GLATFELTER CO
693718	60506	PACCAR INC
694232	16870	PACIFIC ENTERPRISES
69331C	13688	PACIFIC GAS & ELECTRIC CO
694890	66026	PACIFIC TELESIS GROUP
695114	42833	PACIFICORP
695629	54463	PAINE WEBBER GROUP INC
697757	20984	PAN AM CORP
697926	22082	PANENERGY CORP
699216	32475	PARAMOUNT COMMUNICATIONS
701094	41355	PARKER HANNIFIN CORP
69351T	22517	PENNSYLVANIA POWER & LIGH
70931Q	35211	PENNZENERGY CO
709631	62034	PENTAIR INC
709789	78903	PEOPLES BANCORP INC
713448	13856	PEPSICO INC
038020	27713	PERKIN ELMER CORP
714275	62245	PERPETUAL FINANCIAL CORP
717081	21936	PFIZER INC
717265	17806	PHELPS DODGE CORP
693320	60679	PHH CORP
30161N	21776	PHILADELPHIA ELECTRIC CO
718154	13901	PHILIP MORRIS COS INC
718320	42753	PHILIPS INDUSTRIES
718507	13928	PHILLIPS PETROLEUM CO
718592	13936	PHILLIPS VAN HEUSEN CORP
745867	54148	PHM CORP
723484	27991	PINNACLE WEST CAPITAL COR
724479	24459	PITNEY BOWES INC
725701	18649	PITTSTON CO
693475	60442	PNC BANK CORP
731095	26438	POLAROID CORP
732827	56143	POPE & TALBOT INC
737628	49744	POTLATCH CORP
737679	23501	POTOMAC ELECTRIC POWER CO
693506	22509	PPG INDUSTRIES INC
740459	71001	PREMARK INTERNATIONAL INC
741130	64013	PRESTON CORP
741555	60337	PRIME COMPUTER INC
742718	18163	PROCTER & GAMBLE CO
743315	64390	PROGRESSIVE CORP
744573	23712	PUBLIC SERVICE ENTERPRISE
747402	24539	QUAKER OATS CO
747410	20183	QUAKER STATE CORP
747633	13354	QUANTUM CHEMICAL CORP
556139	12976	R H MACY & CO INC
257867	38682	R R DONNELLEY & SONS CO
750438	15560	RADIOSHACK CORP
751277	28353	RALSTON PURINA CO
754603	64346	RAYCHEM CORP
755111	24942	RAYTHEON CO
758110	91380	REEBOK INTERNATIONAL LTD
759458	77635	RELIANCE ELECTRIC CO
759464	70172	RELIANCE GROUP HOLDINGS I
760719	53938	REPUBLIC NEW YORK CORP
761339	77641	REVCO D S INC
761525	25988	REVLON INC
761682	75358	REXENE CORP
761695	66799	REYNOLDS & REYNOLDS CO
761763	18921	REYNOLDS METALS CO
76242T	39570	RHONE POULENC RORER INC
763408	11928	RICHFOOD HOLDINGS INC
766570	66967	RIGGS NATIONAL CORP
767754	46922	RITE AID CORP
774347	18948	ROCKWELL INTERNATIONAL CO
775371	23990	ROHM & HAAS CO
775422	25312	ROHR INC
781088	26884	RUBBERMAID INC
782352	47490	RUSSELL CORP
783549	27633	RYDER SYSTEM INC
783759	62682	RYKOFF SEXTON INC
783764	62383	RYLAND GROUP INC
786429	59440	SAFECO CORP

CNUM	PERMNO	COMPANY NAME	CNUM	PERMNO	COMPANY NAME
79549B	27596	SALOMON INC	853836	36775	STANDARD PRODUCTS CO
802183	66069	SANTA FE PACIFIC CORP	853887	72494	STANDARD REGISTER CO
803111	22840	SARA LEE CORP	854616	43350	STANLEY WORKS
804795	68938	SAVANNAH FOODS & INDUSTRI	33763V	36127	STAR BANC CORP
78387G	66093	SBC COMMUNICATIONS INC	857477	72726	STATE STREET BOSTON CORP
806605	25013	SCHERING PLOUGH CORP	857645	72769	STATESMAN GROUP INC
783890	68161	SCI SYSTEMS INC	858903	75422	STERLING CHEMICALS INC
808655	45671	SCIENTIFIC ATLANTA INC	861589	36978	STONE CONTAINER CORP
809877	18032	SCOTT PAPER CO	862099	77123	STOP & SHOP COS INC
811804	69607	SEAGATE TECHNOLOGY INC	862111	58464	STORAGE TECHNOLOGY CORP
784635	55212	SEALED POWER CORP	864278	73235	SUBARU OF AMERICA INC
812190	70180	SEAMEN S CORP	864635	79673	SUDBURY INC
812387	14322	SEARS ROEBUCK & CO	866005	51588	SUMMIT BANCORP
814823	60839	SECURITY PACIFIC CORP	86764P	14656	SUN CO INC
817320	72733	SEQUA CORP	866810	10078	SUN MICROSYSTEMS INC
817587	70077	SERVICE MERCHANDISE CO IN	867323	26454	SUNDSTRAND CORP
81760N	71116	SERVICEMASTER CO	867914	68144	SUNTRUST BANKS INC
784132	10683	SFFED CORP	867884	54471	SUPER FOOD SERVICES INC
820286	54412	SHAW INDUSTRIES INC	868536	44951	SUPER VALU STORES INC
820484	41081	SHAWMUT CORP	868443	37065	SUPERMARKETS GENERAL CORP
822703	26083	SHELL OIL CO	871829	52038	SYSCO CORP
824348	36468	SHERWIN WILLIAMS CO	874829	10944	TALMAN HOME FED SAV & LOA
826681	51764	SIGNET BANKING CORP	875080	66333	TAMBRANDS INC
832248	70923	SMITHFIELD FOODS INC	875370	74617	TANDEM COMPUTERS INC
833034	60206	SNAP ON INC	872275	10375	TCF FINANCIAL CORP
833663	70958	SOCIETY CORP	878895	74932	TECUMSEH PRODUCTS CO
833665	70966	SOCIETY FOR SAVINGS BANCO	879131	40061	TEKTRONIX INC
835495	71176	SONOCO PRODUCTS CO	87924V	75030	TELE COMMUNICATIONS INC
835714	22138	SOO LINE CORP	01741R	43123	TELEDYNE INC
841297	49437	SOUTHDOWN INC	879868	66114	TEMPLE INLAND INC
841338	55247	SOUTHEAST BANKING CORP	880370	26542	TENNECO INC
842587	18411	SOUTHERN CO	881609	37284	TESORO PETROLEUM CORP
843584	79550	SOUTHERN PACIFIC TRANSPOR	881694	14736	TEXACO INC
844730	71686	SOUTHTRUST CORP	210802	60388	TEXAS AIR CORP
844741	58683	SOUTHWEST AIRLINES CO	882491	40694	TEXAS INDUSTRIES INC
846104	71889	SOVRAN FINANCIAL CORP	882508	15579	TEXAS INSTRUMENTS INC
851783	44062	SPRINGS INDUSTRIES INC	873168	24563	TEXAS UTILITIES CO
852061	39087	SPRINT CORP	883203	23579	TEXTRON INC
852206	20079	SQUARE D CO	883556	62092	THERMO ELECTRON CORP
784687	71087	SSMC INC	884315	38578	THOMAS & BETTS CORP
790148	76123	ST JOE CO	885184	37640	THORN APPLE VALLEY INC
792860	59459	ST PAUL COS INC	887315	40483	TIME INC
853258	16715	STANDARD COMMERCIAL CORP	887360	40635	TIMES MIRROR CO

