DOCUMENT RESUME

ED 317 711 CE 054 127

AUTHOR Cappelli, H. Peter
TITLE The Role of Unions in Improving Workforce Quality, Labor Market Efficiency and Effective Employee Management. Background Paper No. 42.
SPONS AGENCY Department of Education, Washington, DC.; Department of Labor, Washington, DC. Commission on Workforce Quality and Labor Market Efficiency.
PUB DATE Sep 89
NOTE 38p.; In "Investing in People: A Strategy to Address America's Workforce Crisis" (CE 054 080).
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Corporate Education; *Education Work Relationship; *Employer Employee Relationship; *Employers; Fringe Benefits; Incentives; *Job Training; *Labor Education; Labor Force; Labor Relations; Personnel Management; Productivity; Scope of Bargaining; Skilled Occupations; Union Members; *Unions; Wages; Work Environment

ABSTRACT

Relatively little is known about how unions affect employers because of a lack of data and research at the level of the firm. The little evidence available suggests that the effects are complex and go well beyond the effects associated with higher wages. In particular, a better understanding of the role that unions play in providing training and greater attachment to the employer is needed. To the extent that public policy decisions make it more difficult for unions to organize employees, they reduce the competition that nonunion employers feel and reduce the incentives for these firms to maintain good human resource practices. Public policy decisions that make it more difficult for unions that provide extensive training, such as in the skilled trades, to retain their members may eventually make it impossible for those unions to provide training because they will be unable to recoup the costs through dues. Recommendations include (1) research at the firm level that will investigate the mechanisms through which union coverage affects the management of workers and the behavior of the organization as a whole; (2) consideration of costs in policy decision making; (3) unions as active partners in government training programs, especially for displaced workers; (4) where unions represent occupations where skills are general and employers therefore have no incentive to provide training, encouragement of union participation in training and more government training grants for that purpose. (51 references) (CML)

42. THE ROLE OF UNIONS IN IMPROVING WORKFORCE QUALITY, LABOR MARKET EFFICIENCY, AND EFFECTIVE EMPLOYEE MANAGMENT

H. Peter Cappelli

Commission Staff and
University of California at Berkeley

Opinions stated in this document do not necessarily represent the official position or policy of the U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency.

42. THE ROLE OF UNIONS IN IMPROVING WORKFORCE QUALITY, LABOR MARKET EFFICIENCY, AND EFFECTIVE EMPLOYEE MANAGEMENT

H. Peter Cappelli
Commission Staff and
University of California at Berkeley

Union Goals:

Unions ultimately exist to serve the interests of their membership. Yet in the process of serving those interests, unions also influence the quality of the labor force, the efficiency of labor markets, and the effectiveness of employee management. The public has an interest in these effects, and perhaps the best way to summarize that interest is simply to ask: Do unions make the economy more or less effective? There are certainly other areas where the public interest in unions may be keen, such as general concerns about justice and employee rights, and there is no effort here to put forth efficiency issues as necessarily being the most important effects of unions. Yet in contrast to some of these other goals where interest in society may conflict (between unions and management of employee rights, e.g.), there appears to be a clear consensus that we need to find ways to make the economy more competitive and that everyone would benefit from such developments. Even serving their private interests, unions and their members need an economy that is efficient in order to provide jobs with good wages and working conditions.

Of course, it would be wrong to imply that all efforts to increase the competitiveness of an economy are necessarily desirable. Some may at least suggest tradeoffs against other important interests. For example, costs and prices could be reduced if everyone in the U.S. gave

up their vacations, took pay cuts, and worked longer hours for no additional pay yet few people advocate such a change.

Assessing the effects of unions is a counterfactual exercise and requires making a comparison about the situation in their absence. The difficulty with this comparison in practice is that researchers often make the comparison not with what actually occurs where unions are not present but with a stylized model of how things <u>should</u> be. One could imagine that there are an infinite number of such models and that a wide range of conclusions could be generated simply by the choice of model. Because most of the research on the effects of unions is done by economists, the model often chosen is the free market, or more accurately, a perfect market model.

Certainly it does not seem appropriate to judge the functions of a real institution by comparing it to an abstract model. And it becomes even less appropriate as the model becomes more abstract. There are those, for example, who argue that the labor market is best understood as a set of efficient markets with perfect information where all optimal employment policies are instantaneously known and applied. Freeman and Medoff (1981) describe a branch of the literature which asserts <u>a priori</u> that unions must not have any effects on unit labor costs because if they did, perfect product markets would have driven their employers out of business. Comparisons with such models do not seem to be useful, and comparisons here will be based on comparisons with the existing nonunion sector.

The Economy:

The modern period of unionism in the U.S. can be traced to the New Deal and the rise of industrial unions. In the beginning of that period, unions had an explicit role in macroeconomic policy. By enforcing contracts on wages and other issues affecting labor costs, they helped prevent cost and price cutting which were seen as one of the key factors driving the Great Depression (Piore 1981). They were also seen as providing a counterbalance to the interests of the large industrial enterprises which often acted like oligopolies and ignored the interests of other groups (Galbraith 1978). Finally, through their demands and the exercise of bargaining power, unions improved working conditions and standards of living not only for their members but also for workers in unorganized sectors. In order to try to keep unions out of their firms, nonunion employers adopted many of the gains secured by unions within their industries. These "spillover" effects are especially clear between the organized and unorganized plants within the same firm, but they are also documented for the economy as a whole (Kahn 1980).[1]

Over time, the importance of these roles had begun to erode. The interest in supporting costs and prices disappeared after World War II when the economy recovered from the Depression. By the 1970's, inflation had become the national concern, and union wage demands were associated with at least some of the cost-push inflation. Union wage setting had now become a problem rather than a benefit.

