

Worker Participation and Teams: New Evidence from Analyzing Organizational Ethnographies

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Most large organizations are today experimenting with heightened employee involvement, including self-monitoring teams, joint programs with unions and limited degrees of worker ownership such as those based on employee stock ownership programs. In spite of the widespread adoption of such programs, relatively little is known about their consequences for employee behavior and attitudes.

In particular, little is known about the relative strengths and limitations of different programs. The current article evaluates a range of programs involving heightened employee involvement using data derived from content coding program characteristics, worker behaviors and worklife experiences from the existing set of book-length organizational ethnographies ($N = 122$). The results suggest that all forms of worker participation offer improved worklife experiences and reduced workplace conflict relative to the absence of these programs. Self-monitoring teams, however, perform no better than joint union-management programs or than more traditional work teams along the dimensions of worker autonomy, pride, satisfaction and cooperation. The sole unique contribution of contemporary self-monitoring teams appears to be a lowering of strike probabilities.

Keywords: employee involvement, organizational ethnography, teams, work groups, worker participation

Most large businesses in industrially developed nations are today experimenting with programs that entail at least a limited role for worker participation (Ichniowski et al., 1996). Only a small number of corporations, however, have adopted full systems of worker participation. This setting provides a fertile opportunity

for evaluating the nature and consequences of employee involvement programs. Preliminary research on these programs suggests significant gains in terms of increased effort and enthusiasm on the part of workers, but gains that may vary across programs and settings.

The current article seeks to add to this literature by evaluating a full range of programs across a diverse group of organizational settings and across a wide range of outcomes. A content coding of programs and program consequences as described in book-length organizational ethnographies provides the data for this evaluation. The in-depth descriptions provided by organizational ethnographies allow the evaluation of a wide range of outcomes of interest that have been difficult to ascertain using conventional survey techniques, including worker effort, commitment, creativity and peer training (Hammersley, 1997). Analysis of data from the full population of such studies ($N = 122$) allows a wide range of settings to be simultaneously evaluated and compared (Ragin, 2000).

Employee Participation

Why is employee involvement increasing at this particular moment in history? Researchers have identified at least three recent developments that have encouraged the rise of worker participation (Barker, 1999; Visser and Hemerijck, 1997). First, increasing global competition has necessitated the search for techniques to increase productivity and reduce costs. Worker participation and the development of self-monitoring teams are one response to these pressures. Second, increasing workforce education allows the assignment of more and more supervisory and managerial duties to front-line workers (Frenkel et al., 1999). Third, the explosion of microchip technologies and resulting rapid changes in production technologies have increased the need for flexible procedures. Worker participation, and teams in particular, have been identified as one mechanism for maximizing flexibility and avoiding bureaucratic rigidity (Drucker, 1993).

In contemporary factory and office settings, employees are increasingly being asked to take a more active role in work-related decisions. Increased worker initiative in developing strategies to meet production goals is thus being expected across a wide range

of settings ranging from factories (Starkey and McKinlay, 1994) to offices (Heckscher, 1994) to service settings (Mueller et al., 1994; Smith, 2001). Employee involvement has the potential to extend the sort of bilateral involvement with management previously reserved for skilled professional and craft workers to a wider range of employees. But increased employee involvement has also been associated with downsizing and work intensification and thus has many contradictory elements – not all of which have positive implications for worklife experiences (Godard, 2001).

The demand for increased employee involvement has attracted considerable attention both in the academic literature and in the business world (Drucker, 1993; Pfeffer, 1998). The increasing prevalence and diversity of employee participation have been highlighted by Appelbaum and Batt (1994), Kochan et al. (1997), Osterman (1999) and Wood (2000). Employee participation is not being introduced comprehensively all at once since different types of work settings in complex societies vary greatly in their requirements and organization. In many work settings, however, increasingly complex social and technical systems demand not just new skills but also greater worker initiative grounded on new values, attitudes and motivations. Frenkel et al. (1999) call such systems ‘info-normative’ in recognition of their integration of ‘technical, bureaucratic, and normative’ components.

Although success rates vary dramatically across different versions of employee involvement, the general consensus is that productivity is, on average, increased by heightened worker participation (Doucouliagos, 1995). It also appears that workers in participatory settings, again on average, experience greater autonomy and pride in their work than workers in non-participatory settings (Hodson, 2001). The spread of organizational structures entailing increased employee participation thus seems inevitable given ever increasing technological and organizational complexity (Appelbaum and Batt, 1994).

Will participative systems of production solve management’s problems of controlling and motivating workers while simultaneously bringing an end to alienation at work? Such far-reaching positive expectations seem exaggerated at this point. However, productivity is often modestly increased in participative settings (Eaton, 1994) and workers are generally positive about the experience of participation (Freeman and Rogers, 1999).

The Foundations of Employee Participation

Employee participation builds on the idea of 'responsible autonomy' (Friedman, 1977) by attempting to meld the interests of workers and their employing organizations. Participation schemes concede to workers a greater role in decision-making concerning the details of production in exchange for workers committing themselves to the goal of increased productivity (Dohse et al., 1985). In the participative workplace, instead of detailed plans for increasing productivity being drawn up by management, planning is increasingly delegated to the work group. Workers and work groups are thus expected to develop detailed plans and procedures to increase productivity. Central to these plans and procedures are new behavioral norms for workers that prescribe their attitudes and behaviors at work (Endo, 1994). Thus, instead of management prescribing standards for performance, workers are being asked to develop these standards. The goals to be achieved, however, are still typically set by management and focus on increased productivity and improved product quality.

The heightened role of employees in determining production standards is often characterized as representing a new way to organize work. Instead of work being organized by bureaucratic rules or supervisory fiat, work is increasingly organized on a normative basis by work groups (Kunda, 1992). These work group norms emerge in the process of workers developing detailed procedures to meet goals set by management. In this new organization of work, management still sets the goals as specified in classic management theory (Barnard, 1950), but workers are asked to devise the detailed plans for achieving these goals.

Although teams and employee participation are sometimes introduced as an alternative to unions, the greatest successes of employee participation programs have actually occurred in unionized settings (Appelbaum and Batt, 1994). Union settings typically employ more skilled workers who have greater commitment to their jobs (Rogers and Streeck, 1995). The power base provided by unions also allows at least some protection against manipulative uses of employee participation, protections that may be necessary for the benefits of heightened employee participation to be fully realized (Keller, 1995).

The Downside of Employee Involvement

A complicating factor in understanding the role of employee participation in the contemporary economy is that many participation programs have been introduced simultaneously with an intensified utilization of market forces in the organization of work (Wolf, 1995; Vallas, 1999). The underlying rationale for employee involvement programs put forward by management is thus often the 'stick' of job loss rather than the 'carrot' of greater meaning and dignity in work. Workers are thus often asked to participate in the context of heightened job insecurity and reduced corporate commitment to workers.

Many participation schemes are thus perceived accurately by employees as part of a drive to raise productivity while offering employees only harder work and greater insecurity. Simultaneously, workers are asked to increase their commitment to the job, to give greater intellectual and physical effort at work, and to increase their level of compliance with management demands. Many forms of employee involvement thus do not constitute 'real industrial democracy wherein workers and managers share profits, ownership, and high-level governance of firms' (Lincoln and Kalleberg, 1990; see also Gorz, 1999; Rothschild and Ollilainen, 1999). Suspicions about employee participation programs have been particularly high where such programs have come into being simultaneously with employment cutbacks, reduced staffing, increased overtime and thinly concealed threats about job security (Parker and Slaughter, 1994). Increasing numbers of people are working under the implicit or explicit threat of losing their jobs to lower-paid labor overseas, to lower-wage regions inside industrially advanced nations, or to technological displacement (Bluestone and Harrison, 2000).

Workers are also wary of the possible use of employee involvement to increase competition among co-workers, particularly in the absence of an organized base of worker power, such as that provided by independent trade unions (Dohse et al., 1985: 138). The self-disciplining nature of work groups can be manipulated by management to encourage employees to monitor each other and, potentially, to report the results to management (Delbridge, 1998). Under team organizations of production, increased employee involvement can ironically mean greater autonomy from direct managerial supervision but, simultaneously, greater peer pressure. Management is less visibly present at the point of production, but the work group

can be extremely effective at exacting high levels of effort from its members. If workers resist their team's demands, they risk being made to feel unworthy as team members. Criticism and ostracism by one's peers are powerful forms of social control. Team-based organizations of work can thus provide the basis for an even tighter control of worklife than management systems based on bureaucratic rules or supervisory fiat (Barker, 1999).

