Layoffs in Structural-Historical Perspective

John C. Dencker
University of Illinois at Urbana-Champaign

Abstract

This paper describes a "trimming the fat" account of restructuring in which firms lay off the least productive employees in a job, and a "broken contract" account in which firms lay off highly paid employees in a job. Analyses of personnel files of a Fortune 500 manufacturing firm that restructured multiple times reveal that the firm laid off high-paid and low-performing managers during the 1980s and low-performing managers in the 1990s. These patterns stem from the firm's increasing use of pay-for-performance from the late 1980s onward and from differences in the institutional contexts in which the restructurings occurred.

Introduction

An important debate in research on the effects of corporate restructuring on the employment relationship (see Cappelli et al. 1997) is whether this widespread process freed up capital to flow to more productive uses (Jensen 1993) or instead represented a zero-sum game wherein wealth was redistributed from labor to capital (Shleifer and Summers 1988). Scholars have sought to resolve this debate by assessing whether firms laid off redundant employees in an efficient "trimming the fat" process or instead broke the employment contracts of highly paid employees (Baumol, Blinder, and Wolff 2003). Evidence is mixed: although employees who stand to lose the least amount of human capital—namely, the youngest and oldest employees (Lazear and Freeman 1996)—bear the brunt of layoffs (Allen, Clark, and Schieber 1999), findings on firm profitability and productivity following restructuring support both "broken contract" and "trimming the fat" accounts (Baumol, Blinder, and Wolff 2003); in addition, findings from research on interindustry wage differentials (Krueger and Summers 1998) are consistent with "broken contract" notions.

Ambiguity surrounding the nature of restructuring is in no small part a

function of a lack of data. In particular, existing studies are often unable to control for effects of job structures on wages and performance and of potential differences in these effects over time. For instance, data used in job stability studies typically assess changes in tenure distributions at a broad level and assume that employees in a given tenure distribution have similar amounts of human capital. Yet, the wages and productivity of similarly tenured workers are not always equal, with within-category differences increasing in higher levels of tenure (see Petersen, Spilerman, and Dahl 1989). Thus, studies may fail to uncover redistribution even though rents were transferred from employees to firms. Moreover, they often cannot account for substantial differences in the relationship between wages and performance over time that stemmed from differences in the nature of restructuring in recent decades. For example, in the early 1980s restructuring was driven by corporate raiders who sought to increase profits by engaging in layoffs to reduce labor costs. By contrast, in the 1990s layoffs were driven by institutional investors who pressured firms to improve efficiency. In addition, prior to the 1990s organizational rules govern-ing salary adjustments were largely a function of employee seniority in a job in post–World War II bureaucratic firms (see Medoff and Abraham 1980), with performance rankings skewed so that the majority of employees were ranked as being above average. However, following restructuring initiatives in the late 1980s, managers were motivated to increase the time spent evaluating subordinates the degree to which wage increases were tied to performance, with incentive-based pay becoming an increasingly larger component of over-all pay from the late 1980s onward (Cappelli et al. 1997, 40). As a result, the validity of the two accounts of restructuring may depend on the time period being studied.

In short, the nature of performance and wages changed substantially from the 1980s to the 1990s, as rewards became less tied to seniority and more tied to performance. In addition, the key driving forces behind layoffs changed over the same time period, with a focus on increasing profits from layoffs being replaced by a focus on improving organizational efficiency. In order to assess which employees firms laid off and why—in other words, in order to resolve the debate between the fairness and efficiency of wide-spread corporate restructuring—it is important to include information on job and wage structures in historical context. In this article I investigate the role of *job and wage structures* on layoffs to develop two structural-based accounts regarding which employees in which job positions are laid off dur-ing corporate restructuring: (1) a "trimming the fat" account, in which firms lay off relatively low-performing (redundant) employees, and (2) a "broken contract" account, in which firms lay off the most highly paid employees. I analyze predictions of the two accounts using data obtained from personnel

files of a Fortune 500 manufacturing firm that undertook two widespread layoffs during the 1980s and 1990s.

Conceptual Accounts of Corporate Restructuring

In a "trimming the fat" account of corporate restructuring, firms cut the dispensable portion of their workforces by laying off the least productive employees. By contrast, in a "broken contract" account of restructuring, firms eliminate the "fat" embodied in salaries (Baumol, Blinder, and Wolff 2003) by laying off highly paid employees. In this section I incorporate information on job and wage structures into these two largely contrasting accounts and situate them in historical context. I first focus on restructuring in the early 1980s, which occurred in a context wherein highly bureaucratic firms relied heavily on seniority in wage determination and at a time when corporate raiders were instrumental in shaping the nature of the layoff process. Then I focus on restructuring in the 1990s, subsequent to transformations in pay and performance management systems in firms.

Corporate Restructuring in the 1980s

Pay decisions in large bureaucratic firms in the post–World War II period were dependent in large measure on seniority in a job. Therefore, wages and performance were not always aligned during an employee's career, as can be seen in bonded contract accounts. In bonded contacts employees accept a wage that is lower than their productivity when they join a firm, with the implicit promise that they will receive a wage higher than their performance reflects later in their careers (Lazear 1979). These contracts provide incentives for employees to remain attached to firms, yet they also provide incentives for firms to end the relationship prematurely. In theory, firms were assumed to honor bonded contracts because default would negatively influence their ability to attract and retain employees (Lazear 1979).