The New Deal advocates of unions had seen them as the most important mechanism for handling the interests of workers. Unions would

represent the interests of workers and pursue improvements through collective bargaining, establishing an American model of industrial democracy where there would be little need for government intervention in employment matters, or so the argument went. But the exclusivity of that role also began to erode in part because such a large proportion of the workforce remained unorganized, declining from a peak of about 35 percent to present estimates as low as 16 percent of the workforce. As a result, demands for changes in conditions at work were increasingly pressed through legislation and government action in order to address the concerns of the majority of workers who were unorganized. It is important to note that unions played crucial roles supporting the passage of much of the protective legislation concerning employment issues (equal employment laws, safety and health, etc.). And part of the more recent union emphasis on legislation has come about <u>because</u> unions have been less successful at protecting the interests of their members through collective bargaining. But at least some of that legislation was also directed in part against the failure of unions in their role as worker representatives (e.g., the pension reform legislation was motivated in part by abuses of union pension funds). Legislation and government action increasingly became an alternative method for addressing worker concerns and in some respects a substitute for the union model.

The rise of foreign competition and the recession of the 1980's also helped reduce two other traditional roles for labor. As low-wage foreign competitors took increasing shares of our markets, pundits began to point to the high cost of U.S. producers as the cause (rather than

the depressed wages abroad), and the wage increases associated with unions, especially in manufacturing, took a disproportionate share of the blame. The high standard of living of union workers now appeared to be a problem rather than a benefit. Similarly, as U.S. industries declined in the face of foreign competition, especially from Japan and what appeared to be its government-supported export policies, it became more difficult to picture American firms as monoliths which required counterbalancing by strong unions and easier to see them as organizations in need of help. We should point out, of course, that individual employees still need as much protection as ever from these employers as they move to address increasing competition by cutting labor costs and stepping up labor productivity.

Events in the 1980's may revive one of the more important roles for trade unions in the economy, however, and that is to protect standards of living for workers. As inflation declined through the mid-1980's, attention began to focus on real wages and standards of living. Real wages had declined since the early 1970's and continued to decline even through the economic expansion of the 1980's. They rose less fast than productivity growth and also lagged behind increases in profits. At the same time, attention began to focus on changes in the distribution of income and what some saw as the decline of the middle class, a group often associated with union jobs (at least the better paid union jobs).[2] The fact that union wages actually grew more slowly during this period than did those in the nonunion sector (see Current Wage Developments, 1981-1987) suggests that unions were no longer able to provide a spur to standards of living and, indeed, their relative

decline may have helped restrain wages in the nonunion sector. If real wages and the standard of living are to regain their old levels and grow in the future, it may require stronger unions operating in their traditional collective bargaining role.

There are two other macro-economic concerns about the effects unions may have on efficiency. The first is the potential misallocation of labor resources in the economy caused by the distortions that union wage settlements impose on labor costs. Briefly, because union jobs receive premiums above market rates, less labor is supposedly employed in those jobs, those functions are performed by less efficient substitutes (capital or other forms of labor), and the economy is distorted. Recent estimates of the costs of this distortion put it as low as 0.02 percent of Gross National Product (DeFina 1983), a negligible figure. The second concern is with strikes. Although it takes two parties to have a strike, the fact that there are no measurable strikes in the nonunion sector (although there may be job actions such as slowdowns, sabotage, etc. that do not get reported) means that strike costs are attributed to unions as well. Research by Neumann and Reder (1984) suggests that the costs to the economy of strikes is negligible and has declined since their study because the strike rate has declined and because management's ability to maintain production during strikes with replacement workers, e.g., has increased substantially.

Within the Firm:

Most of the research concerning the effects of unions has focused within the firm, e.g., how wages and other conditions of employment differ in facilities where workers are represented by unions as compared to those that are nonunion. The great methodological difficulty with this approach is, of course, that unions do not set wages and working conditions unilaterally. They are set through collective bargaining with the employer and therefore also reflect characteristics of the employer and their interests; the fact that bargaining takes place against the status quo of the terms and conditions that management had in place before the workforce was organized is but one obvious manifestation of this relationship. Given this problem, it is impossible to ascribe differences in conditions to unions unless the characteristics of employers can be held constant.

The assumption in much of this literature is that all other differences across employment settings can be controlled for so that only the difference due to union status remains. It is very difficult to imagine how this can be the case given that the data are typically at the industry level of aggregation (almost never below the firm-level), so that all the basic differences associated with how a firm is managed remain. For example, there is every reason to believe that unions target firms for organizing based on the probability of success; the firms unions select for organizing should be systematically different from other firms, and the ones where they are successful should also be different. The very fact that a union gets into an organization may suggest that the organization is fundamentally different from nonunion

firms. One such difference is that such firms probably had poorer employee relations and more workforce dissatisfaction than other firms.

The second criticism of this assumption is that once unionized, firms are no longer managed in the same manner even in those areas that are outside of collective bargaining and direct union influence. Kochan and Verma (1984) show how one company systematically shifted investment aw y from its unionized facilities towards its nonunion plants. Connolly, Hirsch, and Hirschey (1986) find evidence that unionized firms have lower investment in research and development; Acs and Audretsch (1987) find that unionized firms in manufacturing make fewer innovations which ultimately lead to new products; Bronars and Deere (cited in Addison and Hirsch 1989) find that unionization is associated with a whole range of reduced investment including lower advertising expenditures.

