

**MAKING PARTNERSHIP WORK:
INSIDE THE BLACK BOX OF
LABOR-MANAGEMENT PARTICIPATION**

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ABSTRACT

This study tests how variations in labor-management partnership functioning affects employees. The data are from multiple facilities within one federal agency over a five-year period. Data for employee-level outcomes are from the Organizational Assessment Survey implemented each year from 1994 through 1998. Partnership council data are from participant interviews with union leaders and facility management. The results suggest that differences in partnership councils' functioning affects supervisor-employee relations, perceptions of training and employee-involvement opportunities, and perceived collaborative opportunities. In turn, these intermediary outcomes affect employee attitudes and perceptions regarding job-related stress, job satisfaction, job and employment security, and feelings of alienation.

In keeping with much of the industrial relations literature, labor-management partnership is premised on the belief that workers and their union representatives are critical to the goal of improving stakeholder outcomes [1-4]. A second premise is the belief shared by many labor leaders that if workers are given opportunities to become involved in the work process beyond just following instruction, they should derive increased intrinsic rewards that would not otherwise be realized under more traditional models of work [2]. Increased intrinsic rewards has been linked to greater employee satisfaction, improved perceptions of job security, and decreased feelings of self-estrangement [5-7]. Yet, how and why participatory work practices affect employees has, until recently, largely been taken for granted [8].

A wide range of labor-management practices fall under the rubric of participatory workplace change. Most studies that examine the effects of participatory work practices measure only the effects of either having or not having a specific practice. While this method has generated some interesting findings, there are nevertheless numerous studies that report mixed or contradictory results. These apparent inconsistencies should not be surprising, given that the details of how a particular practice functions often remain hidden in a proverbial “black box.” Just as variation exists in the types of participatory practices, there also is variation in how any given practice is implemented. Stated differently, all participative programs are not created equal. The likelihood for differences, therefore, suggests the need for a more-nuanced measure of these practices.

I propose and test factors that capture variation in labor-management partnership functioning and examine the effects of those differences on employee attitudes and perceptions. My goal is to increase our understanding of how employees are affected by labor-management partnerships and to track these changes over time. In addressing this question, this article contributes to the growing literature on joint labor-management partnerships by considering the effects on employees as stakeholders for a federal agency; considering the effects over time; and by utilizing a more complex conceptualization of the independent variable—variation in joint labor management partnerships—than previous studies.

THE NATURE OF PARTICIPATORY WORK PRACTICES

A defining characteristic of most participatory work systems is that they provide employees with the opportunity to participate—either directly or through the local union leadership—in the decision-making process [9]. Participatory practices may take a number of different forms. For example, some organizations enable their employees to participate directly through ad hoc, problem-solving teams. Other organizations might establish labor-management committees, thus enabling employees to indirectly participate through their representatives on those committees. Differences, both conceptually and in practice, between participatory practices are nontrivial, as each type of practice poses unique challenges for unions [10], employers, and employees [11]. To lend clarity to the following discussion, it is useful to take a few moments and discuss the potential dimensions along which participatory work practices may vary.

An early study by Bernstein [12] suggested that workplace practices differ along three dimensions. The dimensions encompass: 1) the degree of control employees enjoy over any particular decision; 2) the issues over which that control is exercised; and 3) the organizational level at which their control is exercised.

A later study by Rubinstein and his colleagues proposed a two-dimensional matrix for categorizing participatory work practices [13]. The first dimension distinguishes between practices designed to involve the union leadership from those designed to directly involve the rank-and-file workers.¹ The second dimension distinguishes between those practices that are offline and those that grant online control of day-to-day shop floor operations. Offline participatory practices involve some form of representative labor-management committee or employee team that typically meets at regular intervals to discuss a broad range of issues affecting the workplace [14, 15]. Online participatory practices, on the other hand, consist of structures or practices that facilitate direct involvement by employees or union leadership in the day-to-day production process.

The distinction between offline and online may not be as straightforward as implied. For example, offline committees comprised of employees who engage in redesigning jobs can and often will substantially affect the way work is performed [14]. From an outcome perspective, therefore, offline committees can, in some instances, have the same overall effect as online teams, thereby creating the potential for confounding results when comparing the relative effectiveness of both types of participatory programs.

The combination of Bernstein's first two dimensions [12] and Rubinstein et al.'s two-dimensional matrix [13] creates a framework to model the variation within categories of participatory work practices. For example, offline union-management committees may be compared on the basis of decision-making authority and along the topics or issues for which they have control. Similar distinctions may also be made for each of the other three categories of participative practices. Thus, this framework provides an opportunity to look inside the black box of participatory work practices by going beneath surface descriptions and examine the dimensions by which they can be further differentiated.

