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Shared Capitalism in the U.S. Economy

Prevalence, Characteristics, and Employee Views of Financial Participation in Enterprises

Douglas L. Kruse, Joseph R. Blasi, and Rhokeun Park

In the past several decades the United States and other advanced countries have seen growth in direct employee participation in the financial performance of capitalist enterprises. This participation can take many forms, including profit sharing, gain sharing, bonuses, employee stock ownership, and broad-based stock options. All of these approaches have one thing in common: offering the worker a share in profits or stock appreciation when the company makes a profit. Our broad label for this participation is “shared capitalism.”

This growth is driven in part by evolution of the corporate form under capitalism, increased competitive pressures, environmental volatility, and rapid technological change, which have led firms to implement new forms of workplace organization and human resource practices. These changes include increased teamwork, employee participation in decisions, and other practices that can work in conjunction with financial participation to increase worker productivity, skills, commitment, and job security. Shared capitalist institutions with new forms of high performance work organization, not traditional labor-management relations, may be the emerging form of employee relations under capitalism.

This raises a number of important questions for firms, workers, and economic policymakers:

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- To what extent are these new modes of financial participation and decision-making related?
- Are they likely to increase or decrease economic inequality?
- Do they generally supplement or substitute for standard forms of compensation?
- How can they best improve productivity in ways that will benefit both firms and ordinary workers?
- Do employees welcome shared capitalism or are they uneasy about the increased financial risk and responsibility that this places on them?
- Are the new forms of participation likely to continue to grow?

Following a discussion of why shared capitalism exists at all, we summarize data on the current forms and extent of shared capitalism in the US economy. We then provide an overall portrait of shared capitalism using the General Social Survey (GSS) and NBER data sets that will be used to answer the previous questions in the other chapters of this book, along with an initial exploration of how shared capitalism is related to job and company characteristics, work organization, risk aversion, and worker preferences.

1.1 Why Share with Workers?

Standard economic analysis outlines two key problems with shared capitalism plans that argue against their use. Principal-agent analysis says that owners/managers can improve employees' performance by giving employees pay contingent on performance, but group incentives suffer from the free rider or "1/N" problem due to the increasingly weak link between individual performance and rewards as the size of the group expands. Economic analysis therefore predicts that firms will favor tying financial rewards to local economic performance and outcomes rather than to company-wide outcomes. This is because profit sharing or gain sharing based on workplace outcomes can motivate workers in a small group, who can influence the costs and revenues of that group. Hence, the argument suggests that firms that introduce financial sharing should eschew company-wide sharing, since there is virtually nothing the local group can do to affect the share price of the firm.

A second key problem with shared capitalism plans is income variability for risk-averse workers. Firms are predicted to select the least costly form of rewarding workers. In traditional analyses where firms are risk-neutral and workers are risk-averse, this means paying employees wages or salaries, rather than with variable pay dependent on company performance. Firms that offer more risky modes of wage payment should have to compensate workers for risk.

Given these (and other¹) problems, why are there any shared capitalism plans? The major reasons for adopting shared capitalism can be categorized as productivity- or flexibility-related.

1.1.1 Productivity Reasons for Shared Capitalism Plans

Firms may find that group incentives are better than individual incentives for encouraging productive teamwork and information sharing, especially where centralized supervision is costly. The free rider problem may be overcome by creation of an implicit cooperative agreement among employees to work hard, enforced by monitoring co-worker performance and applying peer pressure where needed (Weitzman and Kruse 1990). What it takes to create and maintain such an agreement is unclear and may vary from workplace to workplace—it is likely that company human resource policies, employee relations, and general corporate culture play a large role. A growing body of literature finds that combinations of workplace policies may induce behaviors that improve performance (see, e.g., Ichniowski et al. [1996]; Becker, Huselid, and Ulrich [2001]). It has been demonstrated that globalization in specific industries and firms is linked to the adoption of high performance work practices (Blasi and Kruse 2006).

A productivity motivation for adopting and maintaining shared capitalism plans is directly expressed by many firms (US GAO 1986, 20; Kruse 1993, 33), and is supported by several findings in studies of adoption.² Studies generally find, however, that profit-sharing and employee ownership plans are more common in large firms, which runs counter to the idea that the free rider problem will favor greater productivity in small firms.³

1. While these are the two most common theoretical objections to shared capitalism plans, there are others as well. These include the possibility that diluting the economic surplus received by the owner will decrease performance by weakening the owner's incentive to monitor workers closely (Alchian and Demsetz 1972), and the objection that profit sharing will decrease the firm's incentives to make capital investments (Summers 1986). See Putterman and Skillman (1988) and Weitzman (1986) for responses to these, and Bonin and Putterman (1987) and Dow (2003) for additional theoretical arguments for and against shared capitalism plans.

2. Pendleton (2006) finds that employee discretion over methods and pace of work positively predicts the use of broad-based employee ownership plans, and that such discretion also predicts using employee ownership and individual incentives in combination. Oyer and Schaefer (2005) find that adoption of broad-based stock option plans can be explained by retention and sorting, but not incentive effects. Kruse (1996) finds that R&D levels are higher among old profit-sharing firms, and job enrichment plans were more likely to be adopted just before new profit-sharing plans, suggesting complementarities aimed at improving productivity. Beatty (1994) finds that risk variables suggest a productivity motivation for adoption of ESOPs. Ichniowski and Shaw (1995) find that group incentives are more likely to be adopted when they are part of a package of complementary policies to improve productivity, and also find evidence of large switching costs that discourage firms with established technologies and workplace relationships from adopting new practices. Kim (2005) finds that reducing nonlabor costs and improving employee relations are predictors of adoption of gain-sharing plans.

3. See Gregg and Machin (1988); Poole (1989); Fitzroy and Kraft (1995); Kruse (1996); and Pendleton (2006).

Shared capitalism does appear to create productive cooperation, at least in some companies. Existing evidence from over sixty studies indicates a positive association on average between shared capitalism programs and company performance, but with substantial dispersion in results (Kruse and Blasi 1997; Kruse 2002). The average estimated increase in productivity associated with employee ownership and profit sharing is about 4.5 percent, and is maintained when using pre/post comparisons and attempts to control for selection bias. Boning, Ichniowski, and Shaw (2001) find positive effects of group incentives, particularly when combined with problem-solving teams. Other studies of gain sharing also find positive results, particularly when there is high employee involvement in design and operation, shorter payout periods, controllable targets, and perceptions of procedural and distributive justice (Bullock and Tubbs 1990; Welbourne and Mejia 1995; Collins 1998). There may be a number of pathways through which shared capitalism has effects on performance, and these pathways and complementarities may differ among types of shared capitalism (Robinson and Wilson 2006). Many of the effects of shared capitalism plans on performance are likely to work through employee attitudes and behaviors.⁴ Most studies find that organizational commitment and identification are higher under employee ownership, while giving mixed results between favorable and neutral on motivation and behavioral measures (Kruse and Blasi 1997). The results are consistent with opinion polls, which find that most members of the public think that workers in employee ownership firms work harder and better (reviewed in Kruse and Blasi [1999]).

1.1.2 Flexibility Reasons for Shared Capitalism Plans

Firms may also adopt shared capitalism plans for flexibility-related reasons. These plans can provide something of value to workers without a fixed obligation (such as a wage or salary increase) that the company may have difficulty meeting depending on future performance and the competitive environment. A flexibility motivation is supported by the finding that increased volatility in profits helps predict adoption of profit-sharing and employee ownership plans (Kruse 1996), although another study found that low-risk firms are more likely to provide company stock matches in 401(k) plans (Brown, Liang, and Weisbenner 2004).

Some of the firm's financial risk is being shared with workers, which as noted before, may disadvantage risk-averse workers unless they are compensated for the risk. Consistent with the idea that workers are risk averse, most prefer straight wage salary to company-wide or individual incentives; however, a majority express positive views toward employee ownership and profit sharing, and would like at least part of their next raise to be in company stock (summarized in Kruse and Blasi [1999]). The extant evidence

4. Bartel et al. (2003) find that employee attitudes affect a variety of workplace outcomes.

indicates that workers generally do not sacrifice pay and benefits for shared capitalism plans: wages and compensation tend to be higher on average for workers in employee ownership and profit-sharing plans (Blasi, Conte, and Kruse 1996; Kardas, Scharf, and Keogh 1998; Kruse 1993, 113–14; Kruse 1998; Scharf and Mackin 2000). In exchange for the financial risk, workers may benefit through lower risk of displacement: prior studies find that employee ownership firms tend to have more stable employment and higher survival rates than other firms (Craig and Pencavel 1992, 1993; Blair, Kruse, and Blasi 2000; Park, Kruse, and Sesil 2004). The prediction by Weitzman (1984) that profit sharing should stabilize firm employment has also received support in many, though not all, studies.⁵

1.1.3 Other Reasons for Shared Capitalism Plans

There are several reasons that firms may adopt shared capitalism plans apart from those that are productivity- or flexibility-related. First, firms may adopt such plans due to tax and regulatory incentives—for example, Employee Stock Ownership Plans (ESOPs) enjoyed substantial tax incentives in the 1980s, and retiring owners can still avoid capital gains taxes if they sell their stock to an ESOP. Second, some employee ownership plans were adopted in the 1980s in response to hostile takeover threats (Blasi and Kruse 1991). Both takeover threats and tax incentives were clearly a factor in some 1980s ESOP adoptions (Blasi and Kruse 1991; Beatty 1994). Third, firms may adopt employee ownership or profit sharing out of a desire to discourage unionization by increasing employee identification with the company. Profit-sharing plans are less common among unionized workers, which at least partly reflects firms dropping such plans after a union drive (Freeman and Kleiner 1990; Mitchell, Lewin, and Lawler 1990; Kruse 1996). Findings are mixed on the relation between unionization and employee ownership.⁶

Finally, shared capitalism plans may be adopted and promoted for moral or social reasons. Albert Gallatin, a signer of the Declaration of Independence and Secretary of the Treasury under Thomas Jefferson, set up a profit-sharing plan at the Pennsylvania Glass Works in 1795, stating that the “democratic principle upon which this Nation was founded should not be restricted to the political processes but should be applied to the industrial operation” (quoted in US Senate [1939, 72]). Workers who started the first unions in colonial American coastal cities set up some worker cooperatives

5. Studies of Weitzman’s prediction that profit sharing should stabilize firm employment have produced mixed findings: a majority support the proposition that firms view profit sharing differently from fixed wages in making employment decisions, while half of the studies find greater employment stability associated with profit sharing and the other half find either no greater stability or greater stability only in some samples (summarized in Kruse [1998, 109–13]).