Peer surveillance of co-worker behavior in team settings is not just a hypothetical possibility. Peer surveillance is an explicit component of total quality management (TQM) systems, which have achieved widespread popularity across a range of workplaces (Hill, 1991). In workplaces employing TQM, employees are routinely expected to fill out reports evaluating the performance of other team members (Grenier, 1988: 47). Such team-based surveillance can even include time studies of other team members to make sure that their performance meets established standards (Graham, 1995: 105). In this way, responsibilities previously held by management are shifted to the work group. Unfortunately, the tasks may not be redefined in the process to become more humane or more supportive of working with dignity. As a result, work intensification, increased injury rates and unkind acts toward team members have all been reported in team settings (Graham, 1995: 143).

The empirical evidence about the effects of employee participation is still emergent but the findings of Batt and Appelbaum (1995) based on a comparison of self-managing work groups and traditionally managed groups are illustrative. They find a number of positive aspects of work in self-managing teams, including greater job satisfaction, organizational commitment, autonomy, identity and meaning in work. In addition, workers in self-managing teams receive more days of training and have better co-worker relations and relations between workers and supervisors. On the negative side, workers in self-managing teams reported lower pay and no better job security. In addition, union affiliation is lower among workers in self-managing teams as is the representation of women. Many, *but not all*, of these findings are consistent with the principles of employee involvement, which focus on work humanization, increased employee skills, responsibilities, creativity and commitment, and greater efficiency and job security (Delbridge et al., 2000; Rothschild and Ollilainen, 1999). Important questions about the consequences of employee participation thus remain unresolved.

Five Varieties of Participation

As a first step toward addressing unanswered questions about employee participation we need to define what is meant by employee involvement. One of the core goals of the current article is to evaluate the effects of participation across the full range of types of participation. The model we develop must therefore be inclusive of a wide variety of forms of employee participation. A model including worker ownership, union–management partnerships, traditional teams, management-mandated teams and no participation is described in Table 1 along with a list of selected organizational ethnographies exemplifying each form of participation. We now turn to a description of each of these varieties of participation.

TABLE 1
Example Organizational Ethnographies Reporting Various Forms of Worker Participation

Type of Participation	Example Organizational Ethnographies
Worker ownership	Simonds, Wendy. <i>Abortion at Work: Ideology and Practice in a Feminist Clinic</i> , 1996. Greenberg, Edward S. <i>Workplace Democracy</i> , 1986.
Union partnership	Harris, Rosemary. <i>Power and Powerlessness in Industry</i> , 1987. Schrank, Robert. <i>Industrial Democracy at Sea: Authority and Democracy on a Norwegian Freighter</i> , 1983.
Traditional teams	Finlay, William. <i>Work on the Waterfront: Worker Power and Technological Change in a West Coast Port</i> , 1988. McCarl, Robert. <i>The District of Columbia's Fire Fighters' Project: A Case Study in Occupational Folklife</i> , 1985.
Management-mandated	Barker, James R. <i>The Discipline of Teamwork: Participation and Concertive Control</i> , 1999. Smith, Vicki. <i>Managing in the Corporate Interest: Control and Resistance in an American Bank</i> , 1990.
No participation	Williams, Bruce B. <i>Black Workers in an Industrial Suburb</i> , 1987. Juravich, Tom. <i>Chaos on the Shop Floor: A Worker's View of Quality, Productivity, and Management</i> , 1985.

Worker ownership. Worker ownership can be complete or partial. In situations where employees fully or partially own the enterprise, they have significant rights over its activities and sometimes over the disposition of its assets. Such ownership rights can be expressed directly through participatory democracy or indirectly through elected delegates (Gianaris, 1996; Rothschild and Whitt, 1986). Employee ownership thus provides important opportunities for improved worklife experiences.

Complete employee ownership occurs when the employees directly own the company through holding all the shares in the company either collectively or individually. Partial ownership occurs through employee stock ownership plans (ESOPs), in which workers own shares in the company, either as part of a retirement plan or as part of a buyout. Other groups or individuals may also own shares, however, including shares that constitute the controlling interest in the company. Tax laws, which provide a variety of tax credits and deductions to companies with ESOPs, have encouraged their spread (Logue and Yates, 2001). Through ESOPs, workers have a voice as partial owners in their company, but they may be one among many voices. The consequences of ESOPs for productivity and improved worklives have thus generally been more limited than those of full employee ownership. Even where the employees are the sole owners, however, their prerogatives may still be constrained by legal barriers to the exercise of their options imposed by banks or other lenders (Russell, 1993).

Employee ownership generally results in improved productivity and improved employee satisfaction (Pendleton et al., 1998). A core reason for these improvements is that worker-owned enterprises are simply more concerned with the well-being of their employees than organizations owned by outside shareholders (Tucker, 1999). They are able to solicit high levels of worker involvement and participation because of the genuine overlap between the goals of the enterprise and those of the employees (Bradley et al., 1990). Improved communication, teamwork and participation under employee ownership are important underpinnings for the relative success of worker-owned enterprises.

Worker-owned enterprises, however, still often face precarious circumstances because of factors outside their control. Worker ownership often occurs as a result of an employee buyout of a plant engineered as a last-ditch attempt to save the plant and the jobs it represents. In such situations, market forces may already be

working against the enterprise. The market niche it serves may be shrinking or its production technology and equipment may be outdated. Employee buyouts, in particular, often face a precarious future because of the circumstances of their birth (Keef, 1998).

Joint union–management programs. Joint union–management programs are based on explicit collectively negotiated agreements between union and management to jointly sponsor programs based on employee involvement. In Europe and the UK such programs are relatively commonplace across a wide range of industries (Hyman and Ferner, 1994; Thelen, 1992). In the USA such programs are concentrated in the automobile and telecommunications industries (Cooke, 1990). Other well-established programs exist in steel, construction and the public sector. The key focus of many of these programs is on improved worker training to meet the challenges of automation and global competition (Milkman, 1997; Regini, 1997).

In joint union–management programs, the issues to be discussed are not necessarily restricted to management-defined agendas. Workers in the automobile industry have successfully bargained for various forms of accelerated training under joint union–management programs and voice a great deal of satisfaction with these programs (Ferman et al., 1990). In these programs, workers receive additional training as part of an exchange for their greater involvement in the workplace and their increased contributions to productivity. The programs often involve supplemental training both on and off company time.

Increased communication and direct consultation with workers are also hallmarks of joint union–management programs. A joint program at an American car manufacturer includes the following principles:

- To establish effective lines of communication among all employees;
- To encourage participation of all employees who desire to become involved;
- To strive for expeditious resolution of mutual problems;
- To treat all employees with dignity and respect; and
- To recognize the contributions of each individual (Milkman, 1997: 161).

Note that these principles include a focus on employees and their rights and contributions rather than focusing solely on production-related issues.

Workers in joint union–management programs are also increasingly allowed to go on purchasing and sales trips previously reserved for management and sales personnel. Workers provide valuable hands-on information in negotiations to secure the best components and new technologies. They also work directly with customers to learn how to improve quality and meet customer needs. The new knowledge and flexibility that such programs generate provide workers with opportunities to develop better relationships with their co-workers and with workers up and down the production chain. The opportunities provided by joint programs thus encourage employees to construct their organizational roles more actively. This active role construction generates new roles and new ideas that are often missing when work roles are unilaterally prescribed by management. In general, workers have been very enthusiastic about joint union–management programs and about participating in decision-making processes historically reserved for management (Müller-Jentsch, 1998; Pfeffer, 1998).

The bilateral nature of joint initiatives provides a legitimacy to these programs that is sometimes missing when programs are initiated unilaterally by management. This legitimacy has been identified as a significant foundation for the success of joint union–management programs in stimulating productivity and improving working conditions. The initiatives emerging from joint union–management programs are also often more complementary with the public purpose than unilateral management initiatives because they include a focus on the preservation of employment and on the quality of employment as well as on increased productivity (Ferman et al., 1990: 187).

Traditional teams. Employee participation in determining work practices also occurs through individual and collective control of craft standards. Within craft organization of work, criteria directing production decisions are embodied in a body of craft knowledge held by workers. This knowledge is communicated through formal apprenticeship training and through lengthy on-the-job training (Haydu, 1988; Whalley and Barley, 1997). Miners, seafarers, electricians, pipe fitters, construction workers and other skilled trades

have long relied on teams to coordinate work in situations involving complex tasks (Isacson and Magnusson, 1987).

The craft organization of production continues in many industries today, including construction and factory maintenance, because it remains the most rational way to organize decision-making about the details of production in these industries. As Stinchcombe (1959: 169) notes in his classic essay on 'bureaucratic and craft administration of production' craft organization of production continues because of the 'economic and technical constraints [of production]'. Craft organizations of production provide a finely adjusted communication network for the 'control of pace, manual skill, and effective operative decisions' (Stinchcombe, 1959: 169).

Craft organizations of work provide one of the oldest forms of worker involvement through both individual and collective input into production decisions. Craft organizations of production thus provide an important benchmark against which to evaluate more contemporary varieties of employee involvement (Green et al., 2001).

Management-mandated teams. Management-initiated team systems of production based on a significant degree of self-management by work groups have become increasingly common in contemporary organizations. These teams and their mandates are developed under the guidance of organizational managers, sometimes with the assistance of paid consultants. As with all forms of employee participation, the nature and meaning of work under management-mandated self-supervising teams can vary widely across settings (Ortiz, 1998; Spring et al., 2000).

Mandated teams typically focus on the organization of work tasks and thus have great potential to alter the meaning and experience of work. Such programs have been observed to be particularly important for shaping employee performance, commitment and citizenship.

Involvement aimed at work organization issues is the important factor that drives employee outcomes, especially where that involvement can affect the design of job characteristics associated with individual tasks. Arrangements . . . that make the reform of job characteristics easier are therefore more likely to have an impact on performance than are arrangements at a higher level in the organization, like joint labor-management committees and other representative systems. (Cappelli and Rogovsky, 1998: 648)

Japanese companies and their affiliates around the world have been leaders in the increased utilization of team-based production systems (Lazonick, 1990; Sey, 2000). Under Japanese team production systems, employees are expected to be ever vigilant for opportunities to work more effectively by identifying and eliminating underutilization of time and resources. An important underpinning of Japanese quality control circles and other initiatives to improve productivity and increase quality has been the tying of the worker to the company through lifetime employment and through finely graded systems of seniority-based pay (Dore, 1973). The tying of the employee and the firm together in a life-long partnership encourages workers to use their skills to improve productivity and thus ensure the firm's future. This shared interest also makes the costs of leaving the firm very high for the employee in terms of lost seniority and earnings (Besser, 1996).

Lillrank and Kano (1989) note that Japanese workers are not necessarily enthusiastic about involvement in team-based production. Rather, they see participation in quality control circles and related team activities as a requirement for the economic success of their enterprise. Japanese workers thus participate in problem-solving activities with honesty and candor, but not generally with great enthusiasm or a sense of personal gratification.

In many workplaces Japanese-style teams have been associated with work intensification (Endo, 1994), increased pressures for production (Parker and Slaughter, 1994: 24; Rinehart et al., 1997: 27, 78), employee monitoring of peers (Roberson, 1998: 78) and anti-union campaigns (Grenier, 1988: 47, 132). In a discussion of participation programs in Japanese industry, Dohse et al. (1985: 128) argue that: 'Toyotism is, therefore, not an alternative to Taylorism but rather a solution to its classic problem of the resistance of the workers to placing their knowledge of production in the service of rationalization.' It is also mistaken to assume that managers and supervisors disappear in team production settings. Under Japanese team-based systems, front-line supervisors continue to play an active role in controlling and evaluating workers. In many ways, workers are more tightly controlled in team settings than in traditional supervisory settings. The power of the supervisor is not removed; rather, it is extended through allocating additional supervisory functions to the team as a whole (Rinehart et al., 1997: 86).

No participation. The final type of workplace we must consider in evaluating the effectiveness of various types of employee involvement is the absence of any form of participation. The rapid spread of various forms of participation in large and visible organizations should not obscure the fact that many workers continue to labor under very traditional forms of management and supervisory control. These settings provide an important backdrop for evaluating the overall impact of participative arrangements.

We now turn to a discussion of the sorts of data that are required to evaluate a range of worklife consequences across diverse varieties of worker participation.

Data and Measurement

Comprehensive workplace surveys that provide detailed information both about employee participation and about the wide range of predicted outcomes of these practices are not available. One of the reasons for this absence is that many of the predicted consequences of employee participation, such as conflict, infighting and meaning at work, are difficult to ascertain in survey formats. Surveys are also limited by typically interviewing at only one organizational level. That is, surveys typically interview either managers or workers but not both and are thus limited to information either about the organization or about workers' behaviors and attitudes. The multi-level surveys that do exist are often limited in their ability to explore important topics such as conflict and meaning at work because of the limited range of topics considered (see Kalleberg et al., 1996).

Because of this limitation in available survey data, the current analysis relies on data taken from the systematic coding of information from the population of book-length organizational ethnographies. Organizational ethnographies cover a wider range of topics than most surveys and include in-depth investigations of organizational practices, management behavior and worker behaviors and experiences. The systematic analysis of data from a comprehensive set of organizational ethnographies can thus take advantage of the depth and range of observation offered by ethnographies, while avoiding the limits posed by analysis of a single case or a limited set of case studies (Ragin, 2000).

There are over 120 book-length organizational ethnographies published in the English language. Each represents an average of over a year in the field, with at least as much additional time spent in analysis and writing. The accumulated record of organizational ethnographies is thus based on over 240 years of PhD-level observation and interpretation. This resource, however, has remained largely unanalyzed by social scientists studying organizations (see Hammersley, 1997; Schwartzman, 1993).

The analysis of employee participation programs and their consequences presented in this article is thus based on the systematic compilation and analysis of data gathered from these ethnographies ($N = 122$). Organizational ethnographies are based on sustained observation of workplaces and workplace relations – a depth of observation considered by ethnographers to be essential for getting sufficiently behind the scenes to perceive workplace relations accurately. In-depth observation is particularly important for observing the nature and consequences of employee involvement. The coding of information from these ethnographies allows the development of multifaceted measures of managerial and worker behavior, as well as measures of the contexts in which these behaviors occur.

Selecting the Cases

Thousands of published case studies were examined in a two-phase procedure to locate appropriate ethnographies. First, likely titles were generated by computer-assisted searches of archives, perusal of the bibliographies of ethnographies already located, extensive use of interlibrary loan, and searching the library shelves in the immediate area of previously identified ethnographies. We excluded cases that used primarily archival or survey data for their analysis rather than direct ethnographic observation. Iteratively applying these search procedures resulted in an exhaustive search – eventually our pursuit of new leads produced only titles already considered. This selection process yielded a reduced pool of books as potential candidates for inclusion.

In the second phase of selection, we examined each selected book in detail. The criteria for inclusion in the final pool to be coded were: (1) the use of direct ethnographic methods of observation over a period of at least six months; (2) a focus on a single organizational setting; and (3) a focus on at least one clearly identified group of

workers – an assembly line, a typing pool, a task group, or some other identifiable work group. The requirements of direct ethnographic observation and a focus on a specific organization and work group were necessary in order to obtain the depth of observation and understanding needed to ascertain and measure subtle aspects of work practices and worker and management behavior that are often cloaked behind easily proffered categories and explanations (van Maanen, 1998; Lee, 1999).

Of the books perused in detail, 94 met the above criteria and were retained for analysis. The observations reported in some books allowed the coding of multiple cases. For example, two cases were coded from a book by Lee (1998) reporting on two Liton Electronics factories, one in Hong Kong and one in Shenzhen. Fourteen books provided multiple cases. Coding of these books thus generated 122 cases from 94 separate ethnographies.¹ These ethnographies constitute the population of published book-length English-language ethnographies that focus on an identifiable work group in a single organization and that provide relatively complete information on the organization, the nature of the work taking place there and managers' and employees' behaviors at work.²

Coding the Ethnographies

A team of four researchers – the author and three advanced graduate students – developed the coding instrument for the ethnographies. First, we developed a list of relevant concepts and preliminary response categories. Second, over a period of six months, eight selected ethnographies were read and coded by each of the four team members. After each ethnography was coded, we discussed our respective codings to decide on the retention or removal of items and to develop new response categories and coding protocols. Our goal was to create an instrument that could be completed for every ethnography with high reliability by trained interviewers.

The ethnographies were read and coded by the same team of four researchers, by members of a year-long graduate research practicum, and by paid graduate research assistants. All coders were trained on a common ethnography and met twice weekly as a group to discuss problems and questions. Coders recorded up to three page numbers identifying the passages used for coding each variable. If multiple instances of a behavior were found, the coder

was instructed to review all previous passages cited, reconcile inconsistencies between the passages, and record the best answer, along with all relevant page numbers. Coders were instructed to look for behavioral indicators or specific descriptions for each variable coded and not to rely on ethnographers' summary statements or evaluations (Weber, 1990).

After completing a book, the primary coder was debriefed by a member of the research staff to check the accuracy of the codings. At this time, the codings were reviewed in detail. In addition, a 10 percent sample of cases was recoded as a reliability check. The average intercorrelation between codings was .76 indicating a reasonably high degree of inter-coder reliability. Validity checks indicate that the ethnographies evidence no distinct patterns of findings based on theoretical orientation or other ethnographer characteristics or on coder effects (Hodson, 1998).

The systematic compilation of data from the population of organizational ethnographies allows their otherwise separate observations to be used to test hypotheses about workplace behaviors across a wide range of participation programs. Variables measuring employee involvement, worker behavior, worklife experiences, workplace conflict and other workplace outcomes were coded from the in-depth descriptions provided in the organizational ethnographies. These measures provide the empirical basis for the analysis presented in this article and are discussed in the following sections. The codings, means and standard deviations of all analysis variables are reported in the Appendix.

These data are analyzed using standard statistical techniques to examine important worklife consequences across types of employee involvement. We start with analysis of variance techniques, including planned contrasts, and proceed to multiple regression techniques, which introduce additional control variables.

Results

One important set of questions about worker participation involves the nature of the settings in which employee participation is most likely to take place. Several key organizational and labor market characteristics are evaluated across forms of employee participation in Table 2. The patterns reported in this table suggest that all forms of participation tend to take place in settings that utilize more skilled

workers and that provide substantial continuing education. No differences are observed *between* the varieties of participation in skills and training however. Workplaces without employee participation programs also tend to be characterized by female and minority workforces. Traditional team organizations in mainly craft settings represent an extreme outlier in this regard, evidencing the most narrowly male and majority workforce of any setting, with or without participation.

The four varieties of participation taken as a group do not evidence significantly lower levels of unionization than workplaces with no participation. Management-mandated teams, however, evidence lower levels of unionization than the other varieties of participation. Thus, participation in general does not appear to be a substitute for unionization, although there is some evidence that mandated teams do function as an alternative to unionization.

Positive Consequences

Potential positive consequences of employee participation are examined in Table 3. The contrast between no participation and any form of participation is highly statistically significant for every dimension of worklife examined. These contrasts reveal that workplaces with no participation evidence lower levels of pride in work, job satisfaction, meaning in work, peer training, use of insider knowledge, creativity, cooperation, effort and commitment. These patterns clearly suggest more positive work behaviors and experiences in workplaces with employee involvement than in workplaces without employee involvement.

The contrasts *among* the various forms of participation are much more modest but still form some interesting patterns. Traditional teams produce greater pride, satisfaction, meaning in work and peer training than management-mandated teams. Similarly, worker ownership produces greater cooperation than management-mandated teams. The negative contrast between management-mandated teams and the other three types of employee participation as a group, however, is significant only for peer training. This contrast indicates that peer training is actually lower in management-mandated teams than under other forms of employee participation. Peer training is lowest in the absence of any form of employee participation, but is only intermediate under management-mandated

TABLE 2
Organizational and Labor Market Characteristics across Forms of Worker Participation

Characteristic	Worker Ownership	Union Partnership	Traditional Teams	Management- Mandated	No Participation	F-value
Skill level	2.06	1.86	2.31	2.14	1.68***	3.29**
On-the-job training	3.78	3.53	3.33	3.48	2.94**	1.98
Female (%)	37.00	34.22	14.69**	35.46	45.87**	2.34*
Minority (%)	10.38	13.55	3.50*	14.95	25.55***	2.38*
Unionization (%)	44.44	100.00***	62.50	47.62*	56.15	4.01***
Number of ethnographies	18	17	16	21	50	

Notes: Significance levels denoted by: *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed t -tests). Significance tests reported in each of the first three columns contrast that column with 'management-mandated' teams. The significance tests reported for the 'management-mandated' column contrast this column with the other three forms of participation as a group (worker ownership, union partnership and traditional teams). The significance tests for 'no participation' contrast this column with the four participation columns as a whole.

TABLE 3
Potential Positive Consequences of Participative and Team Organizations of Work

Characteristic	Worker Ownership	Union Partnership	Traditional Teams	Management- Mandated	No Participation	F-value
Pride in work	2.34	2.10	2.76**	2.37	1.82***	7.03***
Job satisfaction	3.17	2.84	3.62***	2.98	2.47***	4.64***
Meaning in work	2.06	1.71	2.41**	1.87	1.65***	4.11***
Peer training	3.01	3.30	3.88***	2.84**	2.73***	4.88***
Insider knowledge	4.01	3.82	4.21	3.96	3.51***	3.43**
Creativity	2.50	2.19	3.13	2.80	2.02***	4.39***
Cooperation	2.72*	2.51	2.63	2.45	2.18***	4.46***
Effort	0.72	0.80	0.81	0.90	0.52***	3.77***
Commitment	0.65	0.52	0.78	0.65	0.42***	2.63**
Strikes	0.22	0.42**	0.06	0.05*	0.28	2.81**
Number of ethnographies	18	17	16	21	50	

Notes: Significance levels denoted by: *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed t -tests). Significance tests reported in each of the first three columns contrast that column with 'management-mandated' teams. The significance tests reported for the 'management-mandated' column contrast this column with the other three forms of participation as a group (worker ownership, union partnership and traditional teams). The significance tests for 'no participation' contrast this column with the four participation columns as a whole.

teams and is highest under worker ownership, union partnerships and traditional teams.

There is no difference in strike prevalence between participation programs as a whole and settings with no worker participation. Strikes, however, are less frequent in settings with management-mandated teams than under the other forms of employee participation. Union-management partnerships are an outlier in this regard and evidence the highest level of strikes. The reduced level of strikes under management-mandated teams may be seen as a positive outcome from the standpoint of management. But fewer strikes may also indicate less voice on the part of workers and a reduced ability to air grievances and seek redress – limitations which may not be positive for the long-term viability of the organization (Freeman and Medoff, 1984).

One of the benefits of analyzing data from organizational ethnographies is that we can return to the ethnographies for verification and further insight about the patterns observed in the statistical analysis. For example, an ethnography of concrete finishing provides an example of pride in work in a traditional team setting. Following the pouring of the floor for a sewage treatment plant, a rainstorm scars the surface but the workers won't have their work ruined:

About four o'clock, it began to rain – a hard, pounding, saturating rain. With a downward rush, a blanket of rain picked a million points in the freshly troweled concrete. . . .

The next morning the slab looked diseased. But thousands of pounds of flash patch cement were purchased and the slab was troweled as smooth as polished wax. When we walked on it, our legs were reflected on the shining surface. . . . Later, the floor was coated with a black asphalt waterproofing. Finally, it was under water as sewage passed through the equalization tank. . . . [The workers] knew it would eventually be covered but the specifications called for a smoothly troweled surface and that's what [they] insisted on. (Applebaum, 1981: 11, 16)

Conversely, low levels of pride, satisfaction and meaning in work in a setting without any form of employee participation are evidenced in an ethnography of clerical workers subcontracted through a temporary help agency:

In the case of the large, complex organisation such as the one where I now found myself, the division of labour is such that filing becomes a total occupation, and time-and-motion experts have rigidly excluded the possibility of personalising the system. . . . The degree of consensus regarding the unsatisfy-

ing nature of the work in hand is particularly interesting when one considers that these temps were highly diversified in terms of social background, domestic circumstances and previous work experience. (McNally, 1979: 163–4)

The intermediate level of pride evidenced in management-mandated teams is evidenced in the following quote from an ethnography of a Japanese automobile plant in the US. In this setting, individual pride in work is replaced by team pride (and accountability), which appears to mix negative emotions of fear with positive feelings of pride in work:

In addition to the threat of having one's job intensified by the inabilities of another team member, peer pressure emerged from another source – team pride. This was evidenced in the social pressures to keep up a good team image. When one team member appeared inept, it was embarrassing to the whole team because we were held accountable as a team. (Graham, 1995: 100)

The highest levels of peer training are evidenced in traditional team settings where both formal training and informal socialization within the group play important roles, as the following extract shows from a US study on firefighters:

I learned a lot just by listening, you know to those old war stories. . . . One of the things that I learned was to search a room with a straight stream about three feet off the floor to look for a window; to bust the window first and then open the wide fog, because if you open that wide fog you're going to get your ass burnt right there at the door; no two ways about it. (McCarl, 1985: 141)

Low levels of meaning and creativity in work are reported in an ethnography of work in a wiring harness factory with traditional, authoritarian management:

When machines broke down or when Carroll disrupted production with one of his schemes – those were the hardest days for all of us. Without the pleasure of watching our completed work pile up, the day became exactly what it was: routine, long, and boring. (Juravich, 1985: 132)

The highest levels of cooperation are reported in settings involving some element of worker ownership. An example of high levels of commitment and effort in such a setting is provided by an ethnography of a Norwegian merchant marine:

Everyone understood his job. Everyone was doing his job. This is the true test of any working community – how well they do their jobs, and how effectively

their skills come into play, how easily they work with each other in their cooperative endeavor. . . . 'We all agreed on this training system before we signed on to the ship,' Johansen said. 'We all agreed to do this extra work. If we didn't agree, we could have turned it down and then gone aboard a different ship.' (Schrank, 1983: 60)

Negative Consequences

In addition to evaluating potential positive consequences of employee participation, it is also important to consider potential negative consequences. Negative outcomes are evaluated across types of employee participation in Table 4. This table reveals the same general pattern as Table 3 – any form of participation is better than no participation and management-mandated teams perform no better, and sometimes perform worse, than other forms of participation. In particular, job security, benefits, autonomy and solidarity are lower in workplaces without any form of participation. Similarly, the pace of work is harder and supervisory abuse and conflict with management are more common in workplaces without participation. These important negative outcomes give strong testament to the power of worker participation to improve the quality of worklife.

The one dimension of worklife that appears unaffected by worker participation is infighting among co-workers. Infighting is not elevated in participative workplaces in spite of the heightened interactions among co-workers typical of such programs. In summary, in addition to evidencing many positive consequences for worklife, participation programs (as a whole) evidence no negative consequences and, in general, provide workers with significant protections against many negative aspects of worklife such as job insecurity, erosions of autonomy, excessive pace and supervisory abuse.

Workers in participative programs appear to avoid many negative worklife experiences that are all too common in workplaces without participation. Few significant contrasts, however, appear *between* different types of participation. Autonomy and solidarity are higher in traditional teams than in management-mandated teams, repeating the pattern of positive contrasts associated with traditional teams also evidenced for positive consequences. Supervisory abuse, however, is higher under union-management partnerships than under management-mandated teams, perhaps reflecting the conflictual

TABLE 4
Potential Negative Consequences of Participative and Team Organizations of Work

Characteristic	Worker Ownership	Union Partnership	Traditional Teams	Management- Mandated	No Participation	F-value
Job security	3.33	2.96	3.25	3.27	2.61***	3.63***
Benefits	3.17	2.98	2.95	2.91	2.42***	3.28**
Autonomy	3.00	2.46	4.00***	2.92	2.32***	7.23***
Pace	2.59	2.79	2.36	2.61	2.83*	1.51
Infighting	-0.27	0.42	0.29	-0.12	-0.08	1.59
Solidarity	-0.08	-0.05	0.63*	0.14	-0.21**	2.69**
Supervisory abuse	1.81	3.01***	2.35	2.17	2.84***	5.51***
Conflict with management	2.55	2.92	2.95	2.57	3.11**	2.10*
Number of ethnographies	18	17	16	21	50	

Notes: Significance levels denoted by: *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed *t*-tests). Significance tests reported in each of the first three columns contrast that column with 'management-mandated' teams. The significance tests reported for the 'management-mandated' column contrast this column with the other three forms of participation as a group (worker ownership, union partnership and traditional teams). The significance tests for 'no participation' contrast this column with the other four columns.

relations between labor and management that often underlie even programs proclaiming a labor–management partnership.

Again, it is possible to return to the ethnographies for excerpts that illustrate these general patterns. An ethnography of a small medical electronics factory with no employee participation and a highly authoritarian management structure evidences the sort of job insecurity typical of many such workplaces:

[A worker, Raoul, reports]: ‘They fire a bunch of people and hire a bunch of people. People seem to come and go. There were people here yesterday who aren’t here today, right? Maybe they fire you if you don’t work fast enough.’ . . . I begin to mull over Raoul’s comments. I tried to work more quickly and I felt more pressure. If other workers were being fired, I figured it could happen to me. (Devinatz, 1999: 44)

Lack of autonomy over work decisions and its demoralizing effects are illustrated in the following description provided by a worker in a bureaucratically organized insurance company with no worker participation:

I’m in a framework, a corporate framework, where I have to abide by their rules and regulations for everything, which gets to me because of all the bureaucratic junk that I have to go through to complete something. I know there’s a faster way to do something, but I have to follow their ways, which is frustrating sometimes. (Burriss, 1983: 157)

An ethnography of firefighters illustrates high levels of autonomy in determining work practices based on collectively developed norms and standards in a traditional team setting:

The techniques required to execute a job are based on experience and association with other workers. . . . In the course of his career, an individual has thousands of opportunities to perform in front of his peers; and there are as many varieties of performers as there are members of the culture. The canon is an informally held cultural standard that is rigid enough to perpetuate traditional rules of conduct, but elastic enough to allow for compensation and variation in the group. Not all fire fighters are good at all the techniques demanded by the work, but each individual establishes a reputation in the culture by anticipating the critical appraisal of fellow workers and developing a niche for himself. (McCarl, 1985: 28–9)

Management-mandated teams exhibit an intermediate level of autonomy for workers between the low autonomy of no participation and the high autonomy of traditional teams. A quote from a worker in a telecommunications factory with mandated teams

illustrates not only that autonomy is intermediate in such settings, but also *that it is different*. In such settings the team may have more autonomy from supervisors, but individual team members lose autonomy to close peer supervision:

Before the change to teams, nobody really gave a hoot about things like coming in late or staying out a bit late for lunch or stuff like that. You only had to worry about your boss. You only had to worry about one person. If the boss wasn't around, you got away with it. . . . Now the whole team is around me, and the whole team is observing what I'm doing. . . . I don't want to tick off any of my teammates. (Barker, 1999: 137)

Solidarity with co-workers is higher in workplaces with employee participation but this contrast results largely from the generally low level of solidarity among co-workers in workplaces without participation programs and from the uniquely high level of solidarity in workplaces with traditional team organizations of work. Group solidarity, for example, is strongly evidenced in an ethnography of an underground mine with a traditional team organization of work. The ethnographer reports the following episode in which a lead worker and his men gather at the head of a mineshaft to search for co-workers trapped by fire:

Suddenly Jimmie Isom picks up a mask from the jeep. 'Put one on me, Dan,' Jimmie says. Dan stares at his friend, with the deep-etched lines from his heart attack. Dan usually works Jimmie on the outside crew these days, afraid of working him inside. Now Jimmie is volunteering to go into the smoke. Dan doesn't know how to turn him down. (Vecsey, 1974: 190)

Supervisory abuse appears to be highest in two types of settings: those without any form of participation and those based on union-management partnership. It is likely, however, that the underlying dynamics are different in these two settings. Settings without participation may allow supervisory abuse because of unconstrained supervisory fiat and settings with union-management partnerships may generate abuse because of the underlying history of conflict. Supervisory abuse can also generate angry backlashes. Resulting conflicts with management are observed to be at their highest in settings without any form of participation. An example is provided by a report of a supervisor's verbal attack in an ethnography of a wire harness factory without any form of worker participation. The attack humiliates and enrages a young worker and provokes an angry response:

[Bobby] was originally called to make a small adjustment on the depth of the machine's applicator. It was a simple adjustment accomplished by loosening a single screw. In a normally equipped shop it would have been a five-minute job, but Bobby could not find the proper screwdriver. We searched all the tool-boxes, but the screwdrivers were either too large or had been ground at the ends. Bobby asked Carroll [the supervisor] if he could buy a screwdriver at the hardware store down the street. Carroll refused and told him to grind one of the ones we had. Bobby tried, but ended up stripping the screwhead so badly that nothing could get it out. Then Carroll came to the floor and in typical fashion chewed Bobby out in front of everybody. After Carroll left, Bobby brought the applicator over to the bench and . . . used a ten-pound copper mallet to smash a machine part that cost hundreds of dollars to replace. (Juravich, 1985: 135-6)

Multivariate Results

Relatively clear patterns of findings are evidenced in Tables 3 and 4 in support of the theory that worker participation improves work-life, work experiences and employee commitment and cooperation. Management-mandated teams, which focus on improving the efficiency of specific job tasks, however, perform no better in this regard than other forms of participation and actually perform worse than traditional teams along several dimensions. It is important, however, to determine if these findings are stable across types of jobs. A core characteristic of jobs, which is related to a wide range of worklife experiences and outcomes, is occupational status. Accordingly, we re-examine selected findings controlling for occupational status in a multiple regression format. The results are presented in Tables 5 and 6.