INSIDE THE BLACK BOX

In the literature on participatory work practices only a handful of studies link the idiosyncratic features of these practices to specific outcomes. One of the earliest studies considered the effects of joint safety and health committee characteristics on both the number of committee recommendations and changes made in the facility [16]. Two later studies considered both internal committee characteristics and contextual workplace characteristics on a number of outcome variables [17, 18]. The remaining empirical studies focused on a broader range of offline and online participatory practices and the effects on organizational

¹ A third category of work practices not considered in the Rubenstein et al. matrix [13] and identified by Eaton [10] consists of offline work restructuring or reorganization. This includes programs that alter the way work is performed, typically through job enlargement or enrichment, cross-training, or team-based work.

performance [8, 19, 20], supervisor-employee relations [11], employee satisfaction [21], and the local union [22].

Despite considerable variation in how each study defines effectiveness, several factors emerge that are capable of capturing the idiosyncratic differences between otherwise “like” participatory practices. Following the work of Eaton and Nocerino [18], these factors are divided along two broad lines: internal factors relating to committee structure and functioning, and external or contextual factors affecting the participatory practice.

Internal Factors

Those who serve on a particular committee can affect the outcomes of the participative process both directly and indirectly. Involvement of senior management and union leadership, for instance, may improve both the governance and coordination of the process as well as lend credibility to the participative process [23]. For instance, the presence of senior management on the committee may further signal managerial commitment to the participative process and its outcomes [16]. Cooke hypothesized that senior union leader involvement would lead to increased interaction among union leaders and management, which in turn would improve committee outcomes [11]. Indeed, as the public sector study noted, successful collaborative efforts had the support and commitment of top union leadership [23]. Kochan et al. found the number of union leaders involved in the process also improved aspects of committee functioning, such as frequency of meetings [16]. As was the case for senior management, the commitment of senior union leadership improved the viability of employee-involvement programs [24].

Several of the above studies linked participant training, both in problem solving and in the partnership process itself, to committee effectiveness. In the public sector, training helped to break with past “bad habits” and allow participants to better understand how the participative process worked [23]. Eaton and Nocerino found committee training positively related to perceptions of committee effectiveness and negatively related to change in lost workdays [18]. Further, the nature of the training given to both managers and nonmanager members of the joint committees is positively related to the ability of the committees to survive over time [25].

An additional internal factor by which participative structures have been measured relates to aspects of how the committee functions—that is, the practices and policies governing the operation and functioning of the collaborative structures, including the level of decision-making authority, the scope of topics discussed, and the frequency of meetings. Black and Gregersen found the performance of offline teams increased when the team members were given an opportunity to expand their involvement beyond problem identification to include generating alternatives, and planning the implementation and evaluation of the results [21]. Similarly, committees that allowed members greater decision-making

influence had a moderately positive impact on functioning [17]. Committee functioning was adversely affected, however, when authority was concentrated in a single chairperson [17].

The scope of topics over which the committee has authority may also have an impact on committee effectiveness. Of the range of topics considered by Katz and his colleagues, only worker influence over technological issues had a statistically significant impact on the organization, resulting in a reduction in labor hours related to production [20]. Eaton and Nocerino reported a similar positive relationship between committee scope and perceptions of committee effectiveness and changes in the number of lost workdays [18].

Finally, offline work teams that met at least once a week had a stronger positive impact on supervisor-employee relations than those that met less frequently [3]. Eaton and Nocerino used a measure of intensity that combined number attending and frequency of meetings, and they found that measure to be negatively related to lost workdays [18].

External Factors

Aside from the positive relationship between labor-management relations and partnership outcomes, the effects of external or contextual factors are often mixed and even contradictory. Two factors in particular are organizational size and the average age of the workforce. In both offline employee teams and joint labor-management committees, organizational size had a negative relationship with changes in supervisor-employee relations [11]. In contrast, organizational size did not have a significant impact on joint safety and health committee functioning or success [17].

Using age as a proxy for the level of entrenched attitudes among the rank-and-file toward the collaborative effort, Cooke reported an inverse relationship between the age of the workforce and support for the participative effort [11]. Specifically, the older the workforce, the less supportive the workers were of the participative practice [11]. Similarly, Kochan, Dyer, and Lipsky found work sites with an average workforce age below 30 were more likely to suggest ways to improve work processes than those sites with an older average workforce [16]. The Ontario study, by contrast, did not find a significant relationship between age and committee functioning or success [17].