CNUM	PERMNO	COMPANY NAME
872540	40539	TJX COMPANIES INC
891092	60580	TORO CO
891490	61663	TOSCO CORP
892335	61065	TOYS R US INC
893349	19617	TRANS WORLD AIRLINES INC
893485	19051	TRANSAMERICA CORP
903369	46324	TRANSCON INC
894180	47300	TRAVELERS CORP
894650	75649	TREDEGAR CORP
896047	65787	TRIBUNE CO
896522	55001	TRINITY INDUSTRIES INC
89835J	76479	TRUSTCORP INC
872649	18681	TRW INC
900273	54287	TURNER CORP
338471	72792	TW SERVICES INC
902124	45356	TYCO INTERNATIONAL LTD
902252	76185	TYLER CORP
902494	77730	TYSON FOODS INC
91273H	66122	U S WEST INC
902549	19596	UAL CORP
904784	28310	UNILEVER N V
905530	14883	UNION CAMP CORP
905581	15659	UNION CARBIDE CORP
907818	48725	UNION PACIFIC CORP
908640	75193	UNION TEXAS PETROLEUM HOL
909214	10890	UNISYS CORP
909572	78466	UNITED BANKS OF COLORADO
911312	87447	UNITED PARCEL SERVICE INC
912605	25937	UNITED STATES SHOE CORP
913004	79303	UNITED STATIONERS INC
913017	17830	UNITED TECHNOLOGIES CORP
913353	47917	UNIVAR CORP
913456	16555	UNIVERSAL CORP
81725T	59619	UNIVERSAL FOODS CORP
915289	14891	UNOCAL CORP
91529Y	71175	UNUM CORP
915302	26681	UPJOHN CO
911905	28847	US AIRWAYS INC
903290	50956	USF&G CORP
903293	19131	USG CORP
902900	77789	UST CORP
902905	15069	USX CORP
918905	45225	VALHI INC
920003	80099	VALLEY NATIONAL CORP
920253	80128	VALMONT INDUSTRIES INC
92220P	27043	VARIAN ASSOCIATES INC
925524	75104	VIACOM INC
928347	71204	VISTA CHEMICAL CO
928869	22074	VONS COMPANIES INC
929160	15202	VULCAN MATERIALS CO
383883	25005	W R GRACE & CO
384802	52695	W W GRAINGER INC
931142	55976	WAL MART STORES INC
931422	19502	WALGREEN CO
254687	26403	WALT DISNEY CO
933696	46770	WANG LABORATORIES INC
934390	77080	WARNACO GROUP INC
934488	24678	WARNER LAMBERT CO
939322	81593	WASHINGTON MUTUAL INC
939640	53225	WASHINGTON POST CO
94106K	57381	WASTE MANAGEMENT INC
948774	75597	WEIRTON STEEL CORP
955465	41427	WEST POINT PEPPERELL INC
958102	66384	WESTERN DIGITAL CORP
960878	59467	WESTMORELAND COAL CO
961548	21186	WESTVACO CORP
961896	82705	WETTERAU INC
962166	39917	WEYERHAEUSER CO
929248	19238	WHEELING PITTSBURGH CORP
963320	25419	WHIRLPOOL CORP
967446	79745	WICKES COS INC
969133	82959	WILLAMETTE INDUSTRIES INC
974280	24803	WINN DIXIE STORES INC
977385	38375	WITCO CORP
982526	15472	WM WRIGLEY JR CO
981811	83601	WORTHINGTON INDUSTRIES IN
984121	27983	XEROX CORP
985509	59483	YELLOW CORP
989349	18067	ZENITH ELECTRONICS CORP

APPENDIX B
SUMMARY LIST OF HYPOTHESIS AND CORRESPONDING DATA SETS

APPENDIX B				
Hypothesis	**Prediction**	**DV**	**UOA**	**Sample**
1a	Holding the titles of Chairman of the Board, Chief Executive Officer, President, or Chief Operating Officer will increase the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, 1990-2001.	Sample 1
1b	Serving as an inside director on the home firm's board will increase the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, 1990-2001.	Sample 1
1c	Promotion to Inside Director, Chairman, Chief Executive Officer, or President / Chief Operating Officer will increase the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, or per CEO per year, 1990-2001.	Sample 1
1d	CEO dismissal decreases the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B CEO per year per outside board match	Sample 6
2	Women executives are more likely to serve on the boards of firms that have women as important stakeholders.	Board type (independent classification)	One observation per D&B executive per outside board	Sample 2