Although bonded contracts create differences in wages and employee productivity at certain points in time, they are assumed to be efficient since wages and productivity will be equal over an employee's career. Other scholars have argued, however, that these contracts were not efficient. In particular, agency theorists note that bonded contracts created work disincentives (see Baker, Jensen, and Murphy 1988), a notion supported by some empirical work. For example, Gibbs (1995) found that once managers in career ladders reached a job level wherein there were no prospects for promotion, they responded with decreased performance, with incentives decreasing significantly with increasing time in a career level. Moreover, the systems governing performance appraisal were seen as ineffective because many employees were rated "above average." Given little variation in measured employee performance,

an emphasis on seniority in within-job wage decisions, and little prospects for promotion for employees in career-level positions, agency theorists maintained that a nontrivial percentage of managers in large bureaucratic firms were highly paid but low performing.

Although there is debate about the long-term effectiveness of bonded contracts, most scholars agree that at certain times in a career managers will be paid wages that are higher than their productivity. For firms seeking to reduce labor costs through layoffs, these managers will be targeted for layoff, conditional on a firm's concern for its reputation in the labor market. For some corporate actors, these concerns were minimal. In particular, corporate raiders faced few constraints on contract default, as exemplified, for instance, by Carl Icahn's takeover of TWA (Shleifer and Summers 1988). Moreover, by breaking bonded contracts, these raiders increased competitive pressures on other firms to minimize labor costs by engaging in similar reduction in force (RIF). In sum, there were substantial pressures on firms to engage in "broken contract" layoffs during the 1980s, suggesting that restructuring firms laid off highly paid employees in this period.

Corporate Restructuring in the 1990s

By the late 1980s institutional investors were pressuring firms to restructure their internal processes, systems, and practices in order to increase organizational efficiency. Firms responded by increasing the emphasis on pay-for-performance, thereby moving away from seniority-based systems of the past. This transformation has a number of implications for restructuring in the 1990s relative to the 1980s. First, due to greater variation in measured performance, firms should have been more able to identify low-performing employees in the 1990s than in the 1980s. Second, pressures on firms were not driven primarily by a desire to reduce labor costs by laying off highly paid employees but instead by a desire reduce labor costs by increasing employee performance.

In effect, in implementing pay-for-performance systems, firms sought to change the nature of the employment contract. As a result, high performance was more likely to increase wages than in the past, with the short-term divergence between pay and performance in post–World War II bureaucratic firms likely reduced. Incentives to default on contracts of highly paid employees would also be reduced, suggesting that restructuring firms would focus on laying off low-performing employees at a given wage. Moreover, work incentives for surviving employees might increase, we can presume, as a result of increased fears of termination (see Katz 1986), as GE's policy of terminating the contracts of the lowest performers suggests. In short, due to changes in performance management systems and in competitive pressures, firms were more likely to engage in "trimming the fat" layoffs in the 1990s relative to the 1980s.

Data Set, Methods, and Measures

The firm under consideration in this study is a Fortune 500 manufacturing firm that restructured multiple times in the 1980s and 1990s. The firm undertook one large-scale layoff in the mid-1980s and a second large-scale layoff in the early 1990s. For each layoff event, cutbacks were significant, involving more than 10 percent of the managerial workforce. During the first layoff employment separations were divisionally specific in that broad guidelines about layoff targets were delegated to each division, with decisions about who to terminate made by senior managers in these divisions. During the second layoff cutbacks were uniform across the firm, with strategic objectives established by committees of senior managers. During the layoff process the firm first enticed employees to voluntarily accept early retirement or severance and subsequently undertook involuntary terminations.

In the interim between the two layoffs, the firm reorganized its performance management system. It sent senior managers to other firms to study performance management systems and hired consultants to help design and implement the new performance management system. During this change process, the firm transitioned from a seniority-based appraisal and reward system to one in which pay was contingent on a manager's performance relative to other employees. In doing so, the firm sought to make performance objectives measurable, attainable, and relevant and to ensure consistency across managers. For instance, managers were required to negotiate performance goals with subordinates and provide feedback to them multiple times throughout the year. Moreover, the firm attempted to ensure consistency across raters, for example, by reviewing comparable promotion decisions.

Discrete-Time Event History Analysis

I use discrete-time event history methods to analyze employment separations. The separation rate is the conditional probability an event occurred, given that it had not yet occurred, and can be estimated using maximum likelihood methods (Allison 1982, 72). Each employee's tenure is split into yearly episodes, with managers beginning their career prior to 1967 contributing only those person years for which full career information is available (see Guo, 1993), namely, from 1967 onward.

Data Set

During the period from 1967 to 1993, the firm employed over 150,000 employees, of which nearly one half were salary-grade level (SGL) employees. The data I analyze consist of a 25 percent random sample of middle- and upper-level managers in levels 7 to 24, resulting in a sample size of over 7,500

employees. The salary grade level system does not include the CEO and other very senior executives, who were "above grade."

Dependent Variables

The main outcome I study is an employment separation during corporate restructuring. In the data set there was no indication of whether an employment separation was the direct result of a restructuring event. Discussions with managers and an inspection of the data set and internal documents indicated that most departures during restructuring were coded in three ways: (1) retirements, (2) resignations, and (3) layoffs, discharges, and terminations. Of these types, retirement and resignation were "voluntary" in the sense that most if not all of the resigning employees had signed voluntary severance forms. Layoffs, discharges, and other terminations were involuntary. In the event history analyses, I use logit models to estimate employment separation (coded 1 if the manager left the firm for any reason and 0 if censored) and use multinomial logit models to analyze departure rates due to layoffs, resignations, and retirement.

Independent Variables

Two time-varying variables capture effects of each layoff event on the risk of employment separation, with each coded 1 if the firm undertook a layoff event in a specific period (year) and 0 otherwise. I consider layoff rates within job levels and consider a SGL to be equivalent to a job (see Gerhart and Rynes 2003). Although the firm conducted yearly performance evaluations, as part of a change in the performance management system it eliminated all records of these evaluations. As a result, there is no performance information in the data set. Therefore, I use salary in a SGL range as the main measure with which to adjudicate between the two layoff accounts. This measure allows me to control for different wage ranges across grade levels, with the measure reflecting the year-end salary of an employee relative to other similarly situated employees. Following convention, I group the salary in range measure into quartiles (see Elvira 2001).

As robustness tests I consider several performance proxies such as duration in a grade level and whether an employee was ever demoted or never promoted. All three proxies are time varying and updated in each person-year. Following Gibbs (1995), I argue that the lowest-performing employees in a level have the most experience in that level. In order to control for differences in job tenure across grade levels, the duration in grade measure is a percentile reflecting the number of years a managers had been in a specific job divided by the longest job tenure of all managers in that job level.

Control Variables

Control variables include salary grade level, sex, race, age, tenure, education, occupation, and division of the firm. I grouped levels that were similar on many dimensions into four categories: entry (levels 7, 8, and 9), middle management (levels 10, 11, and 12), upper-middle management (levels 13, 14, 15, and 16), and upper management (levels 17 to 24). Sex, race, and division of the firm (coded 1 if the manager was located in the firm's main corporate division and 0 otherwise) are dichotomous measures. Age and tenure are time varying. Education was coded 1 if the manager had an advanced degree (for example, MBA, PhD) and 0 otherwise. The occupation measure was coded 1 if the manager belonged to the human resources function and 0 otherwise. Results for the salary in range percentile measure were robust in models where controls were entered in a stepwise fashion.

Results

Table 1 provides descriptive statistics for managers in the firm's salary grade level system, and Table 2 provides the baseline rates of departures and layoffs. Table 2 highlights increased departure and layoff rates during restructuring relative to other periods and departure and layoff rates by salary in range quartiles across the two restructuring episodes. During the first restructuring episode, separation rates were increasing in increasing salary in range percentile, whereas layoff rates were highest for employees in the second and third highest salary quartiles. In addition, separation and layoff rates were increasing in increasing duration in grade percentile. Coupled with the increased chances of layoff for ever demoted or never promoted managers, these statistics suggest that the firm targeted low-performing employees, who were usually highly paid managers as well, for layoff during the first restructuring. By contrast, during the second restructuring period departure rates were highest in the tails of the salary in range percentile measure and layoff rates were decreasing in increasing salary in range percentile. In addition, layoff rates were increasing and then decreasing with time spent in a job and were the highest overall for managers who had ever been demoted. These findings are consistent with the notion that the firm targeted its lowest-performing and lowest-paid managers for layoff during the second restructuring period.

Descriptive statistics in Table 2 also highlight several other differences in layoff rates across the two restructurings. For instance, managers who had just been hired were not laid off during the first restructuring but were in the second restructuring. One pattern that was consistent across RIF was that managers in upper management levels (SGL 17–24) did not experience a layoff during either RIF.

TABLE 1
Descriptive Statistics for Salary Grade Level Groups in Selected Time Periods