6. Gregg and Machin (1988) and Poole (1989) find employee ownership is more common in unionized companies in the United Kingdom, while Kruse (1996) finds that ESOP adoption was equally likely in union and nonunion establishments in the 1970s and 1980s.

as alternatives to the craft firms where some master craftsmen were attempting to introduce more division of labor in order to deskill traditional craft workers and reduce their pay. A century later, some labor organizations set up worker cooperatives as part of a political challenge to how capitalism was developing, while others saw employee ownership and profit sharing as a means to build support for capitalism in opposition to the competing communist and socialist systems—arguing that it would help cure “unrest” and “irrational agitation” in capitalism, and that the “great uplift and inspiration that sharing of profits cultivates in the employee” would lead to “harmony and contentment” (Askwith 1926, 20). John D. Rockefeller and other corporate leaders in 1919 encouraged employee ownership, employee involvement in corporate decision-making, and profit sharing as part of a grand plan for “welfare capitalism” that spread in the 1920s. Profit sharing was promoted in the 1930s in Congressional hearings in the 1930s by Republican Senator Arthur Vandenberg, and ESOPs were promoted by investment banker Louis Kelso in conjunction with Democratic Senator Russell Long of Louisiana in the 1970s, as ways to broaden participation in the economic system.⁷

In sum, the two key objections to group incentives—the free rider problem and worker risk aversion—have not been sufficient to quash shared capitalism plans. They continue to be adopted and maintained, providing a fertile ground for examining outcomes for both firms and workers. As will be seen, such programs now involve almost half of adult workers in the economy, albeit at different levels of intensity and with different combinations of work practices. The next section reviews current data on the prevalence of shared capitalism plans, followed by a more intensive look at the kind of company policies associated with shared capitalism that can shed light on how they are used by companies.

1.2 Prevalence of Shared Capitalism Programs

There are a variety of forms that shared capitalism programs can take, which we break into four broad categories: profit sharing, gainsharing, employee ownership, and stock options. The NBER Shared Capitalism program sponsored several questions on shared capitalism in the 2002 and 2006 General Social Surveys and the 2003 National Organizations Survey, providing the most recent representative data available. The results from these surveys are summarized in table 1.1, while Appendix table 1A.1 summarizes other nationally representative surveys and administrative data over the past fifteen years. All of the surveys have high response rates. Four of the surveys were conducted by the US Census Bureau (the two National Employer Surveys, the National Compensation Survey, and the National Longitudinal Survey of Youth), two surveys were conducted by the National Opinion Research Center of the University of Chicago (General

7. For a more extensive history of shared capitalism see Blasi, Kruse, and Bernstein (2003).

Table 1.1 **Current prevalence of shared capitalism plans**

	(1)	(2)	(3)
Source	GSS	GSS	NOS
Year	2002	2006	2002
Type of data	Employee survey	Employee survey	Firm survey
Profit sharing			
Percent of employees covered			
Eligible for bonuses based on company performance	34	38	46
Received bonus last year based on company performance	24	30	
Percent of firms with plans			
Any employees eligible for bonuses based on company performance			62
Gain sharing			
Percent of employees covered			
Eligible for bonuses based on department or team performance	23	27	23
Received bonus last year based on department or team performance	17	21	
Percent of firms with plans			
Any employees eligible for bonuses based on department or team performance			35
Employee ownership			
Percent of employees covered			
Own company stock	21	18	16
Percent of firms			
Any employees own company stock			33
Stock options			
Percent of employees covered			
Hold stock options	13	9	
Granted stock options last year		5	
Percent of firms			
Any employees granted stock options last year			14
Combinations			
Any of above	43	47	
Just one form:			
Rec'd profit- or gain-sharing bonus last year	14.6	21.2	
Hold company stock	5.0	3.8	
Hold stock options	0.7	0.7	
Two forms:			
Hold co. stock and rec'd profit- or gain-sharing bonus last year	3.7	5.3	
Hold co. stock and stock options	6.1	3.2	
Hold stock options and rec'd profit- or gain-sharing bonus last year	0.4	0.6	
All three forms	6.1	4.6	
Sample size	1,257	1,173	312

Notes: GSS = General Social Survey; NOS = National Organizations Survey.

Social Survey and National Organizations Survey), and two were conducted by professional survey organizations (the Worker Representation and Participation Survey by Princeton Survey Research Associates, and the Employee Benefits Research Institute survey by Gallup). All surveys are based on the full private sector, except the National Employer Surveys, which are limited to private for-profit firms.⁸

1.2.1 Profit Sharing Prevalence

There is no hard and fast definition of profit sharing. Many firms have formal plans that are called profit sharing, but there is variation in (a) how profits are defined, (b) whether profits must meet a threshold level, (c) whether some or all of the profit share is discretionary, and (d) whether the profit share is paid in cash or is deferred (put into a defined contribution pension plan). In addition, firms may have bonus plans that are not called profit sharing, but that effectively share profits since the bonus is affected by how well the company is doing. As shown in table 1.1, just over one-third of employees say that they are covered by profit sharing in 2002 (34 percent) and 2006 (38 percent), which is in line with earlier employee surveys in table 1A.1. Employers reported a higher percentage of employees eligible for bonuses based on company performance (46 percent), though another survey using a more restricted definition showed lower figures (30 percent of workers are in a deferred profit-sharing plan while 5 percent are in a cash profit-sharing plan, in table 1A.1).

1.2.2 Gain Sharing Prevalence

Gain-sharing plans typically tie employee compensation to a group-based operational measure—such as physical output, productivity, quality, safety, customer satisfaction, or costs—rather than to a company-wide financial measure such as profitability or returns. These plans often involve employees in some formal way to develop ideas and skills for improving performance. The three most popular types are Scanlon, Rucker, and ImproShare plans, although there is a growing number of custom-designed plans. As shown in table 1.1, employee and company surveys agree that about one-fourth (23 to 27 percent) of employees are eligible for bonuses based on group or workplace performance.⁹

8. The full private sector figures include nonprofit organizations. While these organizations cannot have employee ownership and stock options, they can have organization- and group-based bonuses that are equivalent to profit sharing and gain sharing, so their inclusion provides the best estimates of the extent to which shared capitalism has permeated the entire private sector. Other chapters in this volume restrict attention to for-profit firms.

9. About two-fifths (43 percent) of Fortune 1000 surveyed companies have gain-sharing plans somewhere in the company, although most include less than 20 percent of employees (Lawler, Mohrman, and Ledford 1995, 19). Broader surveys of compensation and human resource managers have found that only about one-eighth (13 percent) have formal gain sharing plans (Collins 1998).

1.2.3 Employee Ownership Prevalence

Employee ownership of company stock can occur in a variety of ways. Combining all the ways, the GSS surveys in table 1.1 show that roughly one-fifth of employees report owning some company stock (21 percent in 2002 and 18 percent in 2006, which is in line with earlier surveys in table 1A.1). The most popular type of plan is the ESOP (Employee Stock Ownership Plan). The ESOP is distinguished by the fact that workers do not have to use their own money to buy the stock (unless stock was traded for wage and work rule changes, which happens only in a very small minority of ESOPs). Federal legislation allows companies to borrow money from a bank to fund the worker stock and pay for it in installments from company revenues. About 5 percent of employees are part of ESOPs (table 1A.1). Employees may also own company stock through other types of defined contribution plans. Many employees have bought stock through their company 401(k) plan, a retirement plan where they make pretax contributions from their paycheck. Sometimes corporations will match employee contributions to 401(k) plans with company stock, so this one limited aspect of 401(k)-based employee ownership is closer to the ESOP because workers do not buy it. About 20 percent of workers are eligible for a defined contribution plan that holds employer stock (table 1A.1). These non-ESOP pension plans also include various Employee Retirement Income Security Act (ERISA)-covered stock bonus plans and deferred profit-sharing trusts (often combined with 401(k) plans), which actually hold some of their assets in company stock.

Employees can also own company stock outside of pension plans. Employee Stock Purchase Plans (ESPPs) allow workers to buy stock with deductions from their paycheck with a discount from the market price, and some corporations provide employees direct grants of stock as part of a stock bonus plan. Employees may also hold onto stock after exercising stock options, or own stock through open market purchases. These plans combine with the pension plans to make about one-fifth of private sector employees into employee-owners.