CONCEPTUAL MODEL

The purposed model of partnership implementation is an attempt to build upon earlier conceptual models of joint labor-management partnership functioning and is the first to explicitly capture variation in committee functioning and relate it to employee outcomes, both directly and indirectly. As the model (Figure 1) suggests, the effectiveness of partnership practices in achieving their stated goals

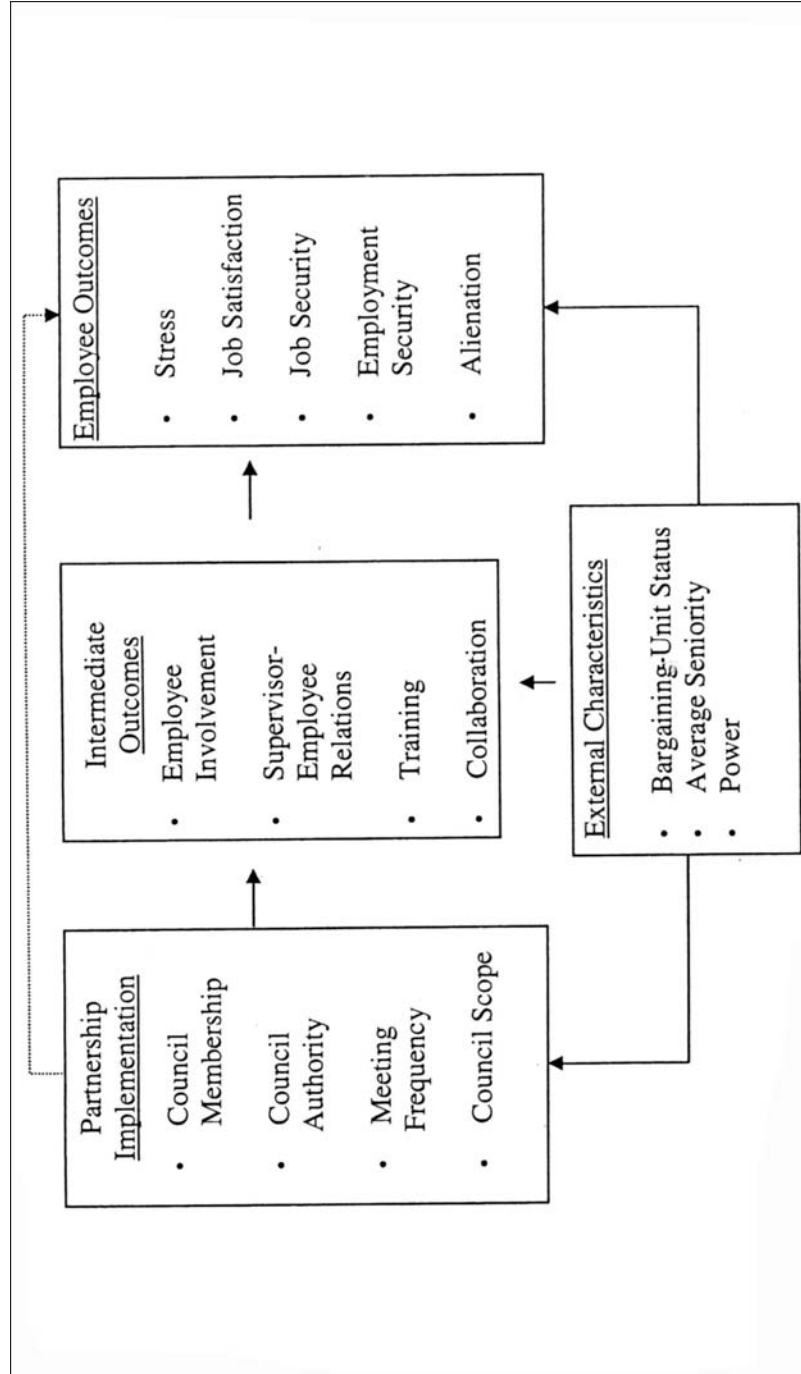


Figure 1. Conceptual model of the effects of partnership implementation on employee stakeholders.

is greatly dependent upon how the process itself is implemented. In other words, the more embedded [18] or intensive [11] the partnership process is, the greater the likelihood that it will be successful from the perspective of a particular stakeholder. Specifically, the factors that influence the implementation of the partnership process may be disaggregated into four components: the composition of the partnership council; the frequency with which the council regularly meets; the scope of the council's involvement in the decision-making process; and the level of authority the nonmanagement members have over decisions.

Several potential variables may contribute to the indirect effects or mediate the relationship between partnership and the impact on employee stakeholders. These variables include improved supervisor-employee relations, increased access to training, fostering of greater labor-management collaboration, and overall increase in the level of employee involvement [11, 26-28].

The third part of the model posits that external or contextual factors may influence the outcomes associated with partnership implementation. At the facility level, these external factors include the relative power (percent of bargaining unit belonging to the union) of the local union and the average tenure of the work force. In the more highly unionized facilities, the participative process will likely be extended further to include broader union and worker involvement in organizational decisions [29]. The increased involvement in decision making will, in turn, provide greater intrinsic rewards to the employee stakeholders. The average tenure of the workers will be negatively associated with partnership implementation. More senior workers will be more likely to be entrenched in the adversarial labor relations climate that existed prior to the introduction of the partnership process and therefore less likely to accept or support cooperative efforts [30]. Likewise, senior workers are more likely to enjoy stronger feelings of employment security due largely to accrued seniority rights.

RESEARCH METHOD

This research utilizes a mix of quantitative and qualitative methodologies to examine the effects of variation in the structure and implementation of joint labor-management partnership activity on employees both across/within facilities and through time. All data come from a medium-sized federal agency with seven separate facilities, four of which are production-related. Each facility comprises a separate bargaining unit, with the exception of two service facilities that are combined into a single bargaining unit. This agency, like many throughout the federal sector, operated under a traditional adversarial labor-management relationship. Early in 1994, and in accordance with Executive Order 12871, the agency established its joint labor-management partnership.

The primary source of data for employee perceptions and attitudes is the Organizational Assessment Survey (OAS). Five years' worth of data from 1994 through 1998 were combined to create a repeated cross-sectional data set with a

combined sample of 5,662 employees. This represents an average response rate of 53 percent for this agency. Data on the local partnership councils was collected through participant interviews in the field with each local union president and, when possible, facility management. This method provided an opportunity to construct a picture of the activities of the joint partnership council as well as other key council attributes over the same five-year period. When combined, these data form a mix of panel data at the facility level and cross-sectional data at the employee level. The basic functional form for the regression model used in this research as adapted from Greene [31] is the following:

$$y_{ift} = \alpha_f + \beta'X_{ft} + \beta'\delta_{ift} + \beta'\lambda_{ft} + \beta'\upsilon_{ft} + \epsilon_{ift} \quad (1)$$

The subscript i denotes individuals, t denotes the time dimension, and f denotes the different facilities. Only the dependent variables and the vector of employee control variables (δ) use the individual level data and have the i subscript. The vector of partnership implementation and facility variables (x) use the panel data and do not include the i subscript. Facility-level characteristics are represented by (λ). Finally, (υ) represents a vector of year dummies that will isolate the effects of factors such as unemployment levels, which may influence the dependent variable and enhance the estimates of the council implementation effects. This method of analysis creates opportunities to exploit any dynamic aspect of the model or the relationship among the facility variables and allows for any otherwise-unobservable facility-specific effects to be estimated.

The effects of the partnership implementation on the intermediary workplace variables and the employee outcomes were examined in four stages using a series of regression models based on the conceptual model above. As a first step, a dummy variable *Local Council* (LPC)—coded 1 if a local council was present at the facility and 0 otherwise—was used in place of the partnership implementation variables and regressed on each of the four intermediary variables (supervisor-employee relations, employee involvement, training, and collaboration). These regressions tested for the direct effects of the existence of a partnership council on the intermediary outcomes. Next, the four partnership implementation factors were included in the model and regressed on the four intermediary outcomes. These regressions tested the extent to which variation in the intermediary variables could be explained by variation in how each local council functioned.

In the third stage, the four intermediary variables were added to the basic regression model. The LPC dummy variable was included and regressed on the five employee attitude and perception outcomes—stress, job satisfaction, job security, employment security, and alienation. Next, the four partnership-implementation factors were included along with the intermediary variables and regressed on the same employee outcomes. This method examined both the direct and indirect effects of variation in partnership implementation on

employees while at the same time controlling for a number of facility- and individual-level characteristics.

RESULTS

Background information on the respondents is summarized in Table 1. Overall, the characteristics of those who responded to the survey reflect those of the workforce at this agency.² Two notable exceptions include tenure and bargaining unit eligibility. Nearly three-quarters (73 percent) of the respondents had worked less than 10 years (55 percent less than five years) for this agency. An average of 42 percent of the population at this agency, in contrast, had worked less than 10 years, and the mean length of service across all facilities was 14.8 years.

Bargaining unit eligibility was used in place of union status. Eligibility for the bargaining unit was estimated based on a combination of job category, supervisory status, and wage grade of the individual respondent. These were then matched to occupational data gathered from each agency to determine which respondents should likely be excluded from the bargaining unit. This method is likely to underestimate the actual number of respondents eligible for the union. Across the full sample, approximately 42 percent were eligible for the union. Across the entire agency, approximately 80 percent of the workforce are members of the bargaining unit.

Table 2 presents descriptive data on partnership characteristics for each of the six local partnership councils. Initially, this partnership consisted of an agency-wide national partnership council (NPC) and five local facility-based partnership councils (LPC).³ A sixth LPC was created in 1997 when the workers at a small service facility organized and formed their local union. Each local council functions as an offline decision-making committee involving the union as a representative institution and members of management.

Considerable variation exists in the composition and functioning of each local council despite common language governing their creation.⁴ An integral component of this research was the development of measures to capture this variation across the facilities. As the conceptual model suggests, the ability of the partnership process to effect workplace change can be disaggregated into four components: membership attributes, authority, frequency, and scope.

MEMBERSHIP consists of the following four variables measuring aspects of local council composition. *MEMBER* is an additive scale of the number of manager and nonmanager members on the council. *SRMGMT* is a dichotomous variable coded 1 if the plant manager or superintendent of the facility is a member

² All population data for this facility is available through Fed Scope, an online database www.fedscope.opm.gov

³ The NPC here refers to an agency-specific partnership council and differs from the National Partnership Council created by EO 12871.

⁴ There is one master contract governing each of the locations that includes language governing the structure and purpose of the local partnership councils.

Table 1. Demographic Characteristics of the Respondents ($N = 5,662$)

Characteristics	Percent of respondents
Gender	
Male	72.6%
Female	27.4%
Age	
≤ 20	5.0%
21–29	2.3%
30–39	13.2%
40–49	27.2%
50–59	29.3%
≥ 60	3.5%
Tenure	
< 6 months	13.3%
6–12 months	11.2%
1–3 years	15.9%
4–5 years	14.6%
6–10 years	17.8%
> 10 years	23.7%
Job category	
Production	28.2%
Skilled trades	24.4%
Administration/Clerical	21.9%
Professional	20.2%
Police	4.8%
Bargaining unit	
Yes	41.9%
No	58.0%

of the council and 0 otherwise. *SRUNION* is a dichotomous variable coded 1 if the local union president is on the council and 0 otherwise. *COUNCIL TRAINING* is an additive scale of the types of training provided to the members of the council.

The second factor, *FREQUENCY*, reflects the number of times the council regularly meets each year.

AUTHORITY is the arithmetic mean of two variables that captures the degree of decision-making authority the nonmanager members have over decisions reached by the council. The coefficient alpha for this measure was 0.87. The first measure, *CONTROL*, measures the degree that nonmanagement members of the council

Table 2. Summary Partnership Council Characteristics

Facility	Size of LPC	Plant manager	Union president	Training	Meeting frequency	Scope of topics	Decision making	Union veto
Lee ^a	8	Yes	Yes	None	Monthly	Traditional	Recommend	No
Madison	10	No	No	Moderate	Twice monthly ^b	Traditional ^c	Recommend	No
Jefferson	16	Yes	Yes	Extensive	Monthly	Traditional and nontraditional	Co-decision	Yes
Hamilton	10	Yes	Yes	Extensive	Twice monthly	Traditional and nontraditional	Co-decision	No
Headquarters/Jackson	10	No	No	Moderate	Monthly	Traditional mostly Quality-of-work life	Recommend only	Yes
Lincoln	14	Yes ^d	Yes ^d	Moderate, joint	Twice monthly	Traditional and nontraditional	Co-decision	Yes

^aThe names of each facility have been altered to preserve the anonymity of the agency.

^bIn 1997-1998 they did not meet; 1999 until the present they meet monthly.

^c1994-1996 discussed a limited number of traditional issues; after 1998 expanded to include nontraditional topics.

^dIn 1998 neither the plant manager nor the local union president served on the local council.

perceptions have over the decisions reached by the council. Responses were anchored on a 5-point Likert scale ranging from no control (information-sharing only) to joint decision making (co-determination). *VETO* measures the degree to which the senior union council member has the authority to veto a decision by the council. Responses were anchored on a 4-point Likert scale (no veto power, extremely limited veto power, limited veto power, full veto power).

SCOPE is a combination of two variables that capture the scope of topics over which authority may be exercised. The first variable, *TRADITIONAL*, represents the sum of the number of “traditional” topics discussed by the council. *NONTRADITIONAL* is the sum of the number of “nontraditional” topics discussed by the council. The list of traditional and nontraditional topics is from the list contained in the National Partnership Council Survey (1996). The list of traditional issues identified includes physical work environment, managing the partnership, health and safety, family friendly workplace, and training. The list of nontraditional issues include: reorganization, quality issues, improving customer service/productivity, reengineering work, impact of new technology, reductions in force, budget and staffing levels, privatization, and procurement.

Intermediary Effects

Estimates from the fixed-effects models regressing the partnership implementation variables on each of the four intermediary outcomes are presented in Table 3.⁵ Models (1), (3), (5), and (7) present the results of the regressions when local council was included in place of the four-implementation variables. As expected, the presence of a local council itself had a significant and positive effect on employee perceptions concerning training opportunities, spirit of collaboration, and opportunities for employee involvement. The effect on supervisor-employee relations, however, was neither positive nor statistically significant.⁶

Models (2), (4), (6), and (8) present the results of the partnership implementation model regressed on each of the four intermediary workplace outcomes. The composition of the local councils had a positive and significant effect on each intermediary outcome, excluding collaboration. Councils that convened more frequently and councils that discussed a wider range of topics were associated with a significant and positive effect on all four intermediary outcomes. Councils with greater decision-making authority, on the other hand, were associated with decreased perceptions across all four intermediary outcome measures.

⁵ Results from the Hausman test determined the random effects model was inappropriate; hence only the results from the fixed effects models are presented. A review of the inter-item correlation matrix revealed no obvious signs of multicollinearity among the predictors. As a further test, I then ran each model using the pooled data and computed the variance inflation factor. In each case, the VIF was less than two, confirming a lack of multicollinearity among the independent variables in each model.

⁶ Given the cross-level design of this study, the amount of explained variance of the individual-level dependent variables by the facility-level independent variables is, as expected, relatively small.

Mixed results were found for the external factors predicted to moderate the effects of partnership implementation. As expected, higher average tenure among the workers at each facility was associated with lower perceptions of training and employee involvement. Similarly, facilities with more members in the bargaining unit were associated with increased perceptions along each of the four outcome variables.

Employee Outcomes

The results of the effects of partnership implementation and intermediary workplace outcomes on employee attitudes and perceptions are presented in Table 4. Models (1), (3), (5), (7), and (9) present the results when the local council dummy and the four intermediary outcomes were regressed on each of the five employee outcomes: stress, job satisfaction, job security, employment security, and alienation. Overall, the results only partially support the model presented above. As expected, the presence of a local council was associated with a reduction in alienation and an increase in perceived job and employment security. Stress, on the other hand, was also positively related to local councils.

Models (2), (4), (6), (8), and (10) present the results of when both the partnership implementation variables and the intermediary outcomes were regressed on the employee outcomes. The level of decision-making authority had a direct negative effect on job-related stress and on employment security. LPC composition, the frequency with which they convened, and the scope of topics discussed each had a positive and direct effect on employment security. No other direct effect of partnership implementation and the employee outcomes was found.

As expected, an increase in each of the four intermediary measures was associated with an increase in reported job satisfaction, job security (although employee involvement was not statistically significant) and employment security, and a decrease in perceived alienation. Further, improvements in supervisor-employee relations and collaboration were associated with reduced levels of job-related stress.

Trends Over Time

Two facilities experienced noteworthy events related to the partnership. In 1997, the senior manager at *Madison* abolished the local partnership council while at *Lee* the workers first organized and subsequently created their LPC. Separately, these two events provide an alternative test of the independent effects of partnership on each dependent variable. Tables 5 and 6 provide the results of the interaction effects of year and facility dummies for the intermediary outcomes and employee outcomes, respectively.

As the results in Table 5 indicate, the cancellation of the partnership at *Madison* is associated with a statistically significant decrease in each of the four

Table 3. Effect of Partnership Implementation on the Intermediary Outcomes (Standard Errors in Parentheses)

	Supervisor-employee relations							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Local council	-.020 (.111)	(dropped)	.275*** (.108)	(dropped)	0.242*** (0.119)	(dropped)	.274*** (.110)	(dropped)
Membership	—	0.229** (0.092)	—	0.176** (0.090)	—	0.246** (0.101)	—	0.038 (0.091)
Frequency	—	0.282*** (0.101)	—	0.251*** (0.096)	—	0.208** (0.107)	—	0.285*** (0.099)
Authority	—	-1.995*** (0.444)	—	-1.659*** (0.417)	—	-1.631*** (0.462)	—	-1.549*** (0.430)
Scope	—	1.004*** (0.288)	—	0.868*** (0.266)	—	0.809*** (0.295)	—	0.969*** (0.276)
Gender	.013 (0.35)	0.026 (0.035)	-.011 (.033)	0.000 (0.033)	-0.030 (0.037)	-0.017 (0.037)	-.053 (.034)	-0.045 (0.034)
Age	-.012 (.013)	-0.012 (0.013)	.000 (.012)	0.000 (0.012)	-0.007 (0.014)	-0.007 (0.014)	-.007 (.012)	-0.007 (0.012)
Tenure	-.001 (.011)	0.0001 (0.011)	.003 (.010)	0.004 (0.010)	-0.003 (0.011)	-0.003 (0.011)	.006 (.010)	0.007 (0.010)
Average tenure	.064 (.052)	0.006 (0.056)	-.057 (.051)	-0.104* (0.055)	-0.095* (0.057)	-0.158*** (0.061)	.028 (.052)	0.008 (0.055)
Production	.001 (.051)	0.026 (0.051)	-.021 (.049)	0.001 (0.049)	-0.010 (0.055)	0.011 (0.055)	.033 (.050)	0.052 (0.050)

Skilled trades	-.056 (.053)	-0.031 (0.053)	-.008 (.051)	0.013 (0.051)	-0.067 (0.057)	-0.047 (0.057)	.009 (.052)	0.026 (0.052)
Administration	-.045 (.044)	-0.029 (0.044)	.018 (.043)	0.031 (0.043)	-0.047 (0.047)	-0.035 (0.047)	.017 (.043)	0.025 (0.043)
Police	-.213*** (.075)	-0.119 (0.077)	-.177** (.074)	-0.094 (0.076)	-0.167** (0.084)	-0.081 (0.086)	-.256*** (.075)	-0.185** (0.077)
Power	.003 (.003)	0.014*** (0.003)	-.002 (.003)	0.008** (0.003)	0.004 (0.003)	0.013*** (0.004)	.002 (.003)	0.008** (0.003)
Unit	.026 (.039)	0.035 (0.039)	-.038 (.038)	-0.032 (0.038)	0.018 (0.042)	0.025 (0.042)	-.009 (.038)	-0.007 (0.038)
Year 1994	.967*** (.043)	0.863*** (0.050)	.688*** (.042)	0.599*** (0.050)	0.377*** (0.047)	0.274*** (0.055)	.458*** (.043)	0.421*** (0.050)
Year 1995	-.075 (.121)	-0.299** (0.138)	-.166 (.117)	-0.351*** (0.134)	-0.506*** (0.131)	-0.740*** (0.150)	-.030 (.119)	-0.112 (0.136)
Year 1996	-.086 (.113)	-0.298** (0.130)	-.182* (.109)	-0.353*** (0.126)	-0.499*** (0.122)	-0.715*** (0.140)	.004 (.111)	-0.062 (0.128)
Year 1997	.048 (.046)	0.003 (0.049)	-.015 (.045)	-0.052 (0.049)	-0.022 (0.050)	-0.070 (0.054)	.035 (.045)	0.029 (0.049)
Constant	2.485*** (.282)	-4.818*** (1.876)	3.08*** (.273)	-3.169* (1.709)	3.425*** (0.303)	-2.633 (1.894)	2.77*** (.278)	-3.791** (1.775)
N	4167	4167	4700	4700	4934	4934	4599	4599
R ²	.22	.22	.11	.12	.06	.06	.06	.06

Omitted job category variable: professional; omitted year 1998.
 *Denotes statistical significance at the .10 level or better. **Denotes statistical significance at the .05 level or better. ***Denotes statistical significance at the .01 level or better.

Table 4. Effect of Partnership Implementation on Employee Outcomes
(Standard Errors in Parentheses)

	Stress			Job satisfaction			Job security			Employment security			Alienation		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)					
Local council	0.239** (0.124)	(dropped)	0.054 (0.078)	(dropped)	0.306** (0.135)	(dropped)	0.195*** (0.075)	(dropped)	-0.327*** (0.102)	(dropped)					
Membership		0.123 (0.101)		-0.064 (0.063)		-0.115 (0.110)		0.119** (0.061)		-0.021 (0.083)					
Frequency		0.153 (0.112)		0.053 (0.070)		-0.070 (0.121)		0.158** (0.069)		-0.097 (0.092)					
Authority		-0.999** (0.494)		-0.091 (0.310)		0.728 (0.539)		-1.010*** (0.307)		0.490 (0.406)					
Scope		0.472 (0.322)		0.094 (0.201)		-0.364 (0.350)		0.465** (0.201)		-0.295 (0.264)					
Supervisor- employee relations	-0.086*** (0.028)	-0.088*** (0.028)	0.283*** (0.017)	0.284*** (0.017)	0.318*** (0.030)	-0.319*** (0.030)	0.378*** (0.017)	0.375*** (0.017)	-0.373*** (0.022)	-0.372*** (0.022)					
Employee involvement	0.037 (0.024)	0.036 (0.024)	0.086*** (0.015)	0.086*** (0.015)	0.039 (0.025)	0.039 (0.025)	0.044*** (0.014)	0.042*** (0.014)	-0.207*** (0.019)	-0.206*** (0.019)					
Training	-0.020 (0.018)	-0.021 (0.018)	0.102*** (0.011)	0.103*** (0.011)	0.107*** (0.019)	0.108*** (0.019)	0.338*** (0.011)	0.337*** (0.011)	-0.069*** (0.015)	-0.069*** (0.015)					

Collaboration	-0.038* (0.022)	-0.038* (0.022)	0.136*** (0.013)	0.136*** (0.013)	0.144*** (0.023)	0.144*** (0.023)	0.044*** (0.013)	0.045*** (0.013)	-0.150*** (0.017)	-0.150*** (0.017)
Gender	0.001 (0.038)	0.007 (0.038)	-0.026 (0.024)	-0.027 (0.024)	0.115*** (0.042)	0.110*** (0.042)	-0.038* (0.023)	-0.030 (0.023)	0.020 (0.031)	0.018 (0.032)
Age	0.005 (0.014)	0.005 (0.014)	0.011 (0.009)	0.011 (0.009)	0.016 (0.015)	0.015 (0.015)	-0.006 (0.009)	-0.006 (0.009)	-0.016 (0.012)	-0.016 (0.012)
Tenure	0.030*** (0.012)	0.030*** (0.012)	-0.003 (0.007)	-0.003 (0.007)	0.000 (0.013)	-0.001 (0.013)	0.009 (0.007)	0.010 (0.007)	0.005 (0.010)	0.004 (0.010)
Average tenure	-0.008 (0.059)	-0.037 (0.063)	-0.056 (0.036)	-0.040 (0.039)	-0.076 (0.063)	-0.045 (0.068)	-0.072** (0.035)	-0.099*** (0.038)	0.019 (0.047)	0.025 (0.051)
Production	-0.129** (0.058)	-0.113** (0.058)	0.015 (0.035)	0.017 (0.036)	0.049 (0.061)	0.043 (0.061)	-0.066** (0.034)	-0.049 (0.034)	-0.057 (0.046)	-0.065 (0.046)
Skilled trades	-0.027 (0.061)	-0.009 (0.061)	0.038 (0.037)	0.039 (0.037)	0.235*** (0.064)	0.227*** (0.064)	-0.051 (0.036)	-0.034 (0.036)	-0.050 (0.048)	-0.058 (0.048)
Administration	0.030 (0.049)	0.040 (0.050)	0.034 (0.031)	0.034 (0.031)	0.094* (0.053)	0.092* (0.053)	-0.089*** (0.030)	-0.078*** (0.030)	0.006 (0.040)	0.002 (0.040)
Police	-0.412*** (0.084)	-0.362*** (0.086)	0.035 (0.052)	0.036 (0.054)	0.341*** (0.091)	0.311*** (0.093)	0.039 (0.050)	0.086* (0.052)	0.119* (0.068)	0.094 (0.070)
Power	0.001 (0.003)	0.008** (0.004)	0.001 (0.002)	0.001 (0.002)	-0.006* (0.003)	-0.008** (0.004)	-0.003** (0.002)	0.003 (0.002)	0.008*** (0.002)	0.005 (0.003)
Unit	0.038 (0.044)	0.042 (0.044)	-0.052** (0.027)	-0.054** (0.027)	-0.136*** (0.047)	-0.140*** (0.047)	-0.056** (0.026)	-0.052 (0.026)	0.061* (0.035)	0.060** (0.035)

Table 4. (Cont'd.)

	Stress		Job satisfaction		Job security		Employment security		Alienation	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year 1994	0.532*** (0.050)	0.473*** (0.058)	-0.022 (0.032)	-0.009 (0.036)	-0.313*** (0.55)	-0.276*** (0.063)	0.356*** (0.031)	0.297*** (0.035)	0.657*** (0.041)	0.675*** (0.047)
Year 1995	0.200 (0.140)	0.079 (0.157)	-0.451** (0.084)	-0.405*** (0.096)	0.563*** (0.145)	0.667*** (0.166)	-0.099 (0.081)	-0.216** (0.093)	0.118 (0.109)	0.149 (0.125)
Year 1996	0.018 (0.127)	-0.101 (0.145)	-0.090 (0.078)	-0.047 (0.090)	0.230* (0.135)	0.325** (0.156)	-0.327*** (0.076)	-0.444*** (0.087)	0.086 (0.102)	0.116 (0.118)
Year 1997	-0.055 (0.050)	-0.078 (0.054)	-0.041 (0.031)	-0.027 (0.034)	0.019 (0.055)	0.041 (0.059)	-0.007 (0.030)	-0.030 (0.033)	-0.001 (0.041)	0.002 (0.045)
Constant	3.275*** (0.321)	-0.149 (2.083)	1.464*** (0.200)	1.022 (1.309)	1.475*** (0.345)	4.196* (2.270)	0.836*** (0.194)	-2.520* (1.316)	5.015*** (0.261)	7.048*** (1.717)
N	3589	3589	3677	3677	3765	3765	3569	3569	3773	3773
R ²	.08	.08	.47	.47	.23	.23	.68	.68	.41	.41

Omitted job category variable: professional; omitted year 1998.

*Denotes statistical significance at the .10 level or better. **Denotes statistical significance at the .05 level or better. ***Denotes statistical significance at the .01 level or better.

Table 5. Determinants of Intermