Director Ownership, Corporate Performance, and Management Turnover

Sanjai Bhagat
University of Colorado at Boulder

Dennis C. Carey
Spencer Stuart

Charles M. Elson
University of Maryland Law School

1. Introduction

The corporate form has consistently proven to be a superior method of business organization. Great industrial economies have grown and prospered where the corporate legal structure has been prevalent. This organizational form, however, has not existed and served without flaw. The multiple problems arising out of the fundamental agency nature of the corporate relationship have continually hindered its complete economic effectiveness. Where ownership and management are structurally separated, how does one assure effective operational efficiencies? Traditionally, the solution lay in the establishment of a powerful monitoring intermediary — the board of directors, whose primary responsibility was management oversight and control for the benefit of the residual equity owners. To assure an effective agency, traditionally, the board was chosen by and comprised generally of the business's largest shareholders. Substantial shareholdership acted to align board and shareholder interests to create the best incentive for effective oversight. Additionally, legal fiduciary duties evolved to prevent director self dealing, through the medium of the duty of loyalty, and to discourage lax monitoring, through the duty of care. No direct compensation for board service was permitted.[1] By the early 1930's, however, in the largest public corporations, the board was no longer essentially the

dominion of the company's most substantial shareholders.

The early twentieth century witnessed not only the phenomenal growth of the American economy, but also the growth of those corporate entities whose activities comprised that economy. Corporations were no longer local ventures owned, controlled, and managed by a handful of local entrepreneurs, but instead had become national in size and scope. Concomitant with the rise of the large-scale corporation came the development of the professional management class, whose skills were needed to run such far-flung enterprises.[1] And as the capitalization required to maintain such entities grew, so did the number of individuals required to contribute the funds to create such capital. Thus, we saw

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[1] Coincident with the rise of a new managerial class, was the development of an educational system to train this group. The creation of the modern business school and collegiate business curriculum was a response to the need for the professional manager. A history of the Columbia University Graduate School of Business written in 1954 details this phenomenon:

> In the Wharton school, before the nineteenth century ended, business education began to shift in interest and emphasis from the general to the special, from the speculative to the practical, to the scientific, to the professional.
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> The remarkable spread of collegiate business education during the last forty years is not difficult to explain. It has been part and parcel of the growth and expansion of American economic activity. The increase in the number, in the size, and the complexity of business enterprises has given rise to progressive needs for better means and methods of supervision management, and control, as well as for highly specialized services designed to meet the requirements created by the division and the diversification of functions of the individual enterprise. Among all the needs of the business world, none has given greater concern than the need for a high grade of managerial personnel, competent to analyze problems as they arise and competent to cope with them promptly and successfully.
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> The main tasks of schools of business are (1) the training of technicians in fundamentals recognized as measurably common to a variety of businesses; and (2) the developing, in a carefully selected group of students, of an awareness of factors underlying policy and planning in business enterprise requiring the exercise of managerial responsibility and judgment.

THURMAN W. VAN METRE, A HISTORY OF THE GRADUATE SCHOOL OF BUSINESS COLUMBIA UNIVERSITY 6, 7, 9 (1954).

the rise of the large-scale public corporation — owned not by a few, but literally thousands and thousands of investors located throughout the nation. And with this growth in the size and ownership levels of the modern corporation, individual shareholdings in these ventures became proportionally smaller and smaller, with no shareholder or shareholding group now owning enough stock to dominate the entity. Consequently, the professional managers moved in to fill this control vacuum. Through control of the proxy process, incumbent management nominated its own candidates for board membership. The board of directors, theoretically composed of the representatives of various shareholding groups, instead was comprised of individuals selected by management. The directors' connection with the enterprise generally resulted from a prior relationship with management, not the stockholding owners, and they often had little or no shareholding stake in the company.[2]

Berle and Means, in their path-breaking book *The Modern Corporation and Private Property,* described this phenomenon of the domination of the large public corporation by professional management as the separation of ownership

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[2]*See* Elizabeth MacIver Neiva, *Are Directors Overpaid? What History Tells Us About Compensation, in* DIRECTORSHIP -- SIGNIFICANT ISSUES FACING DIRECTORS 2-6 (1996), Elson, Director Compensation, supra note 1, at 131.

and control.[3] The firm's nominal owners, the shareholders, in such companies exercised virtually no control over either day-to-day operations or long-term policy.[4] Instead control was vested in the professional managers who typically owned only a very small portion of the firm's shares.[5]

One consequence of this phenomenon identified by Berle and Means was the filling of board seats with individuals selected not from the shareholding ranks, but chosen instead because of some prior relationship with management. Boards were now comprised either of the managers themselves (the *inside directors*) or associates of the managers, not otherwise employed by or affiliated with the enterprise (the *outside* or *non-management directors*). This new breed of outside director often had little or no shareholding interest in the enterprise and, as such, no longer represented their own personal financial stakes or those of the other shareholders in rendering board service. However, as the shareholders' legal fiduciaries, the outside directors were still expected to expend independent time and effort in their roles, and, consequently, it began to be recognized that

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[3] *See* ADOLF A. BERLE & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY (1932).

[4] *See id.* at 3-6.

[5] *See id.*

they must now be compensated directly for their activities.[6]

The consequences of this shift in the composition of the board was to exacerbate the agency problem inherent in the corporate form. Without the direct economic incentive of substantial stock ownership , directors, given a natural loyalty to their appointing party and the substantial reputation enhancement and monetary compensation board service came to entail, had little incentive other than their legal fiduciary duties to engage in active managerial oversight. It may also be argued that the large compensation received for board service may have actually acted as a disincentive for active management monitoring, given management control over the director appointment and retention process.

Since the identification of this phenomenon, both legal and finance theorists have struggled to formulate effective solutions. Numerous legal reforms have been proposed, often involving such acts as the creation of the professional "independent director,"[7] the development of strengthened board fiduciary

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6 *See generally* Elson, *supra* note 1.

7 *See* Ronald J. Gilson & Reinier Kraakman, *Reinventing the Outside Director: An Agenda for Institutional Investors*, 43 STAN. L. REV. 863, 883-92 (1991) (calling for institutional investors to organize a core of professional directors who would sit on corporate boards to ensure effective management); Jayne W. Barnard, *Institutional Investors and the New Corporate Governance*, 69 N.C. L. REV. 1135, 1168-73 (1991) (recommending that institutional investors sit on the corporate boards to oversee daily activity); George W. Dent, Jr., *Toward Unifying Ownership and Control in the Public Corporation*, 1989 WIS. L. REV. 881, 896 (1989) (encouraging the use of professional directors to supervise day-to-day operations).

duties,[8] or the stimulation of effective institutional shareholder activism.[9] All, it

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8 Professor Cox has argued for the application of a stronger, more rigorous duty of care. *See* James D. Cox, *Compensation, Deterrence, and the Market as Boundaries for Derivative Suit Procedures*, 52 GEO. WASH. L. REV. 745, 762- 63 (1984). Other commentators suggested similar approaches. *See, e.g.*, Stuart R. Cohn, *Demise of the Director's Duty of Care: Judicial Avoidance of Standards and Sanctions Through the Business Judgment Rule*, 62 TEX. L. REV. 591, 595 (1983) (proposing a standard of reasonable care so that "the business judgment rule would resume its historical basis as a protection against hindsight evaluation of erroneous decisions, but would shed its protective role as a shield for all director action in the absence of fraud or other illegal behavior").

9 Indeed, much scholarly attention has been devoted to the "promise" of "institutional investor voice." Bernard Black, *Agents Watching Agents: The Promise of Institutional Investor Voice*, 39 UCLA L. REV. 811, 816 (1992). *See generally* ROBERT A.G. MONKS & NELL MINOW, POWER AND ACCOUNTABILITY 73-79 (1991) (noting that institutional investors closely monitor boards because of their desire to increase portfolio values and avoid "liability for breach of fiduciary duty"); Jayne W. Barnard, *Institutional Investors and the New Corporate Governance*, 69 N.C. L. REV. 1135, 1135 (1991) (examining the concept of shareholder advisory committees and the appropriate role of institutional investors in corporate governance); Bernard S. Black, *The Value of Institutional Investor Monitoring: The Empirical Evidence*, 39 UCLA L. REV. 895 (1992) (discussing the benefits institutional oversight could have on corporate performance); Richard M. Buxbaum, *Institutional Owners and Corporate Managers: A Comparative Perspective*, 57 BROOK L. REV. 1 (1991) (analyzing the transnational effects of institutional investments); John C. Coffee, Jr., *Liquidity Versus Control, The Institutional Investor As Corporate Monitor*, 91 COLUM. L. REV. 1277 (1991) (discussing the efficiency and development of institutional investors in the United States); Alfred F. Conard, *Beyond Managerialism: Investor Capitalism?*, 22 U. MICH. J.L. REFORM 117 (1988) (discussing the motivations of institutional investors and the prospective consequences of investor activism); George W. Dent, Jr., *Toward Unifying Ownership and Control in the Public Corporation*, 1989 WIS. L. REV. 881, 881 (1989) (analyzing the separation of ownership control and offering a solution to corporate governance); Ronald J. Gilson & Reinier Kraakman, *Reinventing the Outside Director: An Agenda for Institutional Investors*, 43 STAN. L. REV. 863, 863 (1991) (proposing a strategy for improving corporate governance through increased activity on the part of the institutional investors); Louis Lowenstein, *Why Managements Should (And Should Not) Have Respect for Their Shareholders*, 17 J. CORP. L. 1 (1991) (advising corporations on the proper relationships with shareholders); Thomas C. Paefgen, *Institutional Investors Ante Portas: A Comparative Analysis of an Emergent Force in Corporate America and Germany*, 26 INT'L LAW. 327 (1992) (suggesting that long-term financial strategies of institutional investors will increase effective board monitoring in American and German corporations); Edward B. Rock, *The Logic and (Uncertain) Significance of Institutional Shareholder Activism*, 79 GEO. L.J. 445 (1991) (analyzing the significance of increased shareholder activism); Robert D. Rosenbaum, *Foundations of Sand: The Weak Premises Underlying the Current Push for Proxy Rule Changes*, 17 J. CORP. L. 163 (1991) (addressing the underlying premise on calls for proxy reformation). For a contrary view on the effectiveness of institutional shareholder activism, see D. Gordon Smith, *Corporate Governance and Marginal Incompetence: Lessons from Kmart*, 74 N.C. L. REV. 1037 (1996).

seems have proven ineffective, as the passive board still flourishes.