1.2.4 Stock Options Prevalence

Stock options represent a kind of hybrid between profit sharing and employee ownership. A stock option is the right to buy the stock at a set price for ten years into the future. The worker does not have to purchase the stock. Receiving one hundred stock options to purchase Biotech Inc. stock at \$10 per share gives the worker the right to exercise these options anytime over ten years if the stock price goes above \$10 per share. During the ten years, the worker can, for example, buy a stock trading at \$15 a share for \$10 per share, then sell the stock, and pocket the \$5 profit after taxes. While stock option excesses have been abused among higher executives, for other

managers and workers, a stock option has less risk than using one's savings to buy the stock and really involves the right to the upside gain without the risk of losing one's capital. The GSS surveys show a decline in stock option holding from 13 percent in 2002 to 9 percent in 2006, which we believe is due to the Security and Exchange Commission's implementation of stock option expensing that led some companies to cut back on broad-based plans.¹⁰ Only 14 percent of companies reported making stock option grants in 2002 and 5 percent of employees in the 2006 GSS reported actually receiving a stock option grant in the prior year (table 1.1), while other surveys showed that 8 percent of employees are eligible to receive stock options (table 1A.1).¹¹

1.2.5 Overall Prevalence and Overlap Among Types of Shared Capitalism

The prevalence of any type of shared capitalism is high: the GSS surveys showed that 43 percent of employees reported participating in one or more of the above plans in 2002, rising to 47 percent in 2006 (table 1.1). The rise in profit-sharing and gain-sharing eligibility more than offset the declines in employee ownership and stock option holding between these two years. Earlier surveys show that between 41 percent and 75 percent of firms have shared capitalism plans (table 1A.1).

What is the overlap among the different types of shared capitalism? This issue has never been comprehensively explored until the 2002 and 2006 General Social Surveys. As shown in table 1.1, close to 15 percent of employees in the 2002 survey received a profit- or gain-sharing bonus in the prior year but do not own company stock or hold stock options, rising to 21 percent in 2006. There were 4 to 5 percent who just own company stock and less than 1 percent who just hold stock options. About 10 percent had two of the three forms of shared capitalism in both years, while 5 to 6 percent had all three. The important point here is that employee ownership and stock option holding are uncommon on their own, and typically paired with another type of shared capitalism. Over three-fourths of the employee-owners also have profit-gain-sharing bonuses and/or stock options, while almost all of the 13 percent who hold stock options also have profit-gain-sharing bonuses and/or employee ownership. This high overlap suggests that firms may believe that it is worthwhile to develop employee ownership and stock options in combination with each other and profit/gain sharing by placing together forms of shared capitalism that are less risky for workers (cash profit sharing or stock options) with those that are more risky for workers (owning company

10. This drop in stock option holding likely accounts for the drop in the percent of workers in the computer services industry who own company stock (from 58.3 percent to 31.9 percent). Because employee ownership often comes about as a result of being granted stock options, this drop is likely an unintended consequence of the employee stock option expensing.

11. The figure stayed at 8 percent in the 2006 survey (BLS 2006). The 2006 numbers are not presented in the table since there are no figures on deferred profit sharing or employee ownership.

stock). Such combinations also reflect a pairing of short-term and long-term incentives.

Employee ownership and profit sharing have also received substantial attention in other advanced countries and transition economies. With coverage similar to that in the United States, between 20 and 30 percent of workers in France, Great Britain, Italy, and Japan are covered by some form of profit sharing, while smaller numbers are covered by employee stock ownership (Del Boca, Kruse, and Pendleton 1999; Jones and Kato 1995). Across the European Union, between 5 and 43 percent of firms within each country have profit-sharing plans, between 1 and 22 percent have employee share ownership, and between 5 and 38 percent have team-based bonuses (European Foundation for the Improvement of Living and Working Conditions 1997; Poutsma 1999; Pendleton et al. 2003; Poutsma, Kalmi, and Pendleton 2006). Some employee ownership is also found in Korea and Taiwan (Cin, Han, and Smith 2003, Kato et al. 2005) and in some socialist countries transiting to private ownership, including China (Tseo 1996; Chiu et al. 2005), Russia (Blasi, Kroumova, and Kruse 1997), and the countries in central and eastern Europe (Uvalic and Vaughan-Whitehead 1997; Smith, Cin, and Vodopivec 1997). Broad-based stock options have appeared in stock market companies and high tech firms in Asia and are newly emergent in China and India.

1.2.6 Employee Participation in Decision Making

Employee participation in decision making is often seen as complementary to financial participation, most basically because financial participation provides the incentive to improve performance while participation in decision making can provide a means to improve performance. Before looking at their overlap in the next section, table 1.2 summarizes the most recent survey data on the overall prevalence of employee participation in decisions. There is a lot of variation in the types and measures of employee participation. About two-fifths of employees report having a lot of influence in decisions or say they often participate with others in job decisions in both 2002 and 2006, while one-third of employees report being in an employee involvement team (30 percent) or self-managed work team (33 percent). Firms report a lower number of employees in these plans (17 percent each), while about two-fifths of firms report having these plans at all. Data from earlier surveys in table 1A.2 show great dispersion using different measures, from a low of 13 to 16 percent of employees in self-managed teams to a high of 52 to 55 percent of employees in work-related meetings for nonmanagers.

1.3 Looking Inside the Shared Capitalism Firms

The NBER project was established to take a closer look at shared capitalism plans, providing a more complete portrait along with an analysis of their causes and effects. We complement the broad representative data from

Table 1.2 Current prevalence of employee participation in decisions

	(1)	(2)	(3)
Source	GSS	GSS	NOS
Year	2002	2006	2002
Type of data	Employee survey	Employee survey	Firm survey
Percentage of employees covered			
Employee involvement team			
Self-managed team		30	17
Quality circles or employee involvement committees		33	17
Often participate with others in making decisions that affect job	42	38	
Often participate with others in helping set how things are done on job	45	42	
Percentage of firms with plans			
Self-managed teams for nonmanagers			39
Quality circles or employee involvement committees			42
Worker safety committees			49
Sample size	1,257	1,173	312

Notes: GSS = General Social Survey (from National Opinion Research Center, analyzed by authors) (all private sector); NOS = National Organizations Survey (from National Opinion Research Center, analyzed by authors) (all private sector).

the 2002 and 2006 GSS with an intensive analysis of employee survey data from fourteen companies that have a variety of shared capitalism programs, which we refer to as the NBER data set. Both data sets are described in the “Studying Shared Capitalism” section of the introduction to this volume.

We first focus on the size of the financial stakes in shared capitalism, then examine the types of jobs covered and the types of companies that participate, then assess the relationship to work organization and company policies, and finally describe the risk profile of participants and nonparticipants using new measures of risk aversion in the NBER data set.

1.3.1 Size of Financial Stakes in Shared Capitalism

The extent and characteristics of shared capitalism programs in the GSS and NBER data sets are presented in table 1.3. This table combines the 2002 and 2006 GSS prevalence figures from table 1.1 (showing about one-third of workers covered by profit sharing, one-fourth covered by gain sharing, one-fifth holding company stock, and one-ninth holding stock options), and adds detail on the financial stakes involved. The monetary value appears to be significant for covered employees. The median profit-sharing and gain-sharing bonus in the GSS is \$1,500, or 4.6 percent of annual pay, and their entire employer stock estate value totals \$10,000 or 23 percent of annual pay for the median employee-owner.

Table 1.3 Shared capitalism types and intensities in GSS and NBER data sets

	General Social Survey 2002–2006	NBER company data set	Sample sizes	
			GSS	NBER
Bonus eligibility				
Profit sharing	35.9%	71.3%	2,386	41,018
Gain sharing	24.9%	20.7%	2,386	41,023
Size of most recent bonus, if eligible for any				
Mean dollar value	\$6,265	\$11,329	693	26,113
Median dollar value	\$1,500	\$2,000	693	26,113
Mean % of pay	8.9%	12.1%	645	22,019
Median % of pay	4.6%	5.7%	645	22,019
Employee ownership				
Own employer stock in any form	19.4%	64.0%	2,406	41,206
Own employer stock through:				
Employee Stock Ownership Plan		8.1%		41,109
Employee Stock Purchase Plan		17.6%		40,990
401(k) plan		33.5%		40,885
Exercising options and keeping stock		5.0%		41,032
Open market purchase		7.3%		41,145
Value of employer stock, if own stock				
Dollar value: Mean	\$63,130	\$60,078	318	25,447
Dollar value: Median	\$10,000	\$14,375	318	25,447
% of pay: Mean	81.7%	65.0%	302	22,715
% of pay: Median	23.0%	30.6%	302	22,715
% of wealth: Mean		19.6%		23,141
% of wealth: Median		10.0%		23,141
Stock options				
Currently hold stock options	11.3%	21.9%	2,392	41,166
Ever granted stock options		22.3%		41,166
Granted stock options last year		20.4%		41,158
Value of stock options, if hold options:				
Mean dollar value of unvested options		\$112,882		8,390
Mean dollar value of vested options		\$143,117		8,497
Total dollar value: Mean		\$249,901		8,656
Total dollar value: Median		\$75,000		8,656
% of pay: Mean		183.7%		8,403
% of pay: Median		100.0%		8,403
% of wealth: Mean		60.3%		8,104
% of wealth: Median		28.6%		8,104
Any of above programs	44.9%	85.7%	2,430	41,206

The column labeled “NBER company data set” naturally gives higher figures for the shared capitalist modes of compensation since we selected these firms on the basis of having these programs. Of the workers in the firms, 71 percent report being paid by profit sharing, 21 percent report gain sharing, 64 percent report owning employer stock, and 22 percent report holding stock options. Overall, 86 percent of surveyed workers report having

at least one of these programs. The size of the median profit-sharing and gain-sharing stake are only somewhat higher among the NBER companies than in the GSS (5.7 percent compared to 4.6 percent), as is employee ownership as a percent of pay (30.6 percent compared to 23.0 percent). The median stock option holding is \$75,000 (counting the estimated profit on both vested and unvested stock options if they were exercised on the day of the survey), representing 100 percent of annual pay and 29 percent of total wealth. These stakes should be large enough to detect effects on worker and firm outcomes, if such effects exist.

