THE EMERGENCE AND CONSEQUENCES OF STOCK-BASED COMPENSATION IN THE CONTEMPORARY FIRM: AN INSTITUTIONAL APPROACH TO THE ORGANIZATIONAL FOUNDATIONS OF INEQUALITY

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This dissertation explores the ways in which institutional organizational theory can enhance our understanding of how organizational structures that shape social inequality emerge, diffuse, and persist over time. More specifically, in three distinct papers, I examine the institutionalization of stock-based compensation practices in the contemporary global economy and the implications of these practices for broader patterns of income and wealth inequality. The first paper connects recent theories of managerial power to neoinstitutional theory in order to examine changes to executive stock option practices in the wake of the recent corporate scandals. In the second paper, I analyze how broad-based stock option practices are transferring from the US to India as technology production becomes more global. Finally, the third paper focuses directly on the consequences of employee ownership by analyzing variation in patterns of access to, and wealth generated by, different types of broad-based stock compensation for different demographic groups. Taken together, the three papers constitute a general inquiry into the emergence of stock-based compensation in the global economy and the consequences for inequality, and reveal how institutional organizational theory can provide important and novel insights into the structuration of new forms of wealth accumulation and stratification within contemporary capitalism.

BIOGRAPHICAL SKETCH

Edward J. Carberry is a Ph.D. student in the Department of Sociology at Cornell University. He received a Bachelor of Arts in History from Bates College in 1991. Prior to graduate school, he was Director of Research at the National Center for Employee Ownership in Oakland, California, for over eight years. His academic areas of specialization include the sociology of organizations and work, economic sociology, and social stratification. His research interests focus on employee ownership, the decentralization of authority within contemporary capitalist organizations, corporate governance, and the intersection of organizations and inequality.

This dissertation is dedicated to the memory of my father, Joseph P. Carberry, who endured with extreme grace the painful symptoms of Parkinson's Disease and ultimately succumbed to the disease during my tenure in graduate school. His intelligence, humor, lack of tolerance for economic injustice, and deep respect for others have guided me in all of my pursuits, both academic and otherwise. It is also dedicated to my mother, Katherine A. Carberry, whose strength and endurance in the face of my father's ordeal was a source of great inspiration, and whose support for all of my endeavors has been unconditional and ceaseless.

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CHAPTER 1

INTRODUCTION

One of the most neglected and undertheorized areas of research in sociology exists at the intersection of organizations and social stratification. Despite the increasing sophistication of work in both of these subdisciplines, connections between the two are rare. The literature on stratification, for example, provides an incomplete view of how organizational-level forces such as reward systems, opportunity structures, and how organizations place employees within these structures shape wealth and income outcomes (Baron, 1994). Moreover, this literature has continued to neglect how these organizational-level structures and processes are themselves shaped by broader organizational field level processes that have been the primary analytical foci of institutional organizational theory, despite calls for such integration made by Baron and Cook (1992). Likewise, a large body of institutional research has examined the multiple mechanisms shaping the institutionalization of a diverse range of organizational practices (e.g., Tolbert and Zucker 1983, Cole 1985, Ruef and Scott 1998, Rao and Sivakumar 1999), but have seldom examined how practices that drive inequality outcomes, such as executive compensation, employee ownership, and workplace authority structures become institutionalized. Since it is likely that the institutionalization of organizational practices that shape the allocation of important economic and social resources is subject to active contestation by a number of organizational and field-level actors, the neoinstitutional theoretical framework, and particularly more recent work that has forged deeper theoretical connections between institutional organizational theory and social movement theory, is well-positioned to provide a deeper understanding of how these practices diffuse, become challenged, and persist or become deinstitutionalized over time. Such an understanding is essential

for enhancing our views of the fundamental ways in which social inequality is shaped by organizations.

The goal of this dissertation is to explore the ways in which institutional organizational theory can enhance our understanding of how new organizational structures that shape social inequality emerge, diffuse, and persist over time. More specifically, in three distinct papers, I examine the institutionalization of stock-based compensation practices in the contemporary global economy, and the implications of these practices for broader patterns of income and wealth inequality. Stock-based compensation includes a number of different mechanisms through which employees and managers acquire stock of their employing companies. These mechanisms are all malleable, and corporations have a great deal of flexibility in terms of deciding how and which employees receive stock, as well as the amount of stock that is allocated to different employees. Although worker cooperatives have existed since the 19th century and a broad strata of executives have received stock as part of their compensation since the 1950s, it was not until the late 1980s that stock became a primary component of executive compensation and two new forms of stock-based compensation that included broad groups of nonmanagement employees (i.e., employee ownership) began to diffuse widely: employee stock ownership plans (ESOPs) and broad-based stock option plans (BBSOPs). Since stock-based compensation broadens corporate ownership and how financial returns of this ownership are distributed, its spread likely has important consequences for income and wealth inequality. Therefore, understanding the ways in which these practices are structured and diffuse, and the forces shaping their persistence or transformation over time, will provide important and novel insights into new forms of wealth accumulation and stratification within contemporary capitalism. The three papers that comprise this dissertation all aim to demonstrate this potential.

The first paper, "Executive Stock Options After the Scandals: Exploring Challenges to Legitimacy and the Dynamics of Institutional Persistence," connects recent theories of managerial power (Bebchuk and Fried 2004) to neoinstitutional theory in order to examine changes to executive stock option practices in the wake of the recent corporate scandals. The scandals generated substantial challenges to the legitimacy of executive compensation practices, and in particular, executive stock options. This setting provides an excellent one for analyzing the forces shaping the persistence or transformation of a form of stock-based compensation that drove the substantial escalation in executive compensation during the 1990s. Using archival panel data of executive compensation at the S&P 500 between 2001 and 2005, this paper examines the conditions under which these challenges led to changes in the levels of different components of executive compensation. The findings reveal that during this period, corporations facing investigations for corporate fraud and shareholder activism provided executives with less valuable stock option grants. In addition, CEOs faced constraints in their power to extract rent through their compensation arrangements, and independent directors wielded substantial influence over executive compensation. However, the results also suggest that these changes were short-lived and that the postscandal challenges to the legitimacy of executive stock options did not lead to substantive changes in the corporate governance structures that determine executive compensation practices.

In the 1990s, executives were not the only occupational group who received stock options. The economic prosperity of this period was driven in large part by the rise of a dynamic and innovative high-tech sector, particularly a diverse group of industries based in the Silicon Valley of California. One of the most important organizational innovations pioneered by these companies was their very liberal grants of stock options to most or all nonmanagement employees (Saxenian 1996, Blasi and

Kruse 2003). By the end of the 1990s, the practice had become deeply institutionalized within the technology sector, but high-tech production began to move overseas to cheaper labor markets such as India. In the second paper, "Exploring the Limits of Convergence in the Global Technology Sector: The Institutionalization of Employee Stock Options in India and the United States," I examine how broad-based stock option practices are transferring from the US to India as technology production becomes more global. The cross-cultural setting is particularly useful for illuminating the organizational and environmental conditions that shape the diffusion of stock compensation practices more generally. Using data I collected in interviews conducted with managers and consultants in the Indian software industry, the results indicate that although ESOs diffused among Indian software companies during the late 1990s, Indian companies did not grant stock options as deeply within their organizational hierarchies as did technology companies in the U.S. The findings reveal how labor market conditions, cultural perceptions of stock ownership and consumption, and human resource professionals shaped the translation of ESOs within the Indian context. This paper thus demonstrates the role of institutional, cultural, and economic environments in shaping how specific actors interpret the meaning of organizational practices in the process of translation, as well as how practice that structure patterns of wealth distribution in the global economy become institutionalized.

The first two papers focus specifically on the process of institutionalization of specific stock-based compensation practices and assume, but do not directly demonstrate, that these practices have measurable consequences on employee outcomes. The third paper, "Who Benefits from Employee Ownership? The Stratification of Wealth in Companies with Employee Ownership," focuses directly on the consequences of these practices by analyzing variation in patterns of access to, and wealth generated by, different types of broad-based stock compensation and employee

ownership practices for different demographic groups, such as women and nonwhites. The quantitative analysis is based on a unique dataset of over 40,000 employees in 14 US companies that have different forms of employee ownership. More specifically, this paper examines stratification in patterns of access to different forms of employee ownership programs, financial returns from these programs, and access to workplace power and authority. The results reveal substantial disparities between the outcomes of women and men, nonwhite and whites, and employees with and without disabilities in terms of access to employee ownership and the financial value provided by this participation. Although many of these effects appear to stem from existing mechanisms of occupational segregation, women and African Americans have lower plan values, even accounting for differences in education, occupation, and salary. The analysis provides a more mixed view of barriers to power and authority because formal structures of employee involvement appear to open up access to workplace power for some groups. This paper thus contributes to a lengthy tradition of research exploring the organizational context of inequality, but focuses on a relatively new form of compensation and wealth generation.

Each of these three papers focuses on a diverse range of social and organizational phenomena, employs a different research design, involves different methods of data collection and analysis, and makes a unique theoretical contribution. Taken together, however, they constitute a general inquiry into the emergence of stock-based compensation in the global economy and the consequences of this development for inequality. The first paper examines challenges to executive stock options; the second paper focuses on the global diffusion of stock-based compensation that provide wealth generation to a range of nonexecutive employees; and the third analyzes the actual consequences of broad-based stock compensation for nonexecutive employees. One of the primary goals of this dissertation is to show how stock-based

compensation has not emerged and diffused simply as an efficient solution to the human resource needs of the contemporary firm. Like all organizational practices, stock-based compensation acquires legitimacy, diffuses, and becomes open to contestation through dynamic social, political, and cultural processes both inside and outside of organizations. With this in mind, this dissertation intends to show how the analytical framework of institutional organizational theory provides a productive approach for understanding the development of systems of compensation, and ultimately, for understanding how the contemporary capitalist firm distributes economic wealth to different stakeholders.

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CHAPTER 2

EXECUTIVE STOCK OPTIONS AFTER THE SCANDALS: EXPLORING CHALLENGES TO LEGITIMACY AND THE DYNAMICS OF INSTITUTIONAL PERSISTENCE

Introduction

In the last two decades in the United States, the compensation of CEOs and other top ranking corporate executives has increased dramatically. This increase has been driven primarily by the diffusion of stock options as a component of executive compensation among publicly traded companies (Murphy 1999, Frydman and Saks 2003). The meteoric spike in the U.S. stock market during the 1990s, coupled with a steady increase in the number of shares that executives could purchase via stock options, pushed average levels of total executive compensation into the millions and even hundreds of millions of dollars. The boom in the value of executive compensation occurred alongside a stagnation/decrease in the wage levels of employees in many nonexecutive occupations and professions. According to the AFL-CIO, the ratio of CEO compensation to that of the average worker increased from 42 in 1980 to 411 in 2005, peaking in 2000 at 525. The rise in executive compensation, and in particular the use of executive stock options, therefore, has functioned as an integral source of the expansion of inequality in the United States in the last two decades (Morgan and Cha 2006).

The recent corporate scandals at Enron and other companies generated widespread debate and criticism of executive compensation. Although executive compensation levels dropped moderately between 2000 and 2003, they have started to increase again since 2005. Hence, despite the extensive criticism of executive compensation and the new scrutiny of corporate governance practices generated by the

scandals, the evidence suggests that little has changed with respect to the ways in which executives are compensated. Focusing on broad trends, however, likely obscures both substantial organizational level variation in how corporations reacted to the scandals with respect to executive compensation as well as the more complex set of organizational and environmental factors likely shaping variation in these reactions. This paper seeks to better understand these factors and argues that such an understanding is essential for expanding our theoretical views of how organizational practices that structure income and wealth inequality become institutionalized, and persist or change in the face of criticism and challenges.

As Bebchuk and Fried (2004) have observed, most of the large body of existing research on executive compensation has accepted the tenets of agency theory that executive compensation arrangements are the efficient outcomes of arms-length negotiations between corporate boards of directors and executives. In challenging this view, Bebchuk and Fried's (2004) managerial power perspective focuses attention on the ways in which corporate governance structures allow executives to extract significant rents through compensation arrangements. In contrast to the assumptions of agency theory, they argue that boards of directors do not engage in arms-length bargaining in negotiating efficient executive compensation arrangements that create incentives for executives to act in the long-term interest of shareholders. Instead, directors have few incentives to design such executive compensation arrangements or oppose arrangements that, for example, do not closely link executive pay to corporate performance. The managerial power view has illuminated significant weaknesses in the ability of agency theory to explain executive compensation and revealed the potency of a more complex, sociological view of the ways in which executive compensation practices are structured. However, its focus has been primarily on

internal organizational dynamics and, therefore, has a limited view of how broader organizational environments shape organizational decision-making.

I contend that in the context of the recent corporate scandals, the institutional environment played a key role in shaping changes to executive compensation and that combining the managerial power perspective view with the analytical framework of neoinstitutional organizational theory is essential for understanding these changes. More specifically, I incorporate insights from institutional theory regarding the role of coercive and normative pressures in an organization's environment in order to analyze executive compensation in the wake of the scandals. Since this period was defined by extensive criticism and challenges to specific corporate practices such as executive compensation, systems of corporate governance, and broader market institutions, a singular focus on the ways in which internal governance structures shaped changes in executive compensation is inadequate. Such moments of destabilization generate conflict over existing market institutions, including a range of organizational practices such as executive compensation, and can lead to significant changes in these institutions and practices (Fligstein 2001). In addition to the critical discourse generated by the scandals, institutional investors and individual shareholder activists placed substantial pressure on corporate boards to alter the structure of executive compensation. Institutional theory provides a logical framework for theorizing how these sociopolitical forces may have influenced executive compensation practices. How did companies respond to these pressures? Did executive compensation levels decrease? Did organizations resist these pressures and maintain or increase the levels and mix of executive compensation? What types of organizational and environmental forces shaped variation in different organizational responses?

In this paper, I use both the managerial power perspective and institutional theory to examine these questions by analyzing changes made to executive

compensation between 2001 and 2005, focusing primarily on executive stock options, but also considering other forms of executive compensation such as salary, restricted stock units, and cash-based bonuses. This paper first examine trends in executive compensation in the prescandal era from 1992 to 2000, followed by a brief institutional history of executive stock options, which became the dominant form of executive compensation during this period. I then examine the broad changes that occurred in the years following the scandals that emerged with the collapse of Enron at the end of 2001, and place these in the broader context of the challenges to executive compensation that emerged after the scandals. This sets up the context for motivating my hypothesis and the empirical analysis that follows.

Executive Compensation Before the Scandals: The Rise of Stock Options

The typical compensation package for executives is composed of different elements, most of which executives receive on an annual basis. Cash based salaries, the most obvious and easy to understand component, represent only one element. Executives also often receive stock options, which provide them with the right to purchase a fixed number of shares at a fixed price for a fixed period of time. Another component is restricted stock, which is a mechanism that gives executives shares of stock directly. Executives can not sell these shares, however, until they meet certain conditions relating to performance or tenure. Executives also usually receive cash-based bonuses linked to performance criteria. Beyond these core elements are others, such as long-term incentive plans, which provide a cash payout based on longer term corporate performance measures. In addition, executives can receive signing bonuses, tax reimbursements, severance payments if they leave the company, homes and apartments, and a range of other perks. Each of these different components have

different tax implications for executives and corporations, and a different accounting treatment for the company.

The level and types of compensation that executives receive is determined by boards of directors. In most firms, a smaller group of directors, the compensation committee, has the responsibility to design and approve executive compensation arrangements. These committees typically work with a company's human resources department and compensation consultants (Bebchuk and Fried 2004, Thomas and Martin 1999), and the entire board will approve the final package. When designing executive compensation arrangements, corporations have a great deal of flexibility in terms of deciding how much to provide to executives, how different elements will be linked to corporate or executive performance, and the relative mix of different elements as parts of total compensation.

To examine broad trends in executive compensation before the scandals, I analyzed data from Execucomp, a database maintained by Standard & Poor's that provides detailed information about different forms of executive compensation for the five highest paid executives in the S&P 500 from 1992 to 2000. Since 1992, all publicly traded companies have had to report specific standardized details about executive compensation. I first calculated the sum of the four primary forms of executive compensation: salary, bonus, the value of stock options granted each year, and the value of restricted stock units granted each year. I also used a summary measure of total compensation, which includes these four components in addition to all other forms of cash payments received by executives, and payouts from long-term incentive plans. After calculating the sum of these four components and total compensation, I calculated annual means for all companies for each year, yielding the aggregate measures detailed in the figures below. Figure 1 shows the trends in total

compensation and its individual components between 1992 and 2000. All values are adjusted for inflation.

As Figure 1 shows, total executive compensation (top line) for the top five executives at the average S&P 500 firm increased dramatically between 1995 and 2000. When the top line is decomposed into individual elements, it is clear that most

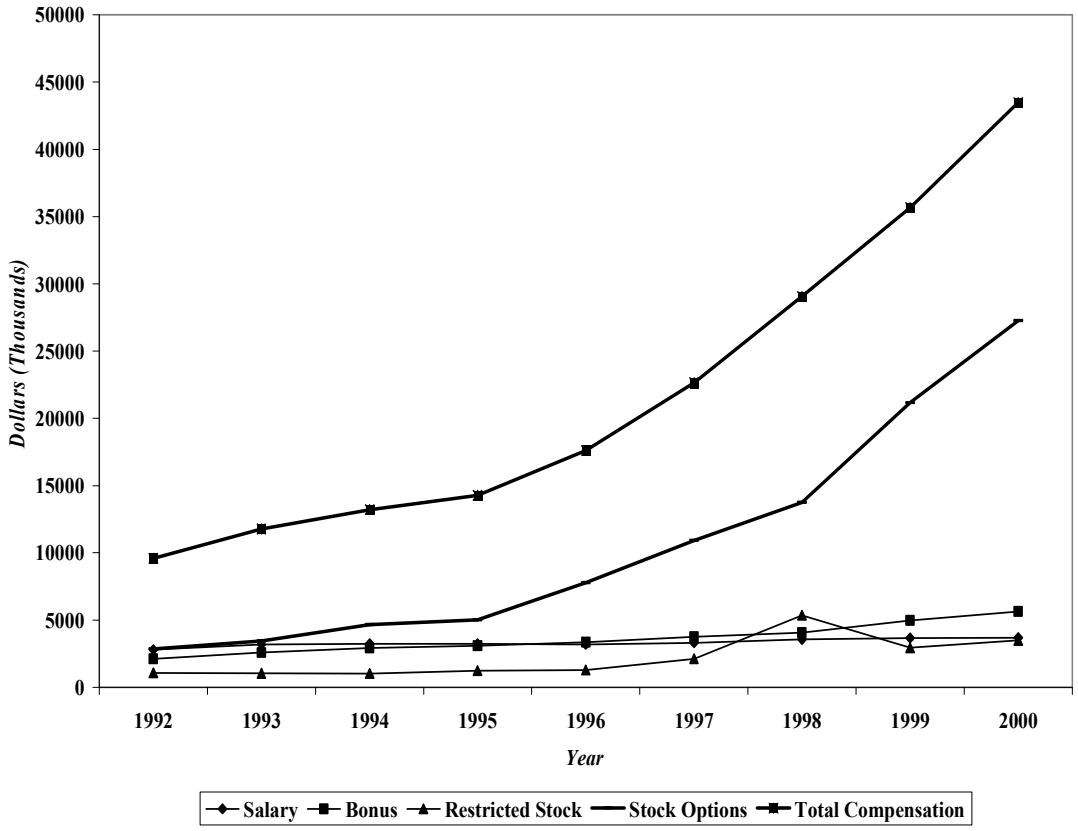

Figure 1: Average Value of Aggregate, Firm-Level Compensation of Five Highest Paid Executives, S&P 500, 1992 - 2000

of the increase in total compensation in be attributed to the growth in the value of stock options (second line from the top one). When compared to the dramatic growth in the value of stock options, the value of the other components of executive compensation represented by the bottom three lines in (salary, bonus, and the value of

restricted stock), remained relatively flat throughout the entire period. Obviously, the surge in the stock market during the late 1990s was a primary reason for the dramatic surge in the value of executive stock options during this period. However, Figure 2 shows the average total number of options granted to all of the top five executives in

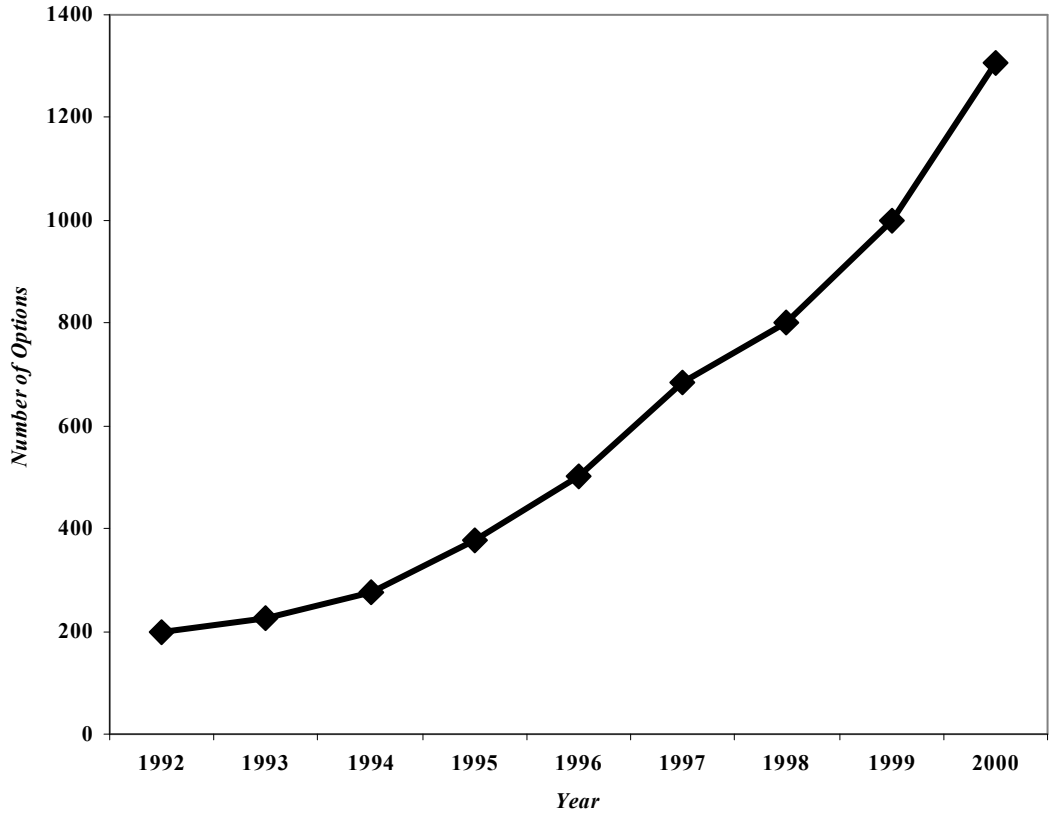

Figure 2: Average Aggregate Number of Stock Options,
Top Five Executives, S&P 500, 1992 - 2000

the average S&P500 firm over this same period. This figure clearly shows that the increase in the value of stock options was not only driven by a surging stock market, but by substantial increases in the number of options executives were receiving from 1994 to 2000. Although stock options have been a component of executive compensation since the 1950s, it was not until the 1980s that the practice became more

widespread and, as the Execucomp data show, it was not until the 1990s that executives received a great deal of value from options. Why did stock options become so important during the 1990s? In the next part of the discussion, I trace out a brief institutional history of executive stock options.

A stock option is a contract issued by a company that provides an employee with the right to purchase a fixed number of shares at a fixed price for a fixed number of years, subject to certain conditions, usually continued employment. In the majority of stock option contracts, the price at which an employee can purchase stock is set at the market price of the stock on the day the contract is offered. For example, Executive A receives the right to purchase 5,000 shares at $10 per share (market price of the stock on the day of grant) for the next 10 years. Usually, the terms of the option require that the executive remains employed for at least 3 – 5 years in order to receive the right to "exercise" the options, or purchase the shares. The financial benefit of an option occurs when the company's stock price subsequently increases because a stock option allows them to purchase shares at the lower fixed price and either sell them immediately, realizing a gain based on the difference between the grant price of the option and the market price on the date of sale, or hold onto the shares in hopes of an additional increase in the stock price. Executives are not required to exercise their options, however. If the stock price declines after the grant date of the options, the employee can simply allow the option to expire. Hence, a stock option is only risky if an executive purchases the shares and holds onto them, and the stock price subsequently declines.

Corporations have always had a great deal of flexibility in designing these plans in terms of who gets options, how many, and how often. While most publicly traded companies grant stock options to only to their top managers, there is substantial cross-organizational variation in the broadness of grants beyond this small groups of

executives. Some companies, for example, grant to their entire management teams (including middle and lower lever managers), while others grant to all managers and a select group of nonmanagement employees. Other companies have implemented broad-based stock option programs (BBSOPs) that grant to a majority or all employees. However, in most companies, executives and other top managers are the sole recipients of stock options, even in companies with broad-based plans (Weeden et al. 2001).

Like most organizational practices, executive stock options have become institutionalized over a long period of time. The history of executive stock options began in 1950, with the passage of legislation that allowed gains from the exercise of stock options to be taxed at the capital gains rate, provided that the employee met certain conditions. At the time, the capital gains tax rate was 25%, dramatically lower than the highest personal income tax rate of 91%. While almost none of the largest 50 companies granted stock options in 1950, by 1952, over half had granted for the first time (Frydman and Saks 2004). The subsequent stock market boom in the 1950s allowed executives to realize substantial financial gains from their stock options, and this not only bolstered the legitimacy of the practice for executives and corporate compensation advisors, but provoked the first criticism of the practice (Blasi et al., 2003). In 1964, in response to this criticism, Congress "enacted a variety of strict rules for stock options, which made them virtually useless" (Blasi et al. 2003: 70). Despite this legislative action, by 1969, only three of the largest 50 companies had not established a executive stock option plan by 1969 (Frydman and Saks 2004).

Blasi et al. (2003) highlight two events in the 1970s that established the foundation for the explosion in the use of executive stock options in the 1980s and 1990s. The first was the publication of an article by Fischer Black and Myron Scholes (Black & Scholes 1973) in the *Journal of Political Economy,* which provided a

mathematical model for the valuation of equities, a model that could be applied to the valuation of stock options. In the same year, the Chicago Board Options Exchange opened to provide a trading market for stock options of publicly traded companies. Although these options are different than employee stock options, which can not be publicly traded, these two developments laid a stronger foundation for the legitimacy of the general mechanism of a stock option. In 1976, however, Congress eliminated the capital gains tax treatment of stock options, and with the stock market in a downturn, interest in executive stock options waned (Fox 1997).

This ebb in interest was short-lived as the use of executive stock options expanded dramatically between 1982 and 1991 (Murphy 1999). Blasi et al. (2003) attribute this growth first to Congress reinstating the capital gains treatment for stock options in 1981 and the stock market boom of the 1980s. Both of these events made the mechanism more attractive to executives. At the same time, a wave of takeover activity, downsizing, and mass layoffs once again brought high executive salaries under criticism. Since the general knowledge level about stock options was low at the time, this criticism focused primarily on cash compensation. This criticism of cash compensation and the lack of awareness about stock options made the latter attractive to executives as an alternative form of compensation, in part for their ability to obfuscate actual levels of executive pay. Finally, in 1987, executives of Toys "R" Us reaped substantial gains for exercising their stock options, with CEO Charles Lazarus earning a $56 million profit, which at that time represented the largest single gain from the exercise of stock options. This high profile windfall sparked intensive interest in options among corporate executives (Blasi et al. 2003).

As the Execucomp data presented above revealed, between 1992 and 2000, this spark ignited into a blaze as both the number of companies granting executive stock options and the size and value of these grants increased dramatically A number of

forces led to this increase. In the early 1990s, excessive executive compensation again came under heavy criticism in the media, and this generated political pressure for legislative action (Murphy 1999). The legislative response was incorporated into the Tax Reform Act of 1993, which limited the amount of cash compensation that corporations could take a tax deduction for to $1 million. As in earlier rounds of criticism of excessive executive compensation, the focus was on cash compensation rather than stock options or other forms of executive compensation. The Act excluded those forms of executive compensation that were in some way linked to company performance, such as stock options. Ironically, the limits on the deductibility of executive compensation, which were originally intended to places constraints on executive compensation, fueled intense interest among executives in stock options and was a primary catalyst for the diffusion of the practice in the 1990s. With the subsequent boom in the stock market, executives were able to reap substantial financial gains by exercising their stock options. However, it was not just executives who became seriously interested in stock options and helped propel the practice's diffusion. As the shareholder conception of corporate control became dominant in the 1990s (Fligstein 2001), institutional investors and other shareholder groups, informed by agency theory, pushed for new compensation mechanisms to link executive pay to corporate performance. This group of actors viewed stock options as just such a mechanism. Finally, the growth in the use of stock options in the 1990s was also driven by their accounting treatment. Until 2004, companies were not required to recognize a compensation expense for options, thus making them free from an accounting perspective.

The evidence presented in the section has revealed that the diffusion and institutionalization of executive stock options has been shaped by macroeconomic conditions, the performance of the stock market, changes in tax law regarding both

personal and capital gains, and the favorable accounting treatment of options, and the widespread acceptance of agency theory among business intellectuals, shareholders, and corporate managers (Murphy 1999) as the shareholder conception of the firm became dominant (Fligstein 2001). This brief history of suggests an inevitable and uncontested process of institutionalization, but other researchers have suggested a more complex picture by illuminating how different groups of actors conflicted at various times over the meaning and use of the practice. For example, in their analysis of the role of CEOs in the expansion of stock options, Englander and Kaufman (2004) use statements and actions by the Corporate Roundtable, a powerful lobbying group for CEOs, to argue that CEOs were initially resistant to the growing power of shareholders and their calls for the expanded use of stock options. However, as CEOs came to realize that stock options might be a potentially lucrative source of wealth, they supported increases in the number of stock options they received. To deflect criticism of the excessive use of stock options, CEOs were able to point out that they were simply responding to the desires of shareholders. The support of shareholders for stock options, therefore, provided CEOs with a logical cover for implementing lucrative compensation structures (Boyer 2005). This raises the key point that although shareholders and other groups can influence the structure and levels of executive compensation, executives (and CEOs especially) have a great deal of power in setting their own compensation (Bebchuk and Fried 2004).

In addition to conflict over the actual structure and level of executive compensation programs, the legitimacy of executive stock options has encountered periods of challenge, such as the attempt by accounting regulators to require companies to expense stock options in the mid-1990s. These regulators faced stiff opposition from shareholders, who believed that the practice linked pay and performance, and executives, particularly from the technology sector, who eventually

placed enough pressure on Congress to block the requirement. Then in the late 1990s, unions and their pension funds began to more vocally criticize the practice, primarily due to the dramatic increases in overall executive compensation generated during the technology boom. Furthermore, when the market dipped in 1997 and companies reacted by resetting the exercise price of executive stock options (a.k.a. repricing), institutional investors became very vocal in their criticism of executive compensation being disconnected to executive performance. It was not until the recent scandals, however, that the legitimacy of the practice faced a serious challenge as executive compensation came under renewed criticism.

Challenges to the Legitimacy of Executive Stock Options

The collapse of Enron generated extensive public debate about some of the central market institutions of American capitalism, including systems of financial reporting, accounting, and auditing; corporate governance structures; executive compensation practices; and the shareholder conception of control. The Enron scandal also illuminated conflicts of interest within the financial conglomerates that emerged with the repeal of the Glass-Steagel Act in 1999, raised the possibility of increased punishment for those engaged in corporate fraud, and questioned the efficacy of various regulatory agencies. The reform movement that Enron and subsequent scandals set in motion had potentially powerful consequences (Levitt 2002). For example, the swift collapse of prominent firms such as Enron and Arthur Andersen revealed that the legitimacy and survival of organizations engaged in criminal activity were indeed at risk. In addition, the accelerated passage of the Sarbanes-Oxley Act in the immediate wake of the scandals was a sign that regulators and legislators were in a position to make significant changes to the institutions governing capitalist market behavior.

In the discourse visible in the mainstream business press, an immediate tension emerged between groups calling for new regulations and legislation, and other groups who claimed that Enron and other companies were just bad apples within an otherwise law-abiding universe of corporations. The initial calls for reform were sounded by the SEC, Democratic legislators, and the accounting industry itself, and focused on the problem of insuring transparency for investors. Corporate leaders and the Bush Administration quickly tried to emphasize the limited reach of the behaviors connected to the scandals. As the magnitude of the problems of Enron came into sharper focus and scandals emerged in other companies, more actors entered into the debates. Ultimately, the exposure of accounting fraud at WorldCom in June 2002 provided reformers and critics who claimed that the situation of Enron was not an aberration, but the result of more systemic problems relating to corporate reporting, governance, and regulation, with the upper hand. WorldCom forced President Bush to publicly engage these issues more directly and hastened the passage of the Sarbanes Oxley Act, which established new laws relating to auditing processes, the auditing industry, corporate reporting, insider trading, and protecting investors.

With respect to executive compensation, the scandals generated extensive debate about the legitimacy of executive compensation practices, and in particular stock options, as well as criticism of the overall levels of executive compensation. Figure 3 tracks the number of negative articles in the media about executive compensation between 1992 and 2006.[1] This figure clearly shows a dramatic spike in the number of articles in 2002 and 2003, followed by a moderate decline and then an increase in 2006. Stock options definitely came under the heaviest scrutiny as a

[1] Using the ABI Inform/Proquest media database, I counted the number of articles by searching with the terms "executive compensation" and "unreasonable" or "excessive" in the title or abstract.

number of institutional investors, legislators and regulators, labor unions, business intellectuals, and economic and social justice groups criticized options as providing

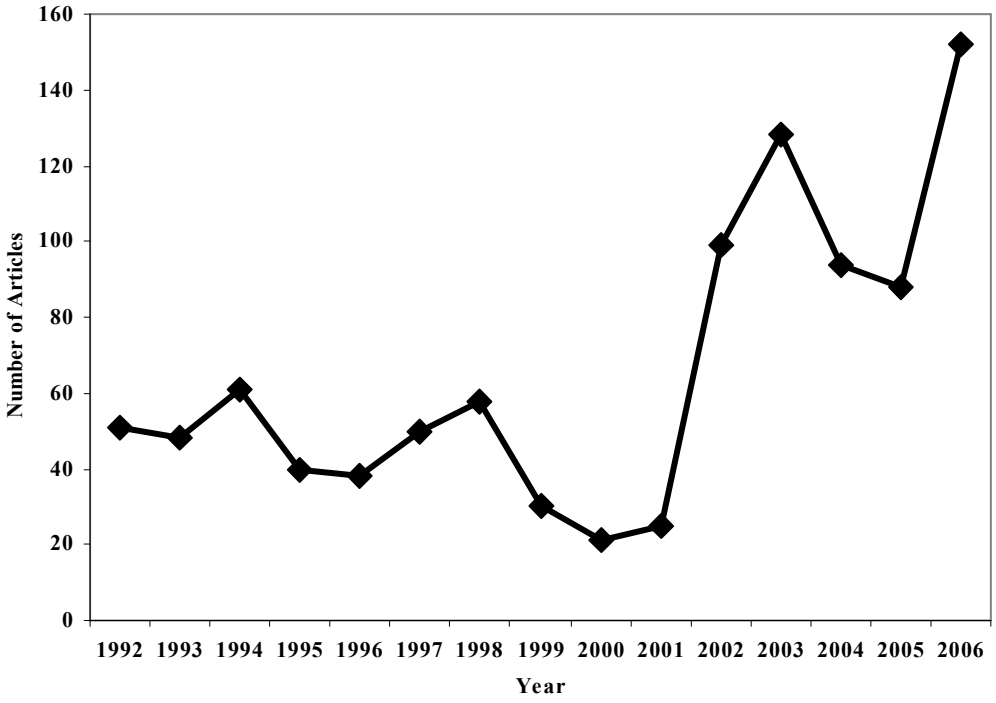

Figure 3: Number of Media Articles Criticizing Executive Compensation, 1992 – 2006

incentives for executives to become involved in fraudulent activities to boost short-term stock valuations. Many institutional investors, particularly public pension funds and labor unions, also voiced strong critiques of the disconnect between overall CEO pay and performance, a lack of clear disclosure procedures, an inadequate number of independent directors on boards, and conflicts of interest between compensation consultants advising on executive compensation while maintaining other business relationships with the company. Labor unions, and economic and social justice groups echoed these concerns and criticized the overall levels of executive compensation.

Stock-based compensation, which had been viewed positively as a way to link the interests of executives to the long-term interests of shareholders, came under fresh attack in the wake of the scandals.

An editorial in the *New York Times* on April 14, 2002 encapsulated much of the criticism of executive compensation. The editorial, entitled "The Executive Pay Scam," highlighted the lack of connection between pay and performance: although executives did well during the boom market of the 1990s, most executives were still doing well in the face of the market downturn. The editorial criticized stock option packages as "outlandish" and pointed to the "acquiescence of boards of directors" as "servants of management"(New York Times 2002) in creating the problems relating to executive compensation. Even Michael Jensen, one of the original academic proponents of executive stock options as a solution to the agency problem, acknowledged in 2005 that the way in which stock options were used, i.e., executives were granted too many and grants were not linked to increases in actual corporate value, created the wrong incentives (Deutsch 2005).

A central focus of the criticism of executive stock options was their accounting treatment. Prior to 2004, companies were not required to recognize a compensation expense for stock options granted to executives or other employees. In March and April 2002, a number of articles appeared in the mainstream business press describing and analyzing a growing movement in support of stock option expensing (e.g., Gleckman, 2002; Henry, 2002; Hitt and Schlesinger, 2002; Jenkins, 2002; Whitman 2002). Through their use of such sources as government officials, executives, compensation consultants, industry and trade association representatives, institutional investors, and academics, these articles articulated the primary explanation that these actors were offering about the connection between executive stock options, their accounting treatment, and the scandals. This explanation had two parts. First, the

excessive use of stock options as a component of executive compensation motivated a variety of practices through which executives attempted to bolster short-term earnings, which, in turn, fueled the escalation of the stock market in the late 1990s. As the *Wall Street Journal,* in describing the critics of stock options, noted: "options have bred a culture of irresponsible greed" (Hitt and Schlesinger, 2002: 21). The system of accounting machinations at Enron was an example of this culture taken to its logical extreme, with executives making large profits on their stock options as they ran the company into bankruptcy and hid behind arcane and fraudulent accounting schemes.

The second part of the explanation linking stock options and their accounting treatment to the scandals was that the lack of a formal requirement to expense stock options created an incentive for boards of directors to increase the size of executive stock option grants, which in turn exacerbated the incentives for executives to boost short-term stock prices and more generally stigmatized their use as fraudulent, or as the Council of Institutional Investors described it, stock options "[turned] companies into Ponzi schemes" (Lohse, 2002: 1). Defenders of stock options, such as many corporate executives, large technology companies, some legislators and regulators, and the Bush Administration argued that the scandals stemmed from a few bad apples, rather than the broader structure of incentives created by executive stock options. Ultimately, the Financial Accounting Standards Board (FASB) implemented a requirement in 2004 that companies formally take a charge to earnings for the value of stock options granted to executives and employees. Other than this new stock option expensing requirement, the scandals did not lead to significant regulative or legislative changes with respect to executive compensation. It appears that such efforts were put on hold while regulatory agencies dealt with the issues at the accounting issues at the center of the scandals: Sarbanes-Oxley, for example did not address executive compensation at all (Boyle 2004).

This section has demonstrated how, in the wake of the scandals, executives and the ways in which they were compensated came under renewed scrutiny and criticism. The attention focused on excessive compensation following the stock market downturn and subsequent scandals, the lack of connection between pay and performance, and the complicity of boards of directors in creating a system of incentives that encouraged fraudulent accounting. The strongest critiques were leveled on executive stock options, and these critiques constituted serious threats to the practice's legitimacy. Despite the lack of new regulations relating to executive compensation, the scandals generated serious criticism of executives and boards of directors from the business press and institutional investors, the latter of which became very active in challenging executive compensation practices after 2002. Such were the contours of the broader political and cultural environment in which corporations evaluated and potentially made changes to their stock option programs in the wake of the scandals. What impact did these pressures have on executive compensation?

Executive Compensation After the Scandals: A New Regime or Business as Usual?

To explore broad trends in executive compensation after the scandals, I again rely on compensation data available from Execucomp on the five highest paid executives in the S&P 500, but now extend this to 2006. I first calculated the sum of the four primary forms of executive compensation: salary, bonus, the value of stock options granted each year, and the value of restricted stock units granted each year, as well as a summary measure of total compensation. After calculating the sum of these four components and total compensation, I calculated annual means for all companies for each year, yielding the aggregate measures detailed in the figures below. Figure 4 shows the trends in total compensation and its individual components between 1992 and 2006. All values are adjusted for inflation. As Figure 4 shows, in the wake of the

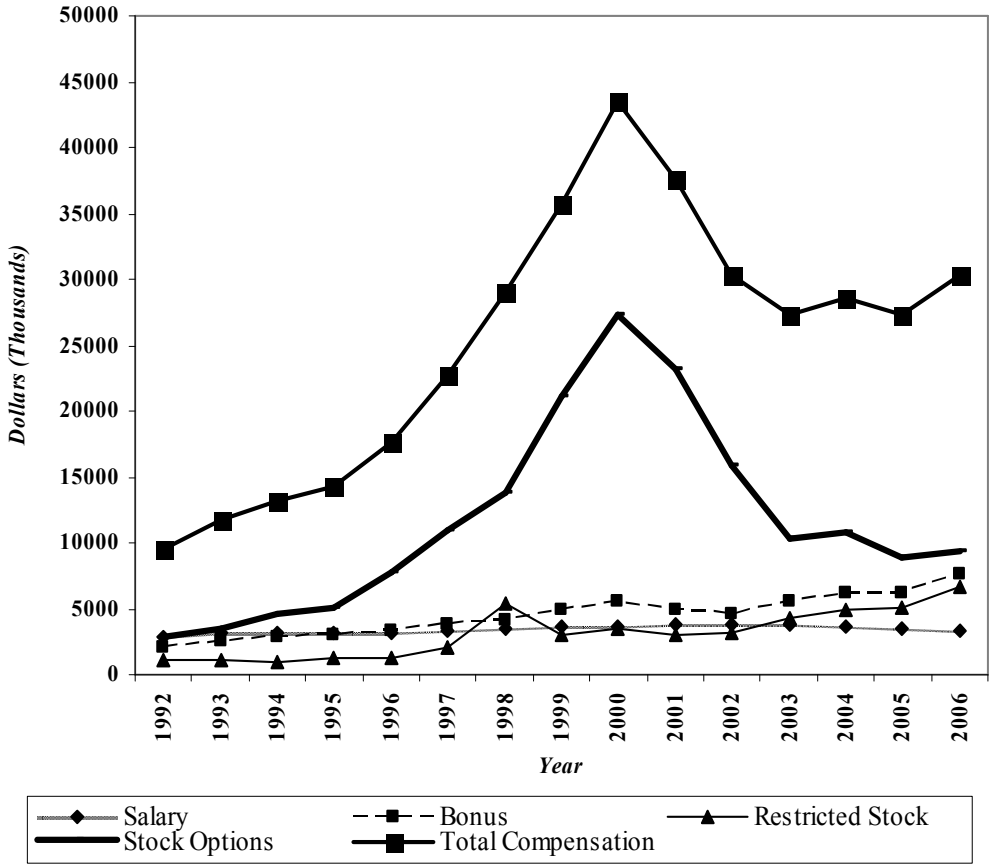

Figure 4: Average Value of Aggregate, Firm-Level Compensation, Five Highest Paid Executives, S&P 500, 1992 - 2006

stock market downturn in 2000 and subsequent corporate scandals, total compensation dropped sharply through 2003, although only back down to the level of 1998. Since then, total compensation has stagnated, but has shown a modest increase in 2006. Again, when the top line is decomposed into individual elements, it is clear that most of the decline in total compensation can be attributed to the decline in the value of stock options (second line from the top one). When compared to the dramatic shifts in the value of stock options, it appears that the value of the other components of

executive compensation represented by the bottom three lines (salary, bonus, and the value of restricted stock), remained relatively flat between 2000 and 2006. However, Figure 5 provides a more complicated picture by showing the trends in these three forms in sharper relief.

Figure 5 reveals that salary levels remained relatively constant between 1992 and 2006. This is most likely do the federal limits on non-performance based pay put in place in 1993. The average value of bonuses increased steadily between 1992 and

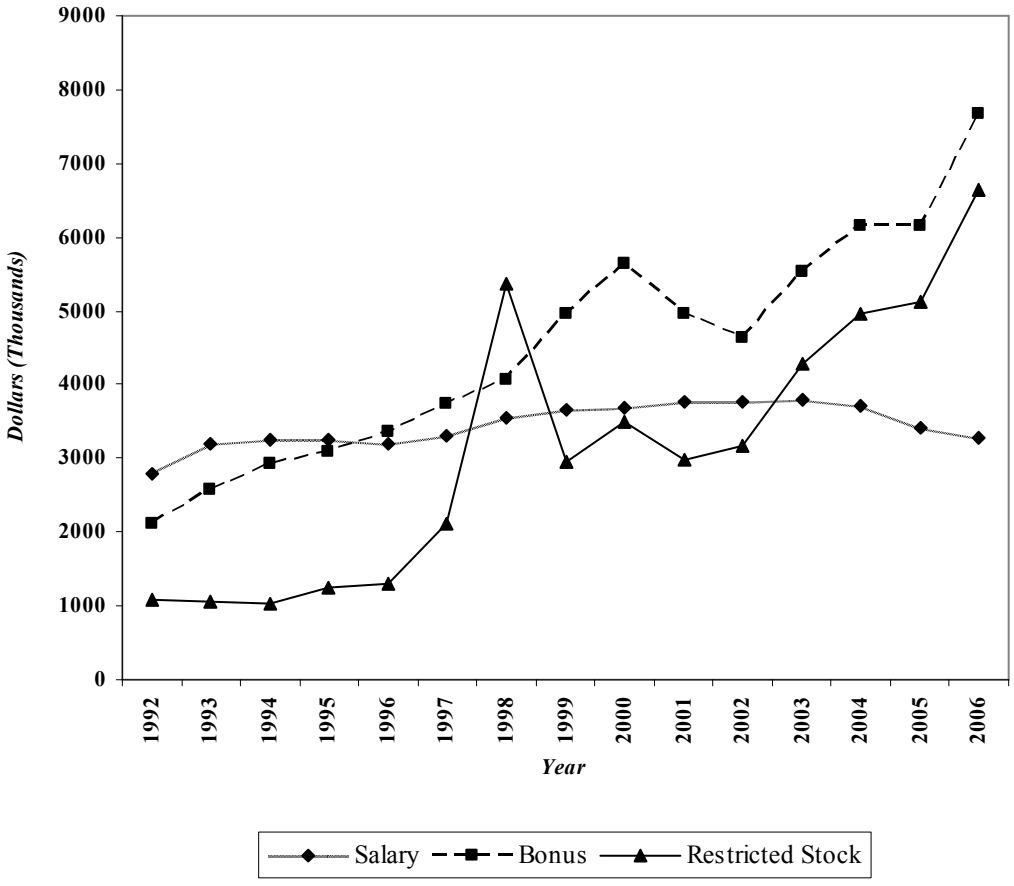

Figure 5: Average Value of Aggregate, Firm-Level Compensation, Five Highest Paid Executives: S&P 500, 1992 – 2006

2000, dropped for two years, and then increased sharply after 2002. The average value of restricted stock units followed a similar trends as that of bonuses, but with a sharp increase between 1996 and 1998, followed by a sharp decline in 1999, a subsequent leveling off through 2002, and then a steady increase through 2006. Most importantly, however, when compared to the trend in stock option value and total compensation in Figure 4, Figure 5 shows that between 2002 and 2006, the value of both bonuses and restricted stock units for the top five executives at the average S&P 500 firm increased substantially. Considering that the drop in total compensation that began in 2000 flattened out in 2003, but that the value of stock options did not increase, these findings suggests that firms were replacing cutbacks in the use of stock options with increases in these other two forms. Also, the noticeable increase in total compensation in 2006 parallels a sharp increase in the value of bonuses and restricted stock units in 2006.

What accounts for these trends in executive compensation? First, the substantial increase in executive compensation during the 1990s, as previous research has found, can be largely attributed to stock options becoming the dominant form of executive compensation in the late 1990s. As further evidence, Figure 6 shows stock options and the three other forms of compensation as percentages of total compensation from 1992 – 2006. This graph shows that from 1995 to 2001, the percentage of total compensation value represented by stock options increased from about 30% to over 50%, followed by a sharp and steady decline back down to 30% by 2006. The trend in the percentage of total compensation represented by salary went in the opposite direction from 1992 and 2000, falling from about 45% to just above 20% by 2000. The percentages of total compensation represented by both restricted stock and bonuses increased steadily from 2001 to 2006, providing additional evidence that

decreases in stock options were offset by increases in these two other forms of compensation.

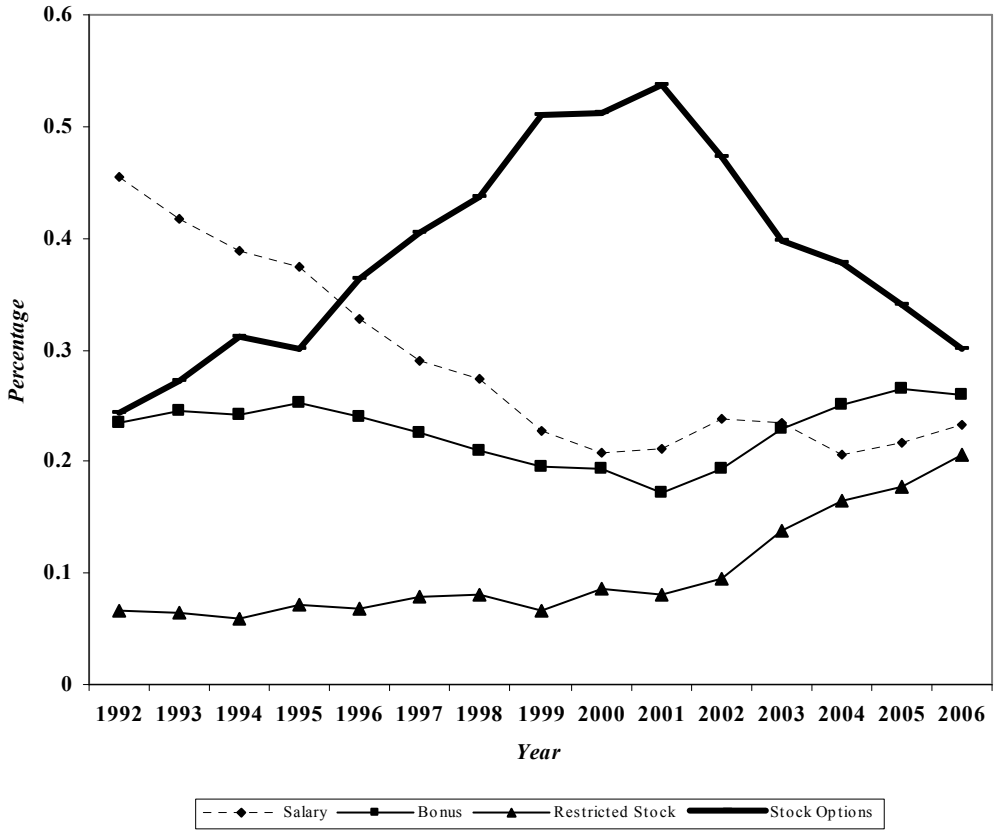

Figure 6: Components of Executive Compensation as a % of Total, Compensation, S&P 500, 1992 - 2006

With respect to the postscandal period, the data reviewed in this section illuminate the broad trends, namely that the average value of total compensation and stock options dropped sharply between 2000 and 2003, while the average value of bonuses and restricted stock units increased sharply after 2003. Again, this suggests that firms shifted away from stock options at this point, and may have balanced out this decrease with an increase in these other forms, thus leading to the leveling out of total

compensation levels from 2003 to 2006. If such replacement occurred, it may indicate that corporate executives and boards of directors were attempting to halt the overall decline in executive compensation that resulted from the decline of the stock market and reduced used of stock options by replacing them with other forms. Figure 6 also provides evidence of the shifting of total compensation between different mechanisms as the percentages of each component has been converging since 2001. This suggests that S&P 500 firms are moving towards a more even mix of compensation mechanisms in the post-scandal environment.

These broad trends are illuminating, but most likely hide substantial organizational level variation in changes to executive compensation practices. Obviously, substantial changes in executive compensation occurred after 2000, but it is too simple to suggest that everything either decreased or increased. There were some shifts, but on the whole, executive compensation levels were still very high. To dive deeper below the surface of these broad trends, it is necessary to examine the conditions under which executive compensation changed. What accounts for organizational level changes that defines these aggregate level trends? How did the criticism of executive compensation and stock options generated by the scandals turn into actual pressures on organizations to change these practices and how did companies react to these pressures? Why did some organizations reduce executive stock options? Why did other companies increase their stock option use? Were they resistant to these pressures? What explains the increase in the value of bonuses and restricted stock options during this time? Why did salary levels stay the same? In the next section, I develop hypotheses from the existing literature on executive compensation and neoinstitutional theory to set up the empirical analysis of what drove changes in executive compensation in the post-scandal environment.

Forces Shaping Executive Compensation

In this section, I draw on both the managerial power perspective and institutional theory to motivate the hypotheses tested in the quantitative analysis. I focus attention on how existing theory would predict changes to executive stock options because, as the discussion of the postscandal criticism of executive compensation revealed, it was the compensation mechanism that received the most scrutiny. Therefore, it was likely the most sensitive to change during this period. More specifically, the scrutiny and criticism exerted pressures on companies to restructure and reduce stock option grants to executives.

The Social Environment of Boards and Managerial Power

According to agency theory, boards of directors play the key role in monitoring executive compensation and will act as the guardians of shareholders' interests by insuring that compensation arrangements provide incentives for corporate managers to act in the long-term interests of shareholders. The validity of agency theory for explaining executive compensation has been recently challenged by the managerial power perspective advanced by Bebchuk and Fried (2004). This perspective contests the core tenet of agency theory that boards of directors insure efficient compensation packages by operating at "arms-length from the executives whose pay arrangements they decide" (Bebchuk and Fried 2004: 2). The managerial power perspective argues that corporate executives can actually exert substantial influence over the decisions made by boards of directors relating to executive compensation, and therefore, these arrangements are often not negotiated as an arms-length transaction.

More specifically, directors, even those defined as independent, have few incentives to challenge high executive compensation levels and weak links between compensation and performance. Directors enjoy a number of benefits by serving on a

board, including direct financial compensation, stock ownership, stock options, and related perks. In addition, board positions offer a number of social and career benefits in addition to compensation. Directors often have close social and/or business relationships with other directors, and serving on a board strengthens these relationships and creates opportunities for new ones. All of these benefits make directorships very desirable, and in most cases, the CEO and corporate management have the most say about which directors are nominated and renominated to the board. Once on a slate of directors, a person is "virtually assured of being reelected" because of the difficulties that shareholders face in proposing their own slates of candidates (Bebchuk and Fried 2004: 25). Directors can therefore suffer substantial negative consequences for opposing executive compensation (i.e., not being nominated for reelection), and often these negative consequences outweigh the few positive consequences for directors fulfilling their role as guardians of shareholder interests. Furthermore, the collegiality of boards, and similar professional and social backgrounds of directors and executives, create further disincentives for directors to act as the agents of shareholders to challenge executive compensation practices that may not be in the long-term interest of shareholders.

Although directors can and do oppose and influence executive compensation arrangements, this is less likely when managers have more power over directors (Bebchuk and Fried 2004). Core et al. (1999) and Cyert et al (2002), for example, found that CEO compensation is higher in firms in which CEOs had more power. This is in line with existing institutional research on the diffusion of executive compensation practices. Zajac and Westphal (1994) found that companies in which CEOs had more influence over the board were more likely to symbolically adopt, but not implement, long-term incentive programs that shareholders favored. Wade et al. (1990) found that more powerful CEOs were more likely to have golden parachutes,

while Westphal and Zajac (2001) found that firms with more powerful CEOs were more likely to decouple adoption and implementation of stock repurchase programs that shareholders favor. Even though stock options came under heavy criticism after the scandals, the mechanism still offered executives the greatest potential for future wealth, given the dramatic increase in wealth that options had generated prior to the scandals. In addition, from the point of view of executives, it is desirable to receive new options when the stock price is low because the fixed price at which they can purchase the stock is usually set at the market price on the day of grant. If this fixed price is low, the greater the gain if and when the option is exercised. This leads to the first hypothesis:

Hypothesis 1: The value of executive stock options is higher in companies in which CEOs have more power over the board of directors.

In addition to CEO power, boards also have characteristics that function as checks on CEO power. The most obvious one is the presence of outside, independent directors. Board members are classified as independent if they are not and have never been employees of the company and have no other affiliation through the firm, such as through consulting. Boards with higher percentages of outside directors should be able to exercise more control over CEOs (Bebchuk and Fried 2004). However, Core et al (1999) found that CEOs actually had higher levels of compensation in companies with more outside directors. Cyert at al. (2002) found similar results for salary and discretionary compensation. Westphal and Zajac (1994) found no effect for the proportion of outsiders on the decoupling long-term incentive plans for executives. Despite these findings counter to the theory of managerial power, it is likely that in the wake of the scandals, boards with higher percentages of directors felt the most

pressure to closely scrutinize and restructure executive compensation, and in particular, stock options, and that boards with larger numbers of independent directors were more likely to take action. Hence:

Hypothesis 2: The value of executive stock options is lower in companies with more independent directors.

Corporate ownership patterns may also influence executive compensation. If institutional investors own more stock, this can serve as a constraint on managerial power (Bebchuk and Fried 2004). Pollock et al (2002), for example, found that higher levels of institutional ownership made firms less likely to reprice executive stock options. Davis (1991) found that higher levels of institutional ownership led to an increase in the likelihood of firms to adopt poison pills. Finally, Hartzell and Starks (2003) found that institutional ownership was negatively related to the level of executive compensation and positively related to the pay for performance sensitivity of executive compensation. Therefore:

Hypothesis 3: The value of executive stock options is lower in firms with Larger holdings by institutional investors.

According to agency theory, direct ownership of stock by CEOs will align the interests of CEOs to that of shareholders (Murphy 1999). Pollock et al. (2002) found that higher levels of CEO ownership made firms less likely to reprice stock options under certain conditions. Core et. al (1999) found that CEO compensation was a decreasing function of the level of CEO ownership, and Khan et al. (2005) found that CEO ownership was positively related to salary levels and negatively related to stock

option compensation. In the postscandal environment, shareholders were very interested in restructuring executive compensation, and in particular stock options. CEOs who were more closely aligned with shareholders, therefore, should also favor these goals. Hence:

Hypothesis 4: The value of executive stock options is lower in firms in which CEOs own more stock.

The Role of the Institutional Environment

The managerial power perspective provides a persuasive critique of the fundamental assumptions of agency theory, and a variety of previous studies have found empirical support for it (Bebchuk and Fried 2004). This perspective draws attention to the ways in which the internal social structure of boards of directors creates an environment in which it is very difficult for directors to act in the best interests of shareholders. Boards of directors, however, do not operate and make decisions in isolation of an organization's environment, and are likely influenced by factors in these environments when making decisions about designing and approving executive compensation packages. Although the managerial power perspective does not provide insight into how these factors may influence executive compensation, a logical framework that does is the vast body of research on the role of institutional environments in the adoption and structuring of organizational practices.

The institutional approach, first articulated by Meyer and Rowan (1977) and DiMaggio and Powell (1983) and since significantly expanded by a diverse community of scholars, highlights the role of noneconomic forces (i.e., institutional) in an organization's environment. A central theme of this framework is that organizations seek to acquire and maintain legitimacy by adopting practices that are

considered to be legitimate within broad, culturally-defined rules and theories of management more proximate field-level norms of appropriateness , as well as formal legal rules and regulations. A diverse group of extra-organizational actors confer organizational legitimacy, including customers, suppliers, competitors, the state, the professions, the media, labor unions, and social movement organizations. One stream of institutional research has focused on the effects of institutional influences on organizational action (Scott 2001) by examining how practices that are considered appropriate by one or more important constituents diffuse across groups of organizations. A second stream of literature has examined how organizational practices acquire legitimacy and symbolic meaning, and become institutionalized through dynamic social, political, and cultural processes at the field-level (e.g., Baron, Dobbin, and Jennings, 1986; Lounsbury, Ventresca, and Hirsch, 2003; Ruef and Scott 1998).

In this paper, I am interested in the effects of different institutional forces on executive compensation practices and especially stock options. Existing research has demonstrated the relevance of institutional theory for understanding executive compensation practices as unique sites of contestation between corporate executives, boards of directors, and shareholders. Zajac and Westphal (1994), for example, researched the conditions under which companies symbolically adopted, but did not implement, long-term incentive programs that shareholders favored during the battles over corporate governance in the 1990s. Similarly, Wade et al. (1998), Porac et al. (1999) and Westphal and Zajac (1995) examined how, during the same period, corporate leaders symbolically managed the adoption of executive compensation practices through the use of different types of verbal accounts. This research has demonstrated how political contestations over control of the corporation can shape the diffusion and symbolic management of executive compensation.

Similar conflicts between executives, regulators, shareholders, and other organizational constituents emerged in the wake of the scandals. The institutional crisis of the postscandal environment was characterized in part by regulators, enforcement agencies, and shareholders to exert controls on executive behavior, but also by new debates about the legitimacy of accounting practices and corporate governance practices at the core of the shareholder value conception. As specific executives came under scrutiny, criticism, and investigation for behavior and actions that led to the collapse of companies like WorldCom and Enron, the legitimacy of executive compensation practices, and stock options in particular, also came under challenge. More broadly, the scandals raised issues about corporate governance and the ineffectiveness of boards to function as monitors of executive behavior. In this environment, it is likely that directors felt more pressure to scrutinize and make substantive changes to executive compensation, either by reducing it or by strengthening the connections between pay and performance. Hence, organizations that were under more pressure due to these changes in the institutional environment would be more likely to make reductions to executive compensation, and specifically stock options. Indeed, the *Wall Street Journal* reported on April 14, 2003 and June 21, 2004 that boards of directors were devoting new attention to executive compensation.(Lublin 2003, Spors 2004). What types of pressures generated by the scandals were the most salient? I look at investigations, class action lawsuits, and shareholder activism.

Scott (2001) has identified three types of institutions that shape organizational behavior: the regulative, normative, and cognitive. The first two are relevant for theorizing the types of pressures that may have influenced executive compensation practices during this period. Regulative pressures emanate from informal institutions that regulate behavior in small groups and formal institutions such as legal systems.

The primary types of organizational and executive behavior that came under scrutiny at Enron and other companies can be broadly defined as corporate fraud. The first annual report of the Corporate Fraud Task Force (CFTF), an interagency task force created by the Bush Administration in July 2002 to coordinate investigative and enforcement actions by a number of federal agencies, defines corporate fraud as: "(1) the falsification of corporate financial information; (2) self-dealing by corporate insiders; or (3) obstruction of justice, perjury, or tampering or other obstructive behavior relating to either of the categories mentioned above" (CFTC, 2003: 2.2). Executives and other corporate representatives who engage in fraudulent behavior can be subject to investigation, fines, and criminal prosecution. If anyone at a company came under investigation for corporate fraud, it is likely that this would generate pressure on boards of directors to be more attentive to their role as guardians of the interests of shareholders. Hence:

Hypothesis 5: The value of executive stock options is lower in firms facing direct investigations for corporate fraud.

Another regulative pressure consisted of securities class action lawsuits. Such lawsuits, in which shareholders sue corporations and their executives for securities fraud, are often set in motion by large institutional investors, who act as lead plaintiffs. When shareholders win these cases, the outcome is often a financial settlement, with damages, to shareholders. According to the Stanford Law School's Securities Class Action Lawsuit Clearinghouse, between 2001 and 2005, 1,409 companies were the targets of such lawsuits. This amount represented a 48% increase from the 952 lawsuits for 1996 to 2000. Although such lawsuits are generally not as visible as direct investigations, they represented a way for shareholders to expose potentially illegal

actions of executives, which could have put pressure on boards to scrutinize and make changes to executive compensation.

Hypothesis 6: The value of executive stock options is lower in firms that facing securities class action lawsuits.

Institutional forces can also pressure organizations to adhere to specific values and norms to which organizational leaders are expected to conform. In the wake of the scandals, new norms for financial transparency and constraints on self-serving executive behavior were emphasized by a number of actors, one of the most important of which were shareholders. One of the products of the battles for corporate control in the 1980s and 1990s was the emergence of shareholder activism, which entailed shareholders asserting pressure on corporate leaders to make changes to improve corporate performance or to implement better governance practices (Davis and Thompson 1994, Useem 1999). Shareholders can assert pressure in a number of different ways, including filing shareholder resolutions to promote specific changes to corporate policies and structures, waging publicity campaigns to expose companies targeted for reform, engaging in class action lawsuits against corporate management and/or directors, and direct negotiations with corporate management.

Although the evidence of the effect of shareholder pressure on stock prices is mixed (see Karpoff 1998 for a review), a growing body of literature has found that companies respond to shareholder resolutions by adopting and restructuring corporate governance practices. Bizjak and Marquette (1998), for example, found that companies were more likely to restructure or rescind poison pill provisions when faced with a shareholder resolution to rescind these plans. In their study of the adoption of investor relations departments during the initial battles for corporate

control in the 1980s and 1990s, Rao and Sivakumar (1998) found that organizations that were the target of anti-management shareholder resolutions were more likely to establish these departments as a way to recognized the new role of shareholders in governance. In terms of the influence of shareholder activism on executive compensation, Johnson and Shackell (1997) found no evidence that shareholder proposals had an effect on subsequent changes in executive compensation. Thomas and Martin (1999) find some support that shareholder proposals targeting executive compensation have a negative impact on levels of executive compensation in the year following the proposal, as compared to firms in a similar industry. However, Wade et al (1997) and Porac et al (1999) both found that shareholder resolutions influenced the ways in which companies symbolically managed executive compensation in terms of the types of justifications they used and the industry peers they compared themselves to in SEC filings.

In the wake of the scandals, a variety of institutional investors and shareholders, particularly public pension fund and labor unions (Borrus 2006), voiced strong criticism of existing executive compensation arrangements, especially the excessive use of stock options that were not tied to direct measures of executive performance. Shareholders expressed this criticism through press releases and statements, but more importantly by submitting shareholder resolutions that called for a variety specific changes to executive compensation (e.g., requiring a majority of independent directors, establishing rescinding poison pills, creating independent compensation committees, linking executive pay to performance, implementing new restriction on stock options, and abolishing stock options.) Such resolutions are voted on by shareholders, and although companies are not legally required to adopt the changes pushed for by resolutions that receive majority votes, the presence of

shareholder resolutions likely put directors under scrutiny and acted as a pressure on directors to closely examine and make changes to executive compensation. Hence:

Hypothesis 7: The value of executive stock options is lower in firms in which shareholders submitted resolutions relating to corporate governance practices.

Method

To test these hypotheses, I created a longitudinal dataset of executive compensation practices between 2001 and 2005, and used standard OLS regression models for panel data. In this section, I describe the data and modeling framework in more detail.

Sample

I examined changes in executive compensation practices among firms that make up the S&P 500, which is an index of firms that have approximately $10 billion or more in market capitalization. The final sample included 384 companies that were in the S&P 500 for all five years (2001 – 2005) and had complete data.

Dependent Variables

My primary outcome variable is the sum of the Black-Scholes value of all annual stock option grants to the five highest paid executives for 2001, 2002, 2003, 2004, and 2005. The Black-Scholes valuation method models the present value of stock options and is based on the number of options granted, the expiration of the option, the grant price of the option, the historic volatility of the company's stock price, and the risk-free interest rate. In order to provide a comparison to stock option values, I also collected data on executive salaries, the value of restricted stock units, and bonuses. I collected all of this data from the Execucomp database. For each of these four

measures, I calculated the sum for all five executives for each firm, yielding four aggregate organizational measures for each firm in the sample. In the models presented below, I used the natural log of all four variables in order to control for the effect of outliers.

Independent Variables

I collected data from a variety of archival sources to measure the independent variables of interest.

Investigations: I measured investigations by federal agencies using two sources. The first source was the annual reports released in 2003 and 2004 by the Corporate Fraud Task Force (CFTF), an interagency task force created by the Bush Administration in July 2002 to coordinate investigative and enforcement actions by a number of federal agencies. These reports provide details on "significant cases" being pursued by either the Securities and Exchange Commission (SEC), Department of Justice, Department of Labor, Internal Revenue Service, and other federal agencies, although the first two represented the bulk of the investigative activity (CFTF 2003, CFTF 2004). I supplemented the list of CFTF significant actions with all enforcement actions listed by the SEC in its "Selected Accounting and Auditing Enforcement Releases," a list published annually on its website. This list includes actions related to fraudulent financial reporting and includes both litigation and administrative proceedings pursued by the SEC. The same measurement of financial fraud has been used by Farber (2005) and Beasley (1996) as a measure of extreme cases of fraud. I created a dichotomous variable coded as 1 if a company appeared as the target of enforcement action on either of these lists. I effectively lagged the effect of enforcement action by measuring this variable during the year following the enforcement action. For example, for a company that came under investigation during

2001, I coded this variable as 1 in the 2002 panel and not the 2001 panel. After removing duplicate cases that appeared on both lists, a total of 79 companies in the sample came under investigation at some point between 2000 and 2004. Over half (47) of these were started in 2002.

Shareholder Class Action Lawsuits: I created a dichotomous variable coded as 1 if a company was the target of a securities class action lawsuit and 0 otherwise. Data on lawsuits was collected from the website of the Securities Class Action Clearinghouse of the Stanford Law School.[2] This variable was effectively lagged by one year using the same measurement approach as the investigations variable. A total of 128 companies in the S&P 500 became the targets of class action lawsuits during this time.

Shareholder Resolutions: I measured shareholder resolutions using a continuous measure of all shareholder resolutions relating to corporate governance actions submitted to the sample firms during 2000, 2001, 2002, 2003, and 2004. Data on shareholder resolutions was collected from reports issued by Georgeson Shareholder, a shareholder advising and consulting firm (Georgeson Shareholder 2000, Georgeson Shareholder 2001, Georgeson Shareholder 2002, Georgeson Shareholder 2003, Georgeson Shareholder 2004). This measurement of this variable was also effectively lagged by one year. A total of 1,097 resolutions were submitted by shareholders between 2000 and 2004: 38 in 2000, 177 in 2001, 224 in 2003, 360 in 2003, and 338 in 2004. Forty-one percent of all resolutions were submitted by union pension funds, while 47% were submitted by individual investors. The remainder were submitted by public employees' pension funds, socially responsible mutual funds, and social movement organizations.

[2] http://securities.stanford.edu/companies.html. Accessed March 17, 2008.

CEO Power and Board Structure: There a number of potential measures of CEO power available. I used the ones that were the most salient, based on existing research. All were collected was collected from the Corporate Library's Board Analyst database, and all variables were measured, unlagged, for each year in the sample. Bebchuk and Fried (2004) have argued that large boards create free rider problems for monitoring executive compensation arrangements and therefore give CEOs more power. Along these lines, Core et al. (1999) found that CEO compensation is higher in companies with larger boards. I therefore created a continuous variable which measured the total number of directors serving on a company's board. My second measure of CEO power was whether or not the CEO also held the position of chairman of the board. Studies by Core et al. (1999), Cyert et al.(2002), and Wade et al. (2006) have shown that CEO compensation is higher in companies in which the CEO is also the chairman. Similarly, work by Pollack at al (2002) found that companies with dual CEO chairmen were more likely to reprice their stock options. I created a dichotomous variable to measure coded as 1 if the CEO was also the chairman.

The third measure of CEO power was CEO tenure relative to average board tenure. The longer a CEO holds the position, the more likely that he or she will be able to exert influence over directors. Also the longer the CEO tenure, the more directors he or she is likely to have appointed, and such directors are less likely to challenge a CEO (Bebchuk and Fried 2004). Existing research has found that companies with longer CEO tenure were more likely to decouple the adoption of long-term incentive plans (Wesphal and Zajac 1994) and tock repurchase programs (Westphal and Zajac 2001), both favored by shareholders, from their actual implementation. I created a continuous variable that measured the ratio of the length of the CEO's tenure to the average board tenure. The fourth measure of CEO power was the percentage of

directors who served on four or more boards. Bebchuk and Fried (2004) identified this as a source of CEO power because directors with more obligations have less time and are less likely to monitor and challenge executive compensation arrangements. I created a measure of the percentage of the total number of directors who served on four or more boards. Finally, I measured the influence of independent directors by creating a continuous measure of the percentage of the total number of director that were independent.

Corporate Ownership: I measured CEO stock ownership as the percentage of all shares outstanding owned by the CEO. I measured institutional holdings as the percentage of all shares outstanding owned by institutional investors. Data for these three variables were collected from the Corporate Library's Board Analyst database. Control Variables: Conyon and Peck (1998), Daily et al. (1998), Cyert et al (2002), Hartzell and Starks (2003) and Khan et al. (2005) found that firms size was positively related to CEO compensation. The rationale is that large firms are more complex and more difficult to manage, and CEOs will be worth more. I measured size using the natural log of sales. Previous research also found a positive relationship between company performance and CEO compensation (Conyon and Peck 1998, Daily et al. 1998, Cyert et al. 2002). I measured performance using a the average of total shareholder return for the previous three years. Finally, Cyert et al. (2002) and Khan et al. (2005) found that CEO compensation was higher in firms with more growth opportunities. I controlled for growth opportunities by using Tobin's Q, a standard measure of market value divided by total assets (Khan et al. 2005). Data for all three of these variables were collected from the Execucomp database, and I measured all three for each year of the observation period.

Modeling Strategy

To take advantage of the time-series structure of the Execucomp data on executive compensation, I used fixed-effects regression models. Such models allow the researcher to use multiple observations of the same unit over time to control of unobserved heterogeneity between units. In this study, I am most interested in the effects of the independent variables over the entire time period and less interested in whether the effects of these variables changed during the time period. Fixed-effects models are the preferred choice in these situations (Halaby 2004). Although random-effects models can provide more efficient estimates than fixed-effects models, I used the test developed by Hausman (1978) to compare the efficiency of the fixed-effects estimators with those generated by random-effects models. The test indicated that the random-effects models produced a set of estimators that was not statistically different from those produced by the fixed-effects models, and thus, the fixed-effects models were also statistically justifiable.

Results

Tables 1 and 2 present the descriptive data and correlation matrix.

Table 1: Descriptive Statistics, Independent Variables

	Number	Mean	Standard Deviation	Minimum	Maximum
Investigations	79	-	-	-	-
Class Action Lawsuits	128	-	-	-	-
CEO as Chairman	305	-	-	-	-
Shareholder Resolutions	-	0.46	1.05	0.00	9.00
Size of Board	-	10.97	2.65	5.00	25.00
Percentage of Outside Directors	-	0.83	0.10	0.25	1.00
CEO Tenure	-	0.77	0.90	0.00	19.00
Directors on 4 or More Boards	-	0.14	0.13	0.00	1.00
CEO Ownership	-	0.01	0.04	0.00	0.55
Institutional Ownership	-	0.67	0.28	0.00	1.00
Sales	-	8.84	1.17	4.62	12.70
Tobin's Q	-	1.43	1.40	0.02	12.45
Shareholder Return	-	6.89	20.02	-73.17	106.32

Table 2: Correlation Matrix

		1.	2.	3.	4.	5.	6.	7.	8.
1.	**Investigations**	1							
2.	**Class Action Lawsuits**	0.16**	1						
3.	**Shareholder Resolutions**	0.26**	0.07**	1					
4.	**Size of Board**	0.05*	0.05**	0.11**	1				
5.	**Percentage of Outside Directors**	0.10**	0.06**	0.14**	0.16**	1			
6.	**CEO is Chairman**	0.04	0.03	0.13**	0.00	0.22**	1		
7.	**CEO Tenure**	-0.08	-0.03	-0.01	-0.03	-0.09**	0.16**	1	
8.	**Directors on 4 or More Boards**	0.13**	0.01	0.18**	0.07**	0.20**	0.09**	-0.07**	1
9.	**CEO Ownership**	-0.03	0.04*	-0.06**	-0.05*	-0.23**	-0.01	0.21**	-0.07**
10.	**Institutional Ownership**	0.00	-0.05*	-0.01	-0.14**	0.03	0.04	0.02	0.00
11.	**Sales**	0.20**	0.13**	0.36*	0.42**	0.19**	0.10**	-0.02	0.27**
12.	**Tobins Q**	-0.07	-0.08**	-0.12*	-0.28**	-0.22**	-0.14**	0.01	-0.08**
13.	**Shareholder Return**	-0.03	-0.19**	0.02	-0.02	-0.01	-0.01	0.04	0.07**

		9.	10.	11.	12.	13.
9.	**CEO Ownership**	1				
10.	**Institutional Ownership**	-0.08**	1			
11.	**Sales**	-0.05**	-0.05*	1		
12.	**Tobins Q**	0.05*	0.09**	-0.27**	1	
13.	**Shareholder Return**	-0.06**	0.09**	0.01	0.17**	1

**significant at 5% level; ** significant at 1% level*

Table 3 presents the results from a series of fixed-effects regression models predicting changes in the Black-Scholes value of stock options granted to all top 5 executives in the S&P 500 from 2001 to 2005. Model 1 includes only the control variables; model 2 includes the external threats from the institutional environment along with the controls; model 3 includes the variables measuring CEO power, independent director power, corporate ownership structure, and the controls; and model 4 is the fully specified model.

The results do not support hypothesis one that companies in which CEOs have more power had higher option values. In the fully specified model, none of the four measures of CEO power (board size, CEO is chairman, CEO tenure, and percent of

Table 3: Results from Fixed Effects Regression Models,

Value of Executive Stock Options of Five Highest Paid Executives, S&P 500,

2001 -2005

	Model 1	Model 2	Model 3	Model 4
Investigations		-0.705		-0.558
		(0.115)**		(0.115)**
Shareholder Class Action Lawsuits		0.039		0.037
		(0.080)		(0.080)
Shareholder Resolutions		-0.129		-0.106
		(0.026)**		(0.026)**
Size of Board			0.039	0.032
			(0.017)*	(0.016)
Percentage of Outside Directors			-1.267	-1.134
			(0.276)**	(0.272)**
CEO is Chairman			-0.126	-0.074
			(0.052)*	(0.051)
CEO Tenure			0.062	0.051
			(0.035)	(0.034)
Directors on 4 or more Boards			-0.955	-0.771
			(0.214)**	(0.212)**
CEO Ownership			0.005	0.004
			(0.001)**	(0.001)**
Institutional Ownership			-0.038	-0.012
			(0.086)	(0.085)
Sales (log)	-0.249	-0.248	-0.007	-0.043
	(0.095)**	(0.093)**	(0.098)	(0.097)
Tobin's Q	0.174	0.143	0.121	0.106
	(0.042)**	(0.041)**	(0.042)**	(0.041)**
Total Shareholder Return	-0.001	0.001	-0.000	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Constant	11.026	11.153	9.724	10.043
	(0.854)**	(0.832)**	(0.872)**	(0.860)**
Observations	1732	1732	1694	1694
Number of Companies	379	379	379	379
R-squared	0.02	0.08	0.09	0.12

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

directors serving on multiple boards) had a statistically significant and positive effect on the value of executive stock options. Interestingly, companies with higher percentages of directors on four or more corporate boards actually had lower values of

tock options during this period. The managerial power theory predicts that these directors would be less able to monitor executive compensation and that boards with more directors on multiple boards would lead to higher stock option values. The negative impact that these boards appear to have on stock option values suggests that these types of directors may actually be *more* able to function as effective monitors, either through experience or because they were more connected to the larger business community and more aware of the pressures from the institutional environment. Overall, the findings regarding CEO power reveals that in the wake of the scandals, CEOs had limited ability to increase the value of their stock option compensation.

In contrast, the results provide strong support for hypothesis two regarding the power of independent directors. As predicted, companies in which independent directors made up a larger percentage of the board had lower executive stock option values. In fact, the coefficient for this variable is the largest for any of those analyzed. This suggests that independent directors exerted substantial influence over executive compensation after the scandals and responded to institutional pressures challenging the use of stock options by providing executives with less valuable stock option grants. The results do not provide support for hypothesis three, which predicted that companies in which CEOs owned more stock would reduce stock options. In fact, the coefficient is in the opposite direction, although it is small. Hence, contrary to the assumptions of agency theory, CEO ownership does not appear to have aligned the interests of CEOs with shareholders, who were calling for reductions in and changes to executive stock options. Finally, higher levels of ownership by institutional investors did not have any effect on the value of executive stock options, thus providing no support for hypothesis four. Institutional ownership may not have functioned as a constraint on boards of directors' decisions regarding executive stock options.

Turning to the variables measuring the institutional pressures, the results provide support for hypothesis five. Companies under investigation by a federal agency for corporate fraud had lower executive stock option values. Similarly, the results support hypothesis seven that companies that were the targets of more shareholder resolutions would have lower stock options values. Hence, as predicted by institutional theory, these two pressures likely motivated boards of directors to not only scrutinize executive compensation practices, but to make reductions in the value of stock options granted to executives, the compensation mechanism that had come under the heaviest criticism during this period. However, the results show that class action lawsuits had no statistically significant effect on stock option values suggesting that these lawsuits were not perceived as pressures by boards of directors.

As discussed in previous sections of this paper, although stock options came under the most scrutiny and criticism after the scandals, they do not represent the only form of executive compensation. To complement the findings regarding changes to executive stock options, I also examined the influence of the same institutional pressures, corporate governance structures, and ownership patterns on changes to other forms of compensation: salary, restricted stock units, and bonuses. Did board structures influence the value of these forms of executive compensation in the same way? Did institutional pressures lead boards to make changes to these other forms? Do the results provide support for the claim that corporate boards were offsetting reductions in stock options with increases in other forms of compensation?

Table 4 presents results from the fully specified models predicting changes to three other forms of executive compensation. The second column first presents the results for total compensation, which is the sum of salary, value of stock options, value of restricted stock, bonuses, all other forms of cash payments received by executives, and payouts from long-term incentive plans. For total compensation, only

Table 4: Results from Fixed Effects Regression Models,

Value of Executive Compensation of Five Highest Paid Executives, S&P 500,

2001 -2005

	Total Compensation	Salary	Value of Restricted Stock Units	Bonus
Investigations	-0.189	-0.033	0.853	0.554
	(0.070)**	(0.022)	(0.485)	(0.116)**
Shareholder Class Action Lawsuits	0.040	-0.015	0.254	-0.147
	(0.048)	(0.015)	(0.330)	(0.080)
Shareholder Resolutions	-0.023	-0.010	0.203	-0.007
	(0.016)	(0.005)*	(0.108)	(0.026)
Size of Board	0.020	0.016	0.148	0.001
	(0.010)	(0.003)**	(0.070)*	(0.017)
Percentage of Outside Directors	-0.324	-0.122	2.944	0.778
	(0.170)	(0.054)*	(1.170)*	(0.291)**
CEO is Chairman	-0.006	0.004	0.124	0.041
	(0.032)	(0.010)	(0.220)	(0.053)
CEO Tenure	0.008	0.034	-0.643	-0.030
	(0.021)	(0.007)**	(0.149)**	(0.036)
Directors on 4 or more Boards	-0.115	-0.132	1.445	-0.286
	(0.129)	(0.041)**	(0.890)	(0.213)
CEO Ownership	0.001	-0.001	-0.003	0.001
	(0.001)	(0.000)**	(0.005)	(0.001)
Institutional Ownership	0.058	0.023	0.691	-0.064
	(0.046)	(0.015)	(0.319)*	(0.075)
Sales (log)	0.229	0.011	1.880	0.581
	(0.058)**	(0.018)	(0.399)**	(0.096)**
Tobin's Q	0.096	0.011	0.196	0.006
	(0.026)**	(0.008)	(0.177)	(0.043)
Total Shareholder Return	0.003	-0.001	0.003	0.006
	(0.001)**	(0.000)**	(0.005)	(0.001)**
Constant	7.787	7.992	-16.673	2.283
	(0.514)**	(0.165)**	(3.558)**	(0.863)**
Observations	1845	1861	1861	1767
Number of Companies	384	384	384	381
R-squared	0.07	0.09	0.07	0.10

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

investigations have a statistically significant effect: companies facing investigations had lower total compensation. This suggests that investigations motivated boards of directors to scrutinize and reduce overall compensation after the scandals. However,

since the results for total compensation offer few significant findings, disaggregating total compensation into its component parts is likely a better approach for understanding the influence of the independent variables on executive compensation during this period.

Turning to the separate components, for CEO power, the results provide a slightly different picture than that of stock options. Although CEO power did not lead to higher option values, companies with more powerful CEOs (as measured by larger boards and longer CEO tenures) had higher salaries. The findings for restricted stock regarding CEO power, however, are ambiguous. While companies with larger boards had higher restricted stock values for executives, companies with longer CEO tenure had lower restricted stock values. This highlights the possibility that CEO power may not have been relevant for this form of compensation or that these two measures do not both capture CEO power. Similar to the findings regarding stock options, however, the dual role of CEO-chairman had no statistically significant impact on any form of executive compensation, and boards with more directors on four or more boards had lower salaries. Hence, these findings suggest that in the postscandal environment, executives with more power over directors were most able to exert their influence by increasing their salaries, but not any other forms of compensation. This provides further evidence that the scandals placed real constraints on the ability of executives to extract rents through their compensation arrangements.

The results for the power of independent directors also presents a more complicated picture, particularly regarding the possible connections between changes in executive stock options and other forms of compensation. Companies in which directors had more power, as measured by the percentage of independent directors on the board, had lower salaries, but higher values for both restricted stock and bonuses. When combined with the negative results for stock option values, this suggests that

independent directors responded to pressures challenging the use of stock options by reducing the number of stock options granted to executives and reducing salaries. It also suggests that in place of stock options and salary, corporate boards may have offset these reductions through increases in restricted stock and bonuses. Overall, the evidence provides strong support for the claim that independent directors took an active role in making changes to executive compensation, as the decrease in stock options and scandals, and increases in restricted stock and bonuses was a marked shift from the prescandal era. Companies with higher levels of institutional ownership had higher values of restricted stock, providing further evidence that shareholders were feeling pressure to move away from options and towards restricted stock during this period.

A similar process of replacement is also suggested by the findings for investigations in Table 4. The results show that companies under investigation had higher values of bonuses, but the two other forms of compensation were unaffected. Since companies under investigation also had lower stock option values, boards of directors may have offset these reductions with increases in bonuses. Similar to the findings for stock options, class action lawsuits had no statistically significant effects on the value of any of these three types of executive compensation. Finally, the results reveal that companies that were the targets of more shareholder resolutions regarding corporate governance had lower salary values, but the other forms of compensation were unaffected. This provides evidence that boards of directors facing institutional pressure from shareholders reduced salary levels in addition to stock options, but did not increase any other form of compensation.

Discussion

The results of the analysis presented in this paper provide a number of insights into the forces shaping changes to executive compensation after the scandals. First, the findings indicate that institutional pressures that emerged with the scandals led corporate boards to reduce executive stock option values and salaries, but boost the value of executive bonuses. The results also support the claim that in the postscandal environment, powerful CEOs faced new constraints in using their power to continue receiving valuable stock option grants, but were able to increase their salary levels. In addition, independent directors exerted their power in shaping executive compensation practices after the scandals, and they used their positions to reduce stock option values and salary, and increase the value of restricted stock and bonuses. The results regarding the role of independent directors challenges existing work that has shown that independent directors have little power to influence or reduce executive compensation (Core et al 1999, Cyert at al. 2002, Westphal and Zajac 1994). Since these studies analyzed these dynamics prior to the scandals, my findings support the contention that the scandals altered the power of independent directors.

The limited ability of powerful CEOs and the apparent power of independent directors to influence executive compensation after the scandals could be interpreted as a partial refutation of the managerial power perspective advanced by Bebchuk and Fried (2004). More specifically, the results do not support the view that powerful CEOs were able to extract rents through their compensation arrangements. However, when these same CEOs and independent directors are placed within the broader postscandal environment in which corporations, executives, and boards of directors were facing intensive scrutiny and criticism of existing compensation arrangements, these findings make more sense and lead to a more complex view of the influence of organizational environments on executive compensation practices. This turbulent

environment generally made it difficult for executives to exert their power to influence compensation arrangements in their favor at the same time that it gave independent directors more incentive and power to monitor and alter executive compensation arrangements.

The findings also reveal, however, that the turbulence in the institutional environment after the scandals did not merely create constraints on executive influence over compensation setting processes. The scandals and subsequent challenges to the legitimacy of executive compensation and stock options also led to concrete actions, i.e., shareholder activism and investigations, by extraorganizational actors that targeted the existing executive compensation practices and deviant executive behavior within specific organizations. The results provide strong evidence that in the face of these pressures, boards of directors reacted by reducing the value of executive stock options. The finding that institutional pressures had an important influence on the structure of executive compensation after Enron is in line with a vast body of literature that has demonstrated the importance of institutional environments for the diffusion of a number of organizational practices. More specifically, two streams of research by Westphal and Zajac (Westphal and Zajac 1994, Zajac and Westphal 1995, Westphal and Zajac 2001) and Wade, Porac, and Pollock (Wade et al. 1998, Porac et al. 1999, Pollock et al. 2001) have shown how institutional environments influenced the symbolic management of executive compensation in the 1990s. Here, I extend this research by showing how institutional environments influence the actual substantive structure of executive compensation.

In addition, the influence of shareholder activism on executive compensation is in line with existing studies by Bizjak and Marquette (1998), Rao and Sivakumar (1998), Wade et al (1997) and Porac et al (1999), who have all found that shareholder resolutions can influence the diffusion of corporate governance practices and the

symbolic management of executive compensation. Although studies by Johnson and Shackell (1997) and Thomas and Martin (1999) did not find a similar effect of shareholder proposals on the levels of executive compensation, both examined the role of activism in the prescandal period. My findings about the role of shareholder activism in the postscandal period expands upon this work and more recent work that has forged deeper connections between institutional theory and the literature on social movements (Davis et al. 2006, King and Soule 2007). One of the primary insights of the second stream of literature is that groups of actors outside corporations can engage in collective action to effect change in organizational practices. The case of shareholder activism demonstrates the applicability of social movement theory for studying changes to organizational practices that influence social inequality. In this case, shareholders, and in particular union pension funds and individual activist investors, were able to take advantage of the political opportunity presented by the scandals to mobilize resources to submit shareholder resolutions to effect change in executive compensation (McAdam and Scott 2006).

The key unresolved question that this analysis leaves open, however, relates to the long-term consequences of this shareholder activism and the broader challenges to the legitimacy of executive compensation and stock options that emerged after the scandals. In this paper, I have demonstrated that these challenges placed pressure on boards to decrease the level of certain forms of executive pay and alter the mix of executive compensation away from stock options. However, as the broad trend data revealed, the sharp decline in the levels of executive compensation that began after 2000 had leveled off by 2003, and, with the apparent replacement of stock options with restricted stock and bonuses, these levels have recently started to climb again. Hence, the postscandal constraints on executive power and empowerment of independent directors may have been short-lived. Since the scandals did not produce

any new substantive regulation of executive compensation by the state, it is likely that the social and political environment of boards of directors, which provide executives with distinct power over setting their compensation, have remained mostly unchanged. Those challenging the legitimacy of executive compensation practices appear to have been able to effect short-term changes in response to institutional pressures, but were not able to fundamentally alter the underlying organizational level, corporate governance processes through which boards, executives, and corporate human resources departments design, implement, and alter executive compensation. It appears that the overall system has retained its legitimacy in the face of these challenges.

This study has obvious limitations. One of the most important limitations concerns accurately disentangling the effects of the scandals and the effects of the stock market decline that began prior to the scandals in 2000. The drop in stock option values, for example, may have been driven by the overall drop in the stock market values of most companies during this time, rather than due to the forces uncovered in my analysis. A related question is that of executive preferences. Given the drop in the stock market, executives may have preferred to receive less of their compensation in stock options, contrary to what I have argued in the section motivating my hypotheses. This is an important unanswered question. Executives saw dramatic increases in their wealth due to the appreciation of the stock market in the 1990s. This may have made them continue to want to receive stock options, as I have argued. This contention is further supported by the fact that the most advantageous time to receive stock options is when stock prices are low because if the stock price increases, the spread between the grant price and market price will be higher. Future research would benefit greatly, therefore, by controlling more directly for decreases in company stock prices during this period, more precise attention to the issue of the timing of changes during this

period, and engaging with the large literature on executive preferences for types of compensation. Such expansions would help to more precisely measure the impacts of the scandals on changes in executive compensation.

In addition, I only analyzed changes to the *levels* of different forms of executive compensation, which was not the only the target of criticism. Shareholders were also very concerned about the lack of connection between executive pay and performance. Did the challenges to executive compensation lead to the implementation of such links? Gaining insight into these possible changes would provide a richer view of the possible transformation or retrenchment of executive compensation after the scandals. Second, the variation in the findings for different measures of CEO power raises questions regarding whether these commonly used operationalizations of CEO power are measuring the same mechanisms. For example, the finding regarding directors on multiple boards suggests that when the legitimacy of market institutions is challenged by actors outside the corporation, directors with larger networks are more likely to be influenced by these environmental forces. Future research would benefit from attending more closely to the specific mechanisms that these individual measures isolate. With respect to shareholder activism, my counts of shareholder resolutions is a relatively coarse measure of shareholder pressure. Were different types of resolutions more or less effective? Did the affiliation of the sponsor (e.g., union pension fund, individual activist, social justice organization, public pension fund) determine the effectiveness of the activism? Were resolutions that received majority votes more influential? It would clearly be useful to dig deeper into the conditions under which shareholder resolutions make a difference for executive compensation and corporate governance more generally. Along the same lines, were different types of regulative pressures more salient than others? Did serious attention by the SEC to a particular industry influence levels of executive compensation?

Finally, the analysis only focuses on the S&P 500, which are the largest firms in terms of market capitalization. It is reasonable to expect that these companies were the most likely to receive scrutiny and most vulnerable to institutional pressures for change. Smaller companies may have been less susceptible to such pressures and may not have altered their executive stock options programs in the same ways as it appears the S&P 500 did. Finally, my focus on the postscandal period limits my comparative abilities. What type of influence did CEOs and independent directors have over executive compensation before the scandals? What about institutional pressures? Extending the quantitative analysis to the earlier period would permit a stronger assessment of the extent to which the scandals altered the landscape.

Conclusion

Despite these limitations, this paper has demonstrated the usefulness of combining the managerial power approach with institutional theory in examining changes to executive compensation practices. The broad diffusion of executive stock options in the 1990s was a key development in the expansion of economic inequality over the last two decades. The scandals that emerged at Enron and other companies during 2000 and 2001 challenged, among other market institutions, the legitimacy of existing executive compensation practices, and in particular, the widespread and heavy use of stock options. The findings of this paper reveal that these challenges led at least to short-term reductions in executive compensation and a decrease in the use of stock options. They also suggest that these challenges were possibly not successful at altering the organizational level processes through which executive compensation is structured.

This paper also highlights the potential benefits of making deeper connections between institutional theory, the sociology of markets, and the social stratification

literature. For example, Fligstein (2001) has argued in his political-cultural approach to markets that market institutions, even those that with strong legitimacy, can come under challenge during periods of destabilization. The scandals represented such a period as some of the core pillars of the institutional architecture of American capitalism, such as executive compensation, came under challenge. Fligstein (2001) has theorized that during such moments of contestation, market incumbents who benefit from existing institutional arrangements possess a great deal of power against challengers. Although the analysis presented here reveals that the power of incumbents (in this case, executives who benefit from existing compensation-setting practices) was constrained in the immediate wake of the scandals, these challenges may not have been successful at fundamentally altering the system of corporate governance that determines executive compensation. This retention of broad institutional legitimacy is not surprising. Although institutions that govern markets are subject to periodic crises and challenges, large-scale transformations of market institutions are relatively rare (Fligstein 2001). In the case of executive compensation, the shift away from the tainted stock option, the increase in the use of restricted stock and bonuses, and reductions in the overall level of executive compensation that my analysis has revealed may have functioned as symbolic changes that effectively derailed more substantial changes.

This paper has demonstrated that executive compensation practices, which are key mechanisms through which the wealth generated by corporations is distributed among different stakeholders, become institutionalized over long periods of time, but can become open to contestation during certain periods. However, actors challenging the legitimacy of executive compensation practices may face distinct limits in altering the social and political processes that ultimately determine the structure of these practices. The persistence of the organizational level arrangements through which

executive compensation practices are structured will likely translate into continued growth in executive pay levels and, without a corresponding increase in compensation levels of nonexecutive employees, a continuation of current patterns of income and wealth inequality.

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CHAPTER 3

EXPLORING THE LIMITS OF CONVERGENCE IN THE GLOBAL TECHNOLOGY SECTOR: THE INSTITUTIONALIZATION OF EMPLOYEE STOCK OPTION PROGRAMS IN INDIA AND THE UNITED STATES

Introduction

For the last two decades, organizational and economic sociologists have greatly expanded our understanding of the forces shaping cross-national variation in a number of different types of economic activity, demonstrating a notable lack of convergence between national settings (Guillen 1999, 2001). One stream of literature has focused on how national level institutions, such as the state, organized labor, elite networks, management ideologies, and culture shape variation in patterns of economic development (Evans 1995), the emergence and structure of entire industries (Biggart and Guillen 1999), the transfer of organizational forms (Guillen 2001, Westney 1987), and the development of management ideologies (Guillen 1994). A second stream of literature has analyzed how economic and institutional forces at both the national and organizational field levels have shaped the diffusion of specific, legally codified organizational practices such as ISO (Guler et al. 2002) and hostile takeovers (Schnepper and Guillen 2004); the diffusion of native conceptions of control developed in one setting within a new setting (Fiss and Zajac 2004); and variation in the contours of less well-defined organizational practices like small group activities (Cole 1985) and strategic human resource management (Gooderham et al. 1999). This second body of research has both broadened the scope of institutional organizational theory, which has mostly examined the diffusion of practices within the US, and demonstrated the continued relevance of institutional environments, which are particularly visible in comparative societal research.

In terms of research strategy, recent studies of the cross-national diffusion of organizational practices have focused primarily on examining the effects of variables that capture key elements of national institutional environments. However, like most institutional research, the literature on the cross-national diffusion of compensation practices has lacked grounded analyses of how organizational practices are translated by organizational and field-level actors who have key roles in implementing, structuring, and constructing the meaning of new practices imported from other settings. To address this substantial gap in institutional organizational theory, Campbell (2005: 54-55) suggested that:

> "What is required is a specification of the mechanisms whereby models of organization and action that diffuse through a field are translated into practice on a case-by-base basis. By translation, I mean the process by which practices that travel from one site to another are modified and implemented by adopters in different ways so that they will blend into and fit the local social and institutional context."

Explicating the forces shaping translation processes will, therefore, permit a deeper view of the malleability of organizational practices and the role of agency in diffusion processes. Such a view is important not only for understanding how practices move across national borders, but also for understanding how practices diffuse between organizations within the same field and between different fields in the same national setting. This paper takes a step towards developing a better understanding of the processes of translation by examining the institutionalization of employee stock option programs (ESOs) within software and information technology (IT) companies in India, using the comparative case of the US. Since there are no legal requirements in either

country for how these programs can be structured, it is an ideal setting for examining variation in the institutionalization of the same organizational practice.

More specifically, through data collected in interviews with managers and consultants in India, this paper accesses the views and constraints of organizational actors who have played key roles in interpreting and implementing ESOs in India. The qualitative data indicate that the practice took on a different meaning and structure in the Indian context. In the US, technology companies have used stock options since the 1950s, and the practice diffused rapidly with successive waves of high-tech sectoral development in the 1980s and 1990s (Blasi et al. 2003). Furthermore, within the US, technology companies have granted stock options very broadly among their employees, especially in the 1990s (Blasi et al. 2003). In contrast, ESOs diffused among Indian technology companies only beginning in mid 1990s, and Indian software and IT firms did not grant stock options as deeply within their organizational hierarchies as did technology companies in the United States. The data I collected in my interviews reveal that forces at the individual, organizational, organizational field, and broader macroeconomic and sociocultural levels influenced how actors in the Indian context translated the practice of ESOs. More specifically, my informants illuminated how labor market conditions, cultural beliefs about stock ownership and investing, organizational constraints on managers and a lack of field level actors and conduits of information to promote the creation and transfer of knowledge about the practice all had important influences on how organizational actors translated the meaning of the practice and adapted it to the Indian context.

In addition to emphasizing the roles of institutional change agents in the global diffusion of management practices and illuminating how broader organizational, institutional, cultural, and economic environments shape the interpretive activity and actions of these agents, this paper also aims to make new connections between

institutional organizational theory and the vast literature on social stratification by examining the institutionalization of a compensation practice that can have a substantial impact on income and wealth inequality (Blasi at al. 2003, Morgan and Cha 2006). Although scholars of inequality have acknowledged the role of organizational level processes and structures in shaping patterns of various stratification outcomes (Baron 1984, Baron and Bielby 1980, Sorensen and Kalleberg 2001), this literature has largely ignored how these organizational level forces are themselves shaped by processes and structures at the organizational field and more macro levels. Gaining such insight will help us understand the multilevel forces shaping variation in the institutionalization of compensation practices in different settings and illuminate specific foundations of global inequality that have remained mostly obscured in the social stratification research. Finally, this paper expands upon the literature on the cross-national transfer of management practices by analyzing diffusion within the knowledge sector. Existing work has focused primarily on the diffusion of practices within manufacturing industries. Despite the rapid acceleration in the globalization of knowledge work and technology production in the last two decades, our understanding of its causes, characteristics, and consequences remain thin.

Gaining insight into the global diffusion of compensation practices within knowledge industries is particularly important in light of the fact that technology companies in the United States, particularly in the software and internet industries, have historically embraced organizational innovations that promote a more equitable distribution of profits and power, relative to practices in companies in more traditional manufacturing and service industries. These innovations include the widespread granting of stock options to most or all employees and the decentralization of decision-making authority (Blasi et al. 2003, Saxenian 1998). Anecdotal evidence

from media reports in the late 1990s suggested that firms within similar industries in India were also adopting similar types of organizational practices. If these practices are in fact diffusing widely across borders, the globalization of technology work may have different characteristics than what has occurred in manufacturing industries: the large scale transference of production and jobs from the advanced capitalist countries of the United States, Western Europe, and Japan to less developed economies in the Third World, and concomitant downward pressures on global wages, employee benefits, and working conditions. Although the transference of knowledge work from more developed economies to less developed economies has accelerated recently, the potential diffusion of organizational practices that broaden ownership and authority within the knowledge sector could mean that the globalization of knowledge work is not characterized by a similar deterioration of wages and working conditions that has occurred in many global manufacturing industries.

Despite the importance of these issues, there have been few empirical examinations of how compensation practices within the knowledge sector are transferring across borders. The case of India is a rich one for examining the offshoring of white collar technological work. Since the 1980s, India has become a formidable competitor in a number of technology markets, most prominently software and information technology (IT). In the last decade, a number of Indian companies have emerged as global industry leaders in the creation of increasingly sophisticated and customized software and IT products. In addition, dramatic technological advances in the last decade have accelerated the ability and capacity of multinational technology companies to shift increasingly more of their production activities to cheaper labor markets. India has been the recipient of a growing number of these jobs because of its highly educated, highly skilled, English-speaking supply of engineers, scientists, and other highly skilled workers. This trend of offshoring has been the

subject of an increasing amount of media attention and policy debate in the US, but a singular focus on the effects of globalization on workers in the US hinders more in-depth analyses of the deeper causes, complex characteristics, and wide-ranging consequences of the globalization of knowledge work.

This paper begins with a presentation of the case of the institutionalization of ESOs in the US, followed by a brief discussion of the emergence and development of the technology sector in India. This sets up the broader context for the analysis of the diffusion and institutionalization of ESOs in Indian software and IT firms.

Stock Options and Knowledge Work: The Case of the United States

An employee stock option is a form of stock-based compensation that gives an employee the right to purchase a fixed number of shares at a fixed price for a fixed period of time. In both the US and India there are few regulatory requirements regarding how companies distribute stock options. Therefore, companies have a great deal of freedom in deciding who gets options, how many, how often, and under what conditions. For example, companies can grant stock options to only their CEOs, to all upper managers, to all middle managers and above, to all employees, or to any possible permutation in the number and types of employees. Decisions regarding the allocation of stock options among employees remain mostly with corporate management, but certain types of grants must be approved by boards of directors and shareholders. The lack of specific requirements for how companies structure ESOs creates the opportunity for organizations to structure these plans in different ways, and for the practice to take on different meanings and become institutionalized in different ways in different national environments and organizational fields. This paper focuses specifically on how grants to nonmanagement employees became institutionalized in India. To better understand the Indian case, it is worthwhile to compare it to how the

practice became institutionalized in the US, which has been capably analyzed by Blasi et al (2003) and Saxenian (1997).

The emergence of ESOs in the US technology sector can be traced to the first semiconductor companies in the Silicon Valley of California. In their detailed history, Blasi et al. (2003) identify the initial emergence of the practice of granting stock options broadly to the experience of Fairchild Semiconductor. Fairchild was founded by employees of Shockley Semiconductor, which was an early pioneer of semiconductor technology. In 1957, a group of engineers at Shockley became disillusioned with the way that the company was managed and left to start their own company. From the beginning, the founders wanted Fairchild to be run in a way that granted engineers more autonomy and that was more egalitarian in its culture. The company also provided most of its engineers and other knowledge workers with an equity stake through the mechanism of a stock option, which US corporations had been using for decades, but only for top executives.

For the founders of Fairchild, giving employees who represented the company's intellectual capital both an equity stake in the business and autonomy in their work just seemed to make sense, and this concept became a core part of the Silicon Valley model described by Saxenian (1997). A number of Fairchild employees went on to found the next generation of semiconductor startups, such as current stalwarts like Intel, National Semiconductor, and Advanced Micro Devices. These employees brought to their new companies the more egalitarian management philosophies originally implemented at Fairchild. The early semiconductor manufacturers were typically structured around a core group of engineers who had a great deal of autonomy in their jobs and received a financial stake in the organization through stock options (Blasi et al 2003). However progressive such policies were for these employees, these early high-tech organizations were essentially manufacturing

companies and also employed large groups of blue collar workers, who usually did not receive stock options. By the mid-1980s, many of these blue collar jobs were moving to cheaper labor markets in the same way as blue collar jobs in more traditional manufacturing industries (Blasi et al., 2003). However, the early semiconductor companies established the initial legitimacy of broad-based stock option programs by giving stock options beyond top managers. This practice would take on a new meaning for subsequent types of technology companies in Silicon Valley.

With the development and diffusion of personal computers (PCs) in the 1980s, for example, a new generation of computer manufacturers emerged. In addition, the rise of PCs meant that software production, which was traditionally handled within hardware manufacturers, became a distinct enterprise, around which whole companies could be formed. These new software firms epitomized the notion of a knowledge company because their capital and products were not physical, but intellectual (Blasi et al. 2003). Due to the primacy of this intellectual capital, tight labor markets for knowledge workers, and the need to preserve start up cash, software companies began granting stock options to a much broader groups of employees than the earlier generation of Silicon Valley semiconductor companies (Blasi et al, 2003). In the late 1980s, the highly publicized public offerings of many of these companies, particularly Microsoft, turned a number of lower level employees into millionaires and dramatically reinforced the legitimacy of granting stock options to broad groups of employees. As the Internet boom began in mid-1990s, a number of new industries sprang up to provide the hardware and the software for this new technology. Facing similar needs for knowledge workers, tight labor markets, and startup cash as the previous generation of software startups, companies in these industries turned en mass to the practice of granting stock option to most or all employees, which the software industry had institutionalized as the accepted way to address these issues. With the

widespread adoption of this practice within the new generation of startups, ESOs became firmly institutionalized within Silicon Valley and began to spread to both other technology regions in the US such as Boston, Seattle, and Washington DC. The practice even began to spread to nontechnology companies during the stock market boom of the late 1990s.

In the 1990s in the United States, therefore, the practice of granting stock options broadly to most or all employees became standard within most high-tech industries as a way attract, retain, and motivate knowledge workers. The forces shaping the institutionalization of this practice were complex and can mostly be traced to the population of startup firms in Silicon Valley. First, the practice had strong cultural resonance within the Silicon Valley startup environment characterized by strong norms of innovation and nontraditional organizational structures. Second, the practice served a very practical function as a way for startup companies to preserve cash, and still hire and retain the intellectual capital on which success was determined. Third, in the extremely tight knowledge labor markets of Silicon Valley, employees demanded stock options because they were knowledgeable about the potential payoffs that could occur under the standard business model of startup firms going public. This positive evaluation of stock-based compensation was also influenced by the broader phenomenon of more widespread participation in stock market investing within the US during the 1990s. At the organizational field level, the practice diffused quickly and easily within the dense networks of highly mobile employees, managers, and executives that has defined Silicon Valley since its emergence in the 1950s (Saxenian 1998). Finally, a community of field-level actors also helped legitimate the practice, such as the venture capital industry, which required startup firms to have ESOs; compensation consulting firms that specialized in the design and management of ESOs; and technology industry associations and nonprofit organizations specializing

in equity compensation practices, such as the National Association of Stock Plan Professionals (NASPP), which were crucial in disseminating information and building inter-company networks of professionals responsible for designing, implementing, and managing these programs.

The bursting of the Internet-driven stock market bubble in 2000 and subsequent corporate scandals, however, challenged the legitimacy of the practice (Carberry 2007). Although privately-held startups still grant stock options broadly, their use among larger publicly traded technology companies has diminished in the last four years (NCEO 2007). In addition, the globalization of technology production, which began to accelerate in the late 1990s, has had important implications for the legitimacy and use of the practice within the knowledge sector.

The Emergence of the Global Technology Sector and the Case of India

In the last ten years, dramatic advances in information technology have accelerated the ability and capacity of US companies to offshore a wide range of white collar and high-tech jobs to cheaper labor markets. India has been a recipient of a number of these jobs because of its highly educated, English-speaking workforce. As India's economy opened up to global investment with the implementation of reforms backed by the International Monetary Fund in 1991, the focus of the high-tech sector, centered primarily around software development, began to shift from production for internal markets to production for external markets (Evans 1995, Patibandla & Petersen 2002). However, prior to the mid-1990s, software firms in India were primarily low cost exporters of routine functions and faced serious institutional barriers to harnessing the high-tech industry as an engine of economic development, such as a lack of entrepreneurial initiatives, complex bureaucratic oversight, a very underdeveloped infrastructure, and the loss of talent to the United States (Parthasarathy 2004a, 2004b;

Saxenian forthcoming, 2002, 2000). However, subsequent policy initiatives created new opportunities and a diversification of products and of the industry generally, paving the way for the emergence of a population of software and IT services companies that competed in the most advanced global markets (Parthasarathy 2004a, 2004b).

Despite its extensive analysis of the historical development of the Indian software sector, the existing literature has not examined in similar detail the structure of compensation in the Indian software industry. Indian software companies such as Wipro and Infosys have received significant media attention in the United States for generating enormous wealth for their employees and creating organizations that resemble software firms in the US through employee stock options, decentralized organizational structures, and unconventional corporate cultures (e.g., Karp 1999). However, we still lack a detailed view of compensation and organizational practices in the software industry in India, particularly practices that provide employees with an equity stake in the company through stock options. The initial motivation of the research discussed in the remainder of this paper was to address this gap.

Methodology: Accessing the Views of Organizational and Field Level Actors

Most studies of practice diffusion take advantage of longitudinal data on adoption events. However, for many organizational practices, adoption events are neither visible nor measurable. In this study, I employed an alternative strategy for analyzing diffusion by accessing the views of actors who were either involved in practice adoption (corporate managers) or who occupied positions that provided in-depth knowledge of adoption events (compensation consultants). While this strategy does not serve as a replacement for standardized, longitudinal data on practice adoption

within a representative sample of organizations, it does represent an underused approach for gaining insight into broad diffusion trends.

To examine the incidence and processes shaping the institutionalization of ESOs in India, I conducted a series of interviews in Pune, Hyderabad, and Bangalore in February and March of 2005. I interviewed a total of 19 people, which included 18 Indians and one Americans. Thirteen of the informants worked for eight different companies: six were employed in three Indian-based firms, while the other seven worked for five different multinationals, all but one of which was based in the United States. These companies were all involved in creating high-end, customized software and information technology products for a range of global clients. Of the 13 company representatives, one was an executive, ten worked as high-level human resource or compensation and benefits managers, one was a middle manager, and one was a client services manager. I also interviewed four Indian consultants (two at one Indian firm and two who worked for one American firm) and two Indian academics. Interviews were open-ended, based on a set of standard questions, and lasted between one and two hours each. I inquired about how their own companies (or clients) were using stock options, and probed their broader views about the use of employee stock options and equity compensation in India more generally, as well as the development of the technology sector in India. More detailed information on the interviews can be found in the Appendix of this dissertation.

This sample of informants is not representative of the population of Indian technology firms, MNCs based in India, or consulting firms in India. The analysis and conclusions I draw from the data should, therefore, be viewed with some caution regarding their generalizability. However, most of my informants who were working within technology companies occupied high-level positions, such as director of compensation or vice-president of human resources. They were in primary decision-

making roles regarding the implementation and design of ESOs within their companies, and therefore, represent actors involved in the process of translation. In terms of broader views of practice diffusion, the roles and experiences of this sample of informants represent a broad perspective on the use of stock options and other compensation practices within their own companies and within the technology sector more generally. Informants working in consulting or academic positions possessed similarly broad industry experience and perspectives on the connections between economy and society in India. My sample, therefore, included informants who all have an expansive perspective of stock option practices and extensive professional and industry networks, and were therefore well-qualified to assess current practices, the history of stock option practices, and broader trends.

Hence, beyond offering a novel way to gain insight into the diffusion of ESOs in India, this research strategy also represents a fruitful approach for examining processes of translation. What types of individual, organizational, field, and societal level forces drive decisions about how an organizational practice from one setting is understood, interpreted, and actually implemented by actors in a different setting? My interviews with key actors in the Indian technology sector provided unique insight into this question because I was able to probe the views of organizational actors who played key roles in interpreting and implementing ESOs in the Indian setting. What follows in the rest of the paper is a descriptive summary and analysis of the views and perspective of my informants on the growth of the IT sector in India, the use of ESOs in this sector, and the forces shaping the institutionalization of ESOs. I have removed any direct references to individuals or companies to protect the confidentiality of my informants.

A Brief History of Employee Stock Options in India

The diffusion of ESOs in India closely parallels the history of the software and IT industry. My informants painted a broad picture of the development of this industry that reflects existing analyses (Parthasarathy 2004a, 2004b; Saxenian forthcoming, 2002, 2000). The industry developed from providing primarily low-cost, routine coding in the 1980s to one that, by the mid-1990s, produced increasingly complex and customized systems for a range of global clients. By the late 1990s, India had emerged as a global center of software development and related IT products due to the increasing sophistication of its technological knowledge base and high levels of productivity. In addition, electronic communication and file transfer capabilities expanded dramatically in the late 1990s, and this both allowed Indian companies to serve a growing base of global clients and motivated multinational companies to outsource more significant components of their production processes to India. The country has been the recipient of a growing number of these jobs because of its highly educated, highly skilled, English-speaking supply of engineers, scientists, and other IT workers who are paid at substantially lower wages relative to the United States and Western Europe. The dramatic growth continued until the downturn in the US stock markets in 2001. Indian software and IT companies, however, recovered relatively quickly and have continued to expand into new services, products, and markets.

My interviews clearly revealed that Indian executives and managers want India to become a global center of technological innovation within the next decade, one to rival Silicon Valley. As a senior vice-president of human resources at a large Indian software firm explained:

> "The time has come that the best practices can be created anywhere in the world. It is no longer restricted to the Western world. India is just speeding ahead in terms of growth, creativity, and innovation."

As many informants indicated, however, India faces serious challenges to realizing this vision, challenges that some scholars have argued must be addressed at both the industry and societal levels, and for which the state will have to take on a new role to address effectively (Saxenian forthcoming, Parthasarathy 2004a). Similarly, the same senior VP of human resources observed that:

> "The big problems for India and China will be the lopsided development between urban and rural development. There is social imbalance. I saw this in China. Poverty and prosperity coexisting. That is the only danger and risk these companies face. Otherwise these countries have enormous potential and power to surge ahead…And, there will be externalities on the rural sector. I still think there will be a drag on both India and China even after 20 years."

As the technology sector expanded in India, so did the use of employee stock option programs. Although there is little empirical data on the historical or current incidence and structure of ESOs in Indian companies, my interviews, while not providing a set of quantitative data in a representative sample of companies, generated a rich set of qualitative observations about the structure of ESOs in India (who receives stock options, how many, how often, and how these decisions are made) and about broader historical trends. Overall, my interviews revealed that Indian technology companies have used stock as a form of compensation since the sector's inception in the 1980s, but ESOs for nonmanagers only emerged as a compensation mechanism in

the mid-1990s. Prior to this, companies used other forms of stock-based compensation, such as direct stock grants. Some of the pioneering Indian IT companies provided these grants to broad groups of employees because of the ideological commitments of their founders to egalitarian approaches to management.

The general history of stock option use in indigenous Indian technology companies is reflected in the histories of stock option use within individual organizations. The individual histories that informants recounted in their own and other companies had similar characteristics. Many companies began granting stock options to nonmanagers some time in the mid-to-late 90s, usually around 1997, although some companies were making such grants a few years earlier. As one of my informants, a CEO of an Indian software firm, noted:

> "I have worked for three IT companies in India. Similar philosophies. Typically the option plans started in 1996 and 1997."

According to my informants, the initial diffusion of ESOs was fueled by the rapid growth of the Indian IT sector in the mid-1990s. As the sector expanded, the demand for skilled labor intensified. In addition to offering high levels of cash compensation and more generous benefits, these companies also imported the practice of granting stock options from the US. Indian executives and managers initially gravitated towards ESOs out of familiarity: many Indian managers and technical workers had either spent at least some time working in the United States or were embedded within dense cross-national networks of colleagues. Furthermore, during the mid-1990s, high-tech MNCs from the United States began to aggressively set up operations in India and hire within local labor markets. Many of the US-based MNCs initially granted stock options very broadly to employees, and in order to compete for

technical labor, Indian companies had to follow suit and grant stock options.

Despite the broadness of the grant practices of US MNCs, however, all of my informants agree that Indian companies used stock options more selectively, and this is the primary difference between how the practice became institutionalized in India vs. the US. The most common structure of ESOs in India has been one that grants stock options to all top management and a selective group of middle level managers and technical workers. For example, one company in my interview sample granted to employees at all levels of their technical staff, but not necessarily to all employees within these levels. Another company granted to all technical employees down to a certain level. Another company only granted to top managers and the highest level technical workers. These grants seldom, if ever, went to nontechnical employees, such as those in traditional administrative functions, in contrast to stock option practices in US technology companies (Weeden et al. 2001). In India, stock options also have been used primarily as a way for companies to retain employees, rather than as a hiring incentive. This also contrasts to the experience of the US, in which grants were used as both a hiring incentive and a retention device (Weeden et al. 2001).

As the Indian IT sector entered a state of rapid expansion at the end of the late 1990s and early 2000s, more US-based multinational companies came to India, labor shortages tightened further, and ESOs spread to more Indian IT companies. Companies that had never granted options before began to do so at this time, and those with plans broadened the number of employees receiving them. As a compensation manager for a US-based firm indicated:

> "In 1999 when I joined, that was really the hot time, one of the first few peaks in the industry. A lot of companies, Indian companies, a lot of the

multinationals were losing people to these companies. Stock options were a rage at the time. It was one of the leading market practices."

Some companies even extended stock options to all employees, including nontechnical workers. As an assistant VP of human resources for a large India-based software and IT firm explained:

> "So that's what I was talking about in 2001 when we actually increased it to the rest of the organization. The rest of the organization were really the software engineers. Entry level to two years. Everyone else had pretty much been covered. It was really the software engineers and the systems analyst with 0-3 years experience who were covered to a much less percentage. And this is where we really opened up and said, we should really give the opportunity to these employees as well. Because these are really the knowledge generation."

Just as the practice was reaching a more advanced stage of institutionalization, however, the value of US technology stocks experienced a dramatic downturn. According to the same assistant VP:

> "There was a time around 2001 – 2002 when [broad-based stock option grants] became almost a market practice and most of the big players in the industry were giving stock options. But over 2001 – 2002 and after that, a lot of organizations stopped."

Why did the diffusion of the practice stop at this point? Since many Indian companies were traded on the US stock market and/or did a large percentage of their

business with US-based clients, there was a substantial negative impact on the value of Indian technology companies. In turn, the potential value of the stock options that had been granted to IT employees diminished substantially or evaporated completely, leading to substantial criticism of ESOs as a mechanism of wealth generation and a reassessment of a common view among Indian employees that stock options had no downside. As most of my informants indicated, the criticism and reassessment hurt the fragile legitimacy of ESOs in India, and IT companies began to scale back the broadness of their stock option grants or eliminate of stock option grants altogether. The drop in potential stock option value and challenges to the legitimacy of ESOs also occurred in the US, but the practice had achieved a more advanced level of institutionalization in the latter and thus has retained its core legitimacy in the face of these challenges.

The history of ESOs described by my informants reveals that other than the period from 1999-2001, when labor market shortages were most acute and companies began granting stock options to broader groups of employees, Indian companies have not granted and do not currently grant stock options as broadly as US companies. In India, stock options have primarily been used as a retention tool for more selective groups of employees. In addition, ESOs have also had limited spread to non-knowledge based industries in India, with the exception of executive and management grants. Furthermore, my interviews revealed that multinational companies based in India appear to simply extend to Indian employees the grant practices they have in place for US employees to their Indian counterparts. Most of these companies will, however, adjust the number of options granted to reflect local currency values. Hence, US based companies that grant stock options to all employees in the US tend to offer stock options to all employees in India, and those US companies that have more selective grants in the US have more selective grants in India.

The picture that emerged from my interviews regarding the spread of ESOs in India is not a simple one of a compensation practice moving effortlessly across borders, with Indian companies simply imitating their American counterparts. Although information about the practice easily transferred across borders and Indian lawmakers imitated the basic regulatory framework of the US, the meaning and structure of the practice in the two countries differed in significant ways. Most notably, broad-based stock option grants did not diffuse as widely in India, and the general practice of ESOs did not become deeply institutionalized in India. What accounts for this variation in the patterns of incidence and the structure of ESOs in India? To answer this question, it is essential to examine the views of institutional change agents within organizations and the broader organizational field within which software and IT companies are embedded and to explore how and why these agents translated the practice into one that made more sense in the Indian context. The next section examines the forces shaping the processes of translation.

Forces Shaping the Translation and Institutionalization of ESOS in India

My interviews revealed that the translation of ESOs and the different pattern of ESO diffusion within the Indian IT sector has been shaped by broader labor market conditions, cultural beliefs about stock ownership generally and stock options specifically, strategic human resource management considerations at the organizational level, and the apparent absence of certain field level conditions that function as drivers of diffusion within organizational fields. My informants provided detailed observations about how these different forces shaped the institutionalization of ESOs in India. In this section, I take a more detailed look at these forces in the context of both indigenous Indian firms and MNCs with operations in India.

Labor Market Conditions and Cultural Beliefs about Stock Ownership

Organizations adopt and structure compensation practices as a way to attract, retain, and motivate employees. Although much research has focused on wages and salaries, in the last two decades, equity has emerged as a complementary component of employee compensation in a number of labor market settings. A core factor shaping the structure of any form of compensation are local labor market conditions. In addition, in order to be effective, these practices have to be perceived in a positive way by employees. In the case of cash compensation, the levels have to be considered as fair. In contrast to cash-based compensation, equity-based compensation is a relatively new form of compensation. Since few employees beyond the executive ranks have extensive experience with stock ownership, organizations face the additional barrier that employees have little familiarity with the mechanism. In the case of knowledge labor, hiring and retention are key, and compensation managers have to be especially sensitive to designing these programs effectively.

In terms of local labor market conditions, although India creates a large number of highly trained technology workers every year, the dramatic expansion of the technology sector has meant that severe labor shortages have been a relative constant. This shortage was particularly acute in the late 1990s, receded during the end of 2001 and 2002, but has become a very serious issue once again. As a senior compensation manager for a US-based software firmed explained:

> "It was crazy in the late 1990s. Absolutely mad. Worse than it is now. People were…could go around and shop, go out in the morning and come back with four offers. That is how it was. Then, I think, 2000, it came down. Now it has gone back up."

A compensation manager at another US-based firm agreed that knowledge workers were in a position of power within technology labor markets:

> "India is a hot sellers market. They will end up going to ten companies, get the offers, then go to the 11th company and try to get the best offer."

All of my informants noted that attracting and retaining employees was one of the most significant challenges facing both Indian IT firms and MNCs with operations in India. This labor shortage gave employees significant leverage to shop around for multiple job offers and negotiate aggressively for their compensation. Interestingly, employees appear to only negotiate aggressively for cash compensation. Practically every one of my informants emphasized that "cash is king" for technology employees in India. This was the single most common and emphatic theme raised in my interviews. Employees welcome other benefits above and beyond their base cash compensation, such as stock options or variable pay, but do not value these as highly as cash. As the CEO of a consulting firm specializing in equity compensation plans explained:

> "People at the low level of the organization would rather see cash which is certain. Rather than have something that is …I mean…they do not have a clue. They say 'I have been coming to the office everyday, I have been working everyday, why should I not get this money.' They do not understand…they do not correlate their performance with the stock market performance. They would rather get cash than something that is variable."

Similarly, a compensation and benefits director for a US-based hardware manufacturer with extensive operations in India noted:

> "When we are selling employees our total value proposition to potential employees, they are just focused towards the base. The moment you show them the variable component, they think that is still contingent on X, Y, and Z…The moment you tell them about variable pay, mentally, they cut out the program. They will just focus on their base pay."

Another compensation and benefits director for a US based software firm noted:

> "Today we have a significant population who are very young in the IT industry. When they look at compensation, all they look at is cash. They are only concerned about cash allowances. They don't care about benefits. They don't care about the soft benefits that we try and give them. They don't think about the long-term, so all they are concerned about is why is that number that hits my bank account. That's all that matters."

This desire for cash emanates from a number of forces. First, employees want immediate cash to take care of and provide financial security for themselves and their extended families. Also, there is only a small social safety net in India. If employees lose their jobs, most are on their own for healthcare and other necessities. If the IT sector goes into a downturn, employees who have saved up cash from previous employment will be much better prepared to deal with loss of employment. A compensation manager for a US-based software firm commented:

> "Here an employee looks at making money fast and making money fast in terms of cash. His daily earnings is more important than the long term earnings. Because tomorrow if he loses his job, he does not have a state to take care of him. It's as simple as that. So, even if you are in an MNC or one of the big companies, none of us have a guarantee of a job. If the business does not do well, we are out. If we are out, the state doesn't take care of us. So this guy is looking at all these….I am going to look at the next few months or years and how I can make the maximum money. That is all he is concerned about."

This person continued to note that:

> "If I have a family, I have to feed to two children and tomorrow I meet with an accident, my family is doomed. If I am the only earning member in the family, the family is doomed. So I have this concern all the while that I need to keep. I need to save. I need to leave behind."

In addition, the technology sector has created a new middle class, however small in proportion to the rest of the population, and members of this new class want to purchase homes, cars, and consumer goods. As one compensation manager noted:

> "Cash is immediate. I get to see and I get to utilize it for my big purchases. And that impacts what I take home, what kind of purchases I make."

Moreover, levels of cash compensation have escalated rapidly among technology workers because of high labor mobility. The human resource managers and consultants I interviewed emphasized that the most common career ladders for

technology workers are not those within a single organization. Instead, employees in the Indian technology sector advance in their careers by moving from company to company every couple of years. These moves are usually significant promotions and come with a significant increase in base salary. A compensation manager for a US-based firm observed that:

> "In India, you can get a college graduate at a salary, but typically in a design environment, four years experience, the market average tends to double. So in five years, you have to figure out a way to double this person's salary. Different in the US. As people enter different phases…each job shift is also seen as one of the ways to significantly increase compensation. When I shift my job, I expect a 30% increase."

In addition, the MNCs that entered in earnest in the late 1990s were able to pay high cash compensation, which drove levels up even further.

Just as employees view cash compensation very positively, they view stock options negatively. The devaluation of stock options can be traced to a number of sources. First, many informants indicated that in general, Indians do not view the stock market as a place to make money or even a place to put their assets. A compensation and benefits manager for a US-based firm explained:

> "Culturally, India hasn't seen like…how many of them have really seen the magic of shares giving you big benefits…If you look at Indians, they are very risk averse. For sure. We don't believe…the trend is definitely changing…but still, on average, risk averse people."

Similarly a senior VP of human resources at an Indian-based firm noted that:

> "You also need to look at the social cost of people in India. If you look at the way investments are done. For us, until recently, investments of retirements funds were not allowed. Individuals in India, traditionally, they have invested in something like gold. Which is really fixed, not large return, but an assured return. But this is changing…if you want to look at risk and return, more people will go for low risk and low return. There are very few of the population who are investing in the stock market and expecting high returns."

This is in sharp contrast to attitudes about the stock market in the United States. Indians are more risk averse, and the state has only recently put stronger controls in place within India's stock markets. Hence, the legitimacy of the stock market itself remains unstable in India. Moreover, few employees have realized significant gains from their stock options in India, and the widespread use of stock options among broad strata of the technological workforce only began to occur just before the crash of the US stock markets in 2001. Hence, few employees made significant amounts of money from stock options. As a middle manager at an Israel-based software firm noted:

> "Stock options came into play in India to a large extent post the dotcom bust. Lower level folks thinking about the negative aspects and not getting benefited. This is one of the reasons why [stock options] have not gone down to the lower levels."

Furthermore, the startup sector in India is only in its infancy. In the US, the large number of startup ventures granted options to virtually all employees, and created the situations in which employees enjoyed astronomical windfalls from exercising their stock options once these companies went public in a bubble market. The generation of wealth through stock options received extensive media coverage in the US, and helped solidify the legitimacy of the practice. An experienced, Indian, equity compensation consultant noted that:

> "In India, very few companies go public. It is very difficult for people to see cash. Even in terms of getting acquired. It is very rare. Still considered a stigma if you sell your business."

In India, in contrast, the startup sector remains in a nascent stage with large, established, public Indian software companies and multinationals dominating most markets. Hence, there were far fewer situations in which nonmanagement employees made large amounts of money off their stock options, although this did occur for employees in some of the pioneering Indian IT companies, such as Wipro Technologies.

Most informants also traced the devaluation of stock options among Indian knowledge workers to a lack of knowledge and awareness of the mechanism. Stock options are complicated forms of compensation that require employees to understand new tax rules, avoid securities regulations, and engage in long-term financial planning. This type of knowledge often accumulates gradually through corporate educational programs and other information channels, such as media reports. One informant, an experienced consultant on equity compensation, noted that Indian companies are doing very little in terms of educating employees about stock options:

> "But in India, companies are doing very little or no communication at all other than what is required statutorily. If employees are actually told about the value of those shares that they are holding, both present value and future value, there will be tendency to hold onto the shares. But in absence of that, its been looked upon as a short term incentive. People are waiting for the price to go up."

However, some informants indicated that employees at different levels have different attitudes, and part of this may relate to knowledge and awareness. For example, managers and executives tend to value options more because it is more common for them to receive stock options and when they do, they often receive a significant number of them. Managers and executives also have more experience with investing and the stock market. Lower level, nonmanagement employees have had limited access to generous stock option awards, so have tended to value them less. However, this also means that they have little experience with, awareness of, and knowledge about stock options, which contributes to employees' negative perceptions. This leads to an interesting point. Most of my informants emphasized emphatically that tech labor markets are very tight and that as a result, employees are negotiating aggressively for cash. If skilled labor is in such short supply, employees should be able negotiate for both cash *and* stock options, as well as other benefits. Although part of the reason they do not has been because they do not value options all that highly, another factor may be that employees do not have a broad enough knowledge about stock options, how they work, how they can benefit from having them in the long term, and how to negotiate for them, even though the labor market conditions are fertile for employees to obtain them above and beyond their cash compensation.

. This section has reviewed the perspectives and incentives of Indian knowledge workers regarding compensation and benefits. These views and overall labor market conditions were key considerations for corporate managers designing and implementing ESOs. Indian technology workers have been most interested in receiving cash over stock options because they do not view the stock market as a place to make money, have not witnessed stock options generating significant wealth, and remain relatively unknowledgeable about stock options and how they work. Since stock options are not highly valued by Indian employees, there is little incentive for companies to invest resources into designing and implementing plans. This is not to say that India tech workers only value cash. Most informants noted that employees also value good working conditions, respect and autonomy in their jobs, opportunities to work on interesting projects, opportunities to learn, and opportunities to work for high status organizations.

Organizational Level Constraints

In addition to labor market conditions, managers face organizational level constraints when designing compensation and human resource programs. Such constraints include how staffing and retention fit in with overall corporate strategy, as well as the financial resources available for wages and salaries. In the case of stock-based compensation, managers must also taken into account the total amount of employer stock available to make available for employees to purchase or acquire. Beyond these practical considerations, decisions about how to structure employee compensation are driven by what Guillen (1994) has identified as models of management, or institutionalized ideas, concepts, and strategies available to managers for how to manage organizations. With respect to compensation and human resource practices, Baron et al. (2001: 961) have highlighted the importance of "culturally accepted logics or blueprints for

organizing, including a model of how employment relations should be structured." My interviews illuminated how both practical considerations and more tacit logics of compensation shaped the translation and adoption of ESOs among Indian software and IT firms.

In terms of an employment relations model, corporate decision-makers in India view stock options as primarily a way to retain key employees, rather than a benefit that is worthwhile providing to most or all of their employees. The institutionalization of the structure and meaning of ESOs in India as selective grants is clearly different from the way stock options became institutionalized in Silicon Valley. One of the primary components of the Silicon Valley organizational model was an egalitarian emphasis on the liberal and broad use of stock options as a way to attract, retain, and motivate knowledge workers and drive innovation at all levels of an organization. Hence, although options have always been more feasible in Silicon Valley in comparison to India because of the large number of startup companies, the advanced institutionalization of the practice in the US has also been the result of the broader institutionalization of the Silicon Valley model (Saxenian 1994) and with it, the diffusion of a particular employment model that emphasized broad-based stock compensation.

The common logic regarding stock option grants among Indian managers appears to be different that the US, namely that the primary use of stock option grants is to retain the employees they view as essential to the success of the organization. In other words, it is a model that emphasizes the importance of key employees in driving innovation and corporate performance. For example, the CEO of an Israel-based software firm observed:

> "[Options are] not so much of an attraction mechanism, but a retention mechanism in India. Because of the vesting period are longer. You can not attract people with this. Maybe at the senior level but not at the junior level. Once they are in and performing, it might be a good mechanism for retention. Typically vesting 3-4 years."

In addition, Indian managers believe that the grants employees receive need to be significant enough so that they will make a difference. As one informant noted, it is better to provide something of value to the people who really drive the value of the company, rather than give out "peanuts to everyone." This informant, an experienced equity compensation consultant, continued:

> "I do not suggest people go the whole hog. [Options] should go to people who are capable of appreciating the wealth. If it is given to someone who does not understand, it does not work that well. What you are doing is diluting the shares of the other people. It will not have the impact on the bottom line. You should give it to the people who are in the position to make a difference. Who are probably the leaders and not the followers. Down the line, you do not expect them to understand the instrument in that complexity."

A CEO of a software firm echoed this approach:

> "If you look at the average age of employee, it is 26-29. At that age, people are not staying for a long time. Options are only good for long term. Only staying 2-3 years. If you spread it out too thin, there will be no value. If you cover all employees, you need to have the options available. But just giving for the sake

of giving say a token amount, it does not mean much. It is difficult to retain people with a small amount. The approach is to target the key people and have it mean something."

Another important force shaping the more selective use of ESOs within Indian companies is that these companies tend to have fewer shares available to grant than their American counterparts and are thus constrained in how many shares they can give out. In addition, Indian managers have been cautious in distributing stock options broadly because these plans remain new and their long-term effects appear uncertain. Moreover, one informant noted that once granted, even if employees do not value stock options, it is difficult to take away the benefit, and this contributes to management's caution of in distributing stock options:

"It is not broad-based. Why don't these programs percolate to all people at all organizations? People are cautious about the new programs that we introduce. Same cautiousness applies to other organizations. Once introduced, it is very difficult to take away."

Providing stock options to most or all employees as simply a way of doing things, therefore, never became institutionalized as a widely held belief among corporate managers in India. Although my informants indicated that the broad-based concept began to spread in the late 1990s, its diffusion was halted with the bursting of the technology bubble in the US in 2000 and the subsequent corporate scandals at Enron and other companies. These events hurt the fragile legitimacy of a more US-style translation of ESOs by revealing the downside of stock options for employees, i.e., when stock prices plummeted, stock options were worthless. Something that was never valued highly by employees became valued even less.

Moreover, the scandals set in motion reform efforts that placed new constraints on how companies used stock options. Historically, companies traded on US stock markets have not had to recognize the value of ESOs as a compensation expense. However, the corporate scandals in the United States in 2001 and 2002 created an opportunity for accounting regulators, the Financial Accounting Standards Board (FASB), to implement regulations in 2004 that required companies to recognize an expense for stock options granted to employees. Since many Indian technology companies are traded on the American NASDAQ, this change was a significant one for them. A real threat of a new expensing requirement first emerged at the end of 2002. As my informants indicated, the threat and implementation of expensing meant that Indian companies had to start thinking more carefully about whether the value they were receiving from granting stock options was equal to the expense. As an Indian equity compensation consultant who has worked with many different companies noted:

> "Maybe [expensing] will make them a little more vigilant. Instead of just doling it out. When you are taking a charge, there will be more thinking about whether it will achieve its value."

This accounting change coincided with the crash in the stock markets and the concomitant blow to the legitimacy of stock options in the minds of Indian tech workers.

Most of the representatives of Indian companies whom I interviewed indicated that they scaled back or stopped their option grants after the stock market downturn of 2001 because they decided that, at least at that point with expensing looming, the cost

of granting stock options could not be justified, and many began to cut back or stop granting stock options. As one of my informants explained:

> "There was also the expensing thing came up. Also, we were giving to all employees. We were giving right from the entry level at the time of joining, and then performance based stock options. We also found that in many geographies, stock options were not in…and we had various taxation issues. The whole effectiveness of that. Our core belief behind stock options was about long-term motivation, long-term retention. The whole effectiveness was coming down. So, we have suspended the stock option scheme."

Another compensation executive of an India-based firm noted:

> "The people who got options in 1999, 2000, and 2001. They did not see their value. Options lost their attractiveness. That is one. The other thing was that as you go down a level, people were not getting enough. This also made it so that people did not see a lot of money. So, it was no longer acting as a retention tool. Clearly, options had lost their luster."

It is difficult to say whether Indian companies would have reacted in the same way had expensing not occurred, since the devaluation of stock options by employees was a powerful force. It seems plausible, however, that expensing entered into the calculus of corporate decision-makers to scale back their stock option programs.

This section has examined the organizational level constraints faced by Indian compensation and other managers who were involved in the design and implementation of ESOs. With fewer shares available for grants than US companies

and an employee population that did not value stock options, the US style model of broad-based ESOs never caught on among compensation professional and corporate executive in India. Instead, the model that developed was one that centered on more selective grants to key employees. What also emerged from my interviews was that the tentative foray that Indian companies made into more broad-based grants in the late 1990s and their quick retreat from the concept reflected a collective level of professional knowledge about stock option plan design and strategy that is only beginning to become more sophisticated. This has made Indian managers cautious in granting options. In part, this was a result of the newness of the practice. However, my interviews also revealed that this caution may have also stemmed from the absence of certain informational channels through which ideas about business practices diffuse, rather than any lack of sophistication in the approach of Indian managers to compensation and strategic human resource management.

Organizational Field Level Forces

ESOs became a widely known concept among Indian technology companies during the mid-to-late 1990s, but due to employee attitudes about compensation, tight labor markets, and organizational level constraints faced by corporate managers, stock options were granted much more selectively within Indian companies. This section discusses other forces that may have shaped the differences in the way that ESOs became institutionalized in India, as compared to the United States. Arias and Guillen (1997) argue that existing studies on the cross-border transfer of organizational practices have ignored the role of forces within organizational fields in shaping the cross border diffusion of information and ideas about organizational practices: cross border networks, multinational corporations, professional groups, international consulting firms, international NGOs, and the congruence between business elite

mentalities in different countries. How might have these forces shaped the translation of ESOs from the US to India and the institutionalization of the practice in India? Some of my informants were able to provide insight on this question.

There are some strong channels of information flow between India and the United States. For example, many Indian managers and engineers in the technology sector have spent time training and/or working in the United States, particularly Silicon Valley (Saxenian 2002). This is a key source of exposure to American management practices, such as ESOs. In addition, the heavy volume of US multinationals setting up operations in India was another key source of ideas and information about employee stock options. However, certain cross-border information channels are missing or in early stages of development and the absence of these forces may have contributed to the more selective use of employee stock options in India. For example, the professions are an important conduit of knowledge about organizational practices (DiMaggio & Powell 1983). A profession that plays a central role in defining and building legitimacy for compensation practices such as ESOs is the human resources profession, which encompasses those working in human resource (or compensation and benefits) roles within companies, as well as consultants that advise companies on these issues. My interviews revealed that in India, the HR profession is still in an early stage of professionalization, which is in contrast to the more advanced stage of institutionalization of the HR profession in the United States. Few, if any, consulting firms in India have people strictly dedicated to compensation and benefits. Moreover, there are hardly any consulting firms that specialize in employee stock compensation. The low level of institutionalization of the human resources profession may have limited the amount of information available to corporate decision-makers about using employee stock options and different approaches to plan design, and contributed to the cautious approach to ESOs taken by Indian managers.

In addition, although human resource professionals within Indian companies demonstrate a very high level of sophistication regarding strategic human resource management and there are some strong informal networks between human resource professionals in different organizations, some informants indicated that they wished there were more formal opportunities to share ideas and information. One senior human resource executive noted that:

> "I think the industry needs to be a little more mature. We need to get into what some of the older industries have done in the past. Like the manufacturing industry. They always had forums where they met up and they standardized things. I think that standardization is something that is very much required even in terms of wages and benefits for that matter. I don't think that the industry is looking at that at all. We talk to each other, but we really don't work with each other. That's how it is. We talk to each other and talk about the companies…we do talk often, but we don't work with each other. And that's very important for any industry to survive. Otherwise, its going to be a cutthroat competition."

This person was discussing the problems stemming from a lack of standardization of compensation and benefits among technology companies. This lack of standardization has contributed to the rapid escalation of cash compensation and enhanced the attraction of cash for employees. Since HR managers at different companies are not part of more cohesive professional networks, they have few opportunities to discuss and take collective action, such as trying to constrain the cutthroat competition for employees, which has let cash compensation "spiral out of control." This lack of cohesion has also contributed to a lack of knowledge transfer about ESOs.

In addition to the professions, the state, international NGOs, and the media can also play a significant role in the diffusion of management practices and information about them (Arias and Guillen 1997). In India, as in the US, there are no laws requiring companies to adopt ESOs or design them in certain ways, so the state had little impact on diffusion of the practice. In addition, there are few Indian trade associations that act as conduits of information about these practices, with the exception of the National Association of Software and Service Companies (NASSCOM), which is a broad industry trade group not specifically focused on compensation or stock options. There are also no nonprofit organizations or NGOs dedicated to providing information and advocacy about employee stock options and related forms of equity compensation, in contrast to the US. In terms of the media, although there was high profile coverage of ESOs in India, some informants indicated that this coverage, particularly before the crash, tended to present an unrealistic and sensationalist image of stock options, such as portraying stock options as having no downside. The problem with this coverage, according to some of my informants, was that it created unrealistic expectations about stock options, which fueled the more widespread disillusionment with them once the markets crashed and the reality of the downside of stock options was exposed.

Finally, the absence of a vibrant startup sector in India may have also constrained the flow of knowledge about and the diffusion of ESOs. In the United States, startup technology companies have always been common and in fact have been the primary organizational form driving technological innovation. As discussed earlier, the low number of startups has restricted the number of large option payouts and constrained the legitimacy of the practice. The strong startup sector in Silicon Valley created strong cross-organizational networks, which acted as a key conduit in the broad diffusion of the Silicon Valley model generally and the broad diffusion of

ESOs in Silicon Valley more specifically. The lack of a similar startup culture in India has most likely constrained the flow of information about management practices. One informant noted that Indian companies are focused outward towards global markets, rather than towards internal markets. Parthasarthy (2004) has described this as a low level of embeddedness within local markets, and it has most likely been a barrier to the transfer of knowledge about stock options and to the broader diffusion of the practice.

Hence, the lack of specific field-level conduits through which ideas and information about organizational practices move across and within borders most likely influenced the way in which ESOs diffused in a more limited way in India and the institutionalization of the practice as one that provided grants to a much more limited group of employees than in the US. The cross-national networks of Indian managers and the presence of MNCs helped information about the practice transfer easily, while the state, the professions, and the media played minimal roles in driving the institutionalization of ESOs in India. As one compensation consultant noted, "India is just getting over the learning curve with stock options."

Summary and Conclusion: Translation and The Limits of Convergence

This paper has provided qualitative evidence that the cross-border diffusion of compensation practices is not a simple one in which organizations in different countries converge around similar models, even in the presence of strong cross-national networks. The results, therefore, represent strong support for theoretical claims regarding the divergent outcomes of globalization (Guillen 2001). Among US software companies, ESOs spread rapidly during the 1990s, and the structure of these plans granted options to most or all employees. This diffusion was shaped by the high value attached to options by employees, the vibrant startup culture of Silicon Valley

for which options were a perfect compensation mechanism, and dense networks and supportive field level institutions that legitimized the practice and created rich channels of information exchange for diffusion. In India, the practice diffused much more gradually, with companies designing plans to make grants much more selectively.

The translation of ESOs to the Indian context was driven by a number of factors. The evidence from my interviews reveal that one of the primary factors was that stock options were not viewed as valuable by employees due to the lack of significant wealth created by stock options, the allure of cash for employees in tight labor markets, and general attitudes about the stock market and investing among both managers and employees. The translation of the practice to India was also shaped by significant changes in the accounting treatment of stock options, a lack of investment in stock option education by technology companies, and a cautionary approach to stock option plan design among Indian companies, in part due to the youth of the industry and the practice, but also potentially due to the weakness of certain field-level actors and informational channels that previous research has shown can have an important influence on the diffusion and institutionalization of management practices.

The transfer of ESOs from the US to India has not, therefore, been one of simple imitation or rejection, but rather a transfer of ideas and information about ESOs, which were then translated by organizational decision-makers and adapted to local conditions. These actors were influenced by myriad forces within the economic, institutional, political, and cultural environment of Indian software and IT firms. The analysis in this paper has focused on how these actors interpreted this environment and how it influenced their decisions regarding the translation and implementation of ESOs. Accessing the perspectives of such institutional change agents provides a more complex picture of the diffusion of organizational practices from one setting to

another and emphasizes that practices are not necessarily blindly adopted in their original form. Key actors within organizations and organizational fields interpret and modify these practices in relation to their own complex environments. This interpretive work and modification is at the core of what Campbell (2005) has described as translation. This paper has provided a grounded view of the translation of one practice from one environment to another, revealing how a complex set of factors and constraints can influence organizational actors who make decisions regarding the design and adoption of compensation practices. Although this same set of factors and constraints may not be generalizable to the translation of other types of organizational practices, future research on translation would benefit by paying close attention to the complex environments in which organizational decision-makers are embedded.

In addition to shedding new light on the role of translation in the cross-border diffusion of organizational practices, supporting recent work on the contingent nature of globalization, and revealing the complex forces shaping the offshoring of white-collar work, this paper also creates a link between the literature on the global spread of management practices and the literature on social stratification by examining the institutionalization of practice that can have important implications for inequality in two different national contexts. The findings reveal a complex set of reasons why, in contrast to the US, the majority of employees working in the technology sector in India have never had access to stock options and the wealth that can be generated by them. Although US companies in the technology sector also granted options whose number and value were unequally distributed among employees, the widespread use of stock options within the technology sector meant that many nonmanagement employees had access to wealth generated through returns to capital, a phenomenon not replicated in any other set of US industries or in the Indian technology sector. Hence, gaining a better understanding of why this practice did not become

institutionalized in a similar way in India permits a deeper view of some of the forces that are likely shaping patterns of income and wealth inequality in the global technology sector.

However, my interviews also revealed that Indian companies are using other organizational practices that broaden the distribution of the wealth and authority as compared to traditional industries, such as high levels of cash compensation, generous benefits, cash-based bonuses, and flatter organizational hierarchies. Hence, the fundamental conditions under which knowledge work is executed in India appear to be similar to these conditions within the United States, i.e., conditions that represent a more equitable distribution of profits and power than more traditional types of work. This raises the interesting question of whether knowledge work *requires* such conditions or if management practices developed within Silicon Valley in the United States have simply become a template for knowledge work that is adapted to local conditions.

The recent acceleration in the globalization of technology production represents a predictable extension of advanced capitalism, with potentially profound implications for economic productivity and development, the organization of work, and the inequality of income and wealth in the developed and developing world. Gaining a better understanding of the long-term causes, characteristics, and consequences of the globalization of technology production will require more extensive research based on detailed, cross-national data sets and an expansive theoretical view of globalization occurring within and between capitalist organizations situated within local, regional, and national economies, and broader social, political, and cultural environments.

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CHAPTER 4

WHO BENEFITS FROM ECONOMIC DEMOCRACY? THE SOCIAL STRATIFICATION OF WEALTH IN COMPANIES WITH EMPLOYEE OWNERSHIP

Introduction

Although the history of employee ownership in the United States dates back to the late nineteenth century with the establishment of worker-owned cooperatives by the Knights of Labor, employee ownership as a trend within mainstream business organizations is a relatively new phenomenon (Blasi and Kruse 1991). The current era began in the early 1970s with the passage of the Employee Retirement Income Security Act (ERISA), which established the legal structure of employee stock ownership plans (ESOPs). This structure provided a tax-effective way for business owners to sell large blocks of stock to employees. The number of public and private companies using these plans expanded sharply in the 1970s and 1980s to approximately 10,000 today (NCEO 2008). In addition, the growth of the high-tech industry in the 1980s and 1990s led to the rapid diffusion of another form of employee ownership, broad-based stock options (BBSOPs), which provide an effective way for organizations to preserve startup cash, attract and retain key knowledge workers, and maintain ideological commitments to fairness and innovation. Alongside the spread of these two forms of employee ownership has been the more gradual spread of other organizational practices that allow employees to acquire stock of their employers, such as 401(k) plans and employee stock purchase plans (ESPPs). According to the National Center for Employee Ownership, approximately 32.7 million employees in over 17,000 corporations now own stock of their employers (NCEO 2008).

The long-term goals of employee ownership, whether promoted by actors on the left or right side of the political spectrum, have always been to both boost economic productivity and democratize capital ownership. Employee ownership therefore possesses the virtuous potential of improving American competitiveness while mitigating some of the severe inequalities produced by modern capitalism. Most of the existing research has focused on the impact of employee ownership on corporate performance (for a review, see NCEO 2006). However, the spread of various forms of employee ownership in the last three decades raises a number of interesting questions relating to the persistence of broader patterns of inequality in the United States. Since employee ownership programs broaden corporate ownership and how financial returns of this ownership are distributed, as more employees gain access to these programs, what happens to existing patterns of stratification? Does employee ownership mitigate or exacerbate existing patterns of income and wealth inequality? How do women and nonwhites, groups that traditionally experience these inequalities most powerfully, fare with respect to employee ownership?

Despite the importance of these and related questions for our understanding of social inequality in the 21st century economy, few studies have made connections between the vast literature on the causes, characteristics, and consequences of employee ownership and the large body of sociological research that has examined the impact of gender, race, and ethnicity on such outcomes as income, wealth, and power in the workplace. Such questions also have practical implications for corporate managers in companies with employee ownership and companies considering these plans. If certain groups of employees experience inequities in terms of participating in these plans and the financial value they receive from these plans, these realities may detract from the potential that these plans offer for aligning employee behaviors with long-term corporate strategy and for creating organizational cultures of fairness. This

paper represents a modest first step towards better understanding the connections between employee ownership and social stratification.

More specifically, this paper will examine how access to employee ownership and returns from employee ownership programs are stratified by gender, race, ethnicity, and disability. The analysis is based on an extensive dataset of over 40,000 employees in 14 U.S. companies with at least one of the following types of employee ownership programs: ESOPs, BBSOPs, ESPPs, and two forms of performance-based pay, profitsharing and gainsharing. The data were collected by a team of researchers (of which the author was one) through the Shared Capitalism Research Project of the National Bureau of Economic Research between 2001 and 2006. This dataset provides rich individual level information on participation in different employee ownership programs, financial returns and assets held in employee ownership programs, and access to and perceptions of various types of power and authority.

Our knowledge of how different groups do with respect to these outcomes is severely limited, as existing research on employee ownership has largely ignored these issues. Gaining a better understanding of these outcomes will provide a richer perspective on how the returns of employee ownership are distributed and the potential effects of this distribution on both broader patterns of inequality and the effectiveness of employee ownership. Beyond understanding the impact of employee ownership on inequality, this paper also aims to take seriously the effect of social inequality on employee outcomes, and the possibility that social inequality can mitigate the relationship between employee ownership and employee perceptions of these plans. This paper will not examine the causes of stratification within the sample companies, nor will it provide an in-depth analysis of the consequences of employee ownership programs for long-term trends in inequality. Rather, the analysis will examine the concrete outcomes for different demographic groups and thus provide a

detailed picture of the contours of stratification within employee ownership companies. Ultimately, another goal of this paper is to open a research and theoretical space on which future studies of stratification and employee ownership can build, both to better understand the long-term impacts of employee ownership on broader patterns of social inequality and to expand the existing theoretical frameworks on social stratification to incorporate new forms of compensation and wealth generation in the 21st century economy. After reviewing the existing literature on income inequality generally and discussing general trends in the growth of employee ownership, this paper will turn to the empirical analysis, which will first examine whether women and different minority groups face barriers to accessing employee ownership programs. Next, the analysis will examine the effect of gender, race, ethnicity, and disability on the value of assets that employees acquire through employee ownership programs.

Overall, the results reveal substantial disparities between the outcomes of women and men, nonwhite and whites, and employees with and without disabilities in terms of access to employee ownership and the financial value provided by this participation. Although many of these effects appear to stem from existing mechanisms of occupational segregation and patterns of income inequality, the results also show that the ways in which corporate managers make decisions regarding participation for some plans, in particular profitsharing plans, may be systematically excluding certain type of employees. Overall there are more disparities in the financial values that different groups receive through these plans, and women and African Americans experience more disparities with respect to plan values than other groups, even accounting for differences in education, occupation, and salary. This suggests that the structure and operation of certain forms of employee ownership generates disparities beyond those created by extant mechanisms of stratification.

The Persisting Significance of Gender, Race, and Ethnicity

Analyzing gaps in the economic and organizational outcomes for groups with different ascriptive statuses has been a central focus of a vast literature on social stratification in the last three decades (Morris and Western 1999). These analyses have focused primarily on gaps in earnings, but also on gaps in wealth, socioeconomic status, and power and authority within organizations. A common story emerges from this literature: in the U.S., the postwar prosperity of the 1950s and 1960s reduced or held constant inequality levels within all demographic groups. Since the early 1970s, however, median earnings have declined for most groups, and in the 1980s, inequality accelerated rapidly, with the trend continuing through today (Morris and Western 1999). The lone exception is that since 1973, the real value of wages for women has increased across all income levels, while the real value of wages for most men has declined or remained constant. Women, however, continue to earn less than men. A recent analysis from the Economic Policy Institute (2006) indicates that college-educated women earn 24% less than college-educated men, that women are disproportionately represented in minimum wage jobs, and that women are less likely to earn high wages (10.1% of women vs. 17.6% of men earn at least three times the poverty level wage).

Similarly, although African Americans experienced increases in the real value of their wages in the postwar period, this trend for the most part stopped in the mid-1970s, and earnings inequality has increased among African Americans in the last two decades (Morris and Western 1999). In addition, the median income for African Americans is only 55.6% that of whites, and 29.4% of African American households, as compared to 13% of white households, have zero or negative net worth (Economic Policy Institute 2006). Other racial and ethnic groups have not been the subject of as much attention as women and African Americans, but the overall trends reflect

similarly negative outcomes. In their analysis of census data from 1970, 1980, and 1990, Hirschman and Snipp (1999) found similarly negative effects of race/ethnicity on the socioeconomic status (a measure of occupational attainment) among African Americans, Hispanics, and Native Americans. However, the outcomes for Asian Americans were equal to or greater than that of whites. In terms of earnings, all racial and ethnic groups, except for Japanese Americans, earned less than whites, and the gaps were the largest for African Americans, Hispanics, and Native Americans.

Explaining the differential outcomes of men and women, and of whites and nonwhites, has been the topic of a large body of literature on social stratification. Reviewing this literature is beyond the scope of this paper, but the evidence provides strong empirical support for the explanation that inequality is the result of women and minorities being consistently segregated into different labor markets than men and whites, and that these labor markets consist of primarily different (and lower-paying) occupations (Grusky 2001). The literature has also revealed that occupational segregation itself has been driven primarily by mechanisms of social closure that emanate from social conflict for jobs and access to jobs, differential access to educational opportunities that are crucial for occupational attainment, and cultural views that devalue female and nonwhite labor (Grusky 2001). In addition, women and African Americans have each faced their own unique set of barriers. For the former, the legacy of slavery, geographic segregation, and the decimation of the domestic manufacturing sector have cut many African-Americans off from educational opportunities, social networks, and formal labor markets (Massey and Denton 1993, Wilson 1980). Although women have recently faced fewer barriers to education, they have been uniquely affected by the devaluation of their paid labor market skills and abilities and relegated to a primary role as unpaid, domestic labor (Grusky 2001).

Morris and Western (1999) have argued that despite the importance of these specific forces shaping access to economic opportunities for different groups, all groups have been significantly and similarly affected by some common recent trends. In the last two decades demographic forces, such as the rise of the baby boomers, the increase in the number of women entering the workforce, and an increase in the number of unskilled immigrants, have all increased the supply of available workers. These demographic changes have coincided with deindustrialization, globalization, the decline of unions, the rise of market-based employment relations (e.g., contract work, subcontracting, temporary employment), and the expansion of the service sector, which provide lower paying jobs with fewer benefits for unskilled workers than the manufacturing jobs that they replaced. All of these trends have led to the stagnation of wages for workers at the bottom of the income distribution.

The empirical evidence on inequality in the U.S., therefore, presents a sobering account of the reality of equal access to economic opportunity. The persistence of inequality produces a range of negative economic and social consequences for all demographic groups, but serious solutions remain politically anathema at this stage. In the absence of new legislation to both mitigate these outcomes and address root causes, as well as large scale cultural shifts in attitudes about the legitimacy and function of inequality, these patterns are likely to continue. In the last three decades, however, the diffusion of employee ownership programs has opened up new avenues of economic opportunity since these programs provide a way for employees to access a source of income and wealth beyond their fixed pay, i.e., through the ownership of stock and direct sharing of profits of their employing companies. Broadening capital ownership and profit sharing to groups earning less in the labor market may, therefore, help reduce income and wealth inequality. However, since access to these plans and the value that employees receive are often a direct function of income and occupation,

employee ownership may also exacerbate existing patterns of income inequality even as it increases the wealth of lower paid employees. Although the employee ownership data analyzed in the paper do not allow us to test these claims directly, it does allow us to gain a better understanding of inequality relating to participation in, and the value generated by, employee ownership. I now turn to the evidence presented by the NBER dataset of companies with employee ownership.

The Shared Capitalism Dataset

The data analyzed in this paper were collected by a team of researchers between 2001 and 2006 in association with the Shared Capitalism Project of the National Bureau of Economic Research. The team conducted employee surveys in 14 U.S. companies with any of the following forms of employee ownership: employee stock ownership plans (ESOPs), broad-based stock option plans (BBSOPs), employee stock purchase plans (ESPPs), and 401(k) plans. Each of these plans provides a mechanism through which employees can acquire stock, and each works a little differently. In ESOPs and 401(k) plans, employees receive employer stock in their retirement accounts. BBSOPs give employees the right to purchase a fixed amount of shares at a fixed price for a fixed period of time. Employee stock purchase plans (ESPPs) allow employees to defer part of their salary in order to buy discounted stock on specific purchase dates. The sample also included data on profitsharing and gainsharing plans, which do not provide employees with a way to acquire stock, but instead provide employees with cash bonus payments based on corporate profits, in the former, and group based performance, in the latter. Some companies in the sample had one type of plan, while others had multiple plans. The response rates from employees averaged 53% across the 14 companies, and a total of 41,206 respondents provided useable surveys. The Appendix of this dissertation provides more detailed information on the companies

surveyed and the survey instrument. This dataset provides rich individual level information on participation in different employee ownership programs, financial returns and assets held in employee ownership programs, and access to and perceptions of various types of power and authority. The dataset also provides the ability to analyze how these outcomes differ by gender, race, and ethnicity. Finally, this dataset is unusual because it allows us to measure these outcomes for employees with a disability, a group that remains understudied in the literature on stratification.

Methodology

The focus of the statistical analyses is on examining the effect of being in one of six demographic categories (female, African American, Hispanic, Asian American, Native American, and having a disability) on participation in three different forms of employee ownership (ESOPs, BBSOPs, and ESPPs), profitsharing, and gainsharing, as well as the financial value of participation in these plans.[3] The analyses compare outcomes of women to men, each nonwhite group to whites, and employees with disabilities to those without disabilities. For example, when compared to men, are women more or less likely to participate in employee ownership? Statistically, such comparisons are accomplished through the use of general linear regression models, and more specifically, logit models. In terms of reporting, the results for the logit report coefficients rather than odds ratios. The analysis that examines financial values of assets in these plans uses ordinary least squares regression.

I include a number of variables to control for other possible explanations for disparities in outcomes between these groups. Of particular interest is modeling the effects of occupation. A large body of sociological research has demonstrated that an

[3] Although the survey collected data on 401(k) plans with employer stock, I did not include similar analyses of these plans because a substantial amount of data regarding participation and financial value with respect to these plans was missing in the sample.

important driver of income inequality is the consistent segregation of women and racial and ethnic minorities into different labor markets than men and whites, labor markets that consist of primarily different (and lower-paying) occupations (Grusky 2001). Such segregation may be important for employee ownership outcomes if women and nonwhites are more likely to be in occupations that are less likely to participate in employee ownership. For example, if the results indicate that women are less likely to participate in employee ownership, but the models do not control for occupation, this effect may be due to the fact that women could be segregated into occupations that have restricted access to employee ownership, rather than due to something unique about how organizations structure employee ownership plans.

In fact, confirming the evidence from past research, there is strong evidence of occupational segregation by gender, race, ethnicity, and disability status among employees in the sample. Table 5 shows results from logit models predicting the effect of demographic characteristics on the likelihood of being in different occupations, controlling for firm level differences, among employees in the sample. All groups are less likely to be in management positions, which have better access to employee ownership and workplace power. The same is true for professional/technical positions, with the exception of Asian-Americans. Therefore, controlling for occupation will permit a more nuanced understanding of the potential sources of disparities between different groups, i.e., do disparities stem from occupational segregation and/or the specific ways in which employee ownership plans are structured? In considering the results that account for occupational segregation, however, it is important to recognize that the occupational categories are broad. Although more fine grained occupational categories would have permitted a more detailed analysis of the role of occupational segregation, the survey did not collect data on more detailed occupational categories.

The discussion of the results, to which this paper now turns, is intended to illuminate overall trends and patterns and not discuss every finding in detail.

Table 5: Results from Logit Models Predicting the Effect of Gender, Race, Ethnicity, and Disability on the Likelihood of Being in Particular Occupations

	MANAGEMENT	PROFESSIONAL/ TECHNICAL	SALES	ADMINI-STRATIVE	PRODUCTION	CUSTOMER SERVICE
Women	-0.717	-0.283	-0.673	2.165	-0.021	1.153
	(0.042)**	(0.030)**	(0.061)**	(0.059)**	(0.028)	(0.072)**
African American	-0.848	-0.705	-0.474	-0.293	1.080	-0.319
	(0.118)**	(0.079)**	(0.157)**	(0.112)**	(0.068)**	(0.178)*
Hispanic	-0.363	-0.410	-0.156	-0.155	0.507	0.337
	(0.074)**	(0.057)**	(0.104)	(0.101)	(0.049)**	(0.109)**
Asian	-0.508	0.624	-0.653	-0.780	-0.106	0.188
	(0.068)**	(0.046)**	(0.092)**	(0.138)**	(0.054)*	(0.137)
Native American	-0.719	-0.765	-0.112	-0.113	0.897	-0.002
	(0.209)**	(0.156)**	(0.253)	(0.246)	(0.122)**	(0.312)
Disability	-0.730	-0.465	-0.577	-0.006	0.810	-0.167
	(0.098)**	(0.065)**	(0.142)**	(0.103)	(0.058)**	(0.156)
Constant	-1.796	-1.243	-2.917	-4.029	0.102	-3.697
	(0.025)**	(0.020)**	(0.038)**	(0.056)**	(0.018)**	(0.056)**
Observations	33913	33913	32720	33913	33571	21275

*Standard errors in parentheses. * significant at 5% level; ** significant at 1% level*

Descriptive Statistics

Before exploring the influence of gender, race, ethnicity, and disability on access to and returns from employee ownership, Table 1 provides summary information about the demographic characteristics of the sample, including participation rates in employee ownership plans, values of employee ownership assets, salary, and wealth.[4]

On all outcomes, men do better than women. Men have a higher rate of participation in employee ownership, profit-sharing, and gainsharing, as well as higher average values for employee ownership assets, salary, and wealth. In terms of race and

[4] Wealth is defined as total assets minus debts. More specifically, respondents were asked to report their wealth by including the "value of their house minus the mortgage, plus their vehicles, stocks and mutual funds, cash, checking accounts, retirement accounts including 401(k) and pension assets, and so forth."

Table 6: Descriptive Statistics of Shared Capitalism Dataset

GROUP	NUMBER OF RESPONDENTS	PERCENT PARTICIPATING IN ANY FORM OF EMPLOYEE OWNERSHIP	MEAN VALUE OF STOCK HELD IN ALL EMPLOYEE OWNERSHIP PLANS	% ELIGIBLE FOR PROFIT-SHARING	% ELIGIBLE FOR GAIN-SHARING	MEAN SALARY	MEAN WEALTH
Women	11,942	62%	$40,957	69%	16%	$45,895	$229,794
Men	26,383	67%	$69,834	72%	24%	$62,805	$318,327
White	28,698	71%	$62,006	77%	21%	$60,251	$322,965
African Americans	1,739	58%	$20,735	55%	13%	$41,462	$118,580
Hispanics	2,745	39%	$32,647	56%	17%	$37,983	$139,319
Asian Americans	2,989	61%	$85,137	66%	30%	$63,634	$310,826
Native Americans	460	58%	$41,784	56%	13%	$42,251	$197,618
Employees with Disabilities	2,256	60%	$54,820	66%	17%	$46,258	$220,727

ethnicity, whites have the best outcomes on most measures, with the exception of Asian Americans, who have the highest average values for employee ownership assets and salary, and the highest participation rates in gainsharing plans. African Americans have the lowest value of employee ownership assets and wealth, while Hispanics have the lowest average participation in employee ownership and lowest average salaries. To gain a better understanding of the significance and magnitude of these differences, this paper now turns to a deeper analysis of employee ownership outcomes for various demographic groups.

In the discussion that follows, I focus on those results that are statistically significant. However, it is important to note that the number of employees within each demographic group may influence the statistical significance of some of the findings. For example, there are only 460 Native Americans in the sample, compared to almost 12,000 women. These sample sizes mean that the standard errors for women are

lower, and this makes it easy to establish statistical significance. This also means that there will be little discussion of the outcomes of Native Americans. This does not necessarily mean that Native Americans do not experience disparities in various outcomes, but that statistically, it is difficult to establish relationships between being Native American and the outcomes of primary interest. Also, the sample sizes for African-Americans, Hispanics, Asian Americans, and employees with disabilities are similar, so making comparisons of significant differences among these groups is relatively easy. Making comparisons between these groups and women, however, should be made with some caution.

Access to Employee Ownership Programs

Do rates of participation in employee ownership programs vary between different demographic groups? If rates do vary, to what extent and what accounts for these differences? Tables 7 - 11 present the results of logit regression models that predict the effect of gender, race, ethnicity, and disability status on participation in the three primary types of employee ownership programs, profitsharing plans, and gainsharing plans that were the focus of the NBER survey,. For all outcomes, I report results for seven models. The first includes only the demographic variables of interest. Models 2 through 6 add the effects of different control variables, respectively: fixed pay, tenure, individual firms, occupation, and education. Model 7 is the fully specified model. The models examined participation rates only among those employees who were eligible for specific plans, not for the entire sample. For example, the models that examine participation rates for broad-based stock option plans only include employees in companies that had such plans, rather than for the entire sample. Interpreting the logit coefficients requires a mathematical transformation known as exponentiation. This transformation yields a new number known as an odds ratio, which compares the odds

that a woman will participate in an ESOP to the odds that a man will participate in an ESOP. For example, the coefficient for African Americans participating in ESOPs (without controls) is -.373, which when transformed yields an odds ratio of .68. Hence, African Americans are, on average, 32% less likely to participate in ESOPs when compared whites.

When examining the results for plan participation, it is essential to keep in mind the rules governing different forms of employee ownership. ESOPs are governed by federal legislation that requires that most employees participate. For other types of employee ownership plans, such as broad-based employee stock option plans (BBSOPs), profit-sharing, and gainsharing, management decides who will participate among employees who are eligible, and there are no legal rules constraining these decisions. For still other forms of employee ownership, such as employee stock purchase plans (ESPPs), the law requires that most employees are eligible, but employees ultimately have the choice of whether or not they will participate. Ultimately, variation in patterns of access to employee ownership plans may differ according to how decisions about decisions about access are made and by whom.

Table 7 examines the results for ESOP participation. Model 1, which presents the effects of gender, race, and disability without any controls, indicates that African Americans, Hispanics, and employees with disabilities are less likely to participate in ESOPs. However, the effects become statistically insignificant in the fully specified Model 7, except for employees with disabilities. It is somewhat surprising to find any significant results once the controls are added because ESOPs legally require broad participation by most employees. However, companies can exclude part-time employees and employees with less than one year of employment. Model 3 includes controls for tenure, but none of the models control for part-time work. The lower likelihood of participation by employees with disabilities may stem from them being

Table 7: Results from Logit Models Predicting Participation in ESOPs

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	0.043	0.351	0.174	-0.183	0.021	0.032	-0.049
	(0.092)	(0.097)**	(0.097)*	(0.097)*	(0.099)	(0.093)	(0.119)
African American	-0.373	-0.199	-0.150	-0.614	-0.277	-0.306	-0.279
	(0.177)*	(0.181)	(0.185)	(0.187)**	(0.188)	(0.181)*	(0.217)
Hispanic	-0.695	-0.588	-0.509	-0.714	-0.492	-0.578	-0.162
	(0.225)**	(0.234)**	(0.237)*	(0.243)**	(0.251)*	(0.233)**	(0.302)
Asian American	0.996	1.071	1.297	0.594	0.967	0.939	0.671
	(0.603)*	(0.614)*	(0.609)*	(0.627)	(0.606)	(0.608)	(0.641)
Native American	-0.347	-0.276	-0.231	-0.270	-0.341	-0.160	-0.104
	(0.468)	(0.477)	(0.497)	(0.482)	(0.474)	(0.471)	(0.533)
Disability	-0.406	-0.307	-0.731	-0.386	-0.329	-0.342	-0.541
	(0.172)**	(0.178)*	(0.189)**	(0.180)*	(0.179)*	(0.175)*	(0.214)**
Fixed Pay		1.518					0.895
		(0.120)**					(0.155)**
Tenure			0.200				0.193
			(0.014)**				(0.015)**
Firm 1				-0.959			-1.167
				(0.230)**			(0.273)**
Firm 2				1.004			1.464
				(0.273)**			(0.321)**
Firm 6				-0.565			-0.132
				(0.219)**			(0.285)
Firm 7				-1.505			-1.195
				(0.231)**			(0.286)**
Firm 8				-1.310			-1.331
				(0.276)**			(0.344)**
Production					-1.225		-0.254
					(0.213)**		(0.271)
Administrative					-0.818		0.192
					(0.270)**		(0.319)
Professional/Technical					-1.018		-0.180
					(0.224)**		(0.262)
Sales					-0.626		0.594
					(0.321)*		(0.377)
No High School						-1.270	-0.603
						(0.317)**	(0.401)
High School						-0.901	-0.289
						(0.281)**	(0.347)
Some College						-0.897	-0.131
						(0.284)**	(0.342)
Associates Degree						-0.415	0.103
						(0.312)	(0.365)
Bachelors Degree						-0.099	0.246
						(0.310)	(0.348)
Constant	1.552	-14.338	0.466	2.245	2.578	2.291	-8.083
	(0.062)**	(1.244)**	(0.087)**	(0.211)**	(0.206)**	(0.274)**	(1.768)**
Observations	3304	3304	3260	3304	3212	3284	3157

Standard errors in parentheses, * significant at 5% level; ** significant at 1% level

Table 8: Results from Logit Models Predicting Participation in BBSOPs

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.548	0.288	-0.660	-0.183	-0.245	-0.427	0.235
	(0.095)**	(0.107)**	(0.096)**	(0.115)	(0.107)*	(0.098)**	(0.146)
African American	-0.228	0.014	-0.024	-0.643	-0.347	-0.209	-0.304
	(0.262)	(0.273)	(0.265)	(0.315)*	(0.267)	(0.265)	(0.347)
Hispanic	-0.095	-0.024	0.075	-0.656	-0.042	-0.063	0.001
	(0.238)	(0.250)	(0.240)	(0.306)*	(0.247)	(0.239)	(0.346)
Asian American	1.032	1.163	1.138	-0.034	1.162	0.902	0.228
	(0.193)**	(0.202)**	(0.193)**	(0.232)	(0.215)**	(0.195)**	(0.306)
Native American	-0.607	-0.194	-0.712	0.253	-0.774	-0.361	-0.023
	(0.481)	(0.515)	(0.488)	(0.543)	(0.495)	(0.488)	(0.602)
Disability	-0.279	0.267	-0.216	-0.365	0.038	-0.151	0.134
	(0.228)	(0.241)	(0.231)	(0.272)	(0.235)	(0.231)	(0.305)
Fixed Pay		1.827					1.622
		(0.083)**					(0.181)**
Tenure			0.183				0.235
			(0.016)**				(0.020)**
Firm 4				-0.901			-2.629
				(0.143)**			(0.275)**
Firm 5				5.221			3.799
				(0.342)**			(0.399)**
Firm 9				0.767			--
				(0.289)**			--
Firm 12				1.843			1.090
				(0.180)**			(0.231)**
Production					-2.473		-1.301
					(0.240)**		(0.352)**
Administrative					-1.946		-0.924
					(0.254)**		(0.340)**
Professional/Technical					-1.277		-0.876
					(0.216)**		(0.267)**
Sales					-0.462		-0.907
					(0.280)*		(0.361)**
No High School						-1.120	0.297
						(0.452)**	(0.637)
High School						-0.770	0.526
						(0.185)**	(0.305)*
Some College						-0.582	-0.198
						(0.154)**	(0.251)
Associates Degree						-0.679	-0.395
						(0.182)**	(0.285)
Bachelors Degree						-0.217	-0.311
						(0.127)*	(0.192)
Constant	2.970	-17.404	2.281	1.329	4.127	3.234	-15.369
	(0.065)**	(0.912)**	(0.079)**	(0.133)**	(0.209)**	(0.109)**	(1.995)**
Observations	8943	8943	8853	8943	8771	8925	8667

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

Table 9: Results from Logit Models Predicting Participation in Profitsharing

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.169	0.025	-0.150	-0.010	-0.107	-0.172	0.140
	(0.025)**	(0.026)	(0.025)**	(0.027)	(0.027)**	(0.028)**	(0.034)**
African American	-0.978	-0.803	-0.930	-0.928	-0.883	-0.968	-0.833
	(0.054)**	(0.055)**	(0.055)**	(0.056)**	(0.056)**	(0.057)**	(0.064)**
Hispanic	-0.904	-0.305	-0.813	-0.937	-0.857	-0.357	-0.333
	(0.043)**	(0.048)**	(0.044)**	(0.044)**	(0.045)**	(0.062)**	(0.069)**
Asian American	-0.484	-0.271	-0.334	-0.794	-0.620	-0.229	-0.454
	(0.040)**	(0.044)**	(0.041)**	(0.044)**	(0.043)**	(0.054)**	(0.064)**
Native American	-0.775	-0.540	-0.772	-0.632	-0.712	-0.492	-0.315
	(0.100)**	(0.103)**	(0.102)**	(0.105)**	(0.102)**	(0.115)**	(0.131)**
Disability	-0.236	-0.097	-0.304	-0.176	-0.158	-0.120	-0.125
	(0.050)**	(0.051)*	(0.051)**	(0.051)**	(0.051)**	(0.056)*	(0.063)*
Fixed Pay		0.736					0.600
		(0.018)**					(0.043)**
Tenure			0.032				0.034
			(0.001)**				(0.002)**
Firm 1				-2.276			-2.220
				(0.179)**			(0.187)**
Firm 2				0.478			1.098
				(0.176)**			(0.186)**
Firm 3				0.386			0.135
				(0.174)*			(0.182)
Firm 4				-0.775			-1.040
				(0.165)**			(0.171)**
Firm 5				0.800			0.807
				(0.151)**			(0.159)**
Firm 6				-0.210			0.435
				(0.158)			(0.169)**
Firm 7				-1.309			-0.549
				(0.178)**			(0.190)**
Firm 8				0.530			1.079
				(0.262)*			(0.287)**
Firm 9				-1.262			--
				(0.223)**			--
Firm 11				-0.385			0.020
				(0.147)**			(0.155)
Firm 12				-2.057			-2.044
				(0.159)**			(0.166)**
Production					-0.859		-0.371
					(0.043)**		(0.064)**
Administrative					-0.971		-0.251
					(0.063)**		(0.085)**
Professional/Technical					-0.261		-0.152
					(0.045)**		(0.058)**
Sales					-1.862		-2.162
					(0.060)**		(0.075)**
Customer Service					-0.751		-0.267

Table 9 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
No High School						-1.306	-0.963
						(0.077)**	(0.094)**
High School						-0.791	-0.268
						(0.049)**	(0.068)**
Some College						-0.692	-0.166
						(0.049)**	(0.064)**
Associates Degree						-0.649	-0.079
						(0.058)**	(0.071)
Bachelors Degree						-0.376	-0.022
						(0.048)**	(0.055)
Constant	0.897	-7.059	0.590	1.161	1.554	1.566	-5.334
	(0.016)**	(0.192)**	(0.021)**	(0.147)**	(0.039)**	(0.042)**	(0.504)**
Observations	34215	34212	33699	34215	33600	29049	28204

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level, --dropped to collinearity*

Table 10: Results from Logit Models Predicting Participation in Gainsharing

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.473	-0.172	-0.490	-0.442	-0.319	-0.338	-0.262
	(0.032)**	(0.033)**	(0.032)**	(0.035)**	(0.034)**	(0.034)**	(0.040)**
African American	-0.511	-0.212	-0.553	-0.154	-0.255	-0.240	-0.017
	(0.079)**	(0.081)**	(0.079)**	(0.084)*	(0.084)**	(0.084)**	(0.093)
Hispanic	-0.462	0.205	-0.534	-0.090	-0.238	-0.054	0.068
	(0.061)**	(0.065)**	(0.062)**	(0.066)	(0.064)**	(0.080)	(0.088)
Asian American	0.396	0.501	0.279	-0.101	0.276	0.245	-0.017
	(0.045)**	(0.048)**	(0.046)**	(0.051)*	(0.047)**	(0.052)**	(0.059)
Native American	-0.164	0.134	-0.146	0.278	0.105	0.351	0.494
	(0.128)	(0.134)	(0.129)	(0.134)*	(0.134)	(0.142)**	(0.153)**
Disability	-0.273	-0.041	-0.229	-0.039	0.054	-0.011	0.098
	(0.065)**	(0.067)	(0.066)**	(0.070)	(0.068)	(0.073)	(0.080)
Fixed Pay		1.065					0.373
		(0.025)**					(0.045)**
Tenure			-0.027				0.003
			(0.002)**				(0.002)
Firm 1				-1.124			-0.896
				(0.156)**			(0.160)**
Firm 2				-0.899			-0.636
				(0.136)**			(0.139)**
Firm 3				1.083			1.259
				(0.098)**			(0.104)**
Firm 4				-0.071			-0.175
				(0.108)			(0.112)
Firm 5				1.134			0.862
				(0.070)**			(0.077)**
Firm 6				-0.462			0.119
				(0.096)**			(0.105)
Firm 7				-0.416			-0.196
				(0.145)**			(0.152)
Firm 9				0.120			--
				(0.191)			--
Firm 11				-1.146			-0.927
				(0.069)**			(0.075)**
Production					-1.442		-0.753
					(0.044)**		(0.066)**
Administrative					-0.945		-0.562
					(0.078)**		(0.096)**
Professional/Technical					-0.228		-0.407
					(0.040)**		(0.049)**
Sales					0.338		0.224
					(0.056)**		(0.068)**
Customer Service					-1.445		-0.500
					(0.124)**		(0.164)**
No High School						-1.641	-0.142
						(0.111)**	(0.127)
High School						-1.613	-0.110
						(0.052)**	(0.073)
Some College						-1.328	-0.173
						(0.049)**	(0.062)**
Associates Degree						-1.142	-0.176
						(0.062)**	(0.072)**
Bachelors Degree						-0.261	0.019
						(0.041)**	(0.046)

Table 10 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	-1.193	-12.879	-0.935	-0.883	-0.646	-0.358	-4.669
	(0.017)**	(0.272)**	(0.023)**	(0.068)**	(0.034)**	(0.035)**	(0.518)**
Observations	33826	33823	33318	33826	33223	28664	27837

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level, --dropped to collinearity*

Table 11: Results from Logit Models Predicting Participation in ESPPs

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.670	-0.046	-0.713	-0.134	-0.415	-0.448	0.102
	(0.057)**	(0.065)	(0.058)**	(0.067)*	(0.065)**	(0.061)**	(0.077)
African American	-1.417	-1.307	-1.344	-1.280	-1.542	-1.510	-1.191
	(0.146)**	(0.154)**	(0.148)**	(0.164)**	(0.151)**	(0.148)**	(0.173)**
Hispanic	0.075	0.156	0.163	-0.221	0.110	0.072	0.075
	(0.155)	(0.164)	(0.157)	(0.170)	(0.165)	(0.160)	(0.183)
Asian American	0.723	0.780	0.774	0.447	0.697	0.497	0.521
	(0.096)**	(0.102)**	(0.097)**	(0.107)**	(0.107)**	(0.099)**	(0.117)**
Native American	-2.164	-2.136	-2.215	-1.602	-2.216	-1.805	-1.625
	(0.281)**	(0.297)**	(0.282)**	(0.318)**	(0.288)**	(0.292)**	(0.334)**
Disability	-0.662	-0.356	-0.631	-0.568	-0.478	-0.357	-0.180
	(0.134)**	(0.147)**	(0.135)**	(0.147)**	(0.143)**	(0.142)**	(0.173)
Fixed Pay		1.529					0.785
		(0.055)**					(0.083)**
Tenure			0.051				0.080
			(0.006)**				(0.007)**
Firm 4				0.290			-0.680
				(0.127)*			(0.161)**
Firm 5				2.348			1.334
				(0.113)**			(0.151)**
Firm 9				-0.532			--
				(0.198)**			--
Firm 12				0.442			-0.204
				(0.118)**			(0.139)
Production					-1.600		-0.231
					(0.120)**		(0.157)
Administrative					-1.184		-0.067
					(0.124)**		(0.155)
Professional/Technical					-0.030		0.197
					(0.087)		(0.099)*
Sales					0.125		0.381
					(0.118)		(0.135)**
No High School						-1.317	-0.553
						(0.310)**	(0.403)
High School						-1.943	-0.496
						(0.112)**	(0.147)**
Some College						-0.607	0.075
						(0.095)**	(0.119)
Associates Degree						-0.664	0.191
						(0.115)**	(0.143)
Bachelors Degree						-0.173	0.084
						(0.075)*	(0.086)
Constant	1.732	-15.461	1.484	0.139	1.940	2.051	-8.396
	(0.039)**	(0.620)**	(0.048)**	(0.106)	(0.079)**	(0.065)**	(0.934)**
Observations	8941	8941	8851	8941	8768	8924	8665

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level, --dropped to collinearity*

more likely to work part-time. The data do not allow me to test this claim. If it did and there was still a negative effect, this would provide evidence that the ESOP companies in the sample could be restricting access to these employees.