The fact that firms systematically reduce investment -- both capital and, apparently, entrepreneurial skill -- in unionized facilities no doubt contributes to the overall finding that profit levels and returns on equity are lower where unions are present. Addison and Hirsch (1989) survey some 16 studies and conclude that profit levels are lower in unionized firms. The question, however, is whether that should be attributed to unions. Certainly some of the proximate decisions affecting profitability, such as investment and managerial effort, are beyond the union's control. Indeed, it could be that lower levels of investment were what caused the firms to be organized in the first place, possibly because of the adverse effects on employee relations (such as job security).

One could argue that management was forced to reduce investment once a plant was unionized because it somehow knew that unionization would make the plant less efficient. Whether the firm knew this in an objective sense -- as in experience with other unionized facilities -- or simply assumed it is much more than a semantic issue here. It is very difficult to ever test this once firms begin to reduce investment because the cycle then is self-fulfilling; once a facility is organized, management reduces investment, and the facility soon experiences lower profitability or efficiency. More importantly, all of this research begs the fundamental question about the effect unions actually have on the way organizations are managed. What is the mechanism through which unions influence the way firms are run: Is that mechanism independent of the effects associated with management's reaction to unions?

Given these difficulties, it is nevertheless useful to see what previous studies of the effects of unions on firms have found. The first econometric by Brown and Medoff (1978) used data across industries and found that unionization was associated with higher hourly labor costs but also higher productivity; the latter offset the former so that unionization was associated with approximately a 20 percent reduction in unit costs. Clark (1980) controls for much of the exogenous differences noted above by focusing his analysis on a single industry (cement) and by measuring productivity in physical units. He finds that productivity in unionized facilities was as much as 10 percent higher. Clark (1980a) takes this study a step further with an analysis of cement companies that went from nonunion to organized. This before-and-after study is by far the best methodology for controlling the exogenous differences that

might be associated with union status because these are the same firms, and it appears to be the only such study. Here, productivity rose by as much as 8 percent after the firms were unionized. Allen (1984) looks within the construction industry and finds that unionized firms are also more productive.

There are, however, other studies which find that unionization is associated with lower productivity; Bemmels (1987) in manufacturing, Lovell, Sickles and Warren (1988) for economy-wide data, for example (see Hirsch and Addison 1986 for a survey). One striking difference between the studies that draw these two different conclusions lies with the periods that they examined. Studies showing gains associated with unions tend to be based on data before the mid-1970's while studies showing lower productivity include data since then when management's resistance to unions increased. Allen (1988), for example, now finds that union construction companies are no longer more productive than are nonunion firms, and he notes that one reason for this may be because of the growing strength and sophistication of nonunion firms relative to their union counterparts in their ability to secure skilled workers.[3]

Reasons for Differences in Productivity:

As noted above, the problem with most of the studies of unions and profitability or productivity is that they lack explanatory relevance -- mechanisms through which unions could produce these effects are generally not examined. The impediments to reduced labor costs and overall performance in the union sector are reasonably obvious. Unions raise wage and benefit levels. They also impose restrictions on

management's use of labor -- so-called "restrictive work rules." Not everyone agrees on what counts as "restrictive," however. Any limit on hours worked or restrictions on conditions which, for example, affect safety is an impediment to lower costs. Certainly there are some work rules that do seem an unnecessary burden on efficiency -- make-work rules which require excessive manning levels. Such rules are quite rare now, however, and as McKersie and Hunter (1971) noted, even these rules can be eliminated through collective bargaining where the productivity gains are shared with the workers.

Mechanisms through which firm-level efficiency can be improved through the presence of a union have not been as clearly described. There have been examples where unions have been explicitly involved in efforts to improve firm productivity and where the mechanism is clear. In the garment industry, for example, the unions provided industrial engineers to rationalize production methods. The firms were too small and had insufficient resources to employ them on their own, although presumably some kind of employer association could in principle have done the same thing. Similarly, there are long histories of union/management productivity committees designed to solve problems by seeking solutions from the expertise of workers and ensuring their commitment to proposed changes (see the Cooke paper in this series). These committees could also operate in the absence of unions, although there are reasons to believe that they might not operate as well (see below).

Aside from this explicit involvement, arguments about how unions affect productivity -- for good or for bad -- have been lacking. One of

the earliest such arguments can be traced to Slichter (1942) who described the process through which union organizing and subsequent collective bargaining demands brought problem areas to the attention of management and forced them to be addressed. This is the so-called "shock effect." Kuhn (1985) presents a modern version of the argument by suggesting that unions provide a way of monitoring managers and a potential check on their poor performance (presumably supervisory managers). A related argument by Feller (1973) is that management itself has benefits from union rules by limiting the arbitrary and often damaging decisionmaking power of managers. Clark's (1980a) before-and-after unionization study finds some evidence for arguments of this kind, such as the fact that "bad" plant managers were replaced after union wins. There are, of course, alternative methods for discovering these problem areas, and the growth of nonunion, human resource systems which emphasize attitudinal surveys, for example, suggests that the potential for such shock effects from unions is reduced in better-managed firms.

Recent efforts have suggested that the higher labor costs associated with unions are a different kind of shock to which management must respond by finding greater productivity. Hirsch and Addison (1986, Chapter 7) argue, for example, that productivity gains tend to be higher in industries where the union wage premium is also higher.[4] In other words, management finds a way to get productivity growth where unions create a greater need for it. But, of course, this does not help explain how they manage to get it.