1.3.2 Participation by Type of Job and Company

Where are shared capitalism plans most likely? Theory broadly suggests that they are most likely to be adopted in jobs and companies where performance is most sensitive to employee effort, or where the need for flexibility is greatest. Table 1.4 provides participation rates by basic job and company characteristics, using both the representative GSS data set and our larger NBER data set, with more extensive measures.

The idea that shared capitalism is most likely in performance-sensitive jobs is supported by the finding that profit/gain sharing is most common among sales and management employees (48 percent and 56 percent, in column [1]), but the incidence remains substantial among all but service employees (19 percent). Managers are also the most likely to own company stock (27 percent, column [2]), but are not particularly more likely to hold stock options (14 percent, column [3]). The NBER data show high levels of participation in profit/gain sharing and employee ownership for all occupational groups, and low levels of stock options only among production workers and service employees (since the NBER stock option companies had few production or service employees, although this is not true for all stock option firms in the United States).

Those who have been at their jobs for less than one year are the least likely to participate in shared capitalism, partly reflecting probationary periods (e.g., employees only become eligible for an ESOP after six months or one year). The exception is that new employees are more likely than older employees to hold stock options in the NBER data set, probably reflecting the use of stock options to lure workers into the jobs.

Not surprisingly, shared capitalism is more common among full-time employees in both the GSS and NBER data—such employees are more likely to be core employees whose commitment and effort are important to workplace performance. Also not surprisingly, union members are less likely than nonunion employees to be part of profit-gain-sharing plans (38 percent versus 14 percent, in column [1]). Unions tend to resist profit sharing due to concerns that management can manipulate profit figures, and that such pay can create inequality among workers (Zalusky 1990). Given the resistance of some union representatives to variable rewards, it is striking that union

Table 1.4 Participation in shared capitalism by job and company characteristics

	GSS, 2002-2006		NBER		Sample sizes			
	Percent of those at left who:		Percent of those at left who:		GSS (7)	NBER (8)		
	Are eligible for profit or gain sharing (1)	Own co. stock (2)	Hold stock options (3)	Are eligible for profit or gain sharing (4)			Own co. stock (5)	Hold stock options (6)
Overall	37.2	19.4	11.3	76.4	64.0	21.9	2,430	41,206
Occupation								
Production	32.8	17.2	9.2	72.1	51.6	1.8	638	18,227
Admin. support	35.8	23.5	15.5	68.5	63.8	18.1	340	2,246
Professional/technical	36.7	21.9	13.7	82.9	78.8	44.1	443	11,582
Sales	47.6	21.5	12.9	64.8	75.7	49.6	299	2,220
Service	19.2	6.5	4.1	71.4	50.8	0.0	322	1,105
Management	55.8	26.5	13.6	90.6	78.6	42.3	368	4,836
Lower mgt.				88.4	83.7	60.3		4,214
Middle mgt.				88.9	79.4	48.3		2,946
Upper mgt.				90.4	74.4	46.8		856
Tenure								
1 year or less	30.5	7.5	4.4	62.3	51.2	33.1	775	6,029
> 1, <= 5 years	39.7	20.3	11.6	75.2	61.1	24.5	828	10,602
More than 5 years	41.8	30.3	17.8	80.8	69.1	18.2	805	23,639
Hours of work								
Part-time (< 35)	20.7	8.2	4.9	54.8	45.9	13.1	447	588
Full-time (35+)	40.9	22.0	12.7	76.7	64.2	21.6	1,983	39,625

(continued)

Table 1.4 (continued)

	GSS, 2002-2006				NBER				Sample sizes	
	Percent of those at left who:		Percent of those at left who:		Percent of those at left who:		Percent of those at left who:		GSS (7)	NBER (8)
	Are eligible for profit or gain sharing (1)	Own co. stock (2)	Hold stock options (3)	Are eligible for profit or gain sharing (4)	Own co. stock (5)	Hold stock options (6)				
Union member										
No	38.0	19.0	10.9	80.9	70.3	25.2	1,455	35,547		
Yes	14.0	24.2	12.4	46.7	22.4	0.7	161	5,001		
Establishment size										
1 to 9	26.0	8.9	4.2				505			
10 to 49	35.6	12.3	7.1				604			
50 to 99	40.5	20.3	13.8				329			
100 to 999	44.1	26.9	16.0				656			
1,000+	44.8	36.8	20.1				300			
Industry										
Ag./mining/constr.	22.3	11.1	5.2				183			
Manufacturing	52.0	29.1	18.3				399			
Trans./comms./utilities	43.8	37.9	23.7				214			
Wholesale/retail	32.7	14.0	8.3				553			
Finance/insurance	55.0	35.5	18.8				198			
Computer services	65.2	43.4	40.3				52			
Other services	28.6	9.9	4.0				771			

members in the GSS are actually slightly more likely than nonunion employees to report owning company stock and holding stock options. While there have been some noteworthy examples of unions leading employee buyouts (which make up a very small percentage of firms with employee ownership), this employee ownership result more likely reflects the greater likelihood of retirement plans among union employees, many of which invest in company stock.

The free rider problem predicts that these plans will be most advantageous in small workplaces, and some evidence in chapter 2 indicates that this is true. But while this would lead one to expect a greater prevalence of shared capitalism plans in small establishments, their prevalence is actually higher among larger establishments (columns [1] through [3]). All three types of shared capitalism are most common in establishments with 1,000 or more employees. This may be explained by the existence of fixed costs in setting up plans, which can be spread across a larger number of employees in larger establishments. These large establishment sizes strongly suggest that if these companies want to use shared capitalism to enhance performance, they need to take steps to counter the free rider problem.

Finally, shared capitalism is well-represented in every broad industry. Profit/gain sharing is most common in manufacturing, finance, and computer services (> 50 percent in each), while employee ownership and stock options are most common in transportation/communications/utilities, finance, and computer services. The figures are consistently highest in computer services, reflecting the strong use of these incentives in new economy companies that rely heavily on human skill and ingenuity (Blasi, Kruse, and Bernstein 2003). The growth of high performance work practices and self-managed work teams in manufacturing also suggests that reliance on human skill and ingenuity is now more widely relevant in traditionally blue-collar industries. This is not consistent with the notion that shared rewards (especially employee ownership) will only work with professional groups such as lawyers or more specialized service firms (Hansmann 1996). Shared capitalism appears to be least prevalent in the agriculture/mining/construction industry group, yet this requires closer examination. Profit sharing is quite common in these industries, and it has been reported that many large construction firms use shared capitalism practices. An analysis of incidence in the three separate industries making up this grouping is probably required.¹²

1.3.3 Work Organization and Shared Capitalism

How are these jobs structured, and what policies accompany shared capitalism plans? Table 1.5 uses the GSS and NBER data to explore how shared capitalism relates to several aspects of work organization and policies,

12. The newsletters of the National Center for Employee Ownership have reported on the construction industry. For example, see www.nceo.org/library/esop-construction-industry.html.

Table 1.5 Work organization by type of shared capitalism

	GSS (2002–2006)							
	All employees (%) (1)	Eligible for profit or gain sharing (%) (2)	Own co. stock (%) (3)	Hold stock options (%) (4)	All employees (%) (5)	Eligible for profit or gain sharing (%) (6)	Own co. stock (%) (7)	Hold stock options (%) (8)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Work as part of team	57.8	60.8**	60.4	64.8**	59.3	60.8**	57.9**	64.7**
Ease of observing co-worker performance								
Hard	15.5	12.5**	16.1	11.9	18.3	17.8**	19.2**	26.3**
Medium	14.4	14.1	13.5	16.2	32.7	33.3**	33.8**	37.7**
Easy	70.1	73.3**	70.4	72.0	49.0	48.9	47.1**	36.0**
Closeness of supervision								
Low supervision					47.5	50.5**	53.9**	66.6**
Medium supervision					33.7	33.1**	32.0**	24.8**
High supervision					18.7	16.4**	14.1**	8.7**
Participation in decisions								
Employee involvement team					34.7	37.9**	37.7**	37.7**
Lot of involvement in job decisions					50.5	53.5**	56.5**	71.2**
Lot of involvement in setting dept. goals					21.3	22.6**	23.8**	33.2**
Lot of involvement in co. decisions								
A lot of say about what happens on job	24.6	30.8**	28.4*	28.7				
Often help set way things are done on job	39.7	46.8**	47.5**	49.0**				
Often make decisions with others	43.5	50.1**	49.4**	52.1**				
Training/multiskilling								
Have training opportunities I need	60.3	62.7*	61.6	60.6				
Formal training in past year					56.4	59.2**	61.8**	76.3**
Frequently participate in job rotation					11.2	11.4*	11.5*	6.2*
High job security	88.3	92.7**	91.7*	91.3	84.3	86.9**	87.8**	92.0**
See myself working here a long time					81.7	83.6**	84.8**	88.3**
Current job is part of long-time career					76.2	78.0**	79.1**	83.5**
Sample size	2,430	908	470	275	41,206	31,351	26,390	9,019

** Difference between those who are and are not covered by this policy is significant at the 5 percent level.

* Significant difference at the 10 percent level.

shedding some light on the role these plans may play in companies. The figures in table 1.5 are simple cross-tabulations—these relationships are analyzed using probit regressions in table 1.6.