Variables	1967–1993		1967–1974		1975–1983		1984–1993	
Salary Grade Levels 7 to 9								
Tenure	10.62	(9.85)	12.64	(10.08)	10.53	(10.25)	8.95	(8.81)
Age	36.06	(10.91)	38.11	(10.90)	35.86	(11.45)	34.48	(9.99)
Duration in Grade	4.42	(4.31)	4.94	(3.74)	4.43	(4.71)	3.95	(4.25)
Ever Demoted	1.42	(11.8)	1.75	(13.1)	1.67	(12.8)	0.86	(9.2)
Never Promoted	44.23	(50)	63.7	(48)	38.2	(49)	33.8	(47)
Gender (Male=1)	0.79	(0.41)	0.94	(0.24)	0.80	(0.40)	0.64	(0.48)
Race (White=1)	0.90	(0.30)	0.95	(0.22)	0.91	(0.29)	0.84	(0.37)
Year-End Salary	$44,886	($8,786)	$44,432	($8,124)	$45,910	($9,029)	$44,080	(8,862)
Salary Grade Levels 10 to 12								
Tenure	15.13	(10.07)	16.09	(9.88)	16.11	(10.94)	13.78	(9.22)
Age	42.14	(9.58)	42.50	(9.17)	43.12	(10.25)	41.14	(9.11)
Duration in Grade	4.97	(4.36)	5.40	(3.78)	5.05	(4.78)	4.66	(4.36)
Ever Demoted	1.45	(12.0)	1.87	(13.5)	1.55	(12.3)	1.15	(10.6)
Never Promoted	27.1	(45)	61.6	(49)	21.9	(41)	12.6	(33)
Gender (Male=1)	0.92	(0.27)	0.99	(0.09)	0.95	(0.21)	0.85	(0.35)
Race (White=1)	0.94	(0.24)	0.98	(0.16)	0.95	(0.23)	0.91	(0.28)
Year-End Salary	$66,953	($12,124)	$64,068	($11,736)	$67,508	($11,852)	$67,783	($12,323)
Salary Grade Levels 13 to 16								
Tenure	19.63	(8.96)	19.78	(8.38)	20.49	(9.59)	18.99	(8.64)
Age	46.64	(8.13)	46.44	(7.66)	47.40	(8.74)	46.19	(7.82)
Duration in Grade	5.40	(4.37)	0.07	(4.08)	5.39	(4.83)	5.17	(4.10)
Ever Demoted	1.04	(10.2)	1.52	(12.2)	1.41	(11.8)	0.64	(8.0)
Never Promoted	17.1	(38)	60	(49)	14.4	(35)	4.8	(21)
Gender (Male=1)	0.96	(0.19)	1.00	(0.05)	0.99	(0.12)	0.94	(0.24)
Race (White=1)	0.95	(0.21)	0.97	(0.16)	0.97	(0.18)	0.94	(0.24)
Year-End Salary	$100,466	($17,933)	$96,119	($16,631)	$99,696	($18,073)	$102,146	($17,946)
Salary Grade Levels 17 to 24								
Tenure	24.82	(8.56)	22.42	(8.18)	25.93	(8.53)	25.18	(8.56)
Age	50.68	(7.09)	48.83	(6.48)	51.77	(7.35)	50.74	(7.00)
Duration in Grade	5.83	(4.85)	6.74	(4.06)	6.22	(5.56)	5.03	(4.49)
Ever Demoted	0.16	(4.0)	0.72	(0.48)	0	(0)	0	(0)
Never Promoted	22.5	(42)	65	(48)	17.3	(38)	4.6	(21)
Gender (Male=1)	0.99	(0.10)	1	(0)	1	(0)	0.98	(0.14)
Race (White=1)	0.99	(0.12)	0.98	(0.14)	0.99	(0.10)	0.98	(0.12)
Year-End Salary	$157,899	($36,977)	$145,964	($39,436)	$155,092	($32,852)	$162,254	($37,481)

Note: Standard deviations are in parentheses. Year-end salary is measured in 1993 U.S. dollars.

TABLE 2
Baseline Departure and Layoff Rates for Managers in a Large Manufacturing
Firm for Selected Variables in Selected Time Periods, 1967–1993

Variables	1967–1993		Restructuring #1		Restructuring #2	
	Separation	Layoff	Separation	Layoff	Separation	Layoff
All Managers	6.1	0.8	12.0	3.6	13.7	4.5
Salary <25th percentile	7.1	1.1	7.9	2.3	15.2	6.6
Salary 25th–49th percentile	6.1	0.9	11.6	4.9	10.1	5.0
Salary 50th–74th percentile	5.8	0.7	13.3	4.4	14.2	4.1
Salary >74th percentile	5.4	0.5	13.6	3.1	15.0	2.3
Duration <20th percentile	3.0	0.2	3.9	0.19	3.7	1.2
Duration 20th–39th percentile	6.1	0.8	9.5	4.8	8.5	3.6
Duration 40th–59th percentile	6.9	1.2	11.8	5.1	13.6	6.6
Duration 60th–79th percentile	6.3	1.0	15.3	5.5	14.9	5.2
Duration >79th percentile	8.5	0.6	19.2	6.3	27.3	4.0
Ever Demoted	4.6	0.5	9.4	3.1	34.6	19.6
Never Promoted	6.1	0.8	16.4	6.3	20.6	9.8
Grade Levels 7–9	7.1	0.9	12.8	5.9	14.9	6.2
Grade Levels 10–12	5.5	0.8	11.6	3.1	13.1	4.4
Grade Levels 13–16	4.8	0.3	11.5	0.7	12.6	2.1
Grade Levels 17–24	5.4	0.2	9.9	0	16.7	0
Tenure = 1 Year	5.1	0.2	11.1	0	5.5	2.7
Tenure = 2 Years	7.4	1.0	11.1	5.3	11.7	4.4
Tenure = 3–5 Years	9.0	1.4	135	7.6	15.7	8.3
Tenure = 6–9 Years	6.2	1.3	13.3	7.9	10.8	5.7
Tenure = 10–14 Years	3.6	0.9	2.5	1.1	7.6	4.7
Tenure = 15–24 Years	2.7	0.6	4.7	0.9	8.9	3.2
Tenure = 25+ Years	10.2	0.1	28.6	0.2	31.7	0.6
Age <25 Years	7.5	0.4	13.8	2.1	17.9	5.0
Age = 25–29 Years	8.4	0.9	14.2	6.0	11.8	5.8
Age = 30–34 Years	5.6	0.9	8.7	5.8	10.7	5.6
Age = 35–39 Years	4.1	1.1	6.9	4.4	7.9	4.6
Age = 40–44 Years	3.0	0.9	5.7	2.6	6.9	5.1
Age = 45–49 Years	2.3	0.7	3.7	1.8	5.8	4.1
Age = 50–54 Years	2.5	0.5	3.5	1.4	14.1	2.9
Age = 55–59 Years	10.0	0.5	33.3	1.7	39.9	1.4
Age = 60+ Years	30.1	0.3	52.5	0	71.4	2.5