There are other arguments which suggest that higher wages (relative to the labor market) may produce desirable effects. They

should attract more qualified workers, reduce the incentives to quit, and improve employee performance on the job -- reducing supervision and monitoring costs, for example -- because workers want to avoid being fired in order to keep these high wage jobs. These are "efficiency wage" arguments, and there is now a literature suggesting some empirical support for them. For example, wage premiums are associated with better quality workers (Weiss 1980), with reduced discipline (Cappelli and Chauvin forthcoming), and with lower turnover (Pencavel 1971). These effects may partially offset some of the costs associated with union wage premiums, but there is no evidence yet that efficiency benefits exceed the costs of higher union wages which are by definition above market-clearing levels in the efficiency models.

The more compelling mechanism, and the one that has received the most research attention, is Freeman and Medoff's (1984) argument about "voice." Basically, unions provide a mechanism for addressing workplace problems that would otherwise lead workers to exit or quit.[5] Psychologists take this argument further and suggest that while workers may not quit, they may deal with perceived workplace problems by withdrawing through absenteeism or by putting less into the job (see, e.g., Adams 1963). Collective bargaining provides a mechanism for voicing collective problems while grievance procedures provide the mechanism for addressing the problems of individual workers.

There is evidence that quit rates and turnover are lower in unionized settings after controlling for the higher union wage rates (see Freeman 1980 and Blau and Kahn 1983). Ichniowski and Lewin (1987) summarize the literature on grievance procedures and conclude that these

procedures reduce turnover.[6] The literature has not examined potential effects above the level of the individual in part because of the difficulty in securing such organizational data. (See Freeman and Medoff 1984 for reviews of the "voice" literature.) The behavioral literature does suggest that there can be clear gains associated with employee participation -- gains from soliciting the ideas of workers, increasing their commitment, etc. These gains tend to be much greater for direct participation as opposed to the representative variety provided by collective bargaining (see Strauss and Levine paper in this series), but unions also have an important role to play in direct participation programs such as quality of worklife programs. Specifically, they ensure that worker input is taken seriously and that the participation programs are not simply abandoned if they generate suggestions that are temporarily inconvenient for management (see Kochan et al., paper in this series).

The process of collective bargaining may also provide some economic benefits to both unions and managements by making possible combinations of wage and employment levels that are preferred by both parties to the market combinations. The "efficient contracts" literature suggests that both sides would prefer a settlement with higher levels of employment at a given wage than would be possible in the absence of bargaining where the relationship would be determined by the employer's derived demand for labor. Union bargaining power can force a settlement off the employer's demand curve. Brown and Ashenfelter (1986) and Abowd (1987) find some limited empirical support for this notion.

Perhaps a more important potential effect relates to the role that unions play in creating internal labor markets within a firm. Elbaum's (1984) study of the steel industry illustrates how unionization transformed it from one where employment was subcontracted to one based on an internal labor market with seniority hiring and long-term employment relations. One can think of internal labor markets as a system for holding workers within the firm through internal promotion, job security systems such as seniority layoffs, etc. Because they reduce turnover, which is costly in itself, internal labor markets also make it feasible for firms to provide training without losing the benefits through turnover (see below).

There is evidence that unionized industries tend to have higher levels of layoffs (Medoff 1979) in part because unions prevent wages from falling to adjust to declining demand so that all of the adjustment falls to employment. But unions have compensated for this through supplemental unemployment benefits which protect income and seniority-based recall rights so that the attachment to the firm continues even during temporary layoffs. On balance, it appears that unions do increase the attachment of workers to firms.

Another employment rule associated with unions and internal labor markets is to base pay in part on seniority. There are arguments which suggest that seniority-based pay is an efficient method of retaining workers by delaying the best pay until the end of one's career (Lazear 1979). In many cases, it may be difficult for firms to institute internal labor markets in the absence of unions. In production jobs, for example, where there are at least initially relatively few firm-

specific skills that bind workers to firms, the fact that other firms rely on the outside market means that if one's firm provides additional general training, it will be lost because other firms will hire such workers away. But if all firms in the external labor market have union-imposed internal labor market systems, then outside firms are not hiring from the external market, and the chances of losing employees is further reduced. The incentive to invest in training is therefore greater.

Most of these points about the potentially beneficial effects of unions on firms beg a very important question: If the arrangements associated with unions are beneficial to the performance of the firm, why don't firms undertake them voluntarily -- indeed, why do they resist unions and their demands so vociferously?

There are examples where nonunion firms have pursued at least some of the institutions associated with unions. Medoff and Abraham (1981), for example, find that seniority-based pay rules appear to operate even in nonunion firms that profess to base pay on performance. A better example might be grievance procedures which appear to be the program most desired by nonunion employees (Kochan 1979). Grievance procedures are relatively inexpensive, and there is evidence that they appear to provide substantial benefits to the organization in terms of their ability to address workplace problems. Surveys of nonunion firms find that roughly half have some written grievance procedure (typically without arbitration) for at least some of their employees -- whether that is a lot or a little depends on one's perspective (Lewin 1987). When asked why they have these programs, however, most respond that their motivation is to keep unions out (Freedman 1985). One reason for

management's apparent lack of enthusiasm for grievance procedures despite their apparent benefits is because they make the manager's job more difficult: they create a check on management's decisions and provide a form of appeal which forces managers to be much more careful in their decisionmaking.