Consistent with the idea that shared capitalism can encourage cooperative teamwork, profit/gain sharing employees are more likely to work in teams, to be able to observe co-worker performance, and to have low levels of supervision (columns [2] and [6]). The patterns are mixed, however, for employee-owners and stock option holders. The stock option holders are more likely to work in teams and to have low levels of supervision, but are no more likely (and may be less likely) to easily observe co-worker performance (columns [4] and [8]). This may have to do with their concentration in high tech and computer industry firms. Employee-owners are not more likely to work in teams or to find it easy to observe co-workers, although they are more likely to have low levels of supervision (columns [3] and [7]). This suggests that profit/gain sharing may be the primary method for encouraging cooperative teamwork in day-to-day work, while employee ownership and stock options may affect other outcomes (e.g., identification, loyalty, turnover). This is a good example of how we can learn from the analysis of prevalence. It could possibly be the basis of an argument for combining short-term forms of shared capitalism like profit/gain sharing with longer horizon forms such as employee ownership and stock options. Whether these forms do have the effects suggested by the prevalence figures is the job of other chapters to sort out.

Participation in decisions may, as discussed earlier, be an important complement to shared capitalism programs in affecting workplace performance. Such participation can give employees the means to improve performance, while shared capitalism provides the incentives. The data in table 1.5 generally support the idea of complementarity, with shared capitalism employees having higher levels on both the objective measure of participation (being in an employee involvement team) and the subjective measures (having say/influence in one's job, or participating with others in decisions affecting one's job). Profit/gain sharing is consistently linked to higher participation in both data sets, while employee ownership and stock option holding show mixed results in the GSS but strong associations with participation in the NBER data.¹³

Training may be another important complementary policy, helping to develop worker skills and commitment that can be reinforced by shared capitalism. The GSS tabulations in table 1.5 show that those with profit/gain sharing are more likely to report that they have the training opportunities they need. The shared capitalism employees in the NBER firms are more likely to have had employer-sponsored training in the past year, while

13. Kalmi, Pendleton, and Poutsma (2004) find that the different plan types have different relationships to participatory practices.

profit/gain sharing employees and employee-owners—but not stock option holders—are slightly more likely to frequently participate in job rotation.

Finally, job security may be an important complementary policy—it is hard to maintain worker commitment and cooperative teamwork if employees are afraid they will be laid off. Just over 90 percent of the GSS shared capitalism employees report they are unlikely to be laid off, which is higher than the 88 percent figure for the entire sample, with significantly greater job security for profit/gain sharers and employee-owners. All three groups of shared capitalism employees report significantly greater job security in the NBER data. In addition, each of these three groups reports a higher expected likelihood of working at the company for a long time, and of seeing their current jobs as part of a long-term career.

Table 1.6 analyzes these relationships using probit regressions to predict the likelihood of participating in each of the types of shared capitalism. The NBER regressions control for company fixed effects, thereby doing within-company comparisons of who participates. Most of the simple relationships described previously are maintained when controlling for other variables. In particular, each of the plans is associated with greater participation in decisions and with employer-sponsored training in the past year. The ease of observing co-workers is a significant predictor of profit/gain sharing in both the GSS and NBER data, suggesting an important role for peer pressure. Closeness of supervision is a strong negative predictor in the NBER sample, and high job security is a strong positive predictor, indicating that freedom from supervision and job security may be complementary policies. Finally, the GSS regressions confirm that each type of shared capitalism is more likely in larger establishments (though the highest prevalence of profit/gain sharing is among establishments with 100 to 999 employees rather than the 1,000+ group).

1.3.4 Risk Aversion and Shared Capitalism

Risk aversion is clearly an important consideration in shared capitalism. We measured risk aversion with several questions on the NBER company surveys, including a self-rating on a 0 to 10 scale, how much one would pay for a bet, whether one would take a job with stable pay versus one with risky but higher pay, and whether one regularly buys and sells stock on the stock market. These are strongly related and appear to measure a common risk propensity. Here we focus on the employee's self-rating, where 0 is "hate to take any kind of risk" and 10 is "love to take risks" (see question wording in Appendix A). The average score is 5.6, but there is wide dispersion: 20 percent of employees give scores of 3 or less, and 41 percent give themselves scores of 7 or more. Of course these employees are not representative of the overall workforce, since they have chosen to work in companies with shared capitalism and 85 percent are covered by some type of shared capitalism plan. We can nonetheless learn something about the role of risk aversion

Table 1.6 Predicting participation in shared capitalism

	GSS			NBER		
	Eligible for profit or gain sharing (1)	Own co. stock (2)	Hold stock options (3)	Eligible for profit or gain sharing (4)	Own co. stock (5)	Hold stock options (6)
Occupation						
Production (excl.)						
Admin. support	0.058 (0.041)	0.080 (0.036)**	0.083 (0.031)**	-0.010 (0.010)	0.023 (0.011)**	0.044 (0.017)**
Prof./technical	0.041 (0.043)	0.075 (0.036)**	0.059 (0.027)**	0.019 (0.006)**	0.064 (0.006)**	0.141 (0.011)**
Sales	0.214 (0.044)**	0.096 (0.039)**	0.074 (0.032)**	-0.240 (0.014)**	0.035 (0.012)**	0.147 (0.022)**
Service	-0.056 (0.045)	-0.031 (0.036)	0.012 (0.031)	-0.022 (0.013)*	-0.016 (0.015)	
Management	0.224 (0.041)**	0.099 (0.036)**	0.049 (0.026)**			
Lower mgt.				0.033 (0.008)**	0.039 (0.010)**	0.146 (0.018)**
Middle mgt.				0.062 (0.008)**	0.072 (0.010)**	0.473 (0.020)**
Upper mgt.				0.085 (0.012)**	0.045 (0.017)**	0.741 (0.018)**
Tenure (years)	0.000 (0.002)	0.006 (0.001)**	0.002 (0.001)**	0.004 (0.000)**	0.009 (0.000)**	0.005 (0.000)**
Full-time	0.144 (0.029)**	0.089 (0.019)**	0.036 (0.015)**	0.000 (0.000)**	0.000 (0.000)**	0.000 (0.000)
Union member	^a	^a	^a	-0.343 (0.010)**	-0.390 (0.010)**	-0.100 (0.007)**
Work as part of team	0.006 (0.024)	0.003 (0.018)	0.020 (0.012)	^a	^a	^a
Ease of observing co-worker	0.007 (0.004)**	-0.001 (0.003)	0.001 (0.002)	0.004 (0.001)**	0.002 (0.001)*	-0.002 (0.001)
Closeness of supervision				-0.004 (0.001)**	-0.011 (0.001)**	-0.009 (0.001)**
Participation index	0.114 (0.018)**	0.051 (0.013)**	0.030 (0.009)**			
Employee involvement team				0.054 (0.004)**	0.041 (0.005)**	0.012 (0.007)*
Formal training in past year				0.039 (0.005)**	0.039 (0.005)**	0.027 (0.006)**
Have needed training opps.	0.015 (0.024)	-0.004 (0.018)	-0.004 (0.013)			
High job security	^a	^a	^a	0.083 (0.007)**	0.061 (0.007)**	0.053 (0.008)**

(continued)

Table 1.6 (continued)

	GSS			NBER		
	Eligible for profit or gain sharing (1)	Own co. stock (2)	Hold stock options (3)	Eligible for profit or gain sharing (4)	Own co. stock (5)	Hold stock options (6)
Establishment size						
1 to 9 (excl.)						
10 to 49	0.109 (0.036)***	0.034 (0.031)	0.031 (0.024)			
50 to 99	0.164 (0.042)***	0.117 (0.039)***	0.109 (0.034)***			
100 to 999	0.174 (0.036)***	0.171 (0.034)***	0.117 (0.028)***			
1,000+	0.155 (0.045)***	0.253 (0.045)***	0.142 (0.039)***			
Industry						
Ag./mining/constr.	-0.235 (0.035)***	-0.072 (0.027)**	-0.053 (0.015)***			
Manufacturing (excl.)						
Trans./comms./utilities	-0.075 (0.041)*	0.081 (0.037)**	0.038 (0.026)			
Wholesale/retail	-0.190 (0.034)***	-0.058 (0.025)**	-0.042 (0.016)**			
Finance/insurance	-0.029 (0.048)	0.070 (0.042)*	0.007 (0.024)			
Computer services	0.090 (0.090)	0.101 (0.076)	0.135 (0.071)***			
Other services	-0.208 (0.034)***	-0.128 (0.022)***	-0.098 (0.014)***			
Company fixed effects				Yes	Yes	Yes
<i>n</i>	2,283	2,275	2,264	34,316	34,790	30,301
Pseudo- <i>R</i> ²	0.12	0.165	0.156	0.194	0.211	0.815

Notes: Figures are derivatives based on probit regressions, representing effect of one-unit change in independent variable on probability of dependent variable.

*These variables were available only for a limited number of observations. When they are included, the significant relationships are:

Union membership in GSS: negative and significant only in column (1); High job security in GSS: positive and significant only in column (1); Work as part of team in NBER: positive and significant in columns (4-6).

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

by examining its relation to plan participation and worker views of variable pay.

Risk aversion is related to plan participation, as shown in table 1.7, but not always in expected ways. A surprising finding is that those who are eligible for profit sharing rate themselves as more risk averse (less risk loving) than those who are not eligible, both before and after controlling for demographic, pay, and wealth variables (columns [3] and [5]). One explanation of this is that profit sharing may be less risky than sinking your savings in your company stock under certain circumstances, such as where you feel you are paid at the market rate for wages and there is no wage substitution. Eligibility for gain sharing and individual bonuses, in contrast, is associated with greater risk loving. Like profit sharers, stock option holders appear slightly more risk averse after controlling for demographic, pay, and wealth variables.

Employee owners appear to like risk more on average, but this varies by type of employee ownership. Those owning stock through 401(k) plans or open market purchases are clearly more risk loving than others (table 1.7, column [6]), undoubtedly reflecting the self-selection of risk lovers buying stock or allocating 401(k) accounts toward company stock. The ESOP mem-

Table 1.7 Risk aversion and participation in variable pay

	Risk-loving mean values (0–10 scale)				Risk loving as predictor of plan at left ^a	
	Participate in plan at left		Simple difference (3)	(s.e.) (4)	Coefficient (5)	(s.e.) (6)
	Yes (1)	No (2)				
Profit-sharing eligibility	5.57	5.73	-0.16	(0.03)***	-0.009	(0.001)***
Gain-sharing eligibility	6.02	5.51	0.51	(0.03)***	0.004	(0.001)***
Individual bonus eligibility	6.01	5.46	0.55	(0.03)***	0.003	(0.001)***
Hold stock options	6.12	5.47	0.65	(0.03)***	-0.001	(0.001)*
Own co. stock	5.71	5.45	0.26	(0.03)***	0.003	(0.001)**
Own employer stock through:						
Employee Stock Ownership Plan	5.32	5.65	-0.33	(0.04)***	0.000	(0.001)
Employee Stock Purchase Plan	6.16	5.51	0.65	(0.03)***	0.000	(0.000)
401(k) plan	5.57	5.65	-0.08	(0.03)***	0.005	(0.001)***
Exercising options and keeping stock	6.11	5.59	0.52	(0.06)***	0.000	(0.000)
Open market purchase	6.49	5.55	0.94	(0.05)***	0.003	(0.000)***

Notes: Based on NBER data. s.e. = standard error.

^aControlling for age, gender, marital status (2 dummies), family size, college graduate, graduate degree, number of kids, race (4 dummies), disability status, ln(fixed pay), ln(wealth), and twenty-one country dummies.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

bers, however, are more risk averse than non-ESOP members in a simple comparison, and risk loving is not a significant predictor of ESOP membership, or of owning stock through an ESPP or exercised stock options, after controlling for demographic, pay, and wealth variables.

Does risk aversion affect employees' views of variable pay? Most of the NBER workers would prefer to be paid in part with profit sharing, company stock, or stock options, as shown in table 1.8. Remarkably, even two-thirds (66 percent) of the most risk-averse employees would prefer this, while 86 percent of the least risk-averse prefer this. Very similar results are obtained by a question asking about the employee's next pay increase, where again two-thirds of the most risk-averse would prefer at least some of the increase to be in the form of shared capitalism pay. This would not make sense if the employees were seeing the shared capitalism pay as simply adding risk; rather, they are likely perceiving a chance for increased reward and perhaps some of the other benefits for workers analyzed in chapter 8.

About three-fourths of employees would prefer a new bonus program to be based at least in part on their individual performance, where the line of sight is clearly greatest. Almost three-fifths (58 percent), however, prefer that it also be based on company profits or performance, while only about one-third (37 percent) prefer that it be based in part on work group performance. It may be that the greater line of sight for work group bonuses is trumped by their greater perceived risk, as work group performance is probably seen as more variable than overall company performance (which averages across all work groups in the company). Those with low risk aversion are more likely to choose individual- or work group-based bonuses, while risk aversion is not related to the desire for company-based bonuses.

Most employees would not vote to sell the company to an outside investor for a 50 percent premium, but would do so for a 100 percent premium. This likelihood is lowest among those with high risk aversion, reflecting greater concern about job loss if the company were sold. While the concern about job loss is the most common reason for refusing to sell the company, about one-third of employees say they would refuse to sell because they like owning company stock (33 percent), and a similar number say they would refuse because they like the sense of community from employee ownership (37 percent). A lot more research is needed on this broader issue of employee ownership and workers' corporate governance rights since governance has always been seen by corporate finance experts as being partly about managing risk. (It is standard in investment banking to provide more governance rights when risk is higher.)

Finally, most workers say that they would be willing to accept some degree of lower regular pay in exchange for the opportunity to participate in a company-based bonus system averaging 10 percent of their pay. This willingness varies substantially, however: two-fifths (41 percent) would not accept lower pay, while one-sixth (15 percent) would accept less than 5 percent

Table 1.8 Worker views of performance-based pay

	Overall	Risk aversion		
		High	Medium	Low
Type of pay preferred				
All fixed wage or salary	22%	34%	25%	14%***
Paid in part with profit sharing, stock, or stock options	78%	66%	75%	86%***
<i>n</i>	13,199	2,090	5,069	5,953
Preference for next pay increase				
All fixed pay	27%	33%	28%	23%***
Split between fixed wages and profit sharing, stock, or options	60%	55%	61%	62%***
All profit sharing, stock, and options	13%	12%	11%	15%***
<i>n</i>	25,869	5,318	9,805	10,330
Would prefer new bonus plan to be based on (can pick more than one)				
Your individual performance	77%	71%	77%	79%***
Your work group performance	37%	31%	36%	40%***
Company profits or performance	58%	57%	59%	59%
<i>n</i>	13,379	2,144	5,133	6,002
Would vote to sell company if outside investor offered:				
50% premium	41%	36%	39%	45%***
100% premium	64%	57%	61%	68%***
Reasons for not selling for 50% premium:				
Like owning company stock	33%	35%	33%	32%
Like sense of community from employee ownership	37%	37%	36%	39%
Concerned about investor laying off employees	70%	75%	73%	65%***
Offer might mean company is worth more	39%	33%	38%	44%***
<i>n</i>	12,938	2,059	4,931	5,854
Lower pay accepted for company-based bonus averaging 10%				
Mean percent lower regular pay accepted (standard deviation)	3.31 (3.56)	2.28 (3.21)	3.15 (3.51)	3.91*** (3.63)
0% lower pay accepted	41%	55%	43%	33%***
Between 0% and 5% lower pay accepted	15%	15%	15%	15%
5% lower pay accepted	27%	19%	26%	31%***
More than 5% lower pay accepted	17%	11%	16%	21%***
<i>n</i>	29,426	5,535	11,141	12,480

***Significant difference among risk groups at the 1 percent level.

**Significant difference at the 5 percent level.

*Significant difference at the 10 percent level.

lower pay, one-fourth (27 percent) would accept 5 percent lower pay, and one-sixth (17 percent) would accept more than 5 percent lower pay. This is predictably related to risk aversion: a majority of the most risk averse would not accept any lower regular pay (55 percent), compared to only a third of the least risk averse (33 percent).

The NBER employees, of course, may not be representative of the overall workforce—in particular, they may have joined these companies because they are less risk averse and more favourably inclined toward shared capitalism than most workers. The data are broadly consistent, however, with existing representative surveys. Over half (57 percent) of workers in a 1986 BNA/Bruskin poll said they would trade their next pay increase for a share in the company, while 44 percent said this in a 1989 EBRI/Gallup poll (summarized in Kruse and Blasi [1999]). Workers in general report that, if they had company stock, they would be less likely than the NBER workers to vote to sell the company even for a substantial premium.¹⁴ This indicates either a more rosy view of the advantages of employee ownership among the workforce in general, or more concern about an outside investor laying off workers. The public surveys do show positive views of employee ownership: strong majorities think employee-owners will work harder, have higher commitment, and be more concerned with the long-term success of the company. Participation in decisions, however, appears to be very important: most employees would prefer participation in decisions to having a share of ownership, and say that if they owned stock, they would not let management vote their shares on major corporate issues (summarized in Kruse and Blasi [1999]).

Overall, as expected, risk aversion is a key factor for shared capitalism: it appears most likely to steer workers away from positions providing gain sharing or individual bonuses, and to discourage workers from allocating 401(k) assets toward company stock or purchasing company stock on the open market. Greater risk aversion is associated with less positive views of shared capitalism pay, but even among the most risk-averse employees, two-thirds says they prefer some shared capitalism as part of their pay package.

1.4 Conclusion

Contrary to concerns about the free rider problem and worker risk aversion, a substantial number of workers participate in shared capitalism plans and are open to more shared capitalism in their firms. Nationally-representative surveys of private-sector employees and firms show that:

- One-fourth to one-third of employees are eligible for profit sharing.
- About one-fourth of employees are eligible for gain sharing.
- About one-fifth of employees own stock in their companies.
- Between one-twelfth and one-eighth of employees are eligible for stock options or hold stock options.

14. The 41 percent who would sell for a 50 percent premium is somewhat higher than the 23 percent figure for all employees from a 1989 EBRI/Gallup poll, and the 64 percent who would vote to sell for a 100 percent premium is much higher than the 36 percent figure for all employees from a 1994 EBRI/Gallup poll (summarized in Kruse and Blasi [1999]).

- Overall, between one-third and one-half of employees participate in some form of shared capitalism.

Why do firms use these plans, and why do workers accept them? This chapter broadly reviews the major reasons for adopting these plans and some of the research results. The two major categories of reasons for adopting these plans are productivity-related and flexibility-related reasons. Prior studies find that these plans tend to be associated with better company performance on average, but there is wide dispersion in outcomes. The goal of the other chapters using these data is to explain this dispersion and understand why, where, and how shared capitalism does or does not work. Limited evidence also shows that these plans tend to be associated with greater job stability, firm survival, and employee compensation—the latter finding helping to explain why employees express positive attitudes toward shared capitalism plans. The dispersion of results indicates that there is still much to learn about how these plans can play a positive role in workplaces. Research has not nailed down the complementary role that other human resource policies play in affecting worker attitudes and firm performance.

Both the NBER data set and the nationally-representative GSS data set indicate that while shared capitalism exists broadly throughout the economy, it is not distributed randomly across firms and employees. One important finding is that shared capitalism plans are more likely in larger establishments, where free riding is likely to be the highest. To counter free riding, firms may combine shared capitalism with other policies to create a cooperative culture. An initial exploration of work organization and policies supports this idea: shared capitalism employees are more likely to participate in workplace decision-making and training programs, and to have high job security and low levels of supervision. Within-company comparisons show that they are also more likely to work in teams, and profit/gain sharing employees can more easily observe co-worker performance, creating the conditions for cooperative teamwork. An examination of risk aversion in the NBER data set shows that, as expected, risk aversion is linked to lower participation in several types of plans and less positive views of shared capitalism, but even among the most risk averse employees, two-thirds prefer to have some form of shared capitalism in their pay package.

So risk aversion does not appear to be an insurmountable barrier and there appear to be conditions for productive cooperation—does this in fact occur? What other effects does shared capitalism have on both firms and employees? These relationships are probed and tested in the following chapters, using the GSS and NBER data to explore a wide variety of outcomes for both workers and firms.

Over the last few decades many economists have said about various shared capitalism practices: “If it makes so much sense then why do we not observe more firms and employees doing it?” The response put forward by these

prevalence figures is: “It appears to have spread throughout the economy, so what does that mean?” This chapter has examined some of the linkages between shared capitalism practices and other employment practices. These linkages raise another series of questions: are managers in companies making the right choices about how to achieve optimal performance from shared capitalist practices, or are there patterns and combinations that work better and worse? In other words, is what we observe optimal because that is the shared capitalist arrangement that has emerged in the laboratory of real life? Or, should managers consider making substantive changes to how they organize shared capitalism because it can be done well or poorly? One needs to beware of looking at these incidence patterns with a “deterministic” frame of mind. It should not be immediately concluded that just because there are certain types of shared capitalist practices (such as company stock in 401(k) plans as a lone form of shared capitalism) or combinations of these practices with human resource policies (such as a low incidence of self-management work teams with employee ownership) that somehow managers have told us these are the best workable combinations. Firms and managers may have it wrong in some cases and right in others. (For an example of a manager’s analysis, see Carey [2004].) These data will be used to explore the answers to these questions.

This NBER research program continues a long tradition of examination of shared capitalism by economists. The phenomenon was seen as being so important that John Bates Clark, a founder of the American Economic Association, wrote a book in the 1880s calling for the combination of profit-sharing and employee ownership in companies to improve business performance by motivating worker involvement (Clark 1886). With his encouragement and with the hard work of a research group organized at Johns Hopkins University to survey the nation on this question, the first volume of the journal of the American Economics Association included an article surveying shared capitalism in companies in the Northeast (Bemis 1886) and in the Midwestern city of Minneapolis (Shaw 1886; Adams 1888). Subsequent early issues covered other regions of the United States. Given that almost half of US employees currently report participating in some form of shared capitalism, it is time to take a close look again.

Appendix

Table 1A.1 Prior evidence on prevalence of shared capitalism plans

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Source	WRPS	NLSY	EBRI	NES	NES	Form 5500	NCS	NCS	NCS
Year	1994/95	1993	1994	1994	1997	1998	2003	2005	2007
Type of data	Employee survey	Employee survey	Employee survey	Firm survey	Firm survey	Admin. data	Firm survey	Firm survey	Firm survey
Profit sharing									
Percent of employees covered									
Receive any bonuses based on profit sharing	30								
Employer makes profit sharing available		35							
Deferred profit-sharing plan							21	30	
Cash profit-sharing plan							5		5
Gain sharing									
Percent of employees covered									
Receive any bonuses based on meeting workplace goals	27								
Employee ownership									
Percent of employees covered									
Participate in an employee stock ownership or ESOP plan	24		21				5	4	
Own company stock						6			
ESOP participant						11			
Participant in non-ESOP 401(k) w/employer stock ^a									
Participant in other defined con. plan w/employer stock ^a						1			

(continued)

Table 1A.1 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Eligible for other defined con. plan w/employer stock ^a							20		
Participant in savings/thrift plan w/employer stock ^a								16	
Stock options									
Percent of employees covered							8		8
Eligible to receive stock options									
Combinations									
Percent of employees covered									
Any of above	57								
Percent of firms				75					
Profit-sharing, bonus, or gain- sharing plan					41				
Stock options or profit sharing									
Sample size	2,408		1,000	2,867	2,963	50,769	3,030	3,227	8,256

Notes: WRPS = Worker Representation and Participation Survey (Freeman and Rogers 1999); NLSY = National Longitudinal Survey of Youth (Kruse 1998); EBRI = Employee Benefits Research Institute (EBRI/Gallup 1994); NES = National Employer Survey (Kruse and Blasi 2000); Form 5500 = Form 5500 pension data set (Kruse 2002); NCS = National Compensation Survey (BLS 2003, 2007, 2008).

^aAt least some employees in these plans own company stock, but the employee him/herself might not own stock (e.g., if she or he declined to allocate some contributions to employer stock in a 401(k)).

Table 1A.2 Prior evidence on prevalence of employee participation in decisions

	(1)	(2)	(3)
Source	WRPS	NES	NES
Year	1994/95	1994	1997
Type of data	Employee survey	Firm survey	Firm survey
Percentage of employees covered			
Employee involvement team	31		
Self-managed team		13	16
Work-related meetings for nonmanagers		52	55
Quality circles or employee involvement committees			
A lot of influence in decisions about how job is done	57		
A lot of influence in setting group or dept. goals	32		
Percentage of firms with plans			
Self-managed teams for nonmanagers		32	34
Work-related meetings for nonmanagers		80	74
Sample size	2,408	2,867	2,963

Notes: WRPS = Worker Representation and Participation Survey (Freeman and Rogers 1999)(all private sector); NES = National Employer Survey (Kruse and Blasi 2000)(private for-profit firms).

References

- Adams, H. B. 1888. *History of cooperation in the United States*. Baltimore, MD: Johns Hopkins University and N. Murray.
- Alchian, A. A., and H. Demsetz. 1972. Production, information costs, and economic organization. *American Economic Review* 62 (5): 777–95.
- Askwith, M. E. 1926. *Profit-sharing: An aid to trade revival*. London: Duncan Scott.
- Bartel, A., R. Freeman, C. Ichniowski, and M. Kleiner. 2003. Can a work organization have an attitude problem? The impact of workplaces on employee attitudes and economic outcomes. NBER Working Paper no. 9987. Cambridge, MA: National Bureau of Economic Research, September.
- Beatty, A. 1994. An empirical analysis if the corporate control, tax and incentive motivations for adopting leveraged employee stock ownership plans. *Managerial and Decision Economics* 15 (4): 299–315.
- Becker, B. E., M. A. Huselid, and D. Ulrich. 2001. *The HR scorecard: Linking people, strategy, and performance*. Cambridge, MA: Harvard Business School Press.
- Bemis, E. W. 1886. Cooperation in the Northeast. *Publications of the American Economic Association* 1 (5): 7–136.
- Blair, M., D. Kruse, and J. Blasi. 2000. Is employee ownership an unstable form? Or a stabilizing force? In *The new relationship: Human capital in the American corporation*, ed. T. Kochan and M. Blair, 241–98. Washington, DC: The Brookings Institution.
- Blasi, J., and D. Kruse. 1991. *The new owners: The mass emergence of employee ownership in public companies and what it means to American business*. New York: HarperBusiness.

- . 2006. High performance work practices at century's end. *Industrial Relations* 45 (4): 547–78.
- Blasi, J., M. Conte, and D. Kruse. 1996. Employee ownership and corporate performance among public corporations. *Industrial and Labor Relations Review* 50 (1): 60–79.
- Blasi, J., M. Kroumova, and D. Kruse. 1997. *Kremlin capitalism: Privatizing the Russian economy*. Ithaca, NY: Cornell University Press.
- Blasi, J., D. Kruse, and A. Bernstein. 2003. *In the company of owners: The truth about stock options (and why every employee should have them)*. New York: Basic Books.
- Bonin, J., and L. Putterman. 1987. *Economics of cooperation and labor managed economies*. New York: Cambridge University Press.
- Boning, B., C. Ichniowski, and K. Shaw. 2001. Opportunity counts: Teams and the effectiveness of production incentives. NBER Working Paper no. 8306. Cambridge, MA: National Bureau of Economic Research, May.
- Bureau of Labor Statistics (BLS). 2005. *National Compensation Survey: Employee benefits in private industry in the United States, 2003*. Bulletin 2577, US Bureau of Labor Statistics, October.
- . 2006. *National Compensation Survey: Employee benefits in private industry in the United States, March 2006*. Summary 06-05, US Bureau of Labor Statistics, August.
- . 2007. *National Compensation Survey: Employee benefits in private industry in the United States, 2005*. Bulletin 2589, US Bureau of Labor Statistics, May.
- . 2008. *National Compensation Survey: Employee benefits in private industry in the United States, March 2007*. Summary 07-05, US Bureau of Labor Statistics, August.
- Brown, J., N. Liang, and S. Weisbenner. 2004. 401(k) matching contributions in company stock: Costs and benefits for firms and workers. NBER Working Paper no. 10419. Cambridge, MA: National Bureau of Economic Research, August.
- Bullock, R. J., and M. E. Tubbs. 1990. A case meta-analysis of gainsharing plans as organization development interventions. *Journal of Applied Behavioral Science* 26 (3): 383–404.
- Carey, Raymond. 2004. *Democratic capitalism*. Bloomington, IN: Author House.
- Chiu, W. C. K., X. Huang, and H. L. Lu. 2005. When Marx borrows from Smith: The ESOP in China. *Journal of Contemporary China* 14 (45): 761–72.
- Cin, B.-C., T.-S. Han, and S. C. Smith. 2003. A tale of two tigers: Employee financial participation in Korea and Taiwan. *International Journal of Human Resource Management* 14 (6): 920–41.
- Clark, J. B. 1886. *The philosophy of wealth*. Boston: Ginn and Company.
- Collins, D. 1998. *Gainsharing and power: Lessons from six Scanlon plans*. Ithaca and London: Cornell University Press, ILR Press.
- Craig, B., and J. Pencavel. 1992. The behavior of worker cooperatives: The plywood companies of the Pacific Northwest. *American Economic Review* 82 (5): 1083–1105.
- . 1993. The objectives of worker cooperatives. *Journal of Comparative Economics* 17 (2): 288–308.
- Del Boca, A., D. Kruse, and A. Pendleton. 1999. Decentralisation of bargaining systems and financial participation: A comparative analysis of Italy, UK, and the US. *Lavoro e Relazioni Industriali* (Summer): 9–49.
- Dow, G. 2003. *Governing the firm: Worker's control in theory and practice*. Cambridge: Cambridge University Press.