Shareholders, mindful of disasters at General Motors, IBM, AT&T, Archer-Daniels-Midland, W.R. Grace, and Morrison Knudsen, are keenly aware of this problem.[10] Yet the solution may be simple and obvious. Traditionally,

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10 The effects of a derelict board are evidenced by the recent fortunes at a number of well-known American companies. The recent turmoil at General Motors, IBM, AT&T, Archer-Daniels-Midland, W.R. Grace, and Morrison Knudsen demonstrates the consequences of an inattentive board. Throughout its history, the GM Board was typically beholden to GM management with board meetings being little more than social gatherings in which the CEO's agenda was approved. After a long, steady decline during which GM's share of the American car market dropped from 52% to 35%, the GM Board finally took affirmative steps to improve the company's performance, including firing GM's CEO Robert Stempel. *See* John Greenwald, *What Went Wrong?*, TIME, Nov. 9, 1992, at 42, 44; *see also* Dana W. Linden et al., *The Cosseted Director*, FORBES, May 22, 1995, at 168; Kathleen Day, *GM's Move Symbolizes Wider Fight*, WASH. POST, Oct. 27, 1992, at Al (noting that "boards typically have been captive to the wishes of the company chairman," but that pressure has been mounting on the boards to assume a more proactive stance in the fulfillment of their duties).

In January 1993, IBM CEO John Akers was forced to resign amid sagging profits and lost market share. Preceding this resignation, IBM saw its worldwide market share drop from 30% in 1985 to 19% in 1991, its stock price lose half its value over a six-month period, was forced to make a 55% cut in its quarterly dividend, and recorded a $4.97 billion loss in 1992. *See* Carol J. Loomis, *King John Wears an Uneasy Crown*, FORTUNE, Jan. 11, 1993, at 44; Michael W. Miller & Laurence Hooper, *Signing Off: Akers Quits at IBM Under Heavy Pressure; Dividend Is Slashed; Outsiders Will Lead Search for New Chief Executive to Be a "Change-master,"* WALL ST. J., Jan. 27, 1993, at Al.

In 1997, C. Michael Armstrong replaced Robert Allen as AT&T's CEO. His appointment ended a year-long search that paralyzed the company at such a critical juncture. AT&T had problems replacing Robert Allen because he refused to specify exactly when he would step down. Many of AT&T's top executives left for better offers and because it was clear that they would never become CEO. During Allen's stormy nine-year tenure, AT&T lost market share, eliminated over 100,000 jobs, incurred billions of dollars in losses, and its directors were criticized as one of the most passive boards in corporate America. *See* John a. Byrne, *AT&T: How To Turn A Dud into A Dynamo*, BUS. WK., Dec. 8, 1997, at 95; Peter Coy, *AT&T Faces Hard Calls*, BUS. WK., Sept. 2, 1996, at 40; John J. Keller, *Outside In: How AT&T Directors Decided It Was Time for Change at the Top*, WALL ST. J., Oct. 20, 1997, at A1; Michael Meyer, *AT&T's New Operator? The Long Search for the Next Chief May Be Over*, NEWSWEEK, Oct. 27, 1997, at 47; Shaifali Puri, *Pay for Underperformance: The Problem with Stock Options*, FORTUNE, Dec. 8, 1997, at 52; Fred Vogelstein, *In Telecom, Bigger May No Longer Be Better; Joseph Nacchio Left a Top Job at AT&T for an Upstart. It Has Turned out to Be A Step Up*, U.S. NEWS & WORLD REPORT, Nov. 17, 1997, at 64.

Following a shareholder revolt resulting from damaging disclosures relating to a federal

antitrust investigation of the company, the Archer-Daniels-Midland board of directors in October 1995 announced that it would form a corporate governance committee consisting of several present board members to recommend possible changes in board structure. Angry institutional shareholders had withheld their votes for reelecting the board--resulting in board members being reelected with only 80% of the total vote. *See Archer-Daniels Faces Informal SEC Inquiry into Executive Pay*, WALL ST. J., Oct. 10, 1995, at C18; Thomas M. Burton & Richard Gibson, *ADM Director Ross Johnson Spouts Off on FBI Inquiry, Whitacre and Forgery*, WALL ST. J., Oct. 12, 1995, at A4; Kurt Eichenwald, *A Shareholder Rebellion: Investors Demand Answers from Archer-Daniels*, N.Y. TIMES, Oct. 19, 1995, at D1; Kurt Eichenwald, *Cheers, and Boos, at Archer-Daniels Meeting*, N.Y. TIMES, Oct. 20, 1995, at D2; Joann S. Lublin, *Is ADM's Board Too Big, Cozy and Well Paid?*, WALL ST. J., Oct. 17, 1995, at B1.

The governance committee recommended that the size of the board be reduced from its current size of 17 members to between 9-15 members and that a majority of the board members be outside directors. The committee defined an outside director as someone "who is not a current or former Archer-Daniels executive, has no material business or professional relationship with the company, has no close family relationship with the company's management and is not receiving compensation from the company other than as a director." Kurt Eichenwald, *Shift by Company Will Bring in More Outsiders*, N.Y. TIMES, Jan. 16, 1996, at D1. The committee also proposed a mandatory age 70 board retirement policy. *Id.* Additionally, the committee recommended that the directors' pension plan be eliminated and the board members be compensated 50% in company stock. *Id.*

On March 2, 1995, it was reported that J.P. Bolduc, W.R. Grace's president and CEO, had abruptly resigned following a long dispute with the former company chairman, Peter Grace. It had been alleged that Grace and his son had received substantial stipends from the company in addition to their regular salaries. Grace himself, in addition to his monthly consulting fee of $50,000, received $165,000 annually for nursing care, $200,000 for security guards, $30,000 for a full-time cook, and $74,500 to maintain a New York apartment largely for his family's personal use. Later, pressure from institutional shareholders forced the company to announce substantial changes in the structure of its board, including a reduction of the board's size, an age limit of 70 for directors, and the inclusion of six new outside directors. *See* PR NEWSWIRE, Feb. 2, 1995; PR NEWSWIRE, Mar. 2, 1995; James P. Miller et al., *Bad Chemistry: W.R. Grace Is Roiled by Flap Over Spending and What to Disclose, Departed CEO Makes Issue of the Chairman's Perks, Son's Use of Grace Funds*, WALL ST. J., Mar. 10, 1995, at Al; Joann S. Lublin, *Attempts to Banish Harassment Reach into Executive Suite, Action on Grace CEO Reflects Firms' Greater Willingness to Oust High Officials*, WALL ST. J., Mar. 31, 1995, at B4.

In 1992, Morrison Knudsen's chairman William Agee announced that he wanted to turn the construction company into a rail-car maker. The effort initially seemed successful; however, one year later, in July 1994, the company announced an unexpected second-quarter loss of $40.5 million and disclosed delays with various construction projects as well as with testing and delivery of new rail-cars. In early 1995, the company announced that it expected a substantial loss for 1994, was in default on its loan agreements, and would eliminate its dividend. Agee was then relieved of his duties, and it was disclosed that he had attempted to run the Boise, Idaho-based company from his Pebble Beach, California estate, flying in corporate vice presidents for weekly briefings. His 1993 compensation of $2.4 million amounted to 6.8% of MK's net income; the $4 million spent on Mr. Agee's jet equaled 13% of the general and administrative budget. Board resignations followed and eventually the entire

directors, as large shareholders, had a powerful personal incentive to exercise effective oversight. It was the equity ownership that created an effective agency. To recreate this powerful monitoring incentive, directors must become substantial shareholders once again. This is the theoretical underpinning behind the current movement toward equity-based compensation for corporate directors. The idea is to reunite ownership and control through meaningful director stock ownership and hence better management monitoring.[11] Underpinning this theory, however, is the assumption that equity ownership by directors does in fact create more active monitoring. In this paper, we attempt to demonstrate empirically a link between significant outside director stock

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board was replaced. *See* Carrie Dolan, *Morrison Knudsen Rail Plans Hurt by Unexpected Loss*, WALL ST. J., July 20, 1994, at A14; Joann S. Lublin, *Five More Big Companies to Stop Giving Pensions to Outside Members of Boards*, WALL ST. J., Feb. 12, 1996, at A2; *Morrison Knudsen Pact*, WALL ST. J., Oct. 27, 1993, at B14; *Morrison Knudsen Gets Contract*, WALL ST. J., Dec. 21, 1993, at C24; Joan E. Rigdon, *William Agee Will Leave Morrison Knudsen*, WALL ST. J., Feb. 2, 1995, at B1.