Further, it is not enough simply to have a grievance procedure on the books. It is also important to see how well it operates. In the absence of a union to protect employees, there is nothing except management's good intentions to prevent retribution by managers against those employees who file grievances. The Lewin study finds some evidence which appears to suggest that management may have engaged in systematic retribution against employees who use grievance procedures.[7]

Management may object to unions and to at least some of the institutions associated with them for reasons other than possible effects on efficiency. We know from research on employee participation plans, for example, that programs which transfer some power and authority from management to workers are often severely resisted by management even though such programs appear on balance to have positive impacts on productivity (see Strauss and Levine in this series). The explanation quite clearly appears to be that these programs make management's job more difficult: it is harder to manage in a system where power is shared than where one holds power unilaterally. While such programs may be in the interest of the firm as a whole, they may not be in the interest of individual managers and are therefore resisted by them. Certainly this appears to be one reason why grievance

procedures have not spread to the nonunion sector despite t' 'r apparent benefits.

What Management Wants:

One can get some idea of the aspects of union employment that management finds particularly burdensome by examining the concessions they demand from unions. In terms of collective bargaining structure, management has long objected to the practice of pattern bargaining which creates uniform contracts across firms regardless of ability to pay or other firm-specific considerations. Management rightly argues that greater flexibility might make possible agreements better suited to the interests of both sides. The most dramatic examples of this problem occur when struggling firms ask for labor cost concessions in order to cut costs, stay in business, and ultimately save jobs. In many cases, unions have not agreed to such concessions: jobs are lost, and the union is divided between the local, which argues hard for concessions, and the international, which opposes them. Unions hold out for fear that competitor firms will also demand them and erode all contracts in the industry. Certainly there is evidence that this has happened in industries such as airlines (see Cappelli 1987) and that firms may deliberately pursue a strategy of threatening selective plant closures in order to force concessions across all their plants (see Cappelli 1985). They also argue, with justification, that management cannot always be trusted to tell the truth about how serious its financial troubles are -- hence the demands for management to "open its books."

Management would prefer arrangements similar to those in Japan where unions are not linked across competitors but operate independently with each firm. The interests of such "enterprise" unions are obviously aligned very closely to those of the firm, reducing conflicts. Fortunately for management, the breakdown of pattern bargaining across firms has already produced collective bargaining along an enterprise pattern. With the exception of railroads, there is now no real industry-wide bargaining in the U.S. Union supporters rightly note that enterprise-type bargaining also has the disadvantage from their perspective of seriously reducing their bargaining power because it eliminates the monopoly wage -- a situation where all competitors have the same labor costs which reduces the pressure to cut those costs.

Perhaps management's most important objections are to the characteristics of union contracts. The long-term nature of these contracts certainly reduces the flexibility of firms and their ability to change and adapt to new developments. On the shop floor, contracts that narrowly define job duties -- so-called restrictive workrules associated with job control unionism -- are perhaps management's greatest concern.

Union supporters would counter that unions should not necessarily get all the blame for these contracts because they are the product of collective bargaining between unions and management. More importantly, there is nothing about unions per se that requires restrictive workrules. In fact, the narrow job rules typically originated through management efforts at introducing scientific management or "Taylorism." Unions enforce these rules simply as a device to protect job security in

the absence of other arrangements. Where management has been able to provide job security, they have also gotten freedom from such restrictions in union contracts (Cappelli and McKersie 1987). Unions do, however, resist aspects of flexibility that are associated with making jobs harder -- longer hours, faster work pace, etc. -- but some firms have even been able to secure these changes from unions in return for job security and an environment that creates commitment to the organization (see, e.g., accounts of NUMMI/UAW auto assembly relationship in Freemont, CA by Brown and Reich 1988). It is fair to say, however, that unions can slow down the pace with which changes are introduced in the workplace.

Management supporters often argue that it is possible to develop an alternative, nonunion system of employee relations which protects worker interests while increasing flexibility and the commitment of employees. Business Week (1981) described such systems as "the New Industrial Relations." They often include explicit job security, wage levels above community levels (albeit generally rural communities and below industry levels), greater responsibility for employees, broader jobs and more scope for initiative, etc. Such arrangements provide much of the protections of unions without the restrictions associated with unions.

It would seem that such arrangements should operate to the great advantage of the organization, although there is as yet little but anecdotal evidence to support that conclusion. Certainly some aspects of these systems have been shown to be suspect in other situations. For example, management routinely pushes for merit pay -- individualized pay

increases based on individual performance -- on the grounds that it should provide greater motivation and improve performance. Yet such programs routinely break down (see Foulkes 1980) because of conflicts between the interests of the individual and those of the organization.

The more interesting question is, if "the New Industrial Relations" is such an effective system, why has it not dominated arrangements in the nonunion sector? It is very difficult to know with any certainty what the average employee relations conditions are in the nonunion sector, but there clearly is a wide range of practices even in the same industries -- contrast the paternalism of Delta Airlines on the one hand with the aggressive, cost-cutting style of Continental Airlines, for example. Relatively few nonunion firms offer employees even some of the protections against arbitrary decisions associated with unions. Further, one reason employers pursue these progressive practices in their nonunion facilities is to keep unions out of those facilities (Fiorito et al. 1987). In the absence of the union threat, it is not clear whether firms would pursue "the New Industrial Relations."

Training:

The most important public policy function that unions have and one that is becoming increasingly important is to increase the level of training provided to its members. Training increases the effectiveness of employees and organizations. Employees appear to need additional training when organizations change, and many U.S. firms now go through reasonably continuous processes of transition. Further, there is

evidence that new technologies and new methods of organizing work require higher levels of skill from workers in order to be effective. In particular, firms that wish to become more flexible in their production methods need workers with more flexibility and skill (Piore and Sabel 1986). And there is also evidence of a skill shortage in the U.S.: many employers are having a hard time finding workers with the basic skills (general skills such as math and reading skills needed for entry-level jobs) needed to fill their jobs (see other papers). The lack of training and the shortage of skilled workers effects the strategies that firms can use to compete in their product markets. It is harder to produce in the flexible method described above and may force firms back to traditional mass production methods.