Note: Rates reflect yearly average likelihood of departures (for example, retirement, resignation, and termination) and layoffs in selected periods.

Employment Separation Rates

Table 3 provides discrete-time event history logit coefficients for the departure measure. Model 1 shows that employment separation rates were more than two and a half times greater during the first restructuring episode than in other periods (exp(0.95) = 2.59), with rates higher for the second RIF (exp(1.19) = 3.29). Model 2 shows that departure rates were higher in many salary quartiles during restructuring relative to nonrestructuring years, particularly during the first restructuring episode. For instance, during the first restructuring, managers in the third highest salary quartile (50th–74th percentile) experienced more than double the separation rates than they did in nonrestructuring years (exp(.73–(-0.09)) = 2.27). Separation rates were also high for managers with above-mean salaries during the second restructuring event, although once interactions between performance proxies such as duration in grade (Models 3 and 4) and whether a manager had ever been demoted or never promoted in the past (Model 4) are entered, the significance of these salary patterns disappears. By contrast, coefficients for the interaction of the salary in range quartiles and the first restructuring episode remain relative constant with the introduction of these controls.

Results in Models 3 and 4 indicate that performance was an important component of separation decisions in the firm during both restructurings, whereas salary was an important component of these decisions only during the first restructuring. These findings are largely consistent with the "broken contract" account during the first restructuring event and with the "trimming the fat" account during the second restructuring event. In order to fully adjudicate between these accounts, it is necessary to consider whether the employees who did leave the firm did so involuntarily.

Layoff Rates

In Models 1 to 4 of Table 4, I provide layoff rates obtained from a multinomial regression of the types of departure. Model 1 shows that rates of layoff were higher than departure rates during restructuring, with employees nearly 7 times as likely to be laid off during the first restructuring relative to other years (exp(1.94 = 6.96) and more than 8 times as likely during the second restructuring (exp(2.16) = 8.67). Results in Model 2 are consistent with those for the separation rates, with chances of layoff rates in salary in range quartiles differing substantially across restructuring events. During the first restructuring, layoff rates were higher for managers who were above the 25th salary in range percentile relative to nonrestructuring years. By contrast, during the second restructuring risk of layoff was not an increasing function of salary in range percentile.

TABLE 3
Logit Regression Predicting Employment Separation for Managerial
Employees in a Large Manufacturing Firm (1967–1993)

Variables	Model 1	Model 2	Model 3	Model 4
Restructuring #1	0.95***	0.48***	0.49***	0.36*
	(0.06)	(0.14)	(0.14)	(0.15)
Restructuring #2	1.19***	1.04***	0.86***	0.77***
	(0.06)	(0.11)	(0.12)	(0.13)
Salary in Range 25th–49th percentile	0.13*	0.11*	0.12*	0.11*
	(0.04)	(0.05)	(0.05)	(0.05)
Salary in Range 50th–74th percentile	–0.01	–0.09	–0.07	–0.08
	(0.05)	(0.05)	(0.05)	(0.05)
Salary in Range >74th percentile	–0.07	–0.13*	–0.11*	–0.12*
	(0.05)	(0.05)	(0.06)	(0.06)
Duration in Grade percentile	2.66***	2.66***	2.52***	2.52***
	(0.13)	(0.13)	(0.13)	(0.13)
Never Promoted	–0.43***	–0.43***	–0.41***	–0.46***
	(0.04)	(0.04)	(0.04)	(0.04)
Ever Demoted	–0.42*	–0.42*	–0.42*	–0.83***
	(0.17)	(0.17)	(0.17)	(0.23)
Salary 25th–49th percentile, Restructure #1		0.37†	0.38†	0.38†
		(0.19)	(0.19)	(0.20)
Salary 50th–74th percentile, Restructure #1		0.73***	0.73***	0.75***
		(0.18)	(0.18)	(0.19)
Salary >74th percentile, Restructure #1		0.63***	0.64***	0.68***
		(0.17)	(0.18)	(0.19)
Salary 25th–49th percentile, Restructure #2		0.03	–0.05	–0.06
		(0.16)	(0.17)	(0.17)
Salary 50th–74th percentile, Restructure #2		0.31*	0.18	0.19
		(0.16)	(0.16)	(0.16)
Salary >74th percentile, Restructure #2		0.29†	0.04	0.05
		(0.15)	(0.17)	(0.17)
Duration, Restructure #1			–0.07	–0.22
			(0.29)	(0.30)
Duration, Restructure#2			1.46***	1.47***
			(0.32)	(0.33)
Never Promoted, Restructure#1				0.56***
				(0.11)
Never Promoted, Restructure #2				0.26†
				(0.14)
Ever Demoted, Restructure#1				1.68***
				(0.40)
Ever Demoted, Restructure #2				1.85***
				(0.51)
Intercept	3.99***	4.03***	4.03***	4.06***
	(0.22)	(0.22)	(0.22)	(0.22)
N (person-years)	77,580	77,580	77,580	77,580
Log-likelihood	–16,283.0	–16,270.7	–16,260.3	–16,233.1