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For a full history and discussion of this theory, see Charles M. Elson, *The Duty of Care, Compensation, and Stock Ownership*, 63 U. CIN. L. REV. 649 (1995); Charles M. Elson, *Executive Overcompensation--A Board-Based Solution*, 34 B.C. L. REV. 937 (1993); Charles M. Elson, *Shareholding Directors Create Better Corporate Performance*, ISSUE ALERT, May 1996, at 3; Charles M. Elson, *Shareholding Directors Create Better Corporate Performance, in* DIRECTORSHIP--SIGNIFICANT ISSUES FACING DIRECTORS 7-1 (1996); Charles M. Elson, *Major Shifts Seen in Director Pay*, CORP. GOVERNANCE ADVISOR, May-June 1996, at 1; Charles M. Elson, *The Director as Employee of Management*, DIRECTORS & BOARDS, Spring 1996, at 34; Charles M. Elson, *Shareholding Non-Executives Should Limit Excessive Directors' Pay*, FIN. TIMES, July 28, 1995, at A2; Charles M. Elson, *Manager's Journal: Board Pay Affects Executive Pay*, CORP. BOARD, Mar.-Apr. 1994, at 7; Charles M. Elson, *Manager's Journal: A Board-Based Solution to Overpaid CEOs*, WALL ST. J., Sept. 27, 1993, at A22; Charles M. Elson, *Director- Owners Can Lower High Pay*, N.Y. TIMES, July 18, 1993, at F15; *see also* Dennis C. Carey et al., *How Should Directors Be Compensated?*, DIRECTORS & BOARDS, Special Report No. 1, 1996.

ownership, effective monitoring and firm performance.

The primary responsibility of the corporate board of directors is to engage, monitor, and, when necessary, replace company management. The central criticism of many modern public company boards has been their failure to engage in the kind of active management oversight that results in more effective corporate performance. It has been suggested that substantial equity ownership by the outside directors creates a personally-based incentive to actively monitor. An integral part of the monitoring process is the replacement of the CEO when circumstances warrant. An active, non-management obligated board will presumably make the necessary change sooner rather than later, as a poorly performing management team creates more harm to the overall enterprise the longer it is in place. On the other hand, a management dominated board, because of its loyalty to the company executives, will take much longer to replace a poor performing management team because of strong loyalty ties. Consequently, it may be argued that companies where the CEO is replaced expeditiously in times of poor performance may have more active and effective monitoring boards than those companies where ineffective CEO's remain in office for longer periods of time. An examination, therefore, of the equity-holding positions of the outside directors of the companies where CEO succession occurs more expeditiously and those where it does not, should provide some evidence

of the effect of equity ownership on management monitoring by outside directors.[12]

The remainder of the paper is organized as follows: The next section describes our sample and data for stock-ownership and compensation of board members *as a group*, and performance measures for our sample firms. Section three considers determinants of *stock* and *stock option* compensation for board members. Section four discusses the relation between director stock ownership and firm performance. Section five considers the relation between firm performance and CEO turnover. The subsequent section provides evidence on the impact of director ownership and firm performance on CEO turnover. The final section discusses some policy implications.

2. Sample and Data

A sample of about 1700 publicly-held U.S. companies was obtained from S&P's Execucomp database. This sample consists of the S&P 500 firms (for 1995), the S&P mid-cap 400 firms (for 1996), and the S&P small-cap 600 firms (for 1996).

Table 1 provides summary statistics on director compensation and

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[12]Two reports recently released by the National Association of Corporate Directors recognize the importance of director equity ownership and management monitoring. *See* NAT'L ASS'N OF CORP. DIRECTORS, REPORT OF THE NACD BEST PRACTICES COUNCIL: COPING WITH FRAUD AND OTHER ILLEGAL ACTIVITY (1998); NAT'L ASS'N OF CORP. DIRECTORS, REPORT OF THE NACD BLUE RIBBON COMMISSION ON CEO SUCCESSION (1998).

company size for the sample firms. The average annual director cash compensation (retainer) for our entire sample of 1724 U.S. companies is $16,300 for 1992, and increases to $18,300 in 1996.

The extant literature notes that firm-size is a significant determinant of CEO compensation, for example, see Jensen and Murphy (1990); hence it is possible that firm-size is also a significant determinant of director compensation.[13] We decided to partition our sample by firm-size: large, medium, and small-size firms. We partitioned our sample of 1724 firms into roughly three groups by firm-size (sales); firms in the top-third of sales were classified as *large* companies, and firms in the bottom-third of sales were classified as *small* companies. For 1996, firms with sales less than $0.5 billion were classified as small; firms with sales between $3.2 and $160 billion were classified as large.

The annual director cash compensation has experienced a secular increase during 1992-1996 for small and large firms. For small firms the cash compensation increased from $7,500 in 1992 to $10,700 in 1996. For large firms the cash compensation increased from $23,700 in 1992 to $26,700 in 1996. As Table 2 indicates, about 78 percent of our sample companies pay their directors additional cash compensation for attending various board and committee

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[13] M.C. Jensen and K.J. Murphy, "Performance Pay and Top-Management Incentives," *Journal of Political Economy* 98, 1990, 225-264.

meetings. The small companies have increased their per meeting cash compensation from $700 per meeting in 1992 to $900 per meeting in 1996 (Table 1, Panel B). This cash compensation per meeting for large firms has stayed about the same – at $1,000 per meeting during 1992-1996 (Table 1, Panel C). The number of board meetings for our sample firms has stayed roughly constant at 7.2 meetings per year during 1992-1996; small firms have less board meetings (6.5 per year) than large firms (8.1 per year) (Table 1).

Equity-based compensation is a feature of many board-compensation plans. The number of shares granted to a director has increased from 70 shares in 1992 to 120 shares in 1996 for our entire sample (Table 1, Panel A). For small firms, the number of shares granted doubled from 60 shares in 1992 to 110 shares in 1996. For large firms, the number of shares granted has increased from 110 shares in 1992 to 240 shares in 1996.

The number of stock-options granted to directors is significantly more than number of shares granted. The number of stock-options granted has increased from 1,550 in 1992 to 2,220 in 1996 for all firms in our sample (Table 1). The number of options granted to small-firm directors has remained roughly constant at 2,250 stock-options. The number of stock-options granted to large-firm directors has more than doubled from 410 stock-options in 1992 to 1,030 in 1996.

Table 3 details the summary statistics of the financial performance measures of our sample firms. The return on assets, ROA, of our sample firms has stayed roughly constant at 4% during 1992-1996. The return on assets is generally smaller for small-firms compared to large-firms.

The average annual stock-market returns for our sample firms is 21.64% for 1992, 25.21% for 1993, 0.97% for 1994, 29.76% for 1995, and 19.36% for 1997. These returns are rather high compared to historical norms in the U.S. stock market, but reflect the 1990s bull market in the U.S. The average five-year stock-market return is 9.89% for small-firms compared to 15.15% for large-firms. The higher stock-market return and ROA for large-firms vis-à-vis small firms is different from the historical comparative experience of large and small firms in the U.S. Historically, returns on small firms are generally higher than large firms; for example, see Fama and French (1992).[14]

3. Determinants of Director Compensation

As noted above, firm-size appears to be a determinant of director compensation. Jensen and Murphy (1990) have argued that stock-ownership is quite important in aligning the incentives of managers with that of shareholders,

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[14] E.F. Fama and K.R. French, "The cross-section of expected stock returns," 1992, *Journal of Finance* 47, 427-466.

and increasing the pay-for-performance sensitivity. An impressive set of recent papers suggest that stock-options might be even more relevant in aligning the incentives of managers with that of shareholders – see Hall and Liebman (1997), Baber, Janakiraman and Kang (1996), and Berger and Ofek (1997).[15]

Table 4, Panel A, summarizes regression results where the dependent variable is 1 if the company grants some shares to each director, and 0 otherwise. (Results of logit regression, not reported, are qualitatively identical.)

- The results suggest that *for each of the years, 1992-1996, large companies are more likely to compensate their directors with shares than small companies.*
- Also, for the years 1994, 1995, and 1996, there is a negative relation between granting of shares and the company's stock-market returns during the current and two previous years. *This suggests that during 1994, 1995, and 1996 – companies that underperformed the stock-market were more likely to grant shares to their directors.*
- Interestingly, there is no relation between granting of shares to directors in any of

[15] W. R. Baber, S. N. Janakiraman, and S. Kang, "Investment Opportunities and the Structure of Executive Compensation," 1996, *Journal of Accounting & Economics* 21, 297-318. P. G. Berger and E. Ofek, "Causes and Effects of Corporate Refocusing Programs," 1997, University of Pennsylvania working paper. B. J. Hall and J. B. Liebman, "Are CEOs Really Paid Like Bureaucrats?" 1997, Harvard University working paper.

the years 1992-1995 and subsequent stock-performance of the company.[16]

- Finally, we consider the relation between a company's growth opportunities and granting of shares to directors. We measure a company's growth opportunities as the ratio of the market value of the company's stock divided by the book value of the company's stock.[17] We find no significant relationship between granting of shares to directors and a company's growth opportunities.

Table 4, Panel B, summarizes regression results where the dependent variable is 1 if the company grants some stock options to each director, and 0 otherwise.

- The results suggest that *for each of the years, 1992-1996, large companies are less likely to compensate their directors with stock options than small companies.*
- There is no consistent and significant relation between the company's

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[16]Efficient market considerations would suggest no relation between future stock returns and any current observable event, such as, granting of shares to directors. An efficient market would impound the value consequences of such events, in this case – granting of shares, and incorporate them into the share price at the time the stock-market participants were first made aware of this event. We will also consider accounting performance measures, to partially address this concern.

[17]The literature suggests many more sophisticated ways of measuring a company's growth opportunities. However, evidence in Gaver and Gaver (1993), and Baber, Janakiraman and Kang (1996) suggests that our simple measure is not much inferior, if at all, to the more sophisticated measures. W. R. Baber, S. N. Janakiraman, and S. Kang, *id*. J. Gaver and K. Gaver, "Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies," 1993, *Journal of Accounting and Economics* 16, 125-160.

stock-market returns during the current and two previous years and whether or not the company grants stock options to its directors.

- There is a positive relation between granting of stock options to directors during 1992 and 1993 and subsequent stock-performance of the company. However, such a relation is not observed for 1994, 1995, or 1996.
- Finally, we find a significant positive relationship between granting of stock options to directors and a company's growth opportunities. In other words, *companies that have more growth opportunities are more likely to include stock options in their directors' compensation package*. While we observe this result for each of the years, 1992 through 1996, there is a suggestion in our data that this relationship is growing stronger with each year, that is, the relationship is stronger for 1993 compared to 1992 and so on. This result is even more interesting given the fact that we have already controlled for the effect of firm-size.

4. Director Ownership and Company Performance

Table 5 details share ownership (including and excluding options) of all (4874) the directors in 1993 for 449 US companies. About 200 of these 449 companies are the largest US companies, and the remaining are of smaller size. Share ownership of these 4874 directors was obtained from the 1994 proxies of these 449 companies.

Panel A of Table 5 summarizes the share ownership (including options) of these 4874 directors. The median number of shares owned is 10,000; the mean number of shares owned is 329,100. Median value of shares owned as percent of shares outstanding is 0.02%; the mean is 0.57%. These percentage director holdings are comparable to the findings of other authors, for example, Core, Holthausen, and Larcker (1998). [18] Also, all of the extant literature on director ownership and corporate performance has considered the percentage director holdings as the appropriate measure of director ownership. A central tenet of this paper is that to the extent that directors care about the dollar value of their holdings in a company – *it is the dollar value of the holdings of these directors that should be used to measure their ownership when considering the relation between director holdings and company performance*. [19] Panel A notes that the median value of shares owned by these directors is $228,000; the mean value is $10,203,100. Panel B notes the share ownership excluding options.

Panel C of Table 5 details share ownership of the *median* director. The median director is determined by rank-ordering (from low to high) the number of

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[18] Core, J.E., Holthausen, R.W., and D.F. Larcker, "Corporate Governance, Chief Executive Officer Compensation and Firm Performance," 1998, *Journal of Financial Economics* forthcoming.

[19] Of-course, percentage ownership of the directors becomes more relevant when considering corporate control transactions.

shares owned by all the directors in a particular company, and considering the share-ownership of the director that can cast the swing-vote to form a majority in a board. For example, if a board has 11 members, after the directors are ordered by their share-holdings, the sixth director would be the median director. The median number of shares owned by the 449 median directors is 10,000; the mean number of shares owned is 43,400. Median value of shares owned as percent of shares outstanding is 0.02%; the mean is 0.12%. the median value of shares owned by these directors is $231,600; the mean value is $1,530,700.

These median director holdings are also noted for small companies (1993 sales of less than $500 million, mid-size companies (1993 sales between $500 million and $3 billion), and large companies (1993 sales greater than $3 billion). As expected, the median percentage ownership of the median director decreases from 0.12% for the small companies to 0.02% for the mid-size companies, and 0.003% for the large companies. *The median dollar value of shares owned by the median director decreases from $393,100 for small companies to $252,800 for mid-size companies, and $153,400 for large companies.* Apparently, if we ignore the impact of a few large holdings, *directors on-average have invested more dollars in smaller companies than in large companies by more than a factor of two!* Panel D details the share ownership -- excluding options - of the median directors for all companies, and the companies broken down by size. The median dollar value of shares

owned, not including options, is similar across small, mid-size, and large firms, and is just over $100,000. This suggests, as our results did in Table 4, that ownership of options might play a critical role in understanding director compensation -- especially in smaller companies.

Table 6 presents regression results that relates percentage holding of the median director, the dollar value of the median director's stock holdings, and company performance for the 449 companies. Company performance is measured in four different ways in Panels A, B, C, and D: 3-year growth in operating income in Panel A, 3-year growth in sales in Panel B, ROE in Panel C, and stock returns in Panel D. Growth in operating income and growth in sales are less likely to be correlated with profitability at the firm level; however, across a large sample of firms, these growth measures should correlate with profitability.

The first two regressions in each of the Panels A through D consider the economic determinants of the median director's holdings both as percentage and dollar value. The third regression considers the relation between the median director's holdings both as percentage and dollar value and future company performance; for efficient market reasons noted above, no relation is expected with future stock return as the measure of performance. The following results are worth highlighting:

- The percentage and the dollar value of the median director's stock-holdings are less in companies that have a majority of outside directors on their board. This suggests that share ownership of directors and the composition of board (outsiders vis-à-vis insiders) are possibly substitute governance/monitoring mechanisms.
- *The dollar value of the median director's stock-holdings is positively related to the company's growth opportunities.* There is no relationship between the percentage of the median director's stock-holdings and the company's growth opportunities.
- *There is a positive relation between a company's prior performance and the dollar value of the median director's stock-holdings,* for all measures of performance except growth in operating income. There is no consistent relationship between the *percentage* of the median director's stock-holdings and the company's prior performance.
- Finally, *there is a positive relation between a company's future sales growth and the dollar value of the median director's stock-holdings.* There is a negative relation between a company's future sales growth and the percentage of the median director's stock-holdings. Such a significant relation is not observed for the other measures of performance.

5. Firm Performance and CEO Turnover

Table 7 indicates that of the 449 companies that we have director ownership data on, 1162 companies experienced CEO turnover during 19919-1997. News articles from *Lexis-Nexis* were read to determine probable cause for the CEO turnover. We are interested in CEO turnover as a result of disciplinary action initiated by the board related to poor performance. The Appendix contains two news articles each for CEO turnover classified as "retired," "older than 63," "resigned," and "no reason given." These news articles suggest that CEO turnover associated with "resigned" and "no reason given" are more likely to be disciplinary. We emphasize that not every CEO turnover in the "resigned" or "no reason given" category is disciplinary; we cannot be sure of the disciplinary nature of the turnover in every case because many of the press releases and news articles are unclear on this issue. Hence, to avoid too much subjectivity in our analysis, we decided to classify every CEO turnover associated with "resigned" and "no reason given" as disciplinary. Also, not every CEO turnover due to retirement is unrelated to possible disciplinary actin. We are assuming that CEO turnover associated with "resigned" and "no reason given" and *more likely* to be disciplinary, whereas CEO turnovers associated with retirements are *less likely* to be disciplinary.[20]

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[20] In econometric terms: We are biasing our tests in favor of the null hypothesis that CEO turnover, firm performance and board ownership are unrelated.

Table 8 indicates that firm performance measured prior to CEO turnover is quite poor when the turnover is due to a resignation or no reason is given in the news article. For example, the average 3-year stock return prior to CEO turnover classified as "resigned" or "no reason given" is 1.5%, compared to 16.7% for other firms in the same industry that did not experience a CEO turnover during 1991-1997. (The average 3-year stock return prior to CEO resignations is –0.4%, and 5.0% when no reason is given.)

6. Director Ownership, Firm Performance and CEO Turnover

Table 9 summarizes results of logit regressions relating CEO turnover to dollar value of median director's stock holding, percentage holding of median director, and company performance for 449 US companies during 1991-1997. Company performance is measured five different ways, all prior to the turnover year:

3-year growth in earnings per share

5-year growth in earnings per share

1-year stock return

3-year stock return

5-year stock return.

In Panel A, we consider CEO turnovers where the CEO resigned, or no

reason was given for the CEO's departure in the news article. We could consider the two somewhat different types of CEO turnovers separately, as we do in Panels B and C; however, this would reduce the sample size for turnover events in the logit regressions with a potential decrease in statistical significance of the coefficients. The negative coefficients for Company Performance *times* log of **Dollar Value** of Median Director's Holdings indicates that as the dollar value of the median director's holdings increases, given poor prior performance, there is an increasing probability of observing a disciplinary type CEO turnover. This result is statistically significant for four of the five firm performance measures: 3-year growth in earnings per share, 1-year stock return, 3-year stock return, and 5-year stock return. The insignificant coefficients for Company Performance *times* **Percentage** Holding of Median Director indicates that as the dollar value of the median director's holdings increases, given poor prior performance, there is no systematic change in probability of observing a disciplinary type CEO turnover.

Panels B and C consider CEO resignations, and "no reason given" separately. These results while consistent with those reported in Panel A, are statistically less significant. Panel D only considers the stock ownership of the directors (Panels A, B, and C include director ownership of stock and options); these results are consistent with the sign and statistical significance of the results reported in Panel A.

Table 10 provides summary statistics on CEO turnover, dollar value of median director's stock holding, percentage holding of median director, and company performance for 302 companies for which have the requisite data. [2] For firms with the worst performance (the prior 3-year stock return is less than -10%), there is a 61% probability of observing a disciplinary CEO turnover, compared to 25% for average performance (the prior 3-year stock return is between –10% and 10%), and 17% for good performance (the prior 3-year stock return is greater than 10%). Also, for firms with the worst performance (the prior 3-year stock return is less than -10%), the median dollar value of the median director's stock holding is $470,000 when a disciplinary turnover is observed, compared to $300,000 for such poorly performing firms that experienced no turnover.

The above results suggest that <u>*both*</u> *company performance and the dollar value of director stock ownership are relevant in understanding CEO turnover in poorly performing companies*. However, percentage ownership of the directors is not a statistically significant variable in understanding CEO turnover in poorly performing companies.

7. Policy Implications

The purpose of this paper has been to study the linkage between significant outside director stock ownership, effective monitoring and firm

performance. Through an examination of the impact of director equity ownership on general firm performance and, more specifically, CEO turnover in poor performing enterprises, we sought to understand this linkage. Our results were consistent with our initial hypothesis of a connection between substantial director share ownership and better monitoring. First, we found a significant correlation between the amount of stock owned by individual outside directors and firm performance (based on a variety of performance measures). Second, and more important for our analysis, we found that greater the dollar value of the individual outside director's equity-holdings in the enterprise, the more likely that one would witness a disciplinary-type CEO turnover in a poorly-performing company.

As for our first finding, that there appears to be a correlation between significant director stock ownership and heightened corporate performance, one explanation for this phenomenon would be that the equity ownership created better management monitoring on the part of the board and hence improved results. This would, of course, be consistent with our original hypothesis. There is, however, an alternative explanation that would counter our initial conclusion. It might be argued that the directors, possessing insider information about the company and its prospects, simply, in the case of a successful operation, increased their individual holdings to take advantage of the

company's anticipated success. This explains the hesitance on the part of the academic and professional communities to confirm that earlier studies on the linkage between director equity ownership and corporate performance clearly demonstrated a linkage between board equity possession and more effective monitoring.

It is, therefore, our second finding that has the greatest significance for the future and impact of director equity ownership. The fact that we have observed a correlation between the dollar amount of a director's personal equity holdings and the likelihood of a disciplinary-type CEO succession in a poorly performing company, is consistent with the hypothesis -- that the equity positions of the outside directors created the kind of heightened awareness among the board of the impact of an inadequate management team and that led to its early termination. While the empirical evidence we have gathered strongly suggests this linkage between substantial director stockholdings and better monitoring, the anecdotal evidence also seems to confirm our findings. One of the authors of this study served as a director of a major public corporation which, following a relatively short period of poor performance, replaced its CEO in a disciplinary succession. Each outside director at that company was both completely compensated for his or her service on the board in company stock and was required to purchase substantial amounts of company equity prior to board

service.[21]

What then is the significance of our findings? There is a probable correlation between substantial individual director equity-holding and better management monitoring. Whether this improved monitoring actually leads to better corporate performance or simply the replacement of a poorly-performing management team prior to a fatal consequence to the company's fortunes, should be the subject of future research. However, our findings lend research support to the movement for increased director equity ownership and provide the empirical basis for a board-focused legal reform currently being prepared.

In a recent report, the National Association of Corporate Directors' (NACD) Best Practices Council on Coping with Fraud and Other Illegal Activity proposed restructuring the traditional procedurally-based legal duty of care into a more aspirational equity-centered duty. Following the Delaware Supreme Court's ruling in *Smith v. VanGorkom*, while most director-decisionmaking was entitled to the protection of the business judgment rule, certain procedures were to be followed by a board to avail itself of that rule's protection. But as most commentators would agree, these procedures have led not to more effective management oversight but, instead, to a classic triumph of form over

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21 We are referring to the case of Sunbeam Corporation, and the recent CEO turnover in that company.

function--where, although prescribed procedure has been followed, decisionmaking appears to be little more than staged play-acting, absent critical engaged oversight. Consequently, the NACD Council suggested a new legal approach. Independent and disinterested directors with meaningful equity ownership would be entitled to a presumption that as directors they have acted as rational economic beings in their own economic interest and have consequently met their legal duty of care. Therefore, no longer would rote adherence to judicially-mandated decisionmaking procedures be the norm, but director decisionmaking and oversight based on proprietary interest--that board action in what was in the shareholders' best interest would become the rule. The duty of care for an equity-holding director would hence be more aspirational than litigation and procedure-centered, as ownership, rather than the threat of legal action, would create the desired behavior. Central, of course, to this recommendation is some kind of evidence that substantial director-equity ownership actually leads to better management monitoring. This paper provides such evidence.

While a direct causal linkage between director stockholdings and heightened corporate performance may only be tentatively suggested by our findings, it is clear that given the results of our CEO turnover analysis, better management monitoring and substantial board equity ownership are correlated.

Hence, empirical support for the notion of an equity-based director duty of care has been provided. This is why we believe that our results have such significance. The linkage between director equity ownership and heightened management monitoring will provide the basis for much needed reform in the legal arena governing director behavior. Board equity, we believe, will create the kind of effective boards that the shareholding public expects and demands.

Table 1: Director Compensation
Director compensation of 1724 US companies during 1992-1996.

Panel A: ALL companies

Year	Annual Director Payment ($1000s) Mean / Sample Size Min/25 /50/75 /Max *	Fees Per Meeting ($1000s) Mean / Sample Size Min/25 /50/75 /Max	Number of Board Meetings Mean / Sample Size Min/25 /50/75 /Max	Number Shares Granted (*1000s) Mean / Sample Size Min/25 /50/75 /Max	Additional Shares Granted (*1000s) Mean / Sample Size Min/25 /50/75 /Max	Number Options Granted (*1000s) Mean / Sample Size Min/25 /50/75 /Max	Additional Options Granted (*1000s) Mean / Sample Size Min/25 /50/75 /Max	Company Sales ($ Billions) Mean / Sample Size Min/25/50/75/Max
1992	16.3/1213 0/10.0 /16.0 /22.5/60.0	.9/1213 0/.5/1.0 /1.0/6.0	7.3/1193 1/5/7/9/24	.07/1213 0/0/0/0 /8.1	.05/1213 0/0/0/0 /10.0	1.55/1213 0/0/0 /1.0/476.7	1.65/1213 0/0/0/0 /84.0	2.4/1724 0/.195/.549/1.939/131
1993	16.6/1624 0/10.0 /16.0 /23.6/64.0	.9/1624 0/.5/1.0 /1.0/7.0	7.2/1598 1/5/6/9/30	.09/1624 0/0/0/0 /15.9	.07/1624 0/0/0/0 /39.7	1.46/1624 0/0/0 /1.5/100.0	2.07/1624 0/0/0/0 /95.0	2.5/1724 0/.240/.629/2.141/135
1994	17.4/1639 0/10.0 /18.0 /24.0/70.0	1.0/1639 0/.5/1.0 /1.2/7.0	7.2/1617 1/5/6/9/43	.10/1639 0/0/0/0 /15.9	.08/1639 0/0/0/0 /39.7	1.68/1639 0/0/0 /2.0/75.0	2.52/1639 0/0/0/0 /159.0	2.7/1724 0/.3/.7/2.4/152
1995	17.9/1608 0/10.0 /18.0 /25.0/80.0	1.0/1608 0/.7/1.0 /1.2/7.0	7.2/1582 1/5/7/9/27	.12/1608 0/0/0/0 /12.5	.08/1608 0/0/0/0 /20.0	1.89/1608 0/0/0 /2.0/50.0	2.64/1608 0/0/0/0 /150.0	3.0/1724 0/.29/.8/2.6/165
1996	18.3/1389 0/10.0 /18.0 /25.0/85.0	1.0/1389 0/.8/1.0 /1.3/7.0	7.2/1337 1/5/7/9/29	.12/1608 0/0/0 /.16/7.5	.09/1389 0/0/0/0 /35.0	2.22/1389 0/0/0 /2.5/100.0	4.56/1389 0/0/0/0 /2900	3.7/1395 0/.4/1.1/3.2/160

Min/25/50/75/Max : Minimum / 25th percentile / 50th percentile / 75th percentile / Maximum

Panel B: SMALL companies

Year	Annual Director Payment ($1000s) Mean Min /25/50 /75/Max	Fees Per Meeting ($1000s) Mean Min /25/50 /75/Max	Number of Board Meetings Mean Min /25/50 /75/Max	Number Shares Granted (*1000s) Mean Min /25 /50 /75 /Max	Additional Shares Granted (*1000s) Mean Min /25 /50 /75 /Max	Number Options Granted (*1000s) Mean Min /25 /50 /75 /Max	Additional Options Granted (*1000s) Mean Min /25 /50 /75 /Max	Company Sales ($ Billions) Min/Max /Sample Size

Year								
1992	7.5 0/0 /6.0 /12.0 /33.0	.7 0/0/.5 /1.0/4.0	6.5 1/4/6 /8/19	.06 0/0/0 /0/8.1	.05 0/0/0 /0/10.0	2.25 0/0/0 /2.2 /80.0	3.08 0/0/0 /0/75.0	0/.200/444
1993	8.1 0/0 /8.0 /12.0 /35.0	.7 0/0/.8 /1.0/5.0	6.5 1/4/6 /7/22	.08 0/0/0 /0/15.9	.12 0/0/0 /0/39.7	2.73 0/0/0 /3.0 /100.0	3.66 0/0/0 /2.25 /95.0	0/.240/430
1994	9.6 0/3.5 /10.0 /14.0 /50.0	.8 0/0/.8 /1.0/5.0	6.4 1/4/6 /8/19	.10 0/0/0 /0/15.9	.11 0/0/0 /0/39.7	2.56 0/0 /1.0 /4.0 /31.7	4.12 0/0/0 /3.55 /100.0	0/.300/461
1995	10.3 0/4.0 /10.0 /15.0 /50.0	.8 0/0/.8 /1.0/5.0	6.5 1/4/6 /8/27	.09 0/0/0 /0/5.0	.07 0/0/0 /0/20.0	3.27 0/0 /1.5 /5.0 /50.0	4.15 0/0/0 /4.0 /150.0	0/.300/437
1996	10.7 0/5.0 /10.0 /15.0 /50.0	.9 0/.5 /1.0 /1.0/5.0	6.5 2/4/6 /8/29	.11 0/0/0 /0/7.5	.04 0/0/0 /0/5.0	2.25 0/0 /1.2 /4.0 /100.0	12.72 0/0/0 /3.8 /2900	0/.400/324

Table 1: Director Compensation (continued)
Director compensation of 1724 US companies during 1992-1996.

Panel C: LARGE companies

Year	Annual Director Payment ($1000s)	Fees Per Meeting ($1000s)	Number of Board Meetings	Number Shares Granted (*1000s)	Additional Shares Granted (*1000s)	Number Options Granted (*1000s)	Additional Options Granted (*1000s)	Company Sales ($ Billions)
	Mean Min /25/50 /75/Max	Mean Min /25/50 /75/Max	Mean Min /25/50 /75/Max	Mean Min /25 /50 /75 /Max	Mean Min /25 /50 /75 /Max	Mean Min /25 /50 /75 /Max	Mean Min /25 /50 /75 /Max	Min/Max /Sample Size
1992	23.7 0/20 /24 /27.1/60	1.0 0/.9 /1.0 /1.2/3.5	8.1 1/6/8 /10/20	.11 0/0/0 /.1/5.4	.06 0/0/0 /0/3.4	.41 0/0/0 /0/30	.46 0/0/0 /0/15	1.9/130.6/434
1993	24.7 0/20 /24/30 /64	1.0 0/1.0 /1.0 /1.2/6.0	8.1 3/6/8 /10/24	.12 0/0/0 /.1/5.4	.07 0/0/0 /0/5.1	.68 0/0/0 /0/30	.71 0/0/0 /0/30	2.1/135.6/435

1994	25.8 0/20 /25/30 /70	1.1 0/1.0 /1.0 /1.3/6.0	8.1 2/6/8 /10/24	.13 0/0/0 /.2/2.2	.06 0/0/0 /0/3.6	.94 0/0/0 /1.0/50	.92 0/0/0 /0/30	2.4/152.2/424
1995	26.0 0/20 /25/30 /80	1.1 0/1.0 /1.0 /1.3/5.0	8.0 1/6/8 /10/18	.17 0/0/0 /.2/3.1	.09 0/0/0 /0/7.6	1.02 0/0/0 /1.0/16	1.32 0/0/0 /0/50	2.6/165.4/431
1996	26.7 0/20 /25.8 /30/85	1.0 0/1.0 /1.0 /1.5/5.0	8.1 2/6/8 /10/24	.24 0/0/0 /.4/2.8	.09 0/0/0 /0/4.0	1.03 0/0/0 /1.0 /16.7	1.08 0/0/0 /0/50	3.2/160.1/354

Table 2: Director Compensation
Director compensation of 1724 US companies during 1992-1996.

Panel A: ALL companies

Year	Fees Paid for Committee Meetings		Executive Directors Paid Director Compensation		Director Pension Plan	
	Yes Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %
1992	940/77.5	273/22.5	69/5.7	1144/94.3	382/31.5	831/68.5
1993	1241/76.4	383/23.6	87/5.4	1537/94.6	474/29.2	1150/70.8
1994	1266/77.2	373/22.8	83/5.1	1556/94.9	503/30.7	1136/69.3
1995	1248/77.6	360/22.4	67/4.2	1541/95.8	485/30.2	1123/69.8
1996	1086/78.2	303/21.8	53/3.8	1336/96.2	364/26.2	1025/73.8

Note: Number of firms under "Yes" and "No" do not sum to 1724 because of missing data.

Panel B: SMALL companies

Year	Fees Paid for Committee Meetings		Executive Directors Paid Director Compensation		Director Pension Plan	
	Yes Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %
1992	136/55.5	109/44.5	14/5.7	231/94.3	11/4.5	234/95.5
1993	214/57.4	159/42.6	20/5.4	353/94.6	19/5.1	354/94.9
1994	255/62.3	154/37.7	20/4.9	389/95.1	26/6.4	383/93.6
1995	211/61.2	134/38.8	14/4.1	331/95.9	19/5.5	326/94.5
1996	207/64.5	114/35.5	14/4.4	307/95.6	27/8.4	294/91.6

Panel C: LARGE companies

Year	Fees Paid for Committee Meetings		Executive Directors Paid Director Compensation		Director Pension Plan	
	Yes Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %	**Yes** Number of Firms /Sample %	**No** Number of Firms /Sample %
1992	326/88.1	44/11.9	14/3.8	318/96.2	218/58.9	152/41.1
1993	373/87.1	55/12.9	14/3.3	414/96.7	245/57.2	183/42.8
1994	360/84.9	54/13.0	13/3.1	401/96.9	257/60.6	157/37.9
1995	363/86.4	57/13.6	12/2.9	408/97.1	243/57.9	177/42.1
1996	293/83.2	59/16.8	8/2.3	344/97.7	153/43.5	199/56.5

Table 3: Company Financial Performance
Financial Performance of 1724 US companies during 1992-1996.

Panel A: ALL companies

Year	Return on Assets (%)	Net Income ($Millions)	One Year Stock Market Return (%)	Average Three Year Stock Market Return (%)	Average Five Year Stock Market Return (%)	Five Year Sales Growth (%)	Five Year Net Income Growth (%)
	Mean / Median / Sample Size	Mean / Median / Sample Size	Mean / Median / Sample Size	Mean / Median / Sample Size	Mean / Median / Sample Size	Mean / Median / Sample Size	Mean / Median / Sample Size
1992	4.04/4.07/1724	49.41/18.08/1724	21.64/10.39/1724	12.67/7.57/1724	12.19/9.29/1724	14.31/7.38/1724	9.18/0.00/1724
1993	3.92/4.04/1724	93.36/24.14/1724	25.21/13.56/1724	22.05/16.25/1724	13.02/11.16/1724	14.95/7.16/1724	12.73/0.00/1724
1994	4.15/4.38/1724	153.80/35.67/1724	.97/-.87/1724	10.27/6.61/1724	9.26/6.53/1724	15.06/7.89/1724	14.56/0.00/1724
1995	3.60/4.03/1724	166.17/37.11/1724	29.76/24.38/1724	12.66/10.09/1724	15.38/13.01/1724	15.16/8.99/1724	13.87/0.11/1724
1996	3.82/4.33/1395	240.04/54.50/1395	19.36/16.05/1395	11.78/11.20/1395	12.64/11.15/1395	15.26/10.15/1395	13.66/3.65/1395

Panel B: SMALL companies

Year	Return on Assets (%)	Net Income ($Millions)	One Year Stock Market Return (%)	Average Three Year Stock Market Return (%)	Average Five Year Stock Market Return (%)	Five Year Sales Growth (%)	Five Year Net Income Growth (%)
	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median
1992	2.95/5.06	4.59/5.07	25.42/0.00	12.22/0.00	9.21/0.00	23.68/8.02	14.04/0.00
1993	3.39/5.10	7.08/8.31	36.52/18.06	21.16/3.97	10.59/0.00	28.82/14.09	23.99/0.00
1994	1.97/4.74	7.53/8.93	-.61/-1.85	9.19/.17	7.85/0.00	27.28/16.00	22.89/0.00
1995	.37/2.10	3.68/4.43	32.38/14.00	10.68/3.36	12.36/0.00	22.18/13.62	13.39/0.00
1996	1.15/4.44	11.83/13.00	18.66/11.99	6.86/5.74	9.89/4.56	20.42/14.24	13.01/0.00

Panel C: LARGE companies

Year	Return on Assets (%)	Net Income ($Millions)	One Year Stock Market Return (%)	Average Three Year Stock Market Return (%)	Average Five Year Stock Market Return (%)	Five Year Sales Growth (%)	Five Year Net Income Growth (%)
	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median	Mean / Median
1992	3.69/3.51	121.1/145.7	14.60/11.02	10.34/10.11	13.17/13.39	8.21/6.29	5.53/0.00
1993	3.58/3.33	289.4/194.6	15.07/11.74	19.60/17.60	13.85/13.85	7.50/4.97	5.26/0.00
1994	4.51/3.85	506.2/278.2	1.49/.30	8.89/7.34	9.15/8.53	6.85/4.75	8.20/0.00
1995	4.52/4.22	544.6/303.6	32.87/30.53	13.62/12.45	16.88/15.72	8.92/5.94	11.14/1.86
1996	4.75/4.07	776.7/421.7	22.50/20.94	16.10/15.43	15.15/14.12	10.55/7.14	14.25/6.25

Table 4, Panel A
Director Stock Compensation Regressions
Dependent Variable is 1 if the company grants some shares to each director, 0 otherwise.

	1992	1993	1994	1995	1996
Current and Two Previous Years Stock Return	-5.42	-2.49	-11.91	-10.81	-11.86
	(-1.20)	(-.83)	(-2.53)	(-2.01)	(-1.98)
Year +1 Stock Return	-.66	-1.77	.39	1.22	-
	(-.30)	(-.67)	(.19)	(.43)	
Year +2 Stock Return	-.49	1.41	1.00	-	-
	(-.20)	(.80)	(.36)		
Company's Growth Opportunities	174	2	26	156	-145
	(1.04)	(-.13)	(.16)	(.85)	(-.75)
Company Size	.06	.06	.08	.08	.09
	(9.89)	(11.43)	(12.24)	(11.79)	(12.22)
F	20.8	27.2	31.7	35.2	50.9
Adjusted – R^2	.077	.076	.103	.092	.099
Sample size	1182	1595	1330	1353	1359

Table 4, Panel B
Director Stock *Option* Compensation Regressions
Dependent Variable is 1 if the company grants some stock options to each director, 0 otherwise.

	1992	1993	1994	1995	1996
Current and Two Previous Years Stock Return	8.89	-1.08	6.84	12.24	5.49
	(1.48)	(-.26)	(1.15)	(1.85)	(.80)
Year +1 Stock Return	5.33	12.5	2.86	-3.73	-
	(1.84)	(3.47)	(1.09)	(-1.06)	
Year +2 Stock Return	14.3	3.26	-3.52	-	-
	(3.41)	(1.36)	(-1.00)		
Company's Growth Opportunities	382	418	635	593	729
	(1.71)	(2.05)	(2.95)	(2.63)	(3.28)
Company Size	-.04	-.06	-.07	-.06	-.06
	(-5.90)	(-7.98)	(-8.13)	(-7.37)	(-7.09)
F	12.9	17.9	18.0	18.8	22.3
Adjusted – R^2	.048	.050	.060	.050	.045
Sample size	1182	1595	1330	1353	1359

Table 5: Share Ownership of 4874 Directors in 1993 for 449 US Companies

Panel A: Share Ownership (Including Options) of 4874 Directors

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	10.0	0.02	228.0
Mean	329.1	0.57	10,203.1
Maximum	93,400.0	76.25	7,823,625.7

Panel B: Share Ownership (Excluding Options) of 4874 Directors

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	5.0	0.01	125.5
Mean	298.5	0.49	9,505.1
Maximum	93,400.0	76.25	7,823,625.7

Panel C: Share Ownership (Including Options) of Median Director in 449 US Companies

All Companies

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	10.0	0.020	231.6
Mean	43.3	0.124	1,530.7
Maximum	1,788.8	2.76	273,729.4

Small Companies (122 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.2	0.00	3.1
Median	29.3	0.122	393.1
Mean	63.3	0.284	1,061.1
Maximum	641.4	2.76	16,401.5

Mid-size Companies (180 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	10.0	0.020	252.8
Mean	30.4	0.080	709.5
Maximum	511.1	1.90	8,325.6

Large Companies (145 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.2	0.00	6.4
Median	4.5	0.003	153.4
Mean	40.5	0.028	2,895.3
Maximum	1,788.8	1.40	273,729.0

Panel D: Share Ownership (Excluding Options) of Median **Director in 449 US Companies**

All Companies

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	5.0	0.01	119.5
Mean	31.0	0.08	1,297.0
Maximum	1,484.5	2.76	273,729.4

Small Companies (122 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	9.3	0.036	114.9
Mean	38.7	0.164	723.0
Maximum	641.4	2.76	15,284.3

Mid-size Companies (180 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	5.6	0.013	130.1
Mean	22.6	0.061	488.3
Maximum	511.2	1.90	8,325.6

Large Companies (145 companies)

	Number of Shares Owned *1000	Shares Owned as Percent of Shares Outstanding	Dollar Value of Shares Owned *$1000
Minimum	0.0	0.00	0.0
Median	3.5	0.002	107.8
Mean	33.4	0.023	2,710.5
Maximum	1,484.5	1.40	273,729.0

Panel E: Share Ownership (Including Options) of All Directors in 449 US Companies

	Number of Shares Owned *1000 **Summary Statistics for Min. /Median /Mean /Max. Number of Shares Owned in each of the 449 companies**				**Shares Owned as Percent of Shares Outstanding** Summary Statistics for Min./Median/Mean /Max. of Shares Owned as Percent of Shares Outstanding In each of the 449 companies				Dollar Value of Shares Owned * $1000 Summary Statistics for Min./Median/Mean/Max. of Dollar Value of Shares Owned in each of the 449 companies			
	Min.	Median	Mean	Max.	Min.	Median	Mean	Max.	Min.	Mean	Median	Max.
Median	0.4	10.0	97.5	503.9	0.00	0.02	0.18	0.98	10.9	231.6	1,930.8	12,459.8
Mean	2.5	43.3	349.7	2,117.6	0.01	0.12	0.71	3.95	46.7	1,530.7	11,963.7	71,595.1

Panel F: Share Ownership (Excluding Options) of All Directors in 449 US Companies

	Number of Shares Owned *1000 **Summary Statistics for Min./Median/Mean/Max. Number of Shares Owned in each of the 449 companies**				**Shares Owned as Percent of Shares Outstanding** Summary Statistics for Min./Median/Mean/Max. of Shares Owned as Percent of Shares Outstanding in each of the 449 companies				Dollar Value of Shares Owned * $1000 Summary Statistics for Min./Median/Mean/Max. of Dollar Value of Shares Owned in each of the 449 companies			
	Min.	Median	Mean	Max.	Min.	Median	Mean	Max.	Min.	Mean	Median	Max.
Median	0.1	5.0	56.5	320.8	0.00	0.01	0.11	0.61	2.7	119.5	1,221.2	7,825.0
Mean	0.8	31.0	318.5	1,986.1	0.00	0.08	0.62	3.58	18.3	1,297.0	11,335.6	69,122.7

Table 6

Regressions relating Percentage Holding of Median Director, Dollar Value of Median Director's Stock Holdings, and Company Performance for 449 US Companies (t-statistics in parentheses)

Panel A: Company Performance Measured as 3-year Growth in Operating Income

Independet Variable	**Dependent Variable**		
	Percentage Holding of Median Director in 1993	**Dollar Value of Median Director's Stock Holdings in 1993**	**Company Performance During 1993-1995**
Company's Growth Opportunities in 1993	-.00 (-.36)	.59 (4.65)	--
Company's Board Has A Majority of Outside Directors	-.001 (-3.63)	-1.33 (-6.59)	1.78 (.22)
Company Size	-.001 (-7.25)	-.04 (-.99)	-3.96 (-2.28)
Company Performance During 1990-1992	-.001 (-1.29)	.002 (.94)	--
Percentage Holding of Median Director in 1993	--	--	525 (.47)
Dollar Value of Median Director's Holdings in 1993	--	--	1.52 (.76)
Adjusted R^2	.141	.144	.011
F-statistic	19.1	19.4	2.2

Panel B: Company Performance Measured as 3-year Growth in Sales

Independet Variable	**Dependent Variable**		
	Percentage Holding of Median Director in 1993	**Dollar Value of Median Director's Stock Holdings in 1993**	**Company Performance During 1993-1995**
Company's Growth Opportunities in 1993	-.00 (-.44)	.56 (4.42)	--
Company's Board Has A Majority of Outside Directors	-.001 (-3.61)	-1.29 (-6.41)	-1.60 (-.68)
Company Size	-.001 (-7.05)	-.028 (-.64)	-4.13 (-8.20)
Company Performance During 1990-1992	-.001 (-.47)	.009 (2.17)	--
Percentage Holding of Median Director in 1993	--	--	-590.4 (-1.81)
Dollar Value of Median Director's Holdings in 1993	--	--	1.91 (3.30)
Adjusted R^2	.138	.151	.159
F-statistic	18.7	20.5	22.0

Table 6

(continued)

Panel C: Company Performance Measured as ROE

Independet Variable	**Percentage Holding of Median Director in 1993**	**Dependent Variable** **Dollar Value of Median Director's Stock Holdings in 1993**	**Company Performance During 1993-1995**
Company's Growth Opportunities in 1993	-.00 (-.78)	.56 (4.37)	--
Company's Board Has A Majority of Outside Directors	-.001 (-3.54)	-1.32 (-6.58)	-4.30 (-1.50)
Company Size	-.001 (-7.30)	-.062 (-1.46)	1.68 (2.76)
Company Performance During 1992	.001 (1.59)	.008 (2.24)	--
Percentage Holding of Median Director in 1993	--	--	-290.7 (-.74)
Dollar Value of Median Director's Holdings in 1993	--	--	-.03 (-.04)
Adjusted R^2	.143	.152	.018
F-statistic	19.4	20.6	2.98

Panel D: Company Performance Measured as 3-year Stock Return

Independet Variable	**Percentage Holding of Median Director in 1993**	**Dependent Variable** **Dollar Value of Median Director's Stock Holdings in 1993**	**Company Performance During 1993-1995**
Company's Growth Opportunities in 1993	-.00 (-.65)	.50 (3.86)	--
Company's Board Has A Majority of Outside Directors	-.001 (-3.52)	-1.28 (-6.40)	-2.53 (-.94)
Company Size	-.001 (-7.12)	-.05 (-1.13)	-.70 (-1.21)
Company Performance During 1990-1992	.00 (.55)	.010 (2.95)	--
Percentage Holding of Median Director in 1993	--	--	16.4 (.04)
Dollar Value of Median Director's Holdings in 1993	--	--	-.67 (-1.02)
Adjusted R^2	.139	.159	-.000
F-statistic	18.7	21.7	.89

Table 7
Reasons for CEO turnover in 449 US companies

	Deceased	Retired	Older than 63	Corporate Control	Resigned	No Reason Given	No Information	# of Turn-overs During this Year
1991			2			1		3
1992		1	2			1		4
1993		10	5		3	1	1	20
1994	2	21	5	1	9	4		42
1995		29	6		8	6	1	50
1996	1	11	6	1	9	6		34
1997		3	1		4	1		9
1991-1997	3	75	27	2	33	20	2	162

Table 8
Firm Performance and Reasons for CEO turnover in 449 US companies

Performance Measure	Control Group Mean/Median	Older than 63 Mean/Median	Retired Mean/Median	Resigned/No Reason Given Mean/Median
3 year % growth in EPS prior to turnover	16.4/3.2	10.8/7.5	9.8/0.0	2.6/0.0
5 year % growth in EPS prior to turnover	8.6/0.0	6.9/6.7	1.4/0.0	5.0/0.0
1 year % stock return prior to turnover	20.0/13.2	17.6/18.8	12.4/4.1	1.7/-3.6
3 year % stock return prior to turnover	16.7/13.6	17.8/13.6	12.9/11.9	1.5/5.9
5 year % stock return prior to turnover	12.5/11.2	17.9/17.7	10.9/11.4	5.4/4.4

Table 8 continued
Firm Performance and Reasons for CEO turnover in 449 US companies

Performance Measure	Resigned Mean/Median	No Reason Given Mean/Median
3 year % growth in EPS prior to turnover	3.3/0.0	1.3/0.0
5 year % growth in EPS prior to turnover	6.5/0.0	2.3/0.0

1 year % stock return prior to turnover	**-5.0/-4.2**	**13.9/17.4**
3 year % stock return prior to turnover	**-0.4/1.0**	**5.0/8.8**
5 year % stock return prior to turnover	**4.1/2.9**	**7.6/5.3**

Table 9

Logit regressions relating CEO turnover to Dollar Value of Median Director's Stock Holding, Percentage Holding of Median Director, and Company Performance for 449 US Companies (t-statistics in parentheses)

Panel A: The dependent variable is 1 if the CEO resigned or if no reason was given for the CEO's departure in the press release, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997.