For African Americans, the negative effect in Model 1 becomes statistically insignificant in Models 2, 3, and 5, which control for fixed pay, tenure, and occupation, respectively. Hence, African-Americans are less likely to participate not because of any exclusionary processes through which ESOP stock is allocated, but because they are paid less, stay with the company for shorter periods of time, and are more likely to be in occupations that are less likely to participate when compared to managers: production, administrative, and professional/technical. Although the negative effect for Hispanics participating in ESOPs becomes statistically insignificant in the full specified model, the effects remain for all other models, so it is difficult to distinguish what accounts for the negative effect in Model 1. In addition to the effects for different groups, Model 7 reveals that employees who receive higher fixed pay and companies with longer tenures are more likely to participate in the ESOP. This makes sense because it is unlikely that employees receiving high salaries and who have been with the company longer would meet any of the conditions that would allow companies could exclude them from participation. Finally, Model 5 shows that all nonmanagerial occupations are less likely to participate, but these effects disappear in the fully specified model 7. Overall, the results for ESOPs are not surprising. They reveal few barriers to participation, which is expected because these plans legally require participation by most employees.

Turning to plans in which management decides who will participate, BBSOPs, profitsharing and gainsharing, the results paint a different picture. In BBSOPs, management has a great deal of flexibility in deciding who receives stock options. There are no legal requirements for how stock options can be distributed. The only

real constraint is imposed by the number of future shares that companies need to have available when employees exercise their options and purchase the shares. Typically, employees receive options when they join the company and/or on an ongoing basis, but there is wide variation in plan design (Weeden et al. 2001). Some employees will receive options every year; others will receive shares more sporadically. There is also wide variation in terms of who makes decisions about which employees receive stock options. In some companies, an employee's immediate supervisor will make the decision, while in others, the human resources or compensation department will make the decision (NCEO 2001). Hence, if an employee participates in an option plan, this could mean that they only received a small number of options at one time or that they receive options every year. The dataset did not provide detailed information on plan design, but the results for participation can still offer important insights into how stock option participation varies by gender, race, and disability status.

Table 8 presents the results for BBSOPs. Model 1, without controls, shows that women are less likely to receive stock options and Asian Americans are more likely. Both of these results become statistically insignificant in the fully specified Model 7. In examining Models 2 – 6, the negative effect for women disappears with controls for fixed pay and individual firms. This suggests that because women receive less pay, this may be a factor in determining whether or not they receive stock options. For firm level effects, all employees in Firm 4 are less likely to receive stock options relative to the other firms with these plans in the sample. Women may be overrepresented in this company. For Asian Americans, the positive effect of Model 1 disappears with the firm level controls of Model 4, suggesting that Asian Americans may be overrepresented in the firms that are more likely to grant stock options to employees. Similar to the results for ESOPs, employees with higher pay and longer tenures are more likely to participate in these plans. Unlike the ESOP results, however, employees

in all nonmanagerial positions are less likely to receive stock options, and these effects remain in the fully specified Model 7. Since there are no rules requiring participation by broad groups of employees, these results reveal that even in companies that are granting options to nonmanagers, managers are still more likely to receive options. The overall results for stock option participation show that none of the demographic groups of interest are less likely to receive stock options and that barriers to participation are mostly shaped by pay levels, tenure, and occupation, rather than through any systematic mechanisms of exclusion in how stock options are granted.

Table 9 presents the results for participation in profitsharing plans, another program in which management decides who participates. Model 1 reveals that all demographic groups of interest are less likely to participate in these plans, and all of these effects remain in the fully specified Model 7. The one exception is the case of women, who are less likely to participate in Model 1, but more likely to participate in Model 7. The effect seems to stem from firm level effects, as Model 4 reveals. Hence, women may be overrepresented in firms that provide broader access, or underrepresented in firm that provide more narrow access. The results do not allow a more detailed examination of the firm level effects. Again, higher pay and longer tenure are associated with participation. Similar to stock options, all nonmanagerial employees are less likely to participate in profitsharing plans. The results reveal very strong barriers to participation for all nonwhite groups and employees with disabilities. Since these effects remain even when controls for fixed pay, tenure, and occupation are included, the ways in which companies provide access for different groups may be exclusionary in a systematic way.

Table 10 presents the results for the other plan in which managers decide participate, gainsharing plans. Model 1 shows that women, African Americans, Hispanics, and employees with disabilities are less likely to participate in gainsharing,

while Asian Americans are more likely to participate. Model 7, however, reveals that these effects only remain for women and Asian Americans once controls are added. Models 2 – 6 do not provide an easy explanation for why the effect for African Americans disappears, but shows that firm level effects and lower education appears to account for the negative effect for Hispanics. For employees with disabilities, the negative effect disappears with controls for fixed pay, firm level effects, occupation, and education. Finally, although Native Americans appear to be more likely to participate in these plans, this finding is most likely due to the small number of Native Americans in the sample. In terms of other variables, employees with higher fixed pay, but not those with longer tenures, are more likely to participate. Also, all nonmanagerial employees are less likely to participate, with the exception of sales employees, suggesting that these plans may be partly targeted towards these employees. The results for gainsharing are similar to those of stock options in that the barriers that most groups face appear to be the effect of income, firm level factors, or occupation. The results are clear that women are less likely to participate in these plans, suggesting that companies may be obstructing access to women through plan design.

Table 11 examines the outcomes for the one type of plan in which employees decide whether or not they will participate, employee stock purchase plans (ESPPs). In an ESPP, employees defer part of their pretax compensation that is used to purchase stock at discount on specific purchase days. The law requires that most employees be eligible to participate (part-time employees, for example, can be excluded). However, the employee chooses whether or not to participate. Model 1 in Table 9 shows that women, African Americans, Native Americans, and employees with disabilities are all less likely to participate in ESPPs. In the fully specified Model 7, the effects remain for African Americans and Native Americans. Model 2 shows that the negative effect

of women disappears when fixed pay is included in the model, suggesting that the negative effect for women stems from them receiving lower pay than men. Not surprisingly, higher paid employees are more likely to participate in this plan, which most probably reflects the ability of these employees to defer part of their current compensation for future investment opportunities. The results show that African Americans and Native Americans are more likely to choose not to participate in these plans, while Asian Americans are more likely to participate in these plans, even controlling for many other factors. This could reflect variation in attitudes towards investing or saving, the need for current cash, the level of understanding of ESPPs, or financial literacy. These results could also reflect how managers promote and communicate ESPPs to different groups of employees to encourage participation.

In assessing the overall picture of participation in employee ownership plans, the results suggest that most of the barriers to access for women, nonwhites, and employees with disabilities operate through existing mechanisms that place women and minorities into income and occupational groups for which access to employee ownership is restricted, rather than through specific exclusionary ways in which companies design these plans. In ESOPs, this is no surprise because the law requires broad participation. In plans where management decides, the evidence for exclusionary plan design is only strong for profitsharing. All groups except women face barriers to accessing these plans, even when the analysis controlled for other possible influences. Since the survey did not collect data on how managers are designing these plans, it is difficult to assess the underlying explanation, but the data analyzed here raises this as a very important area for future research. For other plans in which management decides, stock option plans and gainsharing, only one group faces restricted access that is unexplained by the controls: women accessing gainsharing plans. Again, the data do not permit an explanation, but suggests possible

exclusionary plan design. Finally, the lower likelihood of certain groups voluntarily deciding to participate in ESPPs suggests a different set of mechanisms relating to the choices that individuals make regarding investing and saving. Overall, the evidence reviewed in this section provides a strong case that stratification in access to employee ownership programs is primarily related to existing mechanisms that place women and minorities in different and lower-paying occupations than men and whites. The results also suggest substantial organizational level variation in access to non-ESOP plans. To the extent that participation is related to an employee's place in the organizational structure and pay scale, these results make a great deal of sense. With the exception of profit-sharing plans, managers do not appear to be designing these plans in exclusionary ways in terms of participation, nor are they using these plans to try to balance out existing patterns of inequality by opening up participation, which is also unsurprising.

Financial Value of Employee Ownership

Of those employees who participate in employee ownership programs, what is the relationship between gender, race, and disability status to the financial value of assets employees require through these programs? To answer this question, I examined the effect of being in different demographic groups on the value of assets acquired through employee ownership. Tables 12 -16 show the results of ordinary least squares (OLS) models that predict the natural logarithm of plan assets. For these analyses, I only included those employees who participated in these plans. To the extent that certain groups are less likely to participate in certain plans, therefore, the effects for all employees within these groups who work in these companies is likely understated. For example, African Americans are less likely to participate in profit-sharing plans. If those who participate in these plans have significantly negative values for

profitsharing, the overall difference in the value of profitsharing between all whites and all African Americans—combining lower participation and lower values for those who do participate—would be larger. Similar to the results for plan participation, the tables report results from seven models for each of the five plans. The first includes only the demographic variables of interest. Models 2 through 6 add in the effects of different control variables, respectively: fixed pay, tenure, individual firms, occupation, and education. Model 7 is the fully specified model.

The models regress the independent variables on the natural logarithm of the financial value held or received from the various forms of employee ownership. I used log transformations to control for the effects of outliers. The specific dependent variables for which I used the logged transformation include:

- *ESOP:* approximate total value of company stock that employees hold in their ESOPs.
- *BBSOP:* total stock option value, or, the sum of the money an employee would receive if they exercised all vested and unvested stock options at the time of the survey (net of purchase price) plus the value of the stock currently held by employees from exercising any stock options plus the amount of money an employee has made from exercising any stock options from the company in the past and selling the shares.
- *ESPPs*: total value of company stock an employee owns from purchases of stock made through an ESPP.
- *Profit-sharing:* value of payments an employee received in the previous year from a profit-sharing plan.
- *Gainsharing:* value of payments an employee received in the previous year based on workgroup or department performance.

The value of stock acquired in most employee ownership plans is linked directly to salary, so the results should show that stratification in these values reflects existing patterns of income stratification shown in Table 6.

Table 12 presents the results for ESOPs. Distributions of stock through an ESOP are required to be made on some existing relative basis such as salary. In the case of ESOPs, employees who make higher salaries, for example, will usually receive more shares of stock. Model 1 only shows a statistically significant effect for employees with disabilities, who receive higher plan values. In the fully specified Model 7, this effect remains, and women receive lower values than men, even with controls for other possible influences. Both findings defy an easy explanation since any differences should be mediated by pay, tenure, or occupation. Not surprisingly, higher paid employees and employees with longer tenure receive higher values of assets. In addition, production workers receive lower value of assets, suggesting that the specific ways in which companies allocate stock through ESOPs may be disadvantageous for production workers.

Table 13 presents the results for financial value from stock options. Unlike ESOPs, companies have a great deal of flexibility deciding who should receive stock options and how many employees receive. Typically, companies establish ranges for the number of shares that they grant to different types of employees, based on occupation, salary, or seniority. The final number of stock options employees receive depends on a number of factors. Broad-based plans often provide employees with a grant of options upon hire and annual grants every year based on individual or group performance. In most companies, the human resources or compensation department will make the final decision about the number of options to grant to individual

Table 12: Results from OLS Models Predicting Financial Value of ESOP Assets

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.040	0.237	0.124	-0.365	0.049	-0.039	-0.166
	(0.085)	(0.084)**	(0.080)	(0.076)**	(0.090)	(0.085)	(0.068)*
African American	-0.030	0.243	0.230	-0.592	0.072	-0.016	-0.116
	(0.196)	(0.190)	(0.185)	(0.169)**	(0.204)	(0.201)	(0.148)
Hispanic	-0.172	-0.014	0.033	-0.349	-0.199	-0.129	-0.084
	(0.298)	(0.286)	(0.276)	(0.255)	(0.301)	(0.300)	(0.212)
Asian American	0.027	-0.015	0.353	-0.469	-0.049	-0.004	-0.282
	(0.366)	(0.351)	(0.340)	(0.315)	(0.368)	(0.367)	(0.259)
Native American	-0.664	-0.393	-0.514	-0.485	-0.548	-0.617	-0.148
	(0.486)	(0.468)	(0.451)	(0.416)	(0.480)	(0.488)	(0.336)
Disability	0.365	0.510	0.183	0.328	0.415	0.395	0.287
	(0.180)*	(0.173)**	(0.167)	(0.154)*	(0.180)*	(0.181)*	(0.126)*
Fixed Pay		1.176					1.024
		(0.093)**					(0.089)**
Tenure			0.101				0.113
			(0.006)**				(0.005)**
Firm 1				0.478			0.063
				(0.162)**			(0.146)
Firm 2				1.860			2.458
				(0.147)**			(0.130)**
Firm 6				0.556			0.843
				(0.141)**			(0.137)**
Firm 7				-1.220			-0.812
				(0.161)**			(0.142)**
Firm 8				-0.823			-0.973
				(0.299)**			(0.250)**
Production					-1.000		-0.536
					(0.125)**		(0.114)**
Administrative					-0.835		-0.057
					(0.183)**		(0.139)
Professional/Technical					-0.836		-0.193
					(0.136)**		(0.101)
Sales					-1.181		0.073
					(0.202)**		(0.153)
Customer Service					0.000		0.000
					(0.000)**		(0.000)**
No High School						-0.398	-0.028
						(0.280)	(0.221)
High School						-0.275	0.060
						(0.187)	(0.158)
Some College						-0.264	0.157
						(0.190)	(0.153)
Associates Degree						-0.272	-0.032
						(0.210)	(0.161)
Bachelors Degree						-0.140	-0.084
						(0.198)	(0.142)
Constant	9.659	-2.870	8.723	9.232	10.417	9.889	-2.648
	(0.056)**	(0.997)**	(0.075)**	(0.131)**	(0.111)**	(0.174)**	(1.018)**
Observations	1895	1895	1879	1895	1860	1891	1842
R-Squared	0.00	0.08	0.14	0.27	0.04	0.01	0.54

** significant at 5% level; ** significant at 1% level*

Table 13: Results from OLS Models Predicting Financial Value of BBSOP Assets

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.685	0.003	-0.682	-0.468	-0.397	-0.505	-0.067
	(0.040)**	(0.036)	(0.040)**	(0.036)**	(0.041)**	(0.040)**	(0.031)*
African American	-0.539	-0.207	-0.558	-0.510	-0.483	-0.491	-0.352
	(0.135)**	(0.117)	(0.137)**	(0.115)**	(0.132)**	(0.134)**	(0.097)**
Hispanic	-0.088	0.042	-0.128	-0.342	-0.052	-0.085	-0.138
	(0.100)	(0.086)	(0.101)	(0.085)**	(0.098)	(0.099)	(0.071)
Asian American	-0.002	0.090	-0.037	-0.384	0.010	-0.130	-0.182
	(0.050)	(0.043)*	(0.050)	(0.043)**	(0.050)	(0.050)**	(0.037)**
Native American	-1.350	-1.127	-1.343	-0.619	-1.573	-1.078	-0.913
	(0.216)**	(0.186)**	(0.216)**	(0.183)**	(0.211)**	(0.214)**	(0.154)**
Disability	-0.131	-0.028	-0.117	-0.074	-0.072	-0.071	0.028
	(0.107)	(0.092)	(0.108)	(0.090)	(0.104)	(0.105)	(0.076)
Fixed Pay		1.669					1.312
		(0.031)**					(0.032)**
Tenure			-0.017				0.046
			(0.003)**				(0.002)**
Firm 4				-1.540			-1.256
				(0.091)**			(0.078)**
Firm 5				1.937			2.406
				(0.051)**			(0.052)**
Firm 9				0.553			0.000
				(0.152)**			(0.000)**
Firm 12				0.683			1.642
				(0.065)**			(0.058)**
Production					-1.218		-0.019
					(0.095)**		(0.075)
Administrative					-1.640		-0.600
					(0.088)**		(0.072)**
Professional/Technical					-0.450		-0.496
					(0.044)**		(0.035)**
Sales					-0.492		-0.489
					(0.062)**		(0.048)**
Customer Service					0.000		0.000
					(0.000)**		(0.000)**
No High School						-0.713	-0.118
						(0.236)**	(0.172)
High School						-1.500	0.116
						(0.090)**	(0.072)
Some College						-0.491	0.006
						(0.061)**	(0.046)
Associates Degree						-0.684	0.007
						(0.075)**	(0.057)
Bachelors Degree						-0.222	-0.021
						(0.040)**	(0.030)

Table 13 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	11.765	-7.301	11.881	10.336	12.144	12.004	-5.027
	(0.023)**	(0.351)**	(0.029)**	(0.047)**	(0.038)**	(0.034)**	(0.372)**
Observations	8435	8435	8344	8435	8325	8401	8202
R-squared	0.04	0.29	0.05	0.32	0.09	0.08	0.53

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

Table 14: Results from OLS Models Predicting Financial Value of Profitsharing Assets

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.634	-0.087	-0.653	-0.540	-0.322	-0.402	-0.092
	(0.026)**	(0.019)**	(0.026)**	(0.020)**	(0.022)**	(0.022)**	(0.016)**
African American	-0.837	-0.216	-0.856	-0.560	-0.289	-0.434	-0.166
	(0.071)**	(0.050)**	(0.071)**	(0.053)**	(0.058)**	(0.058)**	(0.039)**
Hispanic	-0.810	0.476	-0.851	-0.674	-0.489	-0.011	0.028
	(0.055)**	(0.040)**	(0.055)**	(0.041)**	(0.044)**	(0.052)	(0.035)
Asian American	0.856	0.651	0.757	-0.291	0.439	0.338	-0.002
	(0.045)**	(0.032)**	(0.046)**	(0.035)**	(0.037)**	(0.039)**	(0.027)
Native American	-0.925	-0.278	-0.907	-0.545	-0.183	-0.258	-0.054
	(0.130)**	(0.092)**	(0.130)**	(0.097)**	(0.106)	(0.108)*	(0.072)
Disability	-0.582	-0.167	-0.543	-0.294	-0.119	-0.194	-0.035
	(0.056)**	(0.039)**	(0.056)**	(0.042)**	(0.045)**	(0.046)**	(0.031)
Fixed Pay		1.896					1.300
		(0.013)**					(0.019)**
Tenure			-0.021				0.014
			(0.001)**				(0.001)**
Firm 1				0.437			0.942
				(0.163)**			(0.113)**
Firm 2				1.456			2.164
				(0.114)**			(0.079)**
Firm 3				0.689			0.731
				(0.113)**			(0.079)**
Firm 4				1.915			1.311
				(0.120)**			(0.083)**
Firm 5				3.462			2.738
				(0.100)**			(0.070)**
Firm 6				-0.004			1.226
				(0.110)			(0.078)**
Firm 7				0.184			0.805
				(0.138)			(0.096)**
Firm 8				0.132			1.009
				(0.169)			(0.120)**
Firm 9				2.465			0.000
				(0.197)**			(0.000)**
Firm 11				0.819			1.500
				(0.099)**			(0.070)**
Firm 12				2.372			2.036
				(0.120)**			(0.083)**
Production					-2.413		-0.815
					(0.029)**		(0.026)**
Administrative					-1.864		-0.473
					(0.051)**		(0.038)**
Professional/Technical					-0.391		-0.359
					(0.029)**		(0.021)**
Sales					0.057		0.172
					(0.056)		(0.038)**

Table 14 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Customer Service					-2.204		-0.741
					(0.068)**		(0.051)**
No High School						-2.594	-0.519
						(0.071)**	(0.051)**
High School						-2.627	-0.447
						(0.033)**	(0.029)**
Some College						-2.081	-0.378
						(0.032)**	(0.026)**
Associates Degree						-1.820	-0.360
						(0.040)**	(0.030)**
Bachelors Degree						-0.591	-0.119
						(0.030)**	(0.020)**
Constant	8.186	-12.632	8.410	6.703	9.244	9.643	-7.305
	(0.015)**	(0.145)**	(0.021)**	(0.099)**	(0.025)**	(0.025)**	(0.231)**
Observations	20778	20777	20522	20778	20572	18845	18441
R-squared	0.07	0.54	0.08	0.48	0.40	0.40	0.73

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

Table 15: Results from OLS Models Predicting Financial Value of Gainsharing Assets

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.890	-0.273	-0.915	-0.622	-0.330	-0.567	-0.088
	(0.054)**	(0.039)**	(0.053)**	(0.041)**	(0.043)**	(0.043)**	(0.030)**
African American	-1.089	-0.518	-1.122	-0.701	-0.611	-0.584	-0.292
	(0.147)**	(0.104)**	(0.146)**	(0.111)**	(0.114)**	(0.117)**	(0.078)**
Hispanic	-1.068	0.203	-1.125	-0.793	-0.457	-0.233	-0.130
	(0.106)**	(0.077)**	(0.105)**	(0.080)**	(0.082)**	(0.096)*	(0.062)*
Asian American	0.283	0.401	0.142	-0.470	-0.046	-0.040	-0.097
	(0.070)**	(0.049)**	(0.070)*	(0.053)**	(0.055)	(0.057)	(0.038)*
Native American	-0.324	-0.370	-0.281	0.271	-0.373	0.355	-0.001
	(0.231)	(0.164)*	(0.228)	(0.176)	(0.177)*	(0.186)	(0.122)
Disability	-0.889	-0.365	-0.816	-0.446	-0.169	-0.364	-0.055
	(0.111)**	(0.079)**	(0.111)**	(0.083)**	(0.085)*	(0.090)**	(0.059)
Fixed Pay		1.900					1.180
		(0.023)**					(0.030)**
Tenure			-0.042				0.014
			(0.003)**				(0.002)**
Firm 1				-1.623			-1.052
				(0.204)**			(0.135)**
Firm 2				-0.188			0.180
				(0.174)			(0.115)
Firm 3				-1.669			-1.145
				(0.107)**			(0.076)**
Firm 4				-0.093			-0.572
				(0.136)			(0.090)**
Firm 5				1.351			0.920
				(0.082)**			(0.058)**
Firm 6				-1.958			-0.634
				(0.123)**			(0.086)**
Firm 7				-1.052			-0.611
				(0.176)**			(0.118)**
Firm 8				0.000			0.000
				(0.000)**			(0.000)**
Firm 9				0.646			0.000
				(0.229)**			(0.000)**
Firm 11				-1.063			-0.260
				(0.084)**			(0.060)**
Production					-3.088		-1.205
					(0.055)**		(0.052)**
Administrative					-2.312		-0.757
					(0.101)**		(0.075)**
Professional/Technical					-0.274		-0.463
					(0.046)**		(0.033)**
Sales					0.182		0.177
					(0.061)**		(0.043)**
Customer Service					-2.885		-1.137
					(0.169)**		(0.139)**

Table 15 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
No High School						-2.142	-0.328
						(0.145)**	(0.098)**
High School						-2.892	-0.413
						(0.066)**	(0.054)**
Some College						-1.749	-0.354
						(0.059)**	(0.042)**
Associates Degree						-1.380	-0.354
						(0.075)**	(0.050)**
Bachelors Degree						-0.421	-0.169
						(0.044)**	(0.029)**
Constant	9.113	-12.200	9.463	8.905	9.748	10.055	-3.955
	(0.028)**	(0.264)**	(0.036)**	(0.081)**	(0.038)**	(0.037)**	(0.353)**
Observations	6566	6566	6490	6566	6486	6094	5959
R-squared	0.08	0.54	0.11	0.49	0.47	0.36	0.74

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

Table 16: Results from OLS Models Predicting Financial Value of ESPP Assets

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Female	-0.821	-0.349	-0.768	-0.344	-0.605	-0.623	-0.092
	(0.036)**	(0.033)**	(0.036)**	(0.031)**	(0.036)**	(0.035)**	(0.029)**
African American	-0.421	-0.132	-0.451	-0.335	-0.357	-0.369	-0.102
	(0.138)**	(0.120)	(0.137)**	(0.112)**	(0.131)**	(0.132)**	(0.102)
Hispanic	0.019	0.146	-0.056	-0.189	0.036	0.036	-0.054
	(0.089)	(0.077)	(0.088)	(0.073)**	(0.085)	(0.085)	(0.066)
Asian American	0.089	0.169	0.052	-0.114	0.140	-0.088	0.024
	(0.043)*	(0.037)**	(0.043)	(0.035)**	(0.042)**	(0.042)*	(0.034)
Native American	0.096	0.228	0.082	0.227	0.267	0.153	0.341
	(0.309)	(0.269)	(0.306)	(0.252)	(0.294)	(0.294)	(0.227)
Disability	-0.114	-0.043	-0.136	-0.135	-0.036	-0.044	-0.006
	(0.097)	(0.084)	(0.097)	(0.079)	(0.092)	(0.092)	(0.073)
Fixed Pay		1.425					0.854
		(0.030)**					(0.031)**
Tenure			-0.042				0.013
			(0.003)**				(0.003)**
Firm 4				0.131			-0.601
				(0.097)			(0.094)**
Firm 5				2.122			1.156
				(0.081)**			(0.081)**
Firm 9				0.159			0.000
				(0.193)			(0.000)**
Firm 12				0.067			-0.416
				(0.089)			(0.083)**
Production					-1.876		-0.442
					(0.088)**		(0.076)**
Administrative					-1.219		-0.058
					(0.090)**		(0.075)
Professional/Technical					-0.411		-0.236
					(0.041)**		(0.034)**
Sales					0.038		0.246
					(0.056)		(0.045)**
Customer Service					0.000		0.000
					(0.000)**		(0.000)**
No High School						-0.563	-0.366
						(0.231)*	(0.186)*
High School						-1.938	-0.674
						(0.092)**	(0.077)**
Some College						-0.959	-0.377
						(0.054)**	(0.045)**
Associates Degree						-0.768	-0.244
						(0.068)**	(0.055)**
Bachelors Degree						-0.133	0.005
						(0.035)**	(0.028)

Table 16 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	10.106	-6.191	10.323	8.289	10.407	10.356	-0.467
	(0.021)**	(0.342)**	(0.027)**	(0.080)**	(0.037)**	(0.030)**	(0.362)
Observations	7071	7071	6997	7071	7014	7056	6928
R-squared	0.07	0.30	0.10	0.38	0.15	0.16	0.50

*Standard errors in parentheses, * significant at 5% level; ** significant at 1% level*

employees. Due to this flexibility, it is likely that BBSOPs generate the most individual level variation in terms of both participation and the amount of assets employees receive. Model 1 in Table 13 shows that women, African-Americans, and Native Americans all have less valuable stock option grants. For all three of these groups, these effects remain when the controls are included in the models. In addition, Asian Americans also receive less valuable stock option grants in the fully specified model. Hence, employees in these groups who receive stock options receive fewer options than their comparison groups. Since many of these effects remain with controls, Table 13 provides persuasive evidence that the decisions corporate managers make regarding the number of options granted to employees may treat women and nonwhites unequally. This contrasts sharply with the results for stock option participation, which showed no barriers to access by gender and race. Less surprisingly, higher paid employees and those with longer tenures receive more valuable grants as well. Administrative, professional/technical, and sales employees also receive less valuable grants.

Tables 14 and 15 examines values from profit-sharing plans and gainsharing plans, respectively, two other plans in which management determines the financial value of assets. In contrast to stock option plans, which have a high degree of customization in terms of how many options individuals receive, both of these plans have a more standardized structure in which larger groups of employees receive similar allocations of financial assets. In the case of both of these plans, employees receive a cash payout as a bonus based on corporate profits (profitsharing) or groups of employees hitting performance targets (gainsharing). Table 14 presents the results for the financial value of profitsharing payouts. Model 1 shows that all demographic groups, with the exception of Asian Americans, receive less valuable payouts. In the fully specified Model 7, these effects remain for women and African Americans. For

Hispanics, the negative effect disappears when controls for education are included, indicating that this effect is more a function of Hispanics being more likely to have lower levels of education and that less educated employees receive less valuable assets. For employees with disabilities, no such clear distinction is discernible regarding why the negative effect disappears in Model 7. Similar to most other outcomes, Model 7 shows that higher paid employees and those with longer tenure receive higher payouts and that all nonmanagement employees, except for sales employees, receive less valuable assets. Hence, the ways in which profit-sharing allocation decisions are made appears to be treating women and African Americans unequally when compared to men and white employees.

Turning to gainsharing, Table 15 shows more negative outcomes than the results for profitsharing. All groups except Native Americans and employees with disabilities receive lower payouts, even when all controls are added. Similar to the results for profit-sharing, higher paid and longer tenured employees have more valuable payouts, while all nonmanagment groups except for sales employees have lower payouts. Finally, for both types of plans, employees with educational attainment below a Bachelor's degree receive less valuable payouts. These results provide strong evidence that companies are designing gainsharing plans in ways that appear to provide unequal payouts to women and nonwhite employees, relative to men and white employees.

Table 16 presents the results for the value of assets for the final type of plan, employee stock purchase plans (ESPPs). In ESPPs, employees defer part of their compensation to purchase discounted stock on specific dates. Employee can defer up to a certain percentage of their compensation, and they decide on this percentage. Hence, unlike other plans, employees make the decision regarding how much stock they will purchase. The results for Model 1 in Table 15 show that women and African

Americans have lower stock values in their ESPP holdings. In the fully specified model, only the effect for women remains, suggesting that women are less able or willing to defer compensation, even when controlling for other factors. For African Americans, the negative effect of Model 1 is associated primarily with lower levels of fixed pay, as demonstrated in Model 2. Again, higher paid employees and those with longer tenures receive higher values. Model 7 also shows that production and professional/technical employees have less valuable ESPP holdings than managers, and all non-college educated employees have lower values. This suggests that these employees may be less willing and able to defer compensation. It also suggests a potential lack of knowledge about the investment process among these groups.

Looking at all the outcomes for the financial value of assets acquired through the three forms of employee ownership, profitsharing, and gainsharing, it is clear that since the distribution of most of these plans is a function of existing forms of compensation, higher paid employees receive more valuable assets through all of these plans, regardless of how decisions regarding participation are made. However, the results also provide evidence that companies are allocating stock and payouts from profitsharing and gainsharing to certain groups unequally, based on gender and race. For example, in two of the three types of plans in which management decides, stock options and gainsharing, women and most nonwhite employees have statistically significant lower values than their comparison groups, even when controls for pay, tenure, firm effects, and occupation are included. For all three of these plans, women and African-Americans have lower values than men and whites, respectively. This is strong evidence that the way in which managers make decisions about how many stock options to allocate to different groups and the value of payouts relating to profitsharing and gainsharing provided to different groups, unequally favors men and whites above and beyond the advantages provided to men and whites from higher pay,

longer tenures, higher educational attainment, and increased representation in management. Finally, for these three plans in which management decides on the value, employees in most nonmanagement occupations also receive less value. In ESOPs, which require that allocations are based on pay or some other existing relative measure, and ESPPs, in which employees choose the value of their plan assets, women have lower values, even accounting for other factors. Hence, similar to the results for plan participation, disparities in financial value that are related to the specific ways in which employee ownership plans are structured are most prevalent in plans in which management makes the decisions.

Putting the Pieces Together

The results from these two sets of analyses provide a more detailed picture of disparities in how different demographic groups access and benefit financially from employee ownership and related plans. Although many of these disparities emanate from existing mechanisms of stratification, the evidence also suggests that the specific structure of these programs may be benefiting certain groups over others. Overall, the evidence for such potential discriminatory mechanisms is stronger for how companies allocate stock and financial benefits of these plans than for how companies provide access to participation. For example, for plans in which management decides both participation and financial value, the findings suggest that, with respect to stock options and gainsharing, the decisions managers make with respect to the allocation of financial value lead to more unequal outcomes for specific groups than the decisions regarding participation. The opposite is true for profitsharing, in which more groups face barriers to access, even with controls, than experience lower financial values. A priority for future research should be to uncover the ways in which decisions about participation and allocation for these plans are actually made by corporate managers.

In contrast, the results show that for ESOPs, in which broad participation is legally required and allocation structures are legally defined, there are few barriers to access and disparities in financial value beyond existing mechanisms of stratification. Finally, for plans in which employees decide, two groups, women and African-Americans, appear to opt out and to invest less money in these plans. For ESPPs, women and African-Americans choose to defer less of their salary then men and whites. In contrast to the disparities evident in the plans in which management makes the decisions, for ESPPs, these disparities likely reflect different mechanisms regarding preferences for investing.

What is the overall picture for specific groups? Table 17 summarizes the results for the outcomes regarding access to employee ownership and the financial value of assets for different demographic groups. The percentages in each cell represent the percentages of statistically significant negative coefficients for all outcomes within each of the two sets of variables discussed above: access to employee ownership and the value of assets in employee ownership. Negative coefficients represent disparities in outcomes between specific demographic groups and their comparison groups (men for women, whites for each nonwhite group, and employees without disabilities for employees with disabilities). The qualitative assessment is based on the following broad categories: few disparities (0 - 33% negative outcomes), some disparities (34% - 66%), and many disparities (67% to 100%). The table shows the overall patterns for all outcomes both with and without controls for occupation, education, and tenure.

This table provides a concise way to assess overall outcomes for women, racial and ethnic minorities, and employees with disabilities. For participation in employee ownership plans, although most groups experience at least some disparities in

Table 17: Summary of Disparities in Access to and Financial Value of Employee Ownership Assets

	DISPARITIES IN PARTICIPATION IN EMPLOYEE OWNERSHIP		DISPARITIES IN FINANCIAL VALUE OF EMPLOYEE OWNERSHIP		SUMMARY: PERCENTAGE OF ALL OUTCOMES WITH DISPARITIES	
	WITHOUT CONTROLS	***WITH CONTROLS***	***WITHOUT CONTROLS***	***WITH CONTROLS***	***WITH CONTROLS***	***WITHOUT CONTROLS***
Women	Many (80%)	Few (20%)	Some (60%)	Many (100%)	Many (70%)	Some (60%)
African Americans	Many (80%)	Some (40%)	Some (60%)	Many (80%)	Many (70%)	Some (60%)
Hispanics	Some (60%)	Few (20%)	Some (40%)	Few (20%)	Some (50%)	Few (20%)
Asian Americans	Few (20%)	Few (20%)	None	Few (20%)	Few (10%)	Few (20%)
Native Americans	Many (60%)	Some (40%)	Some (60%)	None	Some (60%)	Few (20%)
Employees With Disability	Many (80%)	Some (60%)	Some (40%)	None	Some (60%)	Few (30%)

Coding scheme: few (0 – 33%), some (33% - 66%), many (66% to 100%)

participation rates, all of these attenuate in the models that include controls for fixed pay, tenure, individual firm effects, education, occupation,. However, all groups still face barriers to accessing these plans, even with controls. Employees with disabilities and African Americans have the highest percentage of disparities both with and without controls. For women, the effects of pay and occupation appear to be the strongest, as their outcomes for models with and without controls shift the most.

In terms of the financial value held in employee ownership plans, most groups experience some disparities in outcomes, but there are fewer overall disparities than in terms of access, and all effects attenuate with controls, with the exception of women and African Americans. These two groups have lower plan values for all plans (except

for ESOPs for African Americans). Hence the disparities in access and financial values are the strongest for these two groups, both with respect to existing mechanisms of stratification and the unique features of employee ownership plans.

Discussion and Conclusion

The evidence presented in this paper provides strong evidence that patterns of inequality in access to employee ownership and the value of assets held in these plans are very similar to existing patterns of inequality. To the extent that the value of assets provided by employee ownership is linked to existing compensation systems, which themselves are stratified by gender, race, ethnicity, and disability, this is not surprising. However, the unequal access to these plans and the lower value of the assets held in these plans by women and African Americans serves as a reminder that these groups still face strong barriers to accessing economic opportunities in ways similar to men and whites. It appears, therefore, that the barriers to this access are the result of deeply entrenched mechanisms that generate occupational segregation, such as certain groups being underrepresented in occupational groups that are more likely to receive access to employee ownership. In addition, the ways in which companies structure certain types of plans leads to additional disparities for thee two groups, and this is particularly the case for plans in which managers make decisions regarding which employees participate and how much employees receive through these plans: stock options, profitsharing, and gainsharing.

On the whole, the results suggest that employee ownership plans may not be altering existing patterns of income and wealth stratification and could be exacerbating these gaps, since those employees with higher salaries are more likely to participate and receive more financial value through employee ownership, and employees facing existing barriers to economic opportunity face similar barriers to accessing and

benefiting from employee ownership. Testing the long-term impact of employee ownership on existing patterns of income and wealth stratification more completely, however, will require comparing outcomes within a group of similar employees in similar organizations without employee ownership, which is beyond the more modest scope of this paper. However, this paper has opened up a new research stream for better understanding how the outcomes of employee ownership are stratified by gender, race, and disability status. In addition to uncovering the concrete effects for different demographic groups, this paper suggests that the potential mechanisms shaping these outcomes are closely related to how decisions regarding participation and allocation are made and by whom. Identifying these mechanisms needs to be a priority for future research. Not only will this type of research expand existing perspectives about the possibilities represented by employee ownership for influencing existing patterns of income and wealth inequality, but renewed attention to the organizational level processes through which compensation decisions are made would likely enrich the broader literature on social stratification, which continues to undertheorize such mechanisms.

Although these results should be very interesting to social scientists, they also have important implications for managers. First, since the value of assets acquired through employee ownership is usually directly related to pay, managers should be careful in assuming that implementing employee ownership creates instant equity and fairness. The reality is that the implementation and operation of these plans occurs within broader structures of stratification, and this reality may have negative consequences for the effectiveness of these plans if employees perceive their implementation and operation as unfair. Substantial disparities may be particularly important if certain demographic groups are concentrated in crucial occupational roles and experience disparities in access to and the benefits of employee ownership. Ittner

et al. (2003), for example, found that the performance effects of employee stock option grants were influenced by larger grants to certain key employees, such as technical employees, managers, and individual contributors who were non-exempt.

Furthermore, the results show that, beyond the traditional mechanisms of stratification, the ways in which certain types of employee ownership are designed and operated can create further disparities in access and financial value for different groups. Hence, to the extent that the structures of specific forms of employee ownership are flexible in terms of who gets access and the value of the financial benefits that flow from these plans, management has the leverage to design plans to address the disparities uncovered in this analysis. The bottom line is that these disparities most likely produce outcomes that individuals in diverse categories would experience as unfortunate. This suggests that companies with diverse employee populations can benefit from paying attention to traditional inequalities, and how employee ownership is shaped by and, in turn, influences these inequalities. This type of inequality, if left unaddressed can siphon off the potential positive effects of employee ownership for individual employees and for the firm.

Finally, the evidence suggests policy innovations that might improve access to employee ownership. Females and minority groups face no barriers to participating in ESOPs, which are governed by the Employee Retirement Income Security Act (ERISA), which has strong requirements for broad participation in retirement plans. None of the other forms of employee ownership analyzed in this paper have similar requirements, and the evidence is clear that certain groups, especially women and African-Americans, face barriers to participation. Participation in such plans as BBSOPs and the various forms of performance based pay is controlled by managers, while participation in ESPPs and 401(k) plans is controlled primarily by employees. To the extent that existing patterns of occupational segregation and income inequality

restrict access to management controlled plans, broad participation requirements could help alleviate existing barriers to participation.

Obviously, ESOP-like legislation that has broad participation requirements that also provides tax benefits for companies implementing these plans is a way to encourage corporations to promote broad participation. To the extent that groups with low participation rates in voluntary programs are constrained by lower levels of discretionary income that could be used to invest in these plans, low interest loans provided by government agencies or employers, in exchange for tax benefits, could help lower income employees participate in these plans. However, ESPPs and 401(k) plans involve a cash investment and the acceptance of risk, which may make mechanisms such as stock options and ESOPs, in which employees do not need to make an investment up front and do not take on much risk, better avenues to promote broader participation in shared capitalism. In the absence of legislation, however, corporate managers, boards of directors, and compensation consultants can also play a key role in addressing unequal access to employee ownership. At a minimum, they should pay careful attention to how inequality in access to and benefits from shared capitalism affects the efficiency and productivity of the organizations they manage, and how opening up access can help their firms and clients achieve long-term success and lead to a more equitable distribution of the benefits of this success.

The analysis presented in this paper has obvious limitations. First, although the sample is comprised of rich individual level data, it only includes 14 companies. This lack of organizational level variation means that conclusions about the influence of organizational level mechanisms relating to how these plans are structured can only be made with a fair amount of caution. Second, certain demographic groups are underrepresented in the sample (Hispanics and Native Americans), and it is difficult to draw general conclusion about the outcomes for these groups. Third, the information

regarding participation and plan assets was collected from individual employees and may suffer from retrospective and other forms of recall bias. A more robust analysis would require collecting more reliable data regarding participation of these plans and the precise financial value of assets employees receive through corporate accounting records. Fourth, the analysis lacks specific information regarding how companies make decisions about participation and the allocation of assets through these plans. Finally, the summary picture presented by aggregating groups of plan participants across multiple organizations likely masks some interesting and important variations from the overall trends that have been the focus of this analysis. Our understanding of these anomalies and the overall trends will benefit greatly from future research that attempts to overcome these shortcomings. Despite these limitations, this paper provides a starting point for future research to examine such mechanisms and the long-term impacts of employee ownership on broader patterns of social inequality. Gaining a better understanding of these trends is necessary not only for understanding the potential of economic democracy to mitigate income inequality, but also for expanding the existing theoretical frameworks on social stratification to incorporate new forms of compensation and wealth generation in the 21st century economy.

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CHAPTER 5
CONCLUSION

This dissertation has examined the institutionalization and consequences of stock-based compensation in the contemporary firm. The analysis has revealed that although the use of these practices is importantly shaped by strategic human resource considerations relating to hiring, retention, and employee motivation, like all organizational practices, they become institutionalized and are open to contestation through dynamic social, political, and cultural processes inside and outside of organizations.

For example, the diffusion of executive stock options was importantly shaped by the perceived need of shareholders to link executive pay to corporate performance. However, the corporate scandals challenged the legitimacy of the practice and focused attention on the ways in which executives have a great deal of power to extract rent from these arrangements. The actors challenging the system of executive compensation were effective at altering the levels of executive compensation and the dominance of executive stock options in the immediate wake of the scandals, but the system of corporate governance that determines these practices has retained its legitimacy even in the face of strong challenges. The extent to which these executive compensation-setting structures persist and the future trajectory of overall levels of executive compensation will partly be a function of how a diverse group of stakeholders, such as shareholders, regulators, and economic and social justice organizations, are able to strategically challenge the framing of executive compensation arrangement as efficient outcomes of arms-length transactions between executives and independent directors, and engage in collective action to alter corporate governance practices.

Similarly, although the spread of different forms of employee ownership has been driven by the need for organizations to attract, retain, and motivate employees at all levels, the second paper shows how labor market conditions, organizational level resources, cultural perceptions, and a supportive institutional environment create the conditions for the diffusion of broad-based stock compensation. In addition, the second paper highlights the key role that human resources and compensation professionals play in translating the meaning of stock-based compensation from one setting to another and tailoring it to local conditions. Similar to the first paper, which focused on the agency of actors outside the organization in challenging the legitimacy of stock-based compensation, this paper reveals how the action of organizational members shapes the institutionalization of the practice.

While the first paper shows that the value of stock options for executives declined in the wake of the scandals, it also suggests that this decline was offset by increases in other the value forms of compensation. In contrast, the second paper reveals that for lower level employees in Indian technology companies, the stock market crash and the scandals led to a dramatic decline in the use of broad-based stock options. This suggests that broad-based stock compensation plans may be much more sensitive to deinstitutionalization and change than stock compensation plans that benefit more powerful executives. This is a crucial insight for understanding the long-term influence of stock-based compensation on income and wealth inequality. The analyses of executive stock options after the scandals and of the diffusion of employee stock options in the Indian technology sector both illuminate the complex organizational and organizational-field level forces that shape the emergence and long-term persistence of different forms of stock-based compensation.

In the same way that executives have been able to access an extremely lucrative new source of wealth through stock options, as different forms broad-based

stock compensation have diffused over the last three decades, they have created similar opportunities for nonexecutive employees and certain demographic groups that have historically faced substantial barriers to accessing economic opportunities. However, the diffusion of employee ownership has definitely not been as widespread as that of executive stock options. Just as important, the third paper reveals that because these new opportunities are usually tied to existing compensation systems, which themselves are stratified by occupation, gender, and race, the long-term consequences for these programs in reducing economic inequality, while promising, may have distinct limits. The ultimate implications for inequality will depend on how corporate managers design and alter stock compensation for different types of employees in the future, i.e., on how corporate managers decide which employees receive stock compensation and how much different groups receive. This dissertation has demonstrated that institutional theory represents a very productive framework for understanding the sociopolitical dynamics inside and outside of organizations that influence such decisions.

More generally, this dissertation has revealed how an institutional approach can help explain the development and persistence of other systems of compensation and organizational practices that play an important role in the distribution of economic wealth, power, and status within the contemporary capitalist firm. Future research on social stratification would benefit greatly from a renewed focus on how organizational practices that shape inequality become institutionalized through broad populations of organizations, and the conditions are under which these practices come under challenge by different field-level actors, and persist or are transformed in the process. Likewise, for institutional organizational researchers, examining more closely the diffusion of these practices represents a productive avenue for better understanding the

role of power, politics, and culture in the structuration of organizational practices more generally.

APPENDIX

This appendix provides more detailed information about the data collection procedures employed for the analyses in Chapters 3 and 4.

Data Collection in India: Chapter 3

In Chapter 3, I examined the incidence and processes shaping the institutionalization of ESOs in India through a series of interviews with informants in Pune, Hyderabad, and Bangalore, India. I obtained an initial list of 16 possible informants from the National Center for Employee Ownership (NCEO), a US-based nonprofit organization providing information and conducting research on broad-based stock compensation. This initial list included 10 compensation consultants and six human resource or compensation executives in both Indian based technology firms and multinationals operating in India. I contacted all of these people via email before going to India. Through personal connections established working for the NCEO between 1994 and 2002, I emailed another five possible informants, three of whom were human resource managers in multinationals in India, and two of whom were Indian academics. I obtained seven positive responses from this initial list of people who were willing to be interviewed. These contacts provided information on three more possible informants, of which two were willing to be interviewed. Before going to India, I had set up 10 interviews with 14 informants (some of the initial nine contacts that had agreed brought in other people for group interviews). Once on the ground in India, I was able to set up four more interviews with five more informants. Hence, I conducted a total of 14 interviews with 19 informants in total. Table 18 provides more detailed information about my informants, the organizations they represented, and the interviews.

Table 18: Descriptive Information, Informants in India

Informant Number	Interview Number	Title of Informant	Nationality	Type of Organization	HQ Location	Interview Length	Interview Date
1	1	Vice President	India	Compensation Consulting Firm	India	75 minutes	February 25, 2005
2	2	President and Founder	India	Compensation Consulting Firm	India	42 minutes	February 25, 2005
3	3	Chief Delivery Officer	India	Software/Information Technology Firm	Israel	56 minutes	February 28, 2005
4	3	Program Manager	India	Software/Information Technology Firm	Israel	56 minutes	February 28, 2005
5	4	General Manager, Investor Relations	India	Software/Information Technology Firm	India	58 minutes	February 25, 2005
6	5	VP-Talent Engineering	India	Software/Information Technology Firm	India	83 minutes	February 28, 2005
7	5	Compensation Manager	India	Software/Information Technology Firm	India	83 minutes	February 28, 2005
8	6	Compensation Consultant	India	Software/Information Technology Firm	United States	62 minutes	March 1, 2005
9	7	Compensation and Benefits Manager	India	Software/Information Technology Firm	United States	38 minutes	March 1, 2005
10	8	Senior Executive, Human Resources	India	Software/Information Technology Firm	United States	38 minutes	March 2, 2005
11	8	Program Manager	India	Software/Information Technology Firm	United States	38 minutes	March 2, 2005
12	9	Professor of Management	India	University	India	44 minutes	March 3, 2005
13	10	Professor of Management	India	University	India	75 minutes	March 4, 2008
14	11	Consultant	India	Human Resource Consulting Firm	United States	35 minutes	March 7, 2008
15	12	HR Director	US	Software/Information Technology Firm	United States	40 minutes	March 7, 2005
16	13	Associate VP-HRD	India	Software/Information Technology Firm	India	109 minutes	March 8, 2005
17	13	Associate-Compensation and Benefits	India	Software/Information Technology Firm	India	109 minutes	March 8, 2005
18	13	HR Officer	India	Software/Information Technology Firm	India	109 minutes	March 8, 2005
19	14	Consultant	India	Human Resource Consulting Firm	United States	35 minutes	March 7, 2008

I conducted semi-structured interviews with these informants. I used a standard list of questions for all informants, which varied slightly depending on the role of the informant (company representative, consultant, or academic). I also had a set of additional questions that I could bring in, depending on the trajectory of the interview.

Questions for Company Informants

I. Standard Questions for All Informants

1. How long have you been with this company? How did you get here?
2. What is your background?
3. How long have you been in your current role? What are the most difficult parts of it? What are the most rewarding parts?
4. Does your company currently grant stock options to employees?
5. If not, why did your company stop granting options? Did it replace it with other forms of equity, cash, and/or benefits?
6. Do you plan on renewing grants in the future?
7. When did your company implement its stock option program?
8. Why did your company set up the plan?
9. Can you describe the decision-making process that your company's leaders went through before choosing to implement the plan?
10. How does it/did fit in with your other HR strategies and practices?
11. How would you describe your company's current HR and compensation strategy?
12. How does it attempt to address the competitive challenges faced by your company?
13. Has your HR strategy changed in the last five years? In the last two years?
14. How has this effected your stock options strategy?
15. What are the biggest HR challenges your company and industry face at this point?
16. How have labor market and competitive concerns influenced your HR, compensation, and stock options strategy?

17. Who gets stock options?

18. What percentage of employees at this organization are eligible to receive stock options?

19. What percentage actually receives them?

20. What is the lowest paid position that receives stock options?

21. How often do you make option grants?

22. How does your company decide who gets stock options and how many different types of employees receive? How did this process emerge?

23. Where did your company get information about stock options in general and in plan design in particular?

24. Why did you design this plan in this way?

25. How has your approach to plan design changed over time the company has grown?

26. Are there other important elements/perspectives you think I am missing?

27. Are there other people I should talk to?

II. Additional Questions (Optional)

1. What have been the views of employees to having stock options?

2. How does it differ between different types of employees?

3. Have these views changed over time, particularly with the volatility of the stock market?

4. Do you think the employee stock option plan has been successful in meeting its intended goals?

5. What role do you think stock options/employee ownership/spreading the wealth has had in the growth of your company?

6. Has it made employees more motivated?

7. Do you think they act like owners? How do they view this in the abstract?

8. What is the view of the company about employee ownership? Is it a core part of your culture?

9. Has this view changed with the recent volatility in the stock market?

10. How have has the use of stock options changed in India over time?

11. What do you think the general view about stock options in EO is in Indian IT firms at this point?

12. How have you seen these views change over time?

13. When and why did options emerge on the scene?

14. What do you think are the most important factors that will affect the future of stock option practices/use of employee ownership in the India IT sector?

15. Do you think EO/options will persist in India? Has it caught on?

16. How does it connect with older traditions of employee ownership in India?

17. There has been a lot of discussion about IT firms in India adopting management practices that are common in Silicon Valley firms, such as stock options. To what extent do you agree or disagree with these assessments?

18. Do you think that management models of Silicon Valley firms have influenced Indian firms? How so? To what extent were these different from Indian models or were there similarities?

19. In addition to stock options, there is a lot of discussion in the US business media about IT firms having flatter hierarchies and that Indian firms have adopted these as well. Do you agree with this assessment? Why or why not?

20. How would you describe the organizational structure of your company?

21. Would you describe the organization of work at your company as a flat hierarchy? If so, why is this the case?

22. How has this organizational structure changed over time?

23. Would you say that IT companies in India have fundamentally different types of organizational structures than older industries?

24. To what extent do you believe that the growth of the high-tech sector in India has influenced traditional management and HR approaches?

25. What are the typical sources for management ideas and practices among business leaders in India? Have these changed in the last decade?

Questions for Consultant Informants

I. Standard Questions for All Informants

1. Tell me a little bit about yourself and your firm. What do you do? When did you start?

2. What types of clients do you advise? What types of issues do you advise your clients about?

3. Can you sketch out the highlights of the history of stock option law and regulations in India?

4. What have been the most recent regulatory changes?

5. Why are your clients using employee stock option plans?

6. What is the typical plan design? Who is getting options? How many and how often?

7. How do plan design features connect with HR strategies and challenges? How have labor market and competitive concerns influenced their HR and compensation strategies?

8. How has the use of stock options changed in India over time?

9. What do you think are the most important factors that will affect the future of stock option practices/use of employee ownership in the India IT sector?

10. How would you characterize the views of different about stock options and EO here in India? What are the views of executives, HR people, entrepreneurs, regulators, and the media about stock options and employee ownership more generally?

11. How have you seen these views change over time?

12. When and why did options emerge on the scene?

13. Are there other important elements/perspectives you think I am missing?

14. Are there other people I should talk to?

II. Additional Questions (Optional)

1. There has been a lot of discussion about IT firms in India adopting management practices that are common in Silicon Valley firms, such as stock options. To what extent do you agree or disagree with these assessments?

2. Do you think that management models of Silicon Valley firms have influenced Indian firms? How so?

3. To what extent were these different from Indian models or were there similarities?

4. To what extent do you believe that the growth of the high-tech sector in India has influenced existing management and HR approaches?

5. What has been driving this change?

6. How do you see this changing in the future?

7. What are the typical sources for management ideas and practices among business leaders in India? Have these changed in the last decade?

Questions for Academic Informants

Standard Questions for All Informants

1. How would you characterize the stock options environment here in India? What is the view of executives, HR people, entrepreneurs, regulators, and the media about stock options and employee ownership more generally?

2. More generally, why do you think high-tech firms in India have been using employee stock option plans? How do you see this changing in the future?

3. Do you think stock options are a good thing or a bad thing for Indian workers and the economy?

4. There has been a lot of discussion about IT firms in India adopting management practices that are common in Silicon Valley firms, such as stock options and flattened hierarchies. To what extent to you agree or disagree with these assessments?

5. Do you think that management models of Silicon Valley firms have influenced Indian firms?

6. To what extent were these different from Indian models or were there similarities?

7. To what extent do you believe that the growth of the high-tech sector in India has influenced existing management and HR approaches?

8. What are the typical sources for management ideas and practices among business leaders in India? Have these changed in the last decade?

Data Collection for Chapter 4: The Shared Capitalism Dataset

The data analyzed in Chapter 4 regarding participation in and financial values acquired from different forms of employee ownership was based on survey responses from 46,907 employees that were collected between 2001 and 2006 in association with the Shared Capitalism Project of the National Bureau of Economic Research. The eight person research team conducted employee surveys in 14 U.S. companies with any of the following forms of employee ownership: employee stock ownership plans (ESOPs), broad-based stock option plans (BBSOPs), employee stock purchase plans (ESPPs), and 401(k) plans with employer stock as an investment option or company match. Some companies in the sample had one type of plan, while others had multiple plans. The response rates from employees averaged 52% across the 14 companies.

The sample of companies was generated through a master list of approximately 100 firms acquired from the National Center of Employee and personal contacts of the researchers. The sample was chosen in order to create as broad a representation of industry, company size, and type of broad-based stock compensation plan as possible. Due to the length of the employee survey (approximately 45 minutes – 60 minutes), the final sample size was small. Table 19 provides more detailed information about the companies in the sample. Surveys were distributed either in person, via mail, or online. Different companies used different distribution methods or a combination of methods.

Each survey included a core group of approximately 80 questions on participation in stock-based compensation programs, financial value received through these programs, employee demographics, participation in different types of employee involvement practices, and employee attitudes towards their company, supervisors, and jobs. Companies were also given the opportunity to include their own questions

Table 19: Descriptive Information About Companies in the Shared Capitalism Sample

Company	Industry	Ownership	Type of Stock Compensation Plan*	Total Employees	Surveyed Employees	Total Responses	Response Rate
1	Service	Private	ESOP, profit-sharing, gainsharing	1962	1962	854	44%
2	Manufacturing	Private	ESOP	1150	1150	900	78%
3	Manufacturing	Private	ESOP, 401k, profit-sharing, gainsharing	3327	2387	1078	45%
4	Service	Private	BBSOP, ESPP, 401k, profit-sharing	10600	7246	803	11%
5	High-tech	Public	BBSOP, ESPP, profitsharing	35283	35383	6733	19%
6	Manufacturing	Private	ESOP, profit-sharing	4500	3300	1570	48%
7	Manufacturing	Private	ESOP, BBSOP, ESPP, profit-sharing, gainsharing	600	600	429	72%
8	Manufacturing	Private	ESOP, profitsharing	276	276	220	80%
9	Manufacturing	Public	BBSOP, ESPP, profit-sharing, gainsharing	300	300	230	77%
10	High-tech	Private	ESOP, profit-sharing	574	574	266	46%
11	Manufacturing	Private	401k, profit-sharing	47321	47321	31830	67%
12	Manufacturing	Public	BBSOP, ESPP, 401k, profitsharing	9600	2500	1584	63%
13	Finance	Private	ESOP, profit-sharing	421	421	210	50%
14	Service	Private	ESOP, profit-sharing	500	500	200	40%
TOTALS				116414	103920	46907	45%

*ESOP = employee stock ownership plan, 401k = 401(k) plan, BBSOP = broad-based stock option plan, ESPP = employee stock purchase plan

about any other issues. What follows is a list of the relevant survey questions that collected the data analyzed in Chapter 4.

SURVEY QUESTIONS

Which of the following best describes your type of job?

- ☐ production, maintenance, or delivery work (including production supervisors)
- ☐ administrative support staff (e.g., clerical, secretarial, record keeping)
- ☐ professional/technical staff (e.g., engineering, finance, marketing)
- ☐ sales staff
- ☐ management (including department heads, mid-level managers, and executive management)

IF YOU ANSWERED "MANAGEMENT,"
Would you say you are part of

- ☐ lower management
- ☐ middle management
- ☐ upper management

How long have you worked for your company, at any location or job?

_____ Years _____ Months

Because this survey is part of a nationwide study, we would like to ask the following questions in order to be able to compare your answers with those of similar employees in other companies and the general population. These background questions are for statistical purposes only. No data will be used to identify any individual.

Age _____

Sex ☐ Female ☐ Male

Marital status

☐ Married

☐ Living as married

☐ Divorced

☐ Separated

☐ Widowed

☐ Never married

Total size of family living in your household (including yourself):

_____

Number of children under age 18:

_____

Completed schooling:

- ☐ Less than 9th grade
- ☐ 9th to 12th grade, no diploma
- ☐ High school graduate or GED
- ☐ Some college, but no degree
- ☐ Associate degree in college
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional school degree (such as MD or JD)
- ☐ Doctorate degree

Hispanic or Latino background: ☐ Yes ☐ No

Race: ☐ White ☐ Black ☐ Asian ☐ Native American

☐ Other _____

Do you have a health problem or impairment lasting 6 months or more that limits the kind or amount of work, housework, or other major activities you can do?

☐ Yes ☐ No

What was your annual base pay in 2003 (excluding any bonuses and commissions) BEFORE taxes and deductions?

$_____

If you receive overtime pay, how much did you earn in overtime in 2003?

$_____

If you receive sales commissions, how much did you earn in commissions in 2003?

$_____

People have various assets that constitute their wealth. These include the value of their house minus the mortgage, plus their vehicles, stocks and mutual funds, cash, checking accounts, retirement accounts including 401(k) and pension assets, and so forth. Taking account of all of these things would you say that the WEALTH of you and your spouse / partner is:

- ☐ Less than $5000
- ☐ $5000 to $20,000
- ☐ $20,000 to $40,000
- ☐ $40,000 to $75,000
- ☐ $75,000 to $100,000
- ☐ $100,000 to $150,000
- ☐ $150,000 to $250,000
- ☐ $250,000 to $500,000
- ☐ More than $500,000

About what percent of your total wealth is in your employer's stock?

_____%

Do you participate in the company ESOP?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

What is the approximate total value of your accumulated assets in the ESOP? (a rough estimate is fine if you do not know the exact amount)

$_____

Have you ever been granted any stock options from your company?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

Have you ever exercised any of these stock options?

☐ Yes ☐ No ☐ Don't know

After exercising the stock options, did you keep any of the stock you acquired through the stock option plan or have you sold it all?

☐ Kept some stock ☐ Sold it all

What is the current total value of your company's stock you now hold—net of the purchase price--from having exercised these options and kept the stock?

$_____

How much money have you made during your employment at this company by exercising stock options and selling the stock?

$_____

Do you currently hold any of this company's stock options (vested or unvested)?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

What is the total number of stock options (both vested and unvested) that you have?

#_____

If you exercised today the options you currently hold, what would be the total value of the stock you would own, net of the purchase price?

$_____

If you exercised today the options you currently hold, what would be the total value of the stock you would own, net of the purchase price?

$_____

Did you receive a grant of stock options from your company [last year]?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

What was the number of stock options in last year's grant?

#_____

Did you receive any stock options this year?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

How many stock options did you receive this year?

#_____

Have you ever purchased company stock through the company stock purchase plan?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

What is the approximate total value of company stock you now own through this plan?

$_____

Have you ever sold any stock purchased through this plan?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

How much profit did you make from all the times you sold the stock purchased through the Employee Stock Purchase Program?

$_____

What is the approximate total value of company stock you now own through these plans?

$_____

Do you participate in the company 401(k) plan?

☐ Yes ☐ No ☐ Don't know

IF "YES,"

What is the approximate total value of your accumulated assets in the 401(k) plan? (a rough estimate is fine if you do not know the exact amount)

$_____

Of your 401(k) assets, what is the approximate value of your company's stock?

$_____

In your job are you eligible for any type of performance-based pay, such as individual or group bonuses, or any type of profit-sharing?

☐ Yes ☐ No ☐ Don't know

IF "YES"

What does the size of these performance-based payments depend on? (mark all that apply)

☐ Company profits or performance

☐ Workgroup or department performance

☐ Individual performance

Did you receive any of these payments in last year?

☐ Yes ☐ No ☐ Don't know

If no, what was the most recent year in which you received these payments? _____

What was the approximate total dollar value of these various payments in that year? (a rough estimate is fine if you do know the exact amount)

$_____

12. How likely is it that you will decide to look hard for a job with another organization within the next twelve months?

☐ Not at all likely ☐ Somewhat likely ☐ Very likely ☐ Already looking

16. To what extent do you agree or disagree with this statement? "I am willing to work harder than I have to in order to help the company I work for succeed."

Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

48. How much loyalty would you say you feel toward the company you work for as a whole?

☐ A lot ☐ Some ☐ Only a little ☐ No loyalty at all