Note: Robust (Huber/White) standard errors in parentheses. Controls variables in all models are Salary Grade Level, Division, Occupation, Sex, Race, Education, Age, Age Squared, Tenure, and Tenure Squared.
†$p<0.10$ *$p<0.05$ **$p<0.01$ ***$p<0.001$ (two-tailed tests)

Adding proxies for performance (in Models 3 and 4 of Table 4) did little to change the layoff patterns by wage group: salary remained an important determinant of layoff during the first restructuring but had little effect during the second restructuring. However, layoff rates for these proxies were somewhat different than the overall separation rates, with the likelihood of being laid off a decreasing function of duration in a grade, albeit significantly more likely for managers who had never been promoted. Additional analyses indicate that layoffs were highest in those levels that represented the biggest constraint on upward mobility, such as level 16 (results not reported). Unreported analyses also reveal that effects of the duration measure on layoff models were nonlinear, with layoff rates increasing and then decreasing in increasing duration in grade level during the first RIF and with more variation during the second RIF.

Resignation and Retirement Rates

Models 5 to 12 of Table 4 provide resignation and retirement rates for managers in the firm. In general, resignation rates were not substantially larger during either restructuring relative to nonrestructuring years, whereas retirement rates were higher in both restructuring periods. Retirement patterns were fairly consistent across restructuring episodes, with some exceptions. For instance, employees in the highest salary quartile were less likely to retire during the second restructuring than during the first restructuring. Moreover, never promoted and ever demoted managers were more likely to retire during the first restructuring, perhaps because they feared being terminated if they did not "voluntarily" accept early retirement incentives. In particular, documents from the firm reveal that managers were instructed to communicate to employees that if the voluntary program was undersubscribed, an involuntary program would be implemented wherein severance benefits would be restricted.

Discussion

My study provides a detailed insight into the effects of corporate restructuring on the employment relationship in historical context. My main finding is that evidence from event history analyses is consistent with both "broken contract" and "trimming the fat" accounts of layoffs, with the firm eliminating the fat embodied in wages and performance during the first restructuring and trimming the fat in performance during the second restructuring. Interview data tend to confirm the quantitative results. Managers noted that the firm had to compete with industry rivals in terms of labor costs and that the firm did seek to target low-performing employees for layoff during both restructurings, conditional on an overarching goal of maintaining equity and fairness with respect to certain employee groups.

TABLE 4

Multinomial Regression Predicting Layoff, Resignation, and Retirement for Managerial Employees in a Large Manufacturing Firm (1967–1993)

Variables	Model 1 Layoff	Model 2 Layoff	Model 3 Layoff	Model 4 Layoff	Model 5 Resign	Model 6 Resign
Restructuring #1	1.94***	1.02***	1.38***	1.14***	0.15	0.24
	(0.11)	(0.28)	(0.28)	(0.29)	(0.11)	(0.17)
Restructuring #2	2.16***	2.17***	2.26***	1.98***	0.12	0.27†
	(0.10)	(0.17)	(0.18)	(0.19)	(0.11)	(0.16)
Salary in Range 25th–49th percentile	-0.01	-0.15	-0.17	-0.16	0.19***	0.21***
	(0.11)	(0.13)	(0.13)	(0.13)	(0.05)	(0.05)
Salary in Range 50th–74th percentile	-0.26*	-0.44**	-0.47**	-0.47**	0.11†	0.12†
	(0.12)	(0.15)	(0.15)	(0.15)	(0.06)	(0.06)
Salary in Range >74th percentile	-0.37**	-0.51**	-0.56***	-0.58***	-0.16*	-0.17*
	(0.13)	(0.17)	(0.17)	(0.17)	(0.08)	(0.08)
Duration in Grade percentile	5.18***	5.20***	5.79***	5.76***	4.58***	4.58***
	(0.44)	(0.44)	(0.48)	(0.47)	(0.30)	(0.30)
Never Promoted	-0.26*	-0.26*	-0.30**	-0.80**	0.04	0.04
	(0.11)	(0.11)	(0.11)	(0.14)	(0.05)	(0.05)
Ever Demoted	0.14	-0.14	0.14	-0.03	-1.04**	-1.04
	(0.39)	(0.38)	(0.38)	(0.48)	(0.33)	(0.33)
Salary 25th–49th percentile, Restructure #1		1.11***	1.17***	1.10**		-0.36
		(0.34)	(0.35)	(0.35)		(0.29)
Salary 50th–74th percentile, Restructure #1		1.37***	1.45***	1.35***		-0.05
		(0.35)	(0.35)	(0.36)		(0.28)
Salary >74th percentile, Restructure #1		1.08**	1.31***	1.22***		0.06
		(0.36)	(0.37)	(0.37)		(0.30)

TABLE 4 (cont.)