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.001 (-1.94)	-.001 (-.95)	-.001 (-2.68)	-.003 (-3.71)	-.003 (-2.23)
Company Performance *times* **Percentage** Holding of Median Director	.012 (.77)	-.014 (-.48)	.007 (.66)	.022 (1.43)	-.030 (-.50)
Company Size	-.116 (-1.33)	-.114 (-1.30)	-.086 (-.95)	-.110 (-1.10)	-.100 (-1.09)
Intercept	-.22 (-.35)	-.23 (-.37)	-.38 (-.59)	-.03 (-.04)	-.08 (-.13)

Panel B: The dependent variable is 1 if the CEO resigned, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997.

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.001 (-1.55)	-.0002 (-.22)	-.001 (-2.44)	-.004 (-3.43)	-.003 (-1.78)
Company Performance *times* **Percentage** Holding of Median Director	.008 (.46)	-.041 (-.80)	-.024 (-.59)	.016 (.82)	-.086 (-.82)
Company Size	-.107 (-1.08)	-.11 (-1.13)	-.05 (-.50)	-.095 (-.81)	-.094 (-.91)
Intercept	-.68 (-.96)	-.68 (-.96)	-1.02 (-1.32)	-.52 (-.61)	-.53 (-.72)

Panel C: The dependent variable is 1 if no reason was given for the CEO's departure in the press release, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997.

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.001 (-1.37)	-.003 (-1.48)	-.000 (-.54)	-.002 (-1.76)	-.002 (-1.06)

Company Performance *times* **Percentage** Holding of Median Director	.016 (.79)	.019 (.60)	.009 (.82)	.024 (1.37)	-.001 (-.03)
Company Size	-.117 (-.91)	-.104 (-.82)	-.088 (-.65)	-.078 (-.55)	-.10 (-.75)
Intercept	-1.33 (-1.46)	-1.33 (-1.45)	-1.61 (-1.67)	-1.46 (-1.46)	-1.30 (-1.42)

Table 9 continued

Panel D: The dependent variable is 1 if the CEO resigned or if no reason was given for the CEO's departure in the press release, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997. *In Panels A, B, and C, director ownership refers to ownership of stock and options. In panel D, director ownership refers only to stock ownership.*

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.002 (-2.08)	-.002 (-1.76)	-.001 (-2.61)	-.003 (-3.75)	-.003 (-2.64)
Company Performance *times* **Percentage** Holding of Median Director	.011 (.69)	-.014 (-.39)	.007 (.71)	.023 (1.50)	-.030 (-.43)
Company Size	-.127 (-1.45)	-.126 (-1.44)	-.082 (-.86)	-.150 (-1.46)	-.127 (-1.51)
Intercept	-.12 (-.20)	-.08 (-1.44)	-.42 (-1.44)	.30 (.48)	.16 (.24)

Note:
The negative coefficients for Company Performance *times* log of **Dollar Value** of Median Director's Holdings indicates that as the dollar value of the median director's holdings increases, given poor prior performance, there is an increasing probability of observing a disciplinary type CEO turnover.

[1]The insignificant coefficients for Company Performance *times* **Percentage** Holding of Median Director indicates that as the dollar value of the median director's holdings increases, given poor prior performance, there is no systematic change in probability of observing a disciplinary type CEO turnover.

Table 10

CEO Turnover, Dollar Value of Median Director's Stock Holding, Percentage Holding of Median Director, and Company Performance for 302 US Companies during 1991-1997

CEO turnover: CEO resigned or if no reason was given for the CEO's departure in the press release. The "no turnover" firms are control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997.

	Performance Measure: 3-year Stock Return (*measured prior to turnover*)			
	Mean/Median			
	Less than –10%	-10% to 0%	0% to 10%	Greater than 10%
Turnover : Sample size	14	6	13	18
Turnover: Performance (%)	-25.4 /-23.9	-1.3/-.5	5.4/6.1	20.5/17.4
Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All directors considered in determining median director*	1.19/.47	.12/.11	1.01/.11	1.03/.42
Turnover: Percentage Holding of Median Director *All directors considered in determining median director*	.323/.086	.064/.054	.031/.004	.197/.040
Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All directors except the CEO considered in determining median director*	.75/.42	1.13/.10	.67/.09	.81/.29
Turnover: Percentage Holding of Median Director *All directors except the CEO considered in determining median director*	.208/.076	.061/.052	.027/.004	.124/.039
Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All outside directors considered in determining median director*	.30/.29	.11/.11	.45/.07	.22/.12
Turnover: Percentage Holding of Median Director *All outside directors considered in determining median director*	.001/.001	.001/.000	.000/.000	.000/.000
No Turnover : Sample size	9	23	34	88
No Turnover: Performance (%)	-21.4 /-15.9	-3.1/-2.7	6.2/6.1	29.8/25.1
No Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All directors considered in determining median director*	1.05/.30	1.69/.17	.43/.12	4.4/.19
No Turnover: Percentage Holding of Median Director *All directors considered in determining median director*	.272/.018	.241/.044	.064/.007	.123/.016

No Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All directors except the CEO considered in determining median director*	1.34/.27	1.14/.095	.319/.09	3.2/.17
No Turnover: Percentage Holding of Median Director *All directors except the CEO considered in determining median director*	.356/.018	.164/.024	.053/.007	.098/.012
No Turnover: Dollar Value of Median Director's Stock Holding ($Million) *All outside directors considered in determining median director*	.77/.14	.26/.07	.22/.07	2.9/.11
No Turnover: Percentage Holding of Median Director *All outside directors considered in determining median director*	.002/.000	.001/.000	.001/.000	.001/.000

Table 11

Logit regressions relating CEO turnover to Dollar Value of Median Director's Stock Holding, Percentage Holding of Median Director, and Company Performance for 449 US Companies (t-statistics in parentheses)

Panel A: The dependent variable is 1 if the CEO resigned or if no reason was given for the CEO's departure in the press release, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997. This table is similar to Table 9, Panel A with one exception: In Table 9, Panel A we considered *all* the directors in determining the median director. Here we consider all directors *except the CEO* in determining the median director.

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock Return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.001 (-2.02)	-.001 (-.97)	-.001 (-2.78)	-.003 (-3.77)	-.003 (-2.51)
Company Performance *times* **Percentage** Holding of Median Director	.015 (.84)	-.022 (-.58)	.012 (.90)	.027 (1.46)	-.025 (-.37)
Company Size	-.12 (-1.39)	-.11 (-1.32)	-.08 (-.94)	-.12 (-1.21)	-.093 (-1.03)
Intercept	-.16 (-.26)	-.22 (-.34)	-.38 (-.59)	.06 (.09)	-.11 (-.17)

Panel B: The dependent variable is 1 if the CEO resigned or if no reason was given for the CEO's departure in the press release, and 0 for the control firms (picked on basis of industry) that experienced no CEO turnover during 1991-1997. This table is similar to Table 9, Panel A with one exception: In Table 9, Panel A we considered *all* the directors in determining the median director. Here we consider all directors *except the inside directors* in determining the median director.

Independent Variables	**Performance Measure** (*measured prior to turnover*)				
	3-year Growth in EPS	5-year Growth in EPS	1-year Stock Return	3-year Stock Return	5-Year Stock Return
Company Performance *times* log of **Dollar Value** of Median Director's Holdings	-.001 (-1.81)	-.001 (-.95)	-.001 (-1.82)	-.003 (-3.45)	-.003 (-2.49)
Company Performance *times* **Percentage** Holding of Median Director	1.17 (.32)	-2.08 (-.33)	-4.50 (-.78)	2.57 (.82)	-3.49 (-.31)
Company Size	-.125 (-1.44)	-.118 (-1.34)	-.10 (-1.06)	-.127 (-1.30)	-.09 (-1.02)
Intercept	-.134 (-.21)	-.195 (-.31)	-.30 (-.46)	.10 (.14)	-.12 (-.20)

Note:

The negative coefficients for Company Performance *times* log of **Dollar Value** of Median Director's Holdings indicates that as the dollar value of the median director's holdings increases, given poor prior performance,

there is an increasing probability of observing a disciplinary type CEO turnover.
The insignificant coefficients for Company Performance *times* **Percentage** Holding of Median Director indicates that as the dollar value of the median director's holdings increases, given poor prior performance, there is no systematic change in probability of observing a disciplinary type CEO turnover.

[1] For a detailed discussion on the history of director compensation and its relationship to shareholder dominance of corporate boards, see Charles M. Elson, *Director Compensation and the Management-Captured Board: The History of a Symptom and a Cure*, 50 SMU L. REV. 127, 135-56 (1996) [hereinafter Elson, Director Compensation.

[2] In computing the dollar value and percentage holding of the median director, we consider three definitions of the median director: First, we consider all directors in determining the median director. Second, we consider all directors except the CEO in determining the median director. Finally, we only consider the outside directors in determining the median director. As shown in table 10, the results on the median director's stock holdings are qualitatively identical under any of these three definitions of median director. Also, Table 11 reports logit regression results similar to the logit regressions in Table 9, Panel A, except we use the latter two definitions of median director; the results are identical to that in Table 9, Panel A.