APPENDIX B				
Hypothesis	**Prediction**	**DV**	**UOA**	**Sample**
3a	Executives of manufacturing firms who join outside boards are more likely to accept directorships on manufacturing firms.	Board type (manufacturing vs. service)	One observation per D&B executive per outside board	Sample 2
3b	Executives of service firms who join outside boards are more likely to accept directorships on service firms	Board type (manufacturing vs. service)	One observation per D&B executive per outside board	Sample 2
4a	Executives with prestigious educational credentials are more likely to join an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, 1990-2001.	Sample 1
4b	Among executives who join outside boards, home firm prestige is positively associated with outside firm prestige.	Outside board prestige	One observation per D&B executive per outside board	Sample 2
4c	Executives with elite family prestige are more likely to join an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, 1990-2001.	Sample 1
4d	Among executives who join outside boards, elite family prestige is positively associated with outside firm prestige.	Outside board prestige	One observation per D&B executive per outside board	Sample 2

APPENDIX B				
Hypothesis	**Prediction**	**DV**	**UOA**	**Sample**
5a-1	A CEO retirement from the home firm increases the likelihood of outside board entry.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B CEO per year per outside board match	Sample 6
5a-2	A CEO retirement from the home firm increases the likelihood of outside board exit.	1/0: Exited vs. did not exit an outside board in the following year.	One observation per D&B executive per outside board affiliation per year, 1990-2001.	Sample 3
5b	A CEO retirement from the home firm when coupled with a relay succession increases the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B CEO per year per outside board match	Sample 6
5c	Among CEOs who retire from their home firm, staying on as a director in the home firm increases the likelihood of joining an outside board.	1/0: Joined vs. did not join an outside board in the following year.	One observation per D&B executive per year, 1990-2001.	Sample 1
6	Among executives who join outside boards, executive prestige is positively associated with the likelihood of multiple directorships.	Number of outside board affiliations	One observation per D&B executive serving at any time on at least 1 outside board.	Sample 4

APPENDIX B				
Hypothesis	**Prediction**	**DV**	**UOA**	**Sample**
7	Significant declines in prestige, either on the firm's side or the director's side, increases the likelihood of outside director exit	1/0: Exited vs. did not exit an outside board in the following year.	One observation per D&B executive per *Fortune 1000* outside board affiliation per year, 1990-2001.	Sample 5
8a	Changes in the internal power structure of the firm increases the likelihood of outside director exit.	1/0: Exited vs. did not exit an outside board in the following year.	One observation per D&B executive per *Fortune 1000* outside board affiliation per year, 1990-2001.	Sample 5
8b	CEO succession in the firm increases the likelihood of outside director exit.	1/0: Exited vs. did not exit an outside board in the following year.	One observation per D&B executive per *Fortune 1000* outside board affiliation per year, 1990-2001.	Sample 5
8c	Disruptive CEO succession in the firm (dismissal, forced retirement) increases the likelihood of outside director exit more than non-disruptive successions	1/0: Exited vs. did not exit an outside board in the following year.	One observation per D&B executive per *Fortune 1000* outside board affiliation per year, 1990-2001.	Sample 5

APPENDIX B		
Sample	**Description**	**Variables**
1	EVENT HISTORY DATASET This is the main hazard function dataset. It will be a discrete-time event-history dataset. Each D&B executive will be included in the dataset each year between 1990 and 2001, unless we know of the death of the executive. All independent variables will be updated each year, except those that are time-invariant like educational prestige or family prestige. The key dependent variable is coded 1/0, and indicates whether the executive joined one (or more) outside boards in the following year. This will establish temporal precedence. For example, all independent variables for 1990 will be coded as of fiscal year end 1990, but will predict whether the executive joined at least one outside board in 1991. Those who did not join an outside board during 1991 will be coded as censored. Note: Sample 1 tests hypothesis 1a; 1b; 1c; 4a; 4c; n= 57,776 observations	DV 0/1 – joined at least one outside board, versus did not join an outside board during the next year Key IVs H1a: Holding the title of the uppermost echelon in the organization. H1b: Promotion to the firm's board during the year H1c: Promotion during the year: we separately code promotion to President/COO, CH/CEO, and CEO to Chair H4a: Educational prestige H4c: Family prestige Control Variables Firm size Executive age Year of the observation Executive tenure as an officer Whether the executive is employed by his or her original home firm. Whether the home firm exists in the year of the observation.

APPENDIX B		
Sample	**Description**	**Variables**
2	CROSS SECTIONAL DATASET This dataset includes one observation per D&B executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset, covering the entire 10-year window of the dataset. Note: Test hypothesis 2; 3a; 3b; 4b; 4d n= 6,858	DV Type of outside board Key IVs H2 Types of board's women executives join. H3a;3b Types of boards executives join is dependent upon type of home firm. H4b Type of boards executives join is associated with prestige of the home firm H4d Type of boards executives join is dependent upon prestige of the executive

APPENDIX B		
Sample	**Description**	**Variables**
3	EVENT HISTORY DATASET This dataset is a subset of sample 1 and consists of only the firms top officer (CEO) who have served, or are serving, as an outside director. The dependent variable of interest is whether a given officer exits from his or her outside board position Note: Test Hypothesis 5a-2 n= 12,737	DV Exit or not an outside board seat-dichotomous IV CEO Retirement CEO Relay Succession CEO Retirement *Relay Succession Controls Exec age Home Firm Exec Tenure Firm Size Year of the observation

APPENDIX B		
Sample	**Description**	**Variables**
4	CROSS SECTIONAL DATASET This dataset is a subset of sample 2 and identifies only those executives who serve on multiple boards. There is only one observation per executive per year and identifies the year in which the executive joined more than one board. In case of multiple years, I keep only the year in which the executive served on the largest number of boards. n= 5,131	DV Multiple board- Yes =1 / No = 0 H6: Executives who join multiple boards are more prestigious than those who do not.

APPENDIX B		
Sample	**Description**	**Variables**
5	EVENT HISTORY DATASET Sample 5 consists of only those officers who joined and exited the boards of firms included in the original Fortune 1000 sample. The original Fortune 1000 sample consisted of those firms on the list in 1990. Each firm is tracked for the next 12 years collecting all officer and director data. This models board exits in the context of changes that occurred to both the home firm and the outside firm. Executives may be listed more than once in this sample if they hold more than one outside board position on another Fortune 1000 company. n= 8,042	DV 0/1 –exited at least one outside board during the observation period Key IVs H7: Firm prestige shifts H8a: Firm CEO retirement H8b: Firm CEO succession context H8c: Disruptive Firm CEO succession Controls Outside Firm Size Home Firm Size Executive age Home Firm Performance Outside Firm Performance

APPENDIX B		
Sample	**Description**	**Variables**
6	EVENT HISTORY DATASET This dataset is designed to model CEO succession in the executives home firm. It contains one observation per CEO per year. When a succession occurs the departing executive is tracked to the end of the sample window noting his or her age at exit. Additionally, the new CEO is monitored until another succession event occurs or the observation is censored at 2001. n= 9,734 Test hypothesis: 1d; 5a-1; 5b; 5c;	DV 0/1 – joined at least one outside board, versus did not join an outside board during the following year Key IVs H1d: Executive dismissal affects joining H5a-1: Executive retirement influences joining H5b: Relay succession influences joining H5c: Relay succession and staying on as director influences joining Controls Firm Size Executive age Executive exit from home firm Home firm exit during sample window Executive officer tenure at home firm

APPENDIX C

LIST OF UNIVERSITIES DESIGNATED AS PRESTIGIOUS

Utilized: Finkelstein, S. 1992. Power in Top Management Teams: Dimensions, Measurement, and Validation. ***Academy of Management Journal*** 35: 503-538.

Amherst College
Brown University
Carleton University
Cornell University
Dartmouth College
Grinnell College
Harvard University
Johns Hopkins University
Massachusetts Institute of Technology
New York University
Oberlin College
Pomona College
Princeton University
Stanford University
Swarthmore College
United States Military Academy
United States Naval Academy
University of California, Berkeley
University of California, Los Angeles
University of Chicago
University of Michigan
University of Pennsylvania
Wellesley University
Williams College
Yale University

APPENDIX D

LISTING OF SIC CODES BY TWO DIGIT CLASSIFICATION
Source (http://www.osha.gov/cgi-bin/sic/sicser5)

Agriculture, Forestry, And Fishing
Major Group 01: Agricultural Production Crops
Major Group 02: Agricultural Production Livestock And Animal Specialties
Major Group 07: Agricultural Services
Major Group 08: Forestry
Major Group 09: Fishing, Hunting, And Trapping

Mining
Major Group 10: Metal Mining
Major Group 12: Coal Mining
Major Group 13: Oil And Gas Extraction
Major Group 14: Mining And Quarrying Of Nonmetallic Minerals, Except Fuels

Construction
Major Group 15: Building Construction General Contractors And Operative Builders
Major Group 16: Heavy Construction Other Than Building Construction Contractors
Major Group 17: Construction Special Trade Contractors

Manufacturing
Major Group 20: - Food And Kindred Products
Major Group 21: Tobacco Products
Major Group 22: Textile Mill Products
Major Group 23: Apparel And Other Finished Products Made From Fabrics
Major Group 24: Lumber And Wood Products, Except Furniture
Major Group 25: Furniture And Fixtures
Major Group 26: Paper And Allied Products
Major Group 27: Printing, Publishing, And Allied Industries
Major Group 28: Chemicals And Allied Products
Major Group 29: Petroleum Refining And Related Industries
Major Group 30: Rubber And Miscellaneous Plastics Products
Major Group 31: Leather And Leather Products
Major Group 32: Stone, Clay, Glass, And Concrete Products
Major Group 33: Primary Metal Industries
Major Group 34: Fabricated Metal Products, Except Machinery And Trans. Equipment
Major Group 35: Industrial And Commercial Machinery And Computer Equipment
Major Group 36: Electronic And Other Electrical Equipment And Components, Except Computer Equip
Major Group 37: Transportation Equipment
Major Group 38: Measuring, Analyzing, And Controlling Instruments; Photographic,
Major Group 39: Miscellaneous Manufacturing Industries

Transportation, Communications, Electric, Gas, And Sanitary Services
Major Group 40: Railroad Transportation
Major Group 41: Local And Suburban Transit And Interurban Highway Passenger

Major Group 42: Motor Freight Transportation And Warehousing
Major Group 43: United States Postal Service
Major Group 44: Water Transportation
Major Group 45: Transportation By Air
Major Group 46: Pipelines, Except Natural Gas
Major Group 47: Transportation Services
Major Group 48: Communications
Major Group 49: Electric, Gas, And Sanitary Services

Wholesale Trade

Major Group 50: Wholesale Trade-durable Goods
Major Group 51: Wholesale Trade-non-durable Goods

Retail Trade

Major Group 52: Building Materials, Hardware, Garden Supply, And Mobile Home
Major Group 53: General Merchandise Stores
Major Group 54: Food Stores
Major Group 55: Automotive Dealers And Gasoline Service Stations
Major Group 56: Apparel And Accessory Stores
Major Group 57: Home Furniture, Furnishings, And Equipment Stores
Major Group 58: Eating And Drinking Places
Major Group 59: Miscellaneous Retail

Finance, Insurance, And Real Estate

Major Group 60: Depository Institutions
Major Group 61: Non-depository Credit Institutions
Major Group 62: Security And Commodity Brokers, Dealers, Exchanges, And Services
Major Group 63: Insurance Carriers
Major Group 64: Insurance Agents, Brokers, And Service
Major Group 65: Real Estate
Major Group 67: Holding And Other Investment Offices

Services

Major Group 70: Hotels, Rooming Houses, Camps, And Other Lodging Places
Major Group 72: Personal Services
Major Group 73: Business Services
Major Group 75: Automotive Repair, Services, And Parking
Major Group 76: Miscellaneous Repair Services
Major Group 78: Motion Pictures
Major Group 79: Amusement And Recreation Services
Major Group 80: Health Services
Major Group 81: Legal Services
Major Group 82: Educational Services
Major Group 83: Social Services
Major Group 84: Museums, Art Galleries, And Botanical And Zoological Gardens
Major Group 86: Membership Organizations
Major Group 88: Private Households

Public Administration
Major Group 91: Executive, Legislative, And General Government, Except Finance
Major Group 92: Justice, Public Order, And Safety
Major Group 93: Public Finance, Taxation, And Monetary Policy
Major Group 94: Administration Of Human Resource Programs
Major Group 95: Administration Of Environmental Quality And Housing Programs
Major Group 96: Administration Of Economic Programs
Major Group 97: National Security And International Affairs
Major Group 99: Non-classified

APPENDIX E

Table 1

Controversies in Social Capital

Issue	Contention	Problem
Collective or Individual Asset (Coleman, Putnam)	Social capital as a collective asset	Confounding with norms and trust
Closed or open networks (Bourdieu, Coleman, Putnam, Burt)	Group should be closed or dense	Vision of class society and abscense of mobility
Functional (Coleman)	Social capital is indicated by its effect on particular actions	Tautology (cause is determined by effect)
Measurement (Coleman)	Not quantifiable	Heuristic, not falsifiable

Table 2

Summary Event History Variables

	SAMPLE 1	SAMPLE 3	SAMPLE 5	SAMPLE 6
DV	Join a Board	Exit a Board	Exit a Board	Join a Board
IV	Social Register Edu Prestige Home Firm Dir CEO/Chair Pres / COO PromoteCeoCh PromotePrCoo Promote Dir	Retired Dismiss Relay	Firm Prestige Change Relative prestige Succession last 3 years X-CEO stay as Chair X-CEO stay as Director X-CEO Retire from firm X-CEO Dismissed	Dismiss Stay as Chair Stay as Dir Relay
CONTROLS	Firm Size Executive Age Company exit Officer Tenure Executive Exit	Firm Size Executive Age Company exit Officer Tenure	Firm Size Executive Age Firm ROA	Firm Size Executive Age Company exit Officer Tenure Executive Exit

Table 3

Summary Cross Sectional Variables

	SAMPLE 2	**SAMPLE 4**
DV	Female Mfg SIC Service SIC Education Prestige Home Firm Prestige Social Register	Number of Boards
IV	Mfg SIC Service SIC Outside Firm Prestige	Education Prestige Social Register

Table 4
Sample 1 - Variable Means, Standard Deviations, Ranges, and Correlation Coefficients

	Mean	s.d.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Join a Board	.21	.66	0	4															
2 Social Register	.02	.13	0	1	.028														
3 Edu Prestige	.35	.48	0	1	.071	.101													
4 Director	.20	.40	0	1	.266	.064	.053												
5 CEO/Chair	.10	.30	0	1	.267	.060	.068	.634											
6 President/COO	.06	.24	0	1	.167	.014	.033	.475	.441										
7 CEO to Chair	.00	.07	0	1	.083	.036	.020	.119	.214	-.008									
8 Promote Dir	.01	.08	0	1	.048	-.004	.004	.160	.026	.076	.013								
9 Promote CEO/CH	.01	.09	0	1	.088	.003	.013	.184	.284	.208	.017	.059							
10 Promote COO/Pr	.01	.08	0	1	.035	.001	.002	.137	.081	.310	-.003	.163	.085						
11 Home Firm Size	8.27	1.21	-2.63	12.24	.076	-.046	.085	-.073	-.057	-.070	-.010	.001	-.010	-.006					
12 Executive Age	59.14	7.96	31	102	-.026	.034	.043	-.031	-.013	-.114	.034	-.053	-.044	-.049	.125				
13 Home Executive Exit	.59	.49	0	1	-.114	-.005	.006	-.464	-.396	-.307	-.085	-.095	-.112	-.095	.109	.373			
14 Home Firm Exit	.17	.37	0	1	-.036	.023	.020	-.159	-.101	-.082	-.025	-.020	-.035	-.031	-.089	.060	.271		
15 Officer Tenure	13.88	7.96	1	61	.048	.068	.049	.245	.210	.071	.076	-.005	.021	.003	-.036	.398	-.081	-.063	
16 Firm Size* Exec Exit	4.45	4.29	-2.63	12.24	-.092	-.023	.014	-.429	-.368	-.285	-.079	-.087	-.105	-.089	.271	.402	.976	-.015	-.065

n = 57,776 Correlation coefficients greater than .011 or less than -.011 are significant at $p < .05$.

Note: This is a summary of all observations for all years over the entire study period (1990-2001), which equates to one observation for each executive for each year, subject to right censoring unless an executive died. Sample 1 consists of executives identified in Dun and Bradstreet *Corporate Reference Book of Management* in 1990 and also served as an officer at a 1990 *Fortune* 1000 firm. These executives (n=5,185) were traced for 12 years to identify all public outside directorship affiliations.

Table 5

Sample 3 - Variable Means, Standard Deviations, Ranges, and Correlation Coefficients

	Mean	Std. Dev.	Min	Max	1	2	3	4	5	6
1 Exit a Board	.17	.37	0	1						
2 Executive Age	61.00	6.12	39	85	.094					
3 Home Firm Size	8.42	1.13	1.44	12.07	.017	.082				
4 Officer Tenure	17.75	8.49	1	61	.032	.349	.010			
5 Relay	.26	.44	0	1	.085	.387	.037	.143		
6 Retired	.74	.44	0	1	-.056	.029	-.053	.145	-.261	
7 Retired * Relay	.14	.35	0	1	.065	.458	.056	.157	.686	.244

n = 12,737 Correlation coefficients greater than .020 or less than -.020 are significant at $p < .05$.

Note: This sample data set consists of those executives who are listed as the top officer at their firm and who during the sample window served on at least 1 outside board. The unit of analysis is the executive outside board year. The data set is limited to top officers to model retirements and investigates those who leave outside directorship positions. Executives are often listed more than once.

Table 6

Sample 5 - Variable Means, Standard Deviations, Ranges, and Correlation Coefficients

	Mean	Std. Dev.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Exit a Board	.11	.31	0	1															
2 Executive Age	62.12	6.49	33	91	.146														
3 Out Firm Size	8.39	1.19	1.44	12.24	-.006	.085													
4 Home Firm Size	8.82	1.34	1.44	12.24	-.009	.037	.162												
5 Home Firm ROA	3.56	8.49	-176.32	61.62	-.017	.037	.045	.127											
6 Out Firm ROA	3.90	7.81	-251.95	60.33	-.018	.002	.091	.018	.030										
7 Home Firm Prestige Change	-.01	.18	-3	2	-.005	.005	-.015	.093	.083	.003									
8 Out Firm Prestige Change	.01	.21	-3	2	.022	-.035	-.027	-.028	-.007	.018	.008								
9 Relative Prestige	-.06	.48	-3	3	.004	-.009	.260	-.110	-.060	.080	-.274	.202							
10 Home Firm Succession	.48	.50	0	1	-.049	.001	.086	-.015	-.055	-.012	-.022	-.010	.054						
11 Out Firm Succession	.37	.48	0	1	.034	-.006	.030	.000	-.008	-.052	-.007	-.046	.012	.013					
12 Out Firm XCEO Stay Ch	.11	.32	0	1	.036	.016	.015	.003	-.012	-.055	-.002	-.002	.021	.017	.469				
13 Out Firm XCEO Retired	.13	.34	0	1	.000	-.042	.035	.013	-.013	-.037	-.004	-.038	.017	.010	.516	-.141			
14 Out Firm XCEO Stay Dir	.12	.33	0	1	.016	.019	-.006	-.017	.013	.015	-.004	-.026	-.020	-.008	.484	-.133	-.146		
15 Home Firm XCEO Dismissed	.15	.36	0	1	-.029	-.066	.040	.004	-.070	.006	-.005	.002	.026	.438	.006	.005	.043	-.042	
16 Out Firm XCEO Dismissed	.09	.29	0	1	-.011	-.051	.025	.030	-.005	-.033	.003	-.041	.005	.005	.420	-.115	.815	-.119	.029

n = 9,704 Correlation coefficients greater than .022 or less than -.022 are significant at $p < .05$.

Note: This sample consists of only those officers who joined or exited the boards of other firms included in the original Fortune 1000 sample (n=9,704). This models board exits in the context of changes that occurred to the home firm and the outside firm. Executives may be listed more than once in this sample if they hold more than one outside board position on another Fortune 1000 company. However, there is only one observation for each executive, outside board, year affiliation.

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Table 7

Sample 6 - Variable Means, Standard Deviations, Ranges, and Correlation Coefficients

	Mean	Std. Dev.	Min	Max	1	2	3	4	5	6	7
1 Join a Board	.60	1.08	0	1							
2 Retired	.74	.44	0	1	.047						
3 Dismissed	.16	.36	0	1	-.065	-.698					
4 Relay	.26	.44	0	1	-.083	-.184	-.254				
5 Home Firm Size	8.20	1.21	-2.63	12.24	.085	-.024	.035	.036			
7 Executive Age	61.52	7.37	35	102	-.149	.044	-.060	.409	.063		
8 Home Company Exit	.17	.38	0	1	-.067	-.340	.404	-.029	-.153	.076	
9 Officer Tenure	18.3	9.16	0	1	-.092	.170	-.202	.172	.002	.402	-.124

n = 9,734 Correlation coefficients greater than .020 or less than -.020 are significant at $p < .05$.

Note: This data set consists of the top officer for each Fortune 1000 firm and investigates CEOs who join a board. The top officer (CEO) was selected to provide consistency with prior executive succession research. The unit of analysis is the CEO year.

Table 8

Sample 2 - Variable Means, Standard Deviations, Ranges, and Correlation Coefficients

	Mean	s.d.	Min	Max	1	2	3	4	5	6
1 Female	.01	.10	0	1						
2 Outside Firm Type	.66	.47	0	1	-.024					
3 Home Firm Type	.77	.42	0	1	.014	.127				
4 Home Firm Prestige	1.10	.35	1	4	-.023	-.013	.015			
5 Outside Firm Prestige	1.82	1.07	1	4	-.008	.144	-.027	.065		
6 Edu Prestige	.44	.50	0	1	-.039	-.011	.022	-.010	-.044	
7 Social Register	.03	.17	0	1	-.018	.014	.030	.031	-.022	.085

n = 6,858 Correlation coefficients greater than .025 or less than -.025 are significant at $p < .05$.

Note: This dataset includes one observation per D&B executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset.

Table 9

Sample 4 - Means, Std.Dev., Ranges, and Correlation Coefficients

	Mean	s.d.	Min	Max	1	2	3	4	5
1 Number of Boards	.24	.43	0	1					
2 Female	.02	.15	0	1	-.043				
3 Edu Prestige	.34	.48	0	1	.107	-.011			
4 Social Register	.02	.13	0	1	.058	-.021	.102		
5 Exec Age>62	.20	.40	0	1	.199	-.038	.059	.037	
6 Firm Size	8.11	1.17	4.23	12.16	.228	-.005	.114	-.037	.112

n = 5,131 Correlation coefficients greater than .030 or less than -.030 are significant at $p < .05$.

Note: This dataset is a subset of Sample 2 and identifies those executives who serve on multiple boards. There is only one observation per executive per year and retains the year in which the executive joined more than one board.

Table 10

Maximum Likelihood Estimates From Survival Time Regression

Dependent Variable is Join an Outside Board

Coefficients Represent Odds Ratio For Sample 1 [1,2]

	Model 1		Model 2	
Controls	**Odds Ratio**		**Odds Ratio**	
Home Firm Size	1.44***	(.02)	1.36***	(.02)
Executive Age	1.03***	(.00)	1.03***	(.00)
Executive Exit	3.31***	(.09)	1.16	(.23)
Home Company Exit	.00	(.39)	.03	(22.7)
Officer Tenure	1.03***	(.00)	1.01***	(.00)
Independent Variables				
Social Register			.75**	(.06)
Edu Prestige			1.11**	(.03)
Director			2.32***	(.09)
CEO / Chair			3.03***	(.13)
President / COO			1.43***	(.06)
CEO to Chair			1.25*	(.12)
Promote Director			1.02	(.10)
Promote CEO / Chair			.83*	(.06)
Promote President / COO			1.03	(.11)
Home Firm Size * Executive Exit			1.25***	(.03)
Log Likelihood	-2303.07		-893.13	
Model chi-square	4663.08***		7482.95***	
Pseudo R^2	.503		.807	

n=57,776
* p < .05
** p < .01
*** p < .001

[1] Odds ratios of less than 1 represent negative associations, while those larger than 1 represent positive associations
[2] Values in parenthesis are standard errors

Note: This equates to one observation for each executive for each year, subject to right-censoring unless an executive died. Sample 1 consists of executives identified in Dun and Bradstreet *Corporate Reference Book of Management* in 1990 and served as an officer at a 1990 *Fortune* 1000 firm. These executives (n=5,185) were tracked for 12 years to identify all public outside directorship affiliations.

Table 11

Maximum Likelihood Estimates From Survival Time Regression

Coefficients Represent Odds Ratio For Sample 3 [1,2]

Dependent Variable is Exit a Board

	Model 1	Model 2	Model 3	Model 4
Controls				
Executive Age	1.08***(.01)	1.06** (.01)	1.06** (.00)	1.07** (.00)
Home Firm Size	1.03 (.02)	1.02 (.02)	1.02 (.02)	1.03 (.02)
Officer Tenure	1.01* (.00)	1.01** (.00)	1.01** (.00)	1.00 (.00)
Independent Variables				
Retired		.60*** (.05)		
Relay			1.79*** (.09)	
Retired * Relay				1.44*** (.10)
Log Likelihood	-2231.25	-2190.71	-2176.59	-2217.26
Model chi-square	424.38***	505.47***	533.70***	452.36***
Pseudo R^2	.087	.103	.109	.093

n= 12,737
* p < .05
** p < .01
*** p < .001

[1] Odds ratios of less than 1 represent negative associations, while those larger than 1 represent positive associations
[2] Values in parenthesis are standard errors

Note: This sample data set consists of those executives who are listed as the top officer at their firm and who during the sample window served on at least 1 outside board. The unit of analysis is the top officer, outside board year. The data set is limited to top officers to model retirements and investigates those who leave outside directorship positions. Executives are often listed more than once

Table 12

Maximum Likelihood Estimates From Survival Time Regression

Coefficients Represent Odds Ratio For Sample 5 [1,2]

Dependent Variable is Exit a Board

	Model 1 Odds Ratio		Model 2 Odds Ratio		Model 3 Odds Ratio		Model 4 Odds Ratio		Model 5 Odds Ratio	
Controls										
Executive Age	1.16***	(.01)	1.16***	(.01)	1.15***	(.01)	1.16***	(.01)	1.16***	(.01)
Out Firm Size	1.00	(.03)	1.00	(.03)	1.05	(.03)	1.00	(.03)	1.00	(.03)
Home Firm Size	1.02	(.03)	1.02	(.03)	1.00	(.03)	1.02	(.03)	1.00	(.03)
Home Firm ROA	.99	(.00)	.99	(.00)	.99	(.00)	.99	(.00)	1.00	(.00)
Out Firm ROA	.99*	(.01)	.99*	(.01)	.98**	(.01)	.99*	(.01)	.99*	(.01)
Independent Variables										
Home Firm Prestige Change			.92	(.20)						
Out Firm Prestige Change			1.52**	(.23)						
Relative Prestige			.99	(.08)						
Home Firm Succession					.38***	(.03)				
Out Firm Succession					1.23**	(.09)				
Out Firm XCEO Stay Ch							1.56***	(.16)		
Out Firm XCEO Retired							1.01	(.12)		
Out Firm XCEO Stay Dir							1.15	(.13)		
Home Firm XCEO Dismissed									.92	(.11)
Out Firm XCEO Dismissed									.92	(.12)
Log Likelihood	-1205.48		-1199.62		-1062.32		-1189.8		-1146.16	
Model chi-square	543.03***		546.74***		704.06***		562.73***		536.38***	
Pseudo R^2	.184		.186		.251		.191		.190	

n= 8,042
* p < .05
** p < .01
*** p < .001
[1] Odds ratios of less than 1 represent negative associations, while those larger than 1 represent positive associations
[2] Values in parenthesis are standard errors

Note: This sample consists of only those officers who joined or exited the boards of other firms included in the original Fortune 1000 sample (n=9,704). This models board exits in the context of changes that occurred to the home firm and the outside firm. Executives may be listed more than once in this sample if they hold more than one outside board position on another Fortune 1000 company. However, there is only one observation for each executive, outside board, year affiliation

Table 13

Maximum Likelihood Estimates

Coefficients Represent Odds Ratio For Sample 6 [1,2]

Dependent Variable is Join a Board

	Model 1		Model 2		Model 3	
Controls	**Odds Ratio**		**Odds Ratio**		**Odds Ratio**	
Home Firm Size	1.31***	(.02)	1.35***	(.02)	1.36***	(.02)
Executive Age	1.06***	(.00)	1.05***	(.00)	1.05***	(.00)
Company Exit	.00	(.85)	.01	(3.66)	.03	(8.49)
Officer Tenure	1.00	(.00)	1.00	(.00)	1.00	(.00)
Independent Variables						
Dismissed			5.36***	(.43)		
Retired					.24***	(.01)
Relay					1.65***	(.11)
Log Likelihood	607.67		756.41		1020.66	
Model chi-square	650.95***		948.41***		1476.92***	

n= 8,042
* p < .05
** p < .01
*** p < .001

[1] Odds ratios of less than 1 represent negative associations, while those larger than 1 represent positive associations
[2] Values in parenthesis are standard errors

Note: This data set consists of the top officer for each Fortune 1000 firm and investigates CEOs who join a board. The top officer (CEO) was selected to provide consistency with prior executive succession research. The unit of analysis is the CEO, year.

Table 14

Table of Gender by Outside Firm Type

Frequency Percent Row Percent Column Percent	Outside Firm Type	
Gender	Manufacturing	Service
Male	4493 65.51 66.23 99.10	2291 33.41 33.77 98.58
Female	41 .60 55.41 .90	33 .48 44.59 1.42
Total	4534	2324

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	1	3.83	n.s.
Likelihood Ratio Chi-Square	1	3.67	n.s.

n= 6,858

Note: This dataset includes one observation per D&B executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset.

Table 15

Table of Home Firm Type by Outside Firm Type

Frequency Percent Row Percent Column Percent	Outside Firm Type	
Home Firm Type	Manufacturing	Service
Manufacturing	3664 53.43 69.41 80.81	1615 23.55 30.59 69.49
Service	870 12.69 55.10 19.19	709 10.34 44.90 30.51
Total	4534	2324

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	1	111.08	p<.001
Likelihood Ratio Chi-Square	1	107.98	p<.001

n= 6,858

Note: This dataset includes one observation per D&B executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset.

Table 16

Table of Home Firm Prestige and Outside Firm Prestige

Frequency Percent Row Percent Column Percent	Outside Firm Sales Rank Quartile			
Home Firm Sales Rank Quartile	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
First Quartile	2971 50.48 55.40 92.76	1081 18.37 20.16 89.56	557 9.46 10.39 90.13	754 12.81 14.06 87.98
Second Quartile	199 3.38 44.52 6.21	117 1.99 26.17 9.69	47 .80 10.51 7.61	84 1.43 18.79 9.80
Third Quartile	31 .53 44.29 .97	9 .15 12.86 .75	14 .24 20.00 2.27	16 .27 22.86 1.87
Fourth Quartile	2 .03 40.00 .06	0 .00 .00 .00	0 .00 .00 .00	3 .05 60.00 .35
Totals	3203	1207	618	857

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	9	44.28	p<.001
Likelihood Ratio Chi-Square	9	40.86	p<.001

n= 5,885

Note: This dataset includes one observation per D&B executive, per outside board affiliation. It is used to test hypotheses about the kinds of boards that executives join, and does not model likelihood functions of any kind. Conceptually, it is a cross-sectional dataset.

Table 17
Table of Executive Educational Prestige by Outside Firm Prestige

Frequency Percent Row Percent Column Percent	Outside Firm Sales Rank Quartile			
Attended a Prestigious University	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Yes	1696 35.52 58.14 46.35	559 8.41 19.16 40.10	314 4.73 10.76 42.72	348 5.24 11.93 40.61
No	1963 29.54 52.66 53.65	835 12.57 22.40 59.90	421 6.34 11.29 57.28	509 7.66 13.65 59.39

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	3	21.29	p<.001
Likelihood Ratio Chi-Square	3	21.34	p<.001

n= 6,645

Table of Executive Family Prestige by Outside Firm Prestige

Frequency Percent Row Percent Column Percent	Outside Firm Sales Rank Quartile			
Member of Prestigious Family	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Yes	112 1.69 61.2 3.06	36 .54 19.67 2.58	17 .26 9.29 2.31	18 .27 9.84 2.10
No	3547 53.38 54.89 96.94	1358 20.44 21.02 97.42	718 10.81 11.11 97.69	839 12.63 12.98 97.90

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	3	3.34	n.s.
Likelihood Ratio Chi-Square	3	3.45	n.s.

n= 6,645

Note: This dataset includes one observation per D&B executive, per outside board affiliation. Conceptually, it is a cross-sectional dataset.

Table 18

Table of Executive Educational Prestige by Multiple Boards

Frequency Percent Row Percent Column Percent	Number of Outside Boards					
Attend a Prestigious University	0 or 1	2	3	4	5	6
Yes	1220 23.78 69.16 31.48	196 3.82 11.11 42.06	121 2.36 6.86 36.89	109 2.12 6.18 50.46	56 1.09 3.17 46.28	35 .68 1.98 53.03
No	2656 51.76 78.88 68.52	270 5.26 8.02 57.94	207 4.03 6.15 63.11	107 2.09 3.18 49.54	65 1.27 1.93 53.72	31 .60 .92 46.97

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	11	80.69	p<.001
Likelihood Ratio Chi-Square	11	79.87	p<.001

n= 5,131

Table of Executive Family Prestige by Multiple Boards

Frequency Percent Row Percent Column Percent	Number of Outside Boards					
Member of Prestigious Family	0 or 1	2	3	4	5	6
Yes	52 1.01 57.14 1.34	13 .25 14.29 2.79	12 .23 13.19 3.66	7 .14 7.69 3.24	4 .08 4.40 3.31	2 .04 2.20 3.03
No	3824 74.53 75.87 98.66	453 8.83 8.99 97.21	316 6.16 6.27 96.34	209 4.07 4.15 96.76	117 2.28 2.32 96.69	64 1.25 1.27 96.97

Statistic	**DF**	**Value**	**Prob.**
Chi-Square	11	20.70	n.s.
Likelihood Ratio Chi-Square	11	18.34	n.s.

n= 5,131

Note: The dataset for these observations includes one observation per Dun & Bradstreet executive depicting the maximum number of boards that each executive served on during the sample window.

Table 19

Hypothesis Summary

Hypothesis	Prediction	Join a Board	Patterns of Service	Exit a Board
1a	Home Firm Title	+		
1b	Serving as Inside Director	+		
1c	Home Firm Promotion	mixed		
1d	CEO Dismissal	+		
2	Women on Boards		n.s.	
3a	Manufacturing Executives on Manufacturing Boards		+	
3b	Service Executives on Service Boards		-	
4a	Prestige Education	+		
4b	Home Firm Prestige and Outside Firm Prestige		+	
4c	Prestigious Family Connections	n.s.		
4d	Prestigious Family Connections and Outside Firm Prestige.		n.s.	
5a-1	Retirement			-
5a-2	Retirement	-		
5b	Retirement and Relay Succession	+		
5c	Retirement and Remain on Home Firm Board	+		
6	Prestige and Multiple Boards		mixed	
7	Prestige Declines			mixed
8a	Changes in Firm Internal power Structure (retirement)			n.s.
8b	CEO Firm Succession			mixed
8c	CEO disruptive Firm Succession			mixed

VITA

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Texas A&M University- College Station, Texas- Department of Management
Management 466- Strategic Management- 2002-2003
Management 309 - Survey of Management- 2001-2002
Management 461 - Entrepreneurship and New Venture Creation- 2000

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Louisiana Tech University- Ruston, Louisiana. Assistant Professor - Department of Management and Marketing Beginning Fall 2003

Texas A&M University-College Station, Texas. Research Assistant, Instructor - 1999-2003

Triten Corporation - Houston, Texas 1992-1999 / Vice-President General Manager TAPCO International 1996-1999 / Vice-President Operations 1992-1996.

Cooper Industries Houston, Texas 1981-1992 / Cooper Cameron Energy Services Group 1989-1992 -W.K.M. Division in Missouri City, Texas - Plant Manager / Manager of Operations- / Cooper Energy Services 1981-1989-Ajax-Superior Division in Springfield, Ohio - Manager Plant Operations / Materials Manager / Production Control Manager / Inventory Control Manager

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