Variables	Model 1 Layoff	Model 2 Layoff	Model 3 Layoff	Model 4 Layoff	Model 5 Resign	Model 6 Resign
Salary 25th–49th percentile, Restructure #2		0.03	0.06	-0.01		-0.51†
		(0.26)	(0.25)	(0.26)		(0.30)
Salary 50th–74th percentile, Restructure #2		-0.04	-0.01	-0.08		-0.16
		(0.28)	(0.28)	(0.29)		(28)
Salary >74th percentile, Restructure #2		-0.04	0.04	-0.03		-0.05
		(0.30)	(0.31)	(0.30)		(0.33)
Duration, Restructure #1			-2.78***	-3.13***		
			(0.64)	(0.61)		
Duration, Restructure #2			-0.68	-0.91†		
			(0.52)	(0.54)		
Never Promoted, Restructure #1				1.40***		
				(0.23)		
Never Promoted, Restructure #2				1.22***		
				(0.20)		
Ever Demoted, Restructure #1				0.32		
				(1.04)		
Ever Demoted, Restructure #2				1.31		
				(1.20)		
Intercept	-7.97***	-7.91***	-7.99***	-7.87***	-0.93**	-0.95**
	(0.72)	(0.72)	(0.72)	(0.73)	(0.35)	(0.35)
N (person-years)	77,580	77,580	77,580	77,580	77,580	77,580
Log-likelihood	-17729.2	-17700.6	-17690.8	-17690.8	-17640.7	-17700.6

TABLE 4 (cont.)

Variables	Model 7 Resign	Model 8 Resign	Model 9 Retire	Model 10 Retire	Model 11 Retire	Model 12 Retire
Restructuring #1	0.32†	0.20	1.45***	1.37*	1.65**	1.70**
	(0.19)	(0.19)	(0.11)	(0.53)	(0.53)	(0.54)
Restructuring #2	0.28†	0.05	2.14***	2.40***	2.65***	2.64***
	(0.17)	(0.21)	(0.11)	(0.35)	(0.37)	(0.38)
Salary in Range 25th–49th percentile	0.21***	0.21***	-0.20	-0.23	-0.24	-0.24
	(0.05)	(0.05)	(0.14)	(0.15)	(0.15)	(0.15)
Salary in Range 50th–74th percentile	0.12†	0.11†	-0.28*	-0.33*	-0.35*	-0.35*
	(0.06)	(0.06)	(0.13)	(0.14)	(0.15)	(0.15)
Salary in Range >74th percentile	-0.17*	-0.17*	-.28**	-0.20	-0.23	-0.24
	(0.08)	(0.08)	(0.13)	(0.14)	(0.15)	(0.15)
Duration in Grade percentile	4.62***	4.59***	2.37***	2.32***	2.54***	2.55***
	(0.31)	(0.31)	(0.22)	(0.22)	(0.24)	(0.24)
Never Promoted	0.04	-0.00	-0.98***	-0.97***	-1.02***	-1.07***
	(0.05)	(0.06)	(0.11)	(0.11)	(0.11)	(0.12)
Ever Demoted	-1.04**	-0.99**	-0.16	-0.16	-0.17	-0.75†
	(0.33)	(0.33)	(0.30)	(0.30)	(0.30)	(0.43)
Salary 25th–49th percentile, Restructure #1	-0.35	-0.37		0.28	0.33	0.33
	(0.29)	(0.29)		(0.59)	(0.58)	(0.59)
Salary 50th–74th percentile, Restructure #1	-0.04	-0.04		0.48	0.57	0.57
	(0.28)	(0.28)		(0.57)	(0.56)	(0.56)
Salary >74th percentile, Restructure #1	0.10	0.10		-0.12	0.03	0.08
	(0.30)	(0.30)		(0.55)	(0.54)	(0.55)
Salary 25th–49th percentile, Restructure #2	-0.51†	-0.52†		0.20	0.21	0.19
	(0.30)	(0.31)		(0.42)	(0.41)	(0.42)

TABLE 4 (cont.)

Variables	Model 7 Resign	Model 8 Resign	Model 9 Retire	Model 10 Retire	Model 11 Retire	Model 12 Retire
Salary 50th–74th percentile, Restructure #2	-0.16	-0.18		0.27	0.30	0.30
	(28)	(28)		(0.39)	(0.39)	(0.39)
Salary >74th percentile, Restructure #2	-0.04	-0.06		-0.77*	-0.71†	-0.71†
	(0.35)	(0.35)		(0.38)	(0.37)	(.37)
Duration, Restructure #1	-0.73	-0.73			-1.15*	-1.71*
	(0.72)	(0.70)			(0.48)	(0.54)
Duration, Restructure #2	-0.14	-0.13			-0.80†	-0.92†
	(0.75)	(0.77)			(0.48)	(0.53)
Never Promoted, Restructure #1		0.41***				0.74***
		(0.14)				(0.27)
Never Promoted, Restructure #2		0.56***				0.45
		(0.21)				(0.58)
Ever Demoted, Restructure #1		-27.75***				2.12***
		(0.45)				(0.53)
Ever Demoted, Restructure #2		-29.27***				1.21
		(0.47)				(0.80)
Intercept	-0.96**	-0.94**	-7.53*	-8.04*	-8.43*	-8.26*
	(0.35)	(0.35)	(3.70)	(3.81)	(3.83)	(3.81)
N (person-years)	77,580	77,580	77,580	77,580	77,580	77,580
Log-likelihood	-17,690.8	-17,640.7	-17729.2	-17,700.6	-17,690.8	-17,640.7