The results presented in Table 5 indicate that occupational status is a significant and powerful determinant of pride in work, job satisfaction, creativity and effort, although not of peer training, which appears to be evenly spread across the occupation prestige ladder. The introduction of occupational status as a control, however, explains only a small part of the observed relationship between forms of worker participation and these same outcomes. Of the eight significant effects of participation, none change signs with the introduction of occupational status. The effect of no participation on creativity decreases in statistical significance and two effects significant at the 10 percent level become insignificant when the control for occupational status is included. The general stability of these patterns with the introduction of a control for socio-

TABLE 5
Regression of Positive Workplace Outcomes on Types of Worker Participation

Determinants	Pride		Job Satisfaction		Peer Training		Creativity		Effort	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Worker ownership	-0.015	-0.006	0.063	0.072	0.057	0.058	-0.094	-0.083	-0.140	-0.135
Union partnership	-0.127	-0.057	-0.044	0.027	0.155	0.160	-0.187*	-0.101	-0.077	-0.038
Traditional teams	0.175*	0.169*	0.203*	0.197*	0.343***	0.343***	0.099	0.092	-0.067	-0.071
Mandated teams	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No participation	-0.365***	-0.302***	-0.236*	-0.172	-0.056	-0.051	-0.342***	-0.265**	-0.415***	-0.380***
Occupational status		0.287***		0.293***		0.021		0.353***		0.159*
R ²	0.194***	0.270***	0.137***	0.217***	0.143***	0.143***	0.130***	0.246***	0.114***	0.138***
Sample N	122	122	122	122	122	122	122	122	122	122

Notes: Standardized regression coefficients are reported. Mandated teams serve as the omitted reference category. Significance levels denoted by: *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed t -tests).

TABLE 6
Regression of Negative Workplace Outcomes on Types of Worker Participation

Determinants	Job Security		Autonomy		Solidarity		Supervisory Abuse	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Worker ownership	0.021	0.023	0.023	0.034	-0.082	-0.092	-0.124	-0.130
Union partnership	-0.112	-0.098	-0.129	-0.036	-0.069	-0.149	0.275***	0.231**
Traditional teams	-0.008	-0.009	0.293***	0.285***	0.178	0.184*	0.058	0.061
Mandated teams	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No participation	-0.345***	-0.333***	-0.237**	-0.153	-0.180	-0.252**	0.312***	0.273**
Occupational status		0.056		0.381***		-0.328***		-0.182***
R ² squared	0.110***	0.113**	0.198***	0.333***	0.084**	0.184***	0.159***	0.189***
Sample N	122	122	122	122	122	122	122	122

Notes: Standardized regression coefficients are reported. Mandated teams serve as the omitted reference category. Significance levels denoted by: *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed t -tests).

economic status suggests that the effects of employee involvement are largely consistent across occupational positions.

Table 6 evaluates potential negative consequences of employee participation. The findings repeat the general patterns observed for positive consequences. Occupational status is a powerful determinant of the workplace outcomes considered, but its inclusion as a control does not substantially modify the pattern of effects for employee involvement. The signs for the effects of worker participation are completely stable when occupational status is controlled. The level of statistical significance is unchanged for two of the seven effects, increases for two and decreases for three. Again, the general stability of these patterns suggests that the effects of employee participation are largely consistent across occupational positions.

Discussion

The analysis of the existing body of ethnographic evidence on the workplace produces some reasonably clear patterns of findings but also leaves some intriguing questions. The various forms of employee participation clearly result in improved worklife experiences and improved worker performance in terms of effort, commitment and cooperation. However, mandated teams are not outstanding in this regard – in no dimension do they perform better than more traditional forms of worker participation. Indeed, they produce inferior levels of pride, job satisfaction and autonomy relative to traditional teams and they produce lower levels of cooperation than participation based on at least partial worker ownership.

The workplace outcome that is perhaps most distinctive about mandated teams is that they produce a lower level of strikes than other forms of worker participation. This reality may reflect the conditions of their birth, which in many cases includes a conscious management desire to substitute limited forms of worker participation for unions and other arrangements that may bring management and employees into more open conflict.

An ethnography of a non-union pharmaceutical factory in the American Southwest that utilizes both teams and formal consultation illuminates the contradictory nature of work in such participatory settings. Employee benefits at the factory are the best in the area

and include excellent health insurance coverage and maternity benefits, which are especially appealing to the mostly female workforce. In addition, the clean-room working conditions lend 'a dignity to the monotonous manufacturing process' (Grenier, 1988: 31). However, extremely high levels of effort are expected and the participation program is used to divide the workers against each other and to undermine an ongoing unionization drive:

People are willing to put up with a great deal for this type of work. They will defend it by attacking fellow workers and by justifying outrageous abuses of power by management. . . . One male worker, a strong union activist, knew why the union had a rough time organizing at Ethicon. He knew why workers fluctuated, to the very end, between voting for or against the union. He knew why management was able to convince the workers that a vote for the union was a vote against the company and that the company, not the union, was the true friend of the workers. 'Working at Ethicon,' he said, 'is the best and the worst you can imagine.' (Grenier, 1988: 32)

Conclusions

Employee involvement is associated with significant improvements in the quality of worklife across a wide range of organizational settings. Employee involvement results in increased skills and autonomy, reduced supervisory abuse, and greater pride and satisfaction in work. These positive transformations of the workplace create new opportunities for rewarding work lives for an increasing proportion of the labor force.

The differences between various types of participation, while sometimes notable, appear to be much less significant than the simple contrast between participation and lack of participation. Based on the analysis presented here it is difficult to certify one form of participation over another in terms of its consequences for working with dignity. All appear to be potentially positive contributors to an improved workplace environment and to improved opportunities for positive worklife experiences (Klein, 1991; Pfeffer, 1998).

Management-mandated teams are notable for providing both less meaning in work and fewer strikes than other forms of employee involvement. The reasons may lie in the fact that mandated teams generally restrict workers' input to issues that are consistent with management goals. Issues of interest to workers that are inconsistent

with management agendas are commonly defined as outside the range of acceptable topics for discussion (Wolf, 1995; Manley, 2000). Given the continuing reality of only selected topics being available for consideration in this important and growing type of employee involvement program, independent avenues of worker voice will continue to be important in such workplaces (Levinson, 2000). Such avenues include those provided by trade unions, by full or partial worker ownership, and by more traditional team organizations based on independent craft standards.

Notes

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1. Lists of the ethnographies included and those considered but excluded are available from the author on request. A list of those included is also available at www.soc.sbs.ohio-state.edu/rdh/welist.htm.

2. The majority of the cases are from the USA (65) and the UK (31). The remaining cases (26) are from a wide range of countries, such as Sweden (5), Canada (3) and France (2). The limited number of cases from specific countries besides the USA and the UK make detailed analysis of settings outside the Anglo-American legal and organizational tradition difficult. Such comparisons would require either an expansion of the data set to more cases, perhaps using dissertations or other sources, or use of other data sets with better comparative data.

Appendix: Analysis Variables

Variables	Codings	Mean	SD
Descriptive characteristics			
Skill level	1 – speed and dexterity, 2 – some complexity, 3 – highly complex	1.92	0.74
On-the-job training (OJT)	1 – 5 (use of ongoing OJT in workplace)	3.29	1.26
Female (%)	Percentage female in work group	37.08	36.73
Minority (%)	Percentage minority in work group	16.94	29.00
Unionization (%)	0 – no, 1 – yes	59.84	49.23
Positive workplace consequences			
Pride in work	1 – rare, 2 – average, 3 – a great deal	2.15	0.75
Job satisfaction	1 – 5 (degree of satisfaction)	2.86	1.07
Meaning in work	1 – meaningless, 2 – somewhat meaningful, 3 – fulfilling	1.85	0.74
Peer training	1 – none, 2 – very little, 3 – average, 4 – more than average	3.02	1.02
Insider knowledge	1 – none, 2 – very little, 3 – average, 4 – more than average	3.80	0.81
Creativity	1 – none, 2 – little, 3 – average, 4 – high, 5 – very high	2.39	1.13
Cooperation	1 – absent, 2 – mixed, 3 – widespread	2.41	0.57
Strikes	0 – no, 1 – yes	0.22	0.42
Negative workplace consequences			
Job security	1 – none, 2 – minimal, 3 – average, 4 – high	2.96	0.95
Benefits	1 – none, 2 – minimal, 3 – average, 4 – high	2.76	0.94

Autonomy	1 – none, 2 – little, 3 – average, 4 – high, 5 – very high	2.76	1.25
Pace	1 – easy, 2 – average, 3 – difficult, 4 – brutal	2.69	0.73
Infighting (6-item scale)	1st and 2nd eigen values = 2.92, 1.12; alpha = 0.80	0.00	1.00
1 within group conflict	1 – non-existent, 2 – occasional, 3 – frequent	1.97	0.55
2 within group gossip	0 – no, 1 – yes	0.84	0.37
3 within group interference	0 – no, 1 – yes	0.48	0.50
4 between group conflict	1 – non-existent, 2 – occasional, 3 – frequent	2.05	0.63
5 between group gossip	0 – no, 1 – yes	0.75	0.44
6 between group interference	0 – no, 1 – yes	0.46	0.50
Solidarity (4-item scale)	1st and 2nd eigen values = 2.66, 0.58; alpha = 0.83	0.00	1.00
1 work group cohesion	1 – absent, 2 – infrequent, 3 – average, 4 – widespread, 5 – pervasive	3.47	1.10
2 leadership within group	1 – little or none, 2 – average, 3 – strong	1.97	0.86
3 mutual defense	1 – little or none, 2 – average, 3 – strong	2.19	0.83
4 group discipline	1 – never, 2 – occasionally, 3 – frequently, 4 – principally	2.45	1.10
Supervisory abuse	1 – never, 2 – rarely, 3 – sometimes, 4 – frequently, 5 – constantly	2.53	1.05
Conflict with management	average conflict with supervisors and managers	2.89	0.91
1 conflict with supervisors	1–5 (frequency of conflict)	2.94	1.03
2 conflict with managers	1–5 (frequency of conflict)	2.82	1.06
Occupational status	1–100 occupational socioeconomic status	28.91	18.66

References

- Appelbaum, E.R. and R. Batt (1994) *The New American Workplace*. Ithaca, NY: Industrial and Labor Relations Press.
- Applebaum, H. (1981) *Royal Blue: The Culture of Construction Workers*. New York: Holt.
- Barker, J.R. (1999) *The Discipline of Teamwork: Participation and Concertive Control*. Thousand Oaks, CA: Sage.
- Barnard, C.I. (1950) *The Functions of the Executive*. Cambridge, MA: Harvard University Press.
- Batt, R. and E.R. Appelbaum (1995) 'Worker Participation in Diverse Settings: Does the Form Affect the Outcome, and if So, Who Benefits?', *British Journal of Industrial Relations* 3(3): 353–78.
- Besser, T.L. (1996) *Team Toyota: Transplanting the Toyota Culture to the Camry Plant in Kentucky*. Albany: State University of New York Press.
- Bluestone, B. and B. Harrison (2000) *Growing Prosperity: The Battle for Growth with Equity in the Twenty-First Century*. Boston, MA: Houghton Mifflin.
- Bradley, K., S. Estrin and S. Taylor (1990) 'Employee Ownership and Company Performance', *Industrial Relations* 29(3): 385–402.
- Burris, Beverly H. (1983) *No Room at the Top: Underemployment and Alienation in the Corporation*. New York: Praeger.
- Cappelli, P. and N. Rogovsky (1998) 'Employee Involvement and Organizational Citizenship: Implications for Labor Law Reform and "Lean Production"', *Industrial and Labor Relations Review* 51(4): 633–53.
- Cooke, W.N. (1990) 'Factors Influencing the Effect of Joint Union–Management Programs on Employee–Supervisor Relations', *Industrial and Labor Relations Review* 43(5): 587–603.
- Delbridge, R. (1998) *Life on the Line in Contemporary Manufacturing*. Oxford: Oxford University Press.
- Delbridge, R., J. Lowe and N. Oliver (2000) 'Shopfloor Responsibilities under Lean Teamworking', *Human Relations* 53(1): 1459–79.
- Devinatz, V.G. (1999) *High Tech Betrayal: Working and Organizing on the Shop Floor*. East Lansing: Michigan University Press.
- Dohse, K., U. Jurgens and T. Malsch (1985) 'From "Fordism" to "Toyotism"? The Social Organization of the Labor Process in the Japanese Automobile Factory', *Politics and Society* 14(2): 115–45.
- Dore, R. (1973) *British Factory – Japanese Factory: The Origins of National Diversity in Industrial Relations*. Berkeley: University of California Press.
- Doucouliagos, C. (1995) 'Worker Participation and Productivity in Labor-Managed and Participatory Capitalist Firms', *Industrial and Labor Relations Review* 49(1): 58–77.
- Drucker, P. (1993) *Post-Capitalist Society*. New York: HarperCollins.
- Eaton, A.E. (1994) 'The Survival of Employee Participation Programs in Unionized Settings', *Industrial and Labor Relations Review* 47(3): 371–89.
- Endo, K. (1994) 'Satei (Personal Assessment) and Interworker Competition in Japanese Firms', *Industrial Relations* 33(1): 70–82.
- Ferman, L.A., M. Hoyman and J. Cutcher-Gershenfeld (1990) 'Joint Union–Management Training Programs', pp. 157–89 in L.A. Ferman, M. Hoyman,

- J. Cutcher-Gershenfeld and E.J. Savoie (eds) *New Developments in Worker Training*. Madison: University of Wisconsin, Industrial Relations Research Association.
- Freeman, R.B. and J.L. Medoff (1984) *What Do Unions Do?* New York: Basic Books.
- Freeman, R.B. and J. Rogers (1999) *What Workers Want*. Ithaca, NY: Industrial and Labor Relations Press.
- Frenkel, S.J., M. Korczynski, K.A. Shire and M. Tam (1999) *On the Front Line: Organization of Work in the Information Economy*. Ithaca, NY: Industrial and Labor Relations Press.
- Friedman, Andrew L. (1977) *Industry and Labor: Class Struggle at Work and Monopoly Capitalism*. London: Macmillan.
- Gianaris, N.V. (1996) *Modern Capitalism: Privatization, Employee Ownership, and Industrial Democracy*. Westport, CT: Praeger.
- Godard, J. (2001) 'High Performance and the Transformation of Work? The Implications of Alternative Work Practices for Experience and Outcomes of Work', *Industrial and Labor Relations Review* 54(4): 776–805.
- Gorz, A. (1999) *Reclaiming Work: Beyond the Wage-Based Society*, trans. Chris Turner. Cambridge: Cambridge University Press.
- Graham, Laurie (1995) *On the Line at Subaru-Isuzu*. Ithaca, NY: Industrial and Labor Relations Press.
- Green, A.M., P. Ackers and J. Black (2001) 'Lost Narratives? From Paternalism to Team-Working in a Lock Manufacturing Firm', *Economic and Industrial Democracy* 22(2): 211–37.
- Grenier, G.J. (1988) *Inhuman Relations: Quality Circles and Anti-Unionism in American Industry*. Philadelphia, PA: Temple University Press.
- Hammersley, M. (1997) 'Qualitative Data Archiving: Some Reflections on its Prospects and Problems', *Sociology* 31(1): 131–42.
- Haydu, J. (1988) *Between Craft and Class*. Berkeley: University of California Press.
- Heckscher, C. (1994) 'Defining the Post-Bureaucratic Type', pp. 14–62 in C. Heckscher and A. Donnellon (eds) *The Post-Bureaucratic Organization*. Thousand Oaks, CA: Sage.
- Hill, S. (1991) 'Why Quality Circles Failed But Total Quality Management Might Succeed', *British Journal of Industrial Relations* 29(4): 541–68.
- Hodson, R. (1998) 'Organizational Ethnographies: An Underutilized Resource in the Sociology of Work', *Social Forces* 76(4): 1173–208.
- Hodson, R. (2001) *Dignity at Work*. New York: Cambridge University Press.
- Hyman, R. and A. Ferner, eds (1994) *New Frontiers in European Industrial Relations*. Oxford: Blackwell.
- Ichniowski, C., T.A. Kochan, D. Levine, C. Olson and G. Strauss (1996) 'What Works at Work: Overview and Assessment', *Industrial Relations* 35(3): 299–333.
- Isacson, M. and L. Magnusson (1987) *Proto-Industrialization in Scandinavia: Craft Skills in the Modern Industrial Revolution*. Leamington Spa: St Martin's.
- Juravich, T. (1985) *Chaos on the Shop Floor: A Worker's View of Quality, Productivity, and Management*. Philadelphia, PA: Temple University Press.
- Kalleberg, A., D. Knoke, P. Marsden and J.L. Spaeth (1996) *Organizations in America*. Newbury Park, CA: Sage.
- Keef, S.P. (1998) 'The Causal Association between Employee Share Ownership and Attitudes', *British Journal of Industrial Relations* 36(1): 73–82.
- Keller, B.K. (1995) 'Emerging Models of Worker Participation and Representation', *British Journal of Industrial Relations* 33(3): 317–27.

- Klein, J.A. (1991) 'A Reexamination of Autonomy in Light of New Manufacturing Practices', *Human Relations* 44(1): 21–38.
- Kochan, T.A., R.D. Lansbury and J.P. Macduffie (1997) *After Lean Production: Evolving Employment Practices in the World Auto Industry*. Ithaca, NY: Industrial and Labor Relations Press.
- Kunda, G. (1992) *Engineering Culture: Control and Commitment in a High-Tech Corporation*. Philadelphia, PA: Temple University Press.
- Lazonick, W. (1990) *Competitive Advantage on the Shop Floor*. Cambridge, MA: Harvard University Press.
- Lee, C.K. (1998) *Gender and the South China Miracle: Two Worlds of Factory Women*. Berkeley: University of California Press.
- Lee, T.W. (1999) *Using Qualitative Methods in Organizational Research*. Thousand Oaks, CA: Sage.
- Levinson, K. (2000) 'Codetermination in Sweden: Myth and Reality', *Economic and Industrial Democracy* 21(4): 457–73.
- Lillrank, P. and N. Kano (1989) *Continuous Improvement: Quality Circles in Japanese Industry*. Ann Arbor: University of Michigan Center for Japanese Studies.
- Lincoln, J.R. and A.L. Kalleberg (1990) *Culture, Control, and Commitment*. New York: Cambridge University Press.
- Logue, J. and J. Yates (2001) *The Real World of Employee Ownership*. Ithaca, NY: Industrial and Labor Relations Press.
- McCarl, R. (1985) *The District of Columbia's Fire Fighters' Project: A Case Study in Occupational Folklore*. Washington, DC: Smithsonian Institution Press.
- McNally, F. (1979) *Women for Hire*. New York: St Martin's Press.
- Manley, J.E. (2000) 'Negotiating Quality: Total Quality Management and the Complexities of Transforming Professional Organizations', *Sociological Forum* 15(3): 457–84.
- Meyer, J.W. and B. Rowan (1977) 'Institutionalized Organizations: Formal Structure as Myth and Ceremony', *American Journal of Sociology* 83(2): 340–63.
- Milkman, R. (1997) *Farewell to the Factory: Auto Workers in the Late Twentieth Century*. Berkeley: University of California Press.
- Mueller, C.W., E. M. Boyer, J.L. Price and R.D. Iverson (1994) 'Employee Attachment and Noncoercive Conditions of Work', *Work and Occupations* 2(2): 179–212.
- Müller-Jentsch, W. (1998) 'A Perspective on Industrial Relations Theories', *Sociologie du travail* 40(2): 233–62.
- Ortiz, L. (1998) 'Union Response to Teamwork: The Case of Opel Spain', *Industrial Relations Journal* 29: 42–57.
- Osterman, P. (1999) *The American Labor Market: How It Has Changed and What to Do About It*. Princeton, NJ: Princeton University Press.
- Parker, M. and J. Slaughter (1994) *Working Smart: A Union Guide to Participation Programs and Reengineering*. Detroit, MI: Labor Notes.
- Pendleton, A., N. Wilson and M. Wright (1998) 'The Perception and Effects of Share Ownership: Empirical Evidence from Employee Buy-Outs', *British Journal of Industrial Relations* 36(1): 99–123.
- Pfeffer, J. (1998) *The Human Equation: Building Profits by Putting People First*. Boston, MA: Harvard Business School Press.
- Ragin, C.C. (2000) *Fuzzy-Set Social Science*. Chicago, IL: University of Chicago Press.

- Regini, M. (1997) 'Different Responses to Common Demands: Firms, Institutions, and Training in Europe', *European Sociological Review* 13(3): 267–82.
- Rinehart, J., C. Huxley and D. Robertson (1997) *Just Another Car Factory? Lean Production and its Discontents*. Ithaca, NY: Cornell University Press.
- Roberson, J.E. (1998) *Japanese Working Class Lives: An Ethnographic Study of Factory Workers*. London: Routledge.
- Rogers, J. and W. Streeck (1995) *Works Councils: Consultation, Representation, and Cooperation in Industrial Relations*. Chicago, IL: University of Chicago Press.
- Rothschild, J. and M. Ollilainen (1999) 'Obscuring But Not Reducing Managerial Control: Does TQM Measure Up to Democracy Standards?', *Economic and Industrial Democracy* 20: 583–624.
- Rothschild, J. and J.A. Whitt (1986) *The Cooperative Workplace*. Cambridge: Cambridge University Press.
- Russell, R. (1993) 'Organizational Theories of the Labor-Managed Firm: Arguments and Evidence', pp. 1–32 in Samuel B. Bacharach (ed.) *Research in the Sociology of Organizations*, Vol. 11. Greenwich, CT: JAI Press.
- Schrank, R. (1983) *Industrial Democracy at Sea: Authority and Democracy on a Norwegian Freighter*. Cambridge, MA: MIT Press.
- Schwartzman, H.B. (1993) *Ethnography in Organizations. Qualitative Research Methods Series #27*. Newbury Park, CA: Sage.
- Sey, A. (2000) 'Team Work in Japan: Revolution, Evolution or No Change at All?', *Economic and Industrial Democracy* 21(4): 475–503.
- Smith, V. (2001) *Crossing the Great Divide: Worker Risk and Opportunity in the New Economy*. Ithaca, NY: Cornell University Press.
- Spring, C.A., P.R. Jackson and S.K. Parker (2000) 'Production Teamworking: The Importance of Interdependence and Autonomy of Employee Strain and Satisfaction', *Human Relations* 53(11): 1519–43.
- Starkey, K. and A. McKinlay (1994) 'Managing for Ford', *Sociology* 28(4): 975–90.
- Stinchcombe, A.L. (1959) 'Bureaucratic and Craft Administration of Production', *Administrative Science Quarterly* 4: 168–87.
- Thelen, K. (1992) 'The Politics of Flexibility in German Metalworking Industries', pp. 215–46 in Miriam Golden and Jonas Pontusson (eds) *Bargaining for Change: Union Politics in North America and Europe*. Ithaca, NY: Cornell University Press.
- Tucker, J. (1999) *The Therapeutic Corporation*. New York: Oxford University Press.
- Vallas, S.P. (1999) 'Rethinking Post-Fordism: The Meaning of Workplace Flexibility', *Sociological Theory* 17(1): 68–101.
- Van Maanen, J., ed. (1998) *Qualitative Studies in Organizations*. Thousand Oaks, CA: Sage.
- Vecsey, G. (1974) *One Sunset a Week: The Story of a Coal Miner*. New York: E.P. Dutton.
- Visser, J. and A. Hemerijck (1997) *A Dutch Miracle: Job Growth, Welfare Reform and Corporatism in the Netherlands*. Amsterdam: Amsterdam University Press.
- Weber, R.P. (1990) *Basic Content Analysis, Quantitative Applications in the Social Sciences #49*, 2nd edn. Newbury Park, CA: Sage.
- Whalley, P. and S.R. Barley (1997) 'Technical Work in the Division of Labor', pp. 23–52 in S.R. Barley and J.E. Orr (eds) *Between Craft and Science: Technical Work in US Settings*. Ithaca, NY: Cornell University Press.
- Wolf, H. (1995) 'Introduction', *International Journal of Political Economy* (special issue on 'Democracy at Work?') 25(3): 3–19.

Wood, S. (2000) 'The British Journal of Industrial Relations and Industrial Relations in the New Millennium', *British Journal of Industrial Relations* 38(1): 1-5.

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