- Employee Benefit Research Institute (EBRI)/Gallup. 1994. Public attitudes on employee stock ownership and benefit promises, 1994. EBRI/Gallup Poll no. G-54, Employee Benefit Research Institute, Washington, DC.
- European Foundation for the Improvement of Living and Working Conditions. 1997. *New forms of work organization: Can Europe realize its potential?* Luxembourg: Office for Official Publications of the European Communities.
- Fitzroy, F., and K. Kraft. 1995. On the choice of incentive in firms. *Journal of Economic Behavior and Organization* 26: 145–60.
- Freeman, R., and M. Kleiner. 1990. The impact of new unionization on wages and working conditions. *Journal of Labor Economics* 8 (1): S8–S25.
- Freeman, R., and J. Rogers. 1999. *What workers want*. New York: Russell Sage and Cornell University Press.
- Gregg, P. A., and S. J. Machin. 1988. Unions and the incidence of performance linked pay schemes in Britain. *International Journal of Industrial Organization* 6 (1): 91–107.
- Hansmann, H. 1996. *The ownership of enterprise*. Cambridge, MA: Harvard University Press.
- Ichniowski, C., T. Kochan, D. Levine, C. Olson, and G. Strauss. 1996. What works at work: Overview and assessment. *Industrial Relations* 35 (3): 299–333.
- Ichniowski, C., and K. Shaw. 1995. Old dogs and new tricks: Determinants of the adoption of productivity-enhancing work practices. *Brookings Papers on Economic Activity, Microeconomics*: 1–55.
- Jones, D.C., and T. Kato. 1995. The productivity effects of employee stock-ownership plans and bonuses: Evidence from Japanese panel data. *American Economic Review* 85 (3): 391–414.
- Kalmi, P., A. Pendleton, and E. Poutsma. 2004. The relationship between financial participation and other forms of employee participation: New survey evidence from Europe. Discussion Paper no. 3/April. Helsinki Center of Economic Research.
- Kardas, P., A. L. Scharf, and J. Keogh. 1998. Wealth and income consequences of ESOPs and employee ownership: A comparative study from Washington state. *Journal of Employee Ownership Law and Finance* 10 (4): 3–52.
- Kato, T., J. H. Lee, K.-S. Lee, and J.-S. Ryu. 2005. Employee participation and involvement in Korea: Evidence from a new survey and field research. *International Economic Journal* 19 (2): 251–81.
- Kim, D.-O. 2005. The choice of gainsharing plans in North America: A congruence perspective. *Journal of Labor Research* 26 (3): 465–83.
- Kruse, D. 1993. *Profit sharing: Does it make a difference?* Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- . 1996. Why do firms adopt profit-sharing and employee ownership plans? *British Journal of Industrial Relations* 34 (4): 515–38.
- . 1998. Profit sharing and the demand for low-skill workers. In *Generating jobs: Increasing the demand for low-skill workers*, ed. R. Freeman and P. Gottschalk, 105–53. New York: Russell Sage Foundation.
- . 2002. Research evidence on prevalence and effects of employee ownership. Testimony before the Subcommittee on Employer-Employee Relations, Committee on Education and the Workforce, US House of Representatives, February 13.
- Kruse, D., and J. R. Blasi. 1997. Employee ownership, employee attitudes, and firm performance: A review of the evidence. In *The human resource management handbook, part I*, ed. D. Lewin, D. J. B. Mitchell, and M. A. Zaidi, 131–51. Greenwich, CT and London: JAI Press Inc.

- . 1999. Public opinion polls on employee ownership and profit sharing. *Journal of Employee Ownership Law and Finance* 11 (3): 3–25.
- . 2000. The new employee/employer relationship. In *Working nation: Workers, work, and government in the new economy*, ed. D. Ellwood, 42–90. New York: Russell Sage Foundation.
- Lawler, E., S. Mohrman, and G. E. Ledford. 1995. *Creating high performance organizations: Practices and results of employee involvement and quality management in Fortune 1000 companies*. San Francisco: Jossey-Bass.
- Mitchell, D. J. B., D. Lewin, and E. Lawler. 1990. Alternative pay systems, firm performance, and productivity. In *Paying for productivity: A look at the evidence*, ed. Alan Blinder, 15–88. Washington, DC: Brookings Institution.
- Oyer, P., and S. Schaefer. 2005. Why do some firms give stock options to all employees? An empirical examination of alternative theories. *Journal of Financial Economics* 76 (1): 99–133.
- Park, R., D. Kruse, and J. Sesil. 2004. Does employee ownership enhance firm survival? In *Advances in the economic analysis of participatory and labor-managed firms*, vol. 8, ed. V. Perotin and A. Robinson, 3–33. New York: Elsevier Science, JAI.
- Pendleton, A. 2006. Incentives, monitoring, and employee stock ownership plans: New evidence and interpretations. *Industrial Relations* 45 (4): 753–77.
- Pendleton, A., E. Poutsma, J. Van Ommeren, and C. Brewster. 2003. The incidence and determinants of employee share ownership and profit sharing in Europe. In *Advances in the economic analysis of participatory and labor-managed firms*, vol. 7, ed. T. Kato and J. Pliskin, 141–72. New York: Elsevier Science, JAI.
- Poole, M. 1989. *The origins of economic democracy: Profit-sharing and employee-shareholding schemes*. London: Routledge.
- Poutsma, E. 1999. *Financial employee participation in Europe*. Nijmegen, Netherlands: Nijmegen University Business School, Report to the European Foundation for the Improvement of Living and Working Conditions.
- Poutsma, E., P. Kalmi, and A. Pendleton. 2006. The relationship between financial participation and other forms of employee participation: New survey evidence from Europe. *Economic and Industrial Democracy* 27 (4): 637–67.
- Putterman, L., and G. Skillman, Jr. 1988. The incentive effects of monitoring under alternative compensation schemes. *International Journal of Industrial Organization* 6 (1): 109–19.
- Robinson, A. M., and N. Wilson. 2006. Employee financial participation and productivity: An empirical reappraisal. *British Journal of Industrial Relations* 44 (1): 31–50.
- Scharf, A., and C. Mackin. 2000. *Census of Massachusetts companies with Employee Stock Ownership Plans (ESOPs)*. Boston: Commonwealth Corporation.
- Shaw, A. 1886. Cooperation in a Western city. *Publications of the American Economic Association* 1 (4): 7–106.
- Smith, S., B.-C. Cin, and M. Vodopivec. 1997. Privatization incidence, ownership forms, and firm performance: Evidence from Slovenia. *Journal of Comparative Economics* 25 (2): 158–79.
- Summers, L. 1986. On the share economy. *Challenge* (November/December): 47–50.
- Tseo, G. 1996. Chinese economic restructuring: Enterprise development through employee ownership. *Economic and Industrial Democracy* 17 (2): 243–79.
- US General Accounting Office. 1986. *Employee stock ownership plans: Benefits and costs of ESOP tax incentives for broadening stock ownership*. GAO/PEMD-87-8. Washington, DC: General Accounting Office.
- US Senate, Subcommittee of the Committee on Finance. 1939. *Survey of experiences*

- in profit sharing and possibilities of incentive taxation*. Washington, DC: Government Printing Office.
- Uvalic, M., and D. Vaughan-Whitehead, eds. 1997. *Privatization surprises in transition economies: Employee-ownership in Central and Eastern Europe*. Cheltenham, UK and Lyme, NH: Elgar, distributed by American International Distribution Corp., Williston, VT.
- Weitzman, M. L. 1984. *The share economy*. Cambridge, MA: Harvard University Press.
- . 1986. Macroeconomic implications of profit sharing. In *NBER macroeconomics annual 1986*, ed. S. Fischer, 291–335. Cambridge, MA: MIT Press.
- Weitzman, M. L., and D. Kruse. 1990. Profit sharing and productivity. In *Paying for productivity: A look at the evidence*, ed. Alan Blinder, 95–139. Washington, DC: Brookings Institution.
- Welbourne, T. M., and L. R. Gomez Mejia. 1995. Gainsharing: A critical review and a future research agenda. *Journal of Management* 21 (3): 559–610.
- Zalusky, J. 1990. Labor-management relations: Unions view profit sharing. In *Profit sharing and gain sharing*, ed. M. J. Roomkin, 65–78. Metuchen, NJ: Scarecrow Press.