Note: Omitted category in the multinomial model was departure = censored (no departure). Coefficients for the "departure due to illness" category are not reported. Robust (Huber/White) standard errors in parentheses. Controls variables in all models are Salary Grade Level, Division, Occupation, Sex, Race, Education, Age, Age Squared, Tenure, and Tenure Squared.
†p<0.10 *p<0.05 **p<0.01 ***p<0.001 (two-tailed tests)

The findings highlight that job and wage structures play a strong role in corporate restructuring. For instance, structural constraints on mobility created a glut of managers in certain job levels, with those managers being targeted for layoff during restructuring. Moreover, upper-management positions were not targeted for layoff; rather, managers in these jobs departed primarily through early retirement. The findings also indicate that the institutional and competitive contexts within which restructuring occurred may have had a substantial influence on observed outcomes. For example, around the time of the firm's first restructuring, several industry competitors were either taken over by corporate raiders or were subject to hostile takeover bids. Although the firm was not a takeover target, the actions of its competitors who were subject to takeover may have motivated the firm to mimic those actions to remain competitive in terms of labor costs.

Results in this study have a number of implications for research on the employment relationship. As noted, they point out the need to consider effects of structure and historical context. They also suggest that determinants of changes in earnings and wealth inequality in recent decades was in part a redistribution of rents from employees to firms—particularly from highly paid but low-performing employees—and in part driven by increases in the link between pay and performance.

References

Allen, Steven, Robert Clark, and Sylvester Schieber. 1999. *Has Job Security Vanished in Large Corporations?* NBER Working Paper No. 6966.

Allison, Paul D. 1982. "Discrete-Time Methods for the Analysis of Event Histories." In S. Leinhardt, ed., *Sociological Methodology,* Vol. 12. San Francisco: Jossey-Bass, pp. 61–98.

Baker, George P., Michael C. Jensen, and Kevin J. Murphy. 1988. "Compensation and Incentives: Practice Vs. Theory." *Journal of Finance,* Vol. 43, pp. 593–616.

Baumol, William, Alan Blinder, and Edward Wolff. 2003. *Downsizing in America: Reality, Causes, and Consequences.* New York: Russell Sage Foundation.

Cappelli, Peter, Laurie Bassi, Harry Katz, David Knoke, Paul Osterman, and Michael Useem, eds. 1997. *Change at Work.* New York: Oxford University Press.

Elvira, Marta. 2001. "Pay Me Now or Pay Me Later: Analyzing the Relationship between Bonus and Promotion Incentives." *Work and Occupations,* Vol. 28, pp. 346–370.

Gerhart, Barry, and Sarah Rynes. 2003. *Compensation: Theory, Evidence and Strategic Implications.* Thousand Oaks, CA: Sage.

Gibbs, Michael. 1995. "Incentive Compensation in a Corporate Hierarchy." *Journal of Accounting and Economics,* Vol. 19, pp. 247–277.

Guo, Guang. 1993. "Event-History Analysis for Left-Truncated Data." In Peter V. Marsden, ed., *Sociological Methodology.* Washington, DC: American Sociological Association, pp. 217–243.

Jensen, Michael C. 1993. "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems." *Journal of Finance,* Vol. 68, pp. 831–880.

Katz, Lawrence F. 1986. "Efficiency Wage Theories: A Partial Evaluation." NBER Working Paper No. 1906.

Krueger, Alan, and Lawrence Summers. 1988. "Efficiency Wages and the Interindustry Wage Structure." *Econometrica,* Vol. 56, pp. 259–293.

Lazear, Edward. 1979. "Why Is There Mandatory Retirement?" *Journal of Political Economy,* Vol. 87, no. 6, pp. 1261–1284.

Lazear, Edward, and Richard Freeman. 1996. *Relational Investing: The Worker's Perspective.* NBER Working Paper No. 5436.

Medoff, James, and Katherine Abraham. 1980. "Experience, Performance and Earnings." *Quarterly Journal of Economics,* Vol. 95, pp. 703–736.

Petersen, Trond, Seymour Spilerman, and Sven-Age Dahl. 1989. "The Structure of Employment and Terminations Among Clerical Employees in a Large Bureaucracy." *Acta Sociologica,* Vol. 32, pp. 319–338.

Shleifer, Andrei, and Lawrence Summers. 1988. "Breach of Trust in Hostile Takeovers." In A. Auerbach, ed., *Corporate Takeovers: Causes and Consequences.* Chicago: University of Chicago Press, pp. 33–56.