Part of the reason for the skill shortage lies in the nature of the market for skill. As Becker (1964) made clear, basic or general skills are equally useful to a variety of employers. Any individual employer will therefore be reluctant to pay to provide workers with these skills because other employers can come along and hire these employees away, getting all of the benefit of those skills without paying for them. The first employer then loses his entire investment in training.

Unions have played the central role as providers of training in many occupations where the skills are so completely general that no employer will provide the training. The most obvious examples are skilled trades such as electricians and carpenters. Unions provide these skills through apprenticeship programs, typically operated jointly with management, and in many cases certify the skills. It makes sense

for the unions to be involved in providing these skills because the union will have a long-term relationship with the worker (through membership) during which time the costs of the training can be recovered through dues.[8] In order to operate in this fashion, however, unions must be able to prevent the skilled worker once trained from leaving the union (i.e., working for an unorganized employer).

The skilled trades examples above point out another contribution that unions can make to economic efficiency. Employment in occupations like skilled trades is often reasonably casual in part because the skills are so general. Unions organize these labor markets through hiring halls. Firms might be able to provide this coordinating function (e.g., the temporary help industry), but unlike such firms, unions are in a position to make investments in workers by providing training, etc. Again, the reason is because unions have a long-term relationship with the workers and a way to capture at least some of the gains from these human capital investments. There are unions outside of skilled trades which also perform some of these functions (e.g., for teachers). Indeed, some people suggest that casual employment relationships are on the rise (e.g., Pfeffer and Baron 1988), and the attempts by some occupations to create professional groups (human resource professionals) that would certify skills and provide training -- much as the American Medical Association or the Society of Automotive Engineers -- represents exactly the same phenomenon.

Unions also influence the provision of training within firms. As noted above, unions encourage the development of internal labor markets which provide a way for firms to keep workers and capture some of the

benefits from more general skills.[9] Even beyond that, unions force firms through collective bargaining to increase the basic skills of the workforce. The importance of this role has become especially clear recently as firms have gone through large-scale restructuring and changes in technology that have demanded new skills (generally higher levels of basic skills) from their workers. The cheapest option for the firm would be to rely on the outside labor market -- layoff the existing workforce whose skills are inadequate and hire new workers with higher skill levels from the outside.

From a societal viewpoint, however, this process is not desirable first because it takes the low-skill workers and makes them unemployed; it is very difficult for such workers to find new jobs or to receive the basic skills necessary to find new jobs. Second, it merely bids up the price of skilled labor, making it very expensive if all firms follow similar approaches. The overall result would be to exacerbate considerably the division between the skilled workers, who would be very highly paid, and the less-skilled, who in the worst case would be unemployable. Further, the level of basic skills among the workforce would not improve.

What unions have done through collective bargaining is help press employers to retrain their existing workforces, creating the higher level of basic, general skills necessary for these new jobs. In the process, society is saved the costs of dealing with a group of largely unemployable job losers, and the costs to the firm of providing the training are at least reduced by avoiding a bidding war for skilled

workers.[10] There are a series of examples now where unions have pressed firms to provide such retraining (see Ferman et al. forthcoming).

Unions play a similar role in securing retraining for workers who are going to be displaced. Once a firm has made the decision to close a plant and layoff workers, it has little financial incentive to do anything for those workers. Its relationship with them has ended, and there is no way to recoup any benefits from an investment in human capital. Unions at companies like Ford and GM have worked with management to provide extensive retraining and adjustment services to help displaced workers make the transition to new jobs. The GM/UAW program, for example, spends $100 million per year on training for jobs outside GM, a sum larger than the annual budget of many universities.

Training for the displaced could also be provided by the public sector or by community groups funded by the government, even if it is provided at the employer's location. The union nevertheless has a unique role because its relationship with the worker extends through the transition. In many cases, the workers retain membership after being displaced, and the union maintains a relationship with them through retraining and even after. So the continuity of the relationship is important.

It is certainly possible to argue that the kind of training costs outlined above are really society's problem and should not be pushed onto employers. The difficulty with that argument, however, is that no one else is willing at present to provide this kind of training, and in the absence of unions, there is every reason to believe less will be provided. Employers in the countries that compete most successfully

with the U.S. -- especially Japan and Germany -- play a larger role in training than do our own which suggests that greater employer-supported training is not necessarily a burden to competitiveness.

Conclusions:

We still know relatively little about how unions affect employers in large part because of a lack of data and research at the level of the firm. What evidence we do have suggests that the effects are complex and go well beyond the effects associated with higher wages upon which so much research has focused. In particular, we need a better understanding of the role that unions play in providing training and greater attachment to the employer. The arguments above lead to the following policy recommendations:

>We need more research at the firm level that will investigate the mechanisms through which union coverage affects the management of workers and the behavior of the organization as a whole. The research should consider a broad range of potential effects that unions can have.

>To the extent that public policy decisions make it more difficult for unions to organize employees, they reduce the competition that nonunion employers feel and reduce the incentives for these firms to maintain good human resource practices. Policymakers should consider these costs in their decisionmaking.

>For unions that provide extensive training such as the skilled trades, public policy decisions that make it more difficult for them to retain their members (i.e., make it easier for workers to go to the nonunion sector) may eventually make it impossible for those unions to provide training because they will be unable to recoup the costs through dues. Again, this is an important costs that should be included in policy decisions.

>Unions should be made an active partner in government training programs, especially for displaced workers.

>Where unions represent occupations where skills are general and where employers therefore have no incentive to provide training, unions should be encouraged to help take up the training function. More government training grants should be made available for that purpose.

Ultimately, however, the importance of unions in society lies more in their noneconomic role, as a protector of worker rights and interests and as a means for employees to influence decisions at the workplace. The argument for unions may be persuasive even if we find that they impose costs on efficiency and workforce quality.

NOTES

1. It is also the case that by pushing up labor costs, unions reduce employment in the union sector. By adding job seekers to the nonunion sector, unions should have some negative effect on wages there. This effect appears to be negligible, however.

2. Levy (1987) suggests that family income did not decline in this period because so many more families added a second worker. He also argues that growth in the inequality of family income was less severe because of adjustments in family working habits (e.g., wives of wealthy families tended to drop out of the labor force and stay home).

3. This change over time is consistent with a model where employers worked to get rid of those unions that had become a disproportionate burden to productivity.

4. Addison and Hirsch (1989) argue that the presence of such a shock effect may be due to a selection bias. Only the most successful union firms adjust to this shock of higher labor costs. The others fail, dropping out of the sample, and making average union productivity higher. But such a selection effect also operates for the nonunion sector in that the least productive nonunion firms also go under.

5. While management could learn about problems from quits, especially if they used exit interviews, union voice provides a potentially more useful mechanism because it presents the views of more average workers (rather than weighting heavily those of problem workers as quits do) and provides that information in many cases before problems become acute.

6. They also conclude that more grievances are associated with lower productivity, but that conclusion does not suggest that grievance procedures per se reduce productivity. Rather, higher grievance rates seem to signal underlying problems in the workplace which reduce productivity. Ichniowsky (1986) finds, for example, that productivity is lower in the nonunion plant without grievance procedures when compared to union plants with them in the same firm.

7. Those who have used the procedure have lower performance evaluations and promotion rates than those who did not. Some managers have suggested that this result may be due to the fact that the introduction of grievance procedures caused them to change their evaluation and promotion procedures, but the assumption is still that those using grievance procedures are poorer employees.

8. It is possible to think of alternative methods of providing such skills. In theory, workers could borrow to pay for such training from schools, but imperfections in capital markets make it difficult to borrow sufficient amounts to pay for the complete training costs. Further, construction firms which are the main employers of the building trades often cannot provide the continuity of employment necessary for such training (see below). In practice, the programs are funded by employer's "cents per hour" contribution to the funds. Such contributions are in part the result of union bargaining power which could be used for other purposes (such as higher wages) and therefore is appropriately thought of as an investment by the unions.

9. By fostering internal labor markets among other employers, they also reduce the opportunities for workers to move elsewhere and take their training with them.

10. Because these skills are general, firms might not voluntarily retrain their own workers even when the premium for skill on the outside market exceeded the net cost of retraining unless there was some way for the firm to capture some of the benefits from its investment in general skills. Again, unions provide the internal labor markets which it possible to retain employees and that investment. In such situations, unions and their internal labor markets make possible a less-costly acquisition of skill. Similarly, some firms might not provide training unless pushed by a union even where it would be cost-effective because of institutional resistance to taking on a new function like retraining.

REFERENCES

Abowd, John M., "Collective Bargaining and the Division of the Value of the Enterprise," (Cambridge, MA: NBER Paper No. 2137, 1987).

Acs, Zoltan J. and David B. Audretsch, "Innovation in Large and Small Firms," Economic Letters, Vol. 23, 1987, pp. 109-112.

Adams, J. Stacy., "Toward An Understanding of Inequity," Journal of Abnormal and Social Psychology, Vol. 67, 1963, pp. 422-436.

Addison, John T. and Barry T. Hirsch, "Union Effects on Productivity, Profits, and Growth: Has the Long Run Arrived?" Journal of Labor Economics, Vol. 7 No. 1, 1989, pp. 72-105.

Allen, Steven G., "Trade Unions, Absenteeism, and Exit-Voice," Industrial and Labor Relations Review, Vol. 37, April 1984, pp. 331-345.

_____, "Unionized Construction Workers Are More Productive," Quarterly Journal of Economics, Vol. 99. May 1984, pp. 51-74.

_____, "Productivity Levels and Productivity Change Under Unionism," Industrial Relations, Vol. 27, Winter 1988, pp. 94-113.

Becker, Gary S., Human Capital: A Theoretical and Empirical Analysis (NY: Columbia University Press, 1975).

Bemmels, Brian, "How Unions Affect Productivity in Manufacturing Plants," Industrial and Labor Relations Review, Vol. 40, January 1987, pp. 241-253.

Blau, Francine D. and Lawrence M. Kahn, "Unionism, Seniority, and Turnover," Industrial Relations, Vol. 22, Fall 1983, pp. 362-373.

Brown, Charles and James Medoff, "Trade Unions in the Production Process," Journal of Political Economy, Vol. 86, June 1978, pp. 355-378.

Brown, Claire and Michael Reich, "When Does Union-Management Cooperation Work? A Look at NUMMI and GM-Van Nyes." U.C. Berkeley, Institute of Industrial Relations Working Paper, 1988.

Brown, James N. and Orley Ashenfelter, "Testing the Efficiency of Employment Contracts," Journal of Political Economy, Vol. 94, June 1986, pp. s40-s87.

Business Week, "The New Industrial Relations," 1981.

Cappelli, Peter, "Plant-Level Concession Bargaining," Industrial and Labor Relations Review, Vol. 38, October 1985, pp. 90-104.

_____, "Airlines," in David Lipsky and Clifford B. Donn, Collective Bargaining in U.S. Industry (Lexington, MA: Lexington Books, 1987).

_____ and Robert B. McKersie, "Management Strategies and the Redesign of Workrules," Journal of Management Studies, Vol. 24, September 1987, pp. 441-462.

Clark, Kim B., "The Impact of Unionization on Productivity: A Case Stu ·," Industrial and Labor Relations Review, Vol. 33, July 1980, pp. 451-469.

_____, "Unionization and Productivity: Micro-Econometric Evidence," Quarterly Journal of Economics, Vol. 95, December 1980, pp. 613-639.

Connolly, Robert A., Bart T. Hirsch, and Mark Hirschey, "Union Rent Seeking, Intangible Capital, and Market Value of the Firm," Review of Economics and Statistics, Vol. 68, November 1986, pp. 567-577.

DeFina, Robert H., "Unions, Relative Wages, and Efficiency," Journal of Labor Economics, Vol. 1 October 1983, pp. 408-429.

Elbaum, Bernard, "The Making and Shaping of Job and Pay Structures in the Iron and Steel Industries," In Paul Osterman (ed.), Internal Labor Markets. (Cambridge, MA: MIT Press, 1984.)

Feller, David E. "A General Theory of the Collective Bargaining Agreement," California Law Review, Vol. 63 No.3, 1973, pp. 663-851.

Ferman, Lewis, Michelle Hoyman, Ernest Savoie, and Joel Cutcher-Gershelfeld, Union-Management Programs for the Training and Personal Development of Workers. (Ithaca, NY: ILR Press, forthcoming.)

Fiorito, Jack, Christopher Lowman, and Ernest O. Nelson, "The Impact of Human Resource Policies on Union Organizing," Industrial Relations, Vol. 26, Spring 1987, pp. 113-126.

Foulkes, Fred K., Personnel Policies in Large, Nonunion Companies. (Englewood Cliffs, NJ: Prentice-Hall, 1980.)

Freedman, Audrey, The New Look in Employee Relations. (New York: The Conference Board, 1985.)

Freeman, Richard B., "The Exit-Voice Tradeoff In the Labor Market: Unionism, Job Tenure, Quits, and Separations," Quarterly Journal of Economics, Vol. 94, June 1980, pp. 643-674.

_____ and James Medoff, "The Impact of Collective Bargaining: Illusion or Reality?" in U.S. Industrial Relations 1950-1980: A Critical Assessment. (Madison, WI: IRRA, 1981).

_____, What Do Unions Do? (Boston: Basic Books, 1984.)

Galbraith, John K., The New Industrial State. (Boston: Houghton Mifflin, 1978 3rd ed.)

Hirsch, Barry T. and John T. Addison, The Economic Analysis of Unions. (Boston: Allen and Unwin, 1986.)

Ichniowski, Casey and David Lewin, "Grievance Procedures and Firm Performance," in Human Resources and the Performance of the Firm. (Madison, WI: IRRA, 1988.)

Kahn, Lawrence M. "Union Spillover Effects on Unorganized Labor Markets," Journal of Human Resources, Vol. 15, Winter 1980, pp. 87-98.

Kochan, Thomas A., "How American Workers View Labor Unions," Monthly Labor Review, Vol. 102, April 1979, pp. 23-31.

Kuhn, Peter, "Union Productivity Effects and Economic Efficiency," Journal of Labor Research, Vol. 3, Summer 1985, pp. 229-248.

Lazear, Edward P., "Why is There Mandatory Retirement?" Journal of Political Economy, Vol. 87, December 1979, pp. 1261-1284.

Levy, Frank, Dollars and Dreams: The Changing American Income Distribution. New York: Russell Sage Foundation, 1987.

Lewin, David, Journal of Conflict Resolution, 1987.

Lovell, C., Robin C. Sickels, and Roland S. Warren, Jr., "The Effect of Unionism on Labor Productivity: Some Additional Evidence," Journal of Labor Research, Vol. 9, Winter 1988, pp. 53-66.

McKersie, Robert B. and Lawrence Hunter, Productivity Bargaining. (London: MacMillan, 1971.)

Medoff, James, "Layoffs and Alternatives Under Trade Unions in U.S. Manufacturing," Quarterly Journal of Economics, Vol. 69, June 1979, pp. 380-395.

_____ and Katharine Abraham, "Experience, Performance, and Earnings," Quarterly Journal of Economics, Vol. 95, December 1980, pp. 703-736.

Neumann, George R. and Melvin W. Reder, "Output and Strike Activity in U.S. Manufacturing: How Large Are the Losses?" Industrial and Labor Relations Review, Vol. 33, January 1984, pp. 197-211.

Pencavel, John H. An Analysis of the Quit Rate in American Manufacturing. (Princeton, NJ: Industrial Relations Center, Princeton University, 1970.)

Pfeffer, Jeffrey and James Baron, The Externalization of Work in Barry M. Staw and Lawrence Cummings (eds.) Research In Organizational Behavior (1988).

Piore, Michael J. "American Labor and the Industrial Crisis," Challenge, Vol.23 March-April 1982, pp. 5-11.

_____ and Charles F. Sabel, The Second Industrial Divide. (New York: Basic Books, 1984.)

Slichter, Sumner S., Union Policies and Industrial Management. (Washington, D.C.: The Brookings Institution, 1942.)

Verma, Anil and Thomas A. Kochan, "The Growth and Structure of the Nonunion Sector Within a Firm," Challenges and Choices Facing American Labor. (Cambridge, MA: MIT Press, 1985.)

Weiss, A., "Job Queues and Lay-offs in Labor Markets With Flexible Wages," Journal of Political Economy, Vol. 88, No. 3, June 1980, pp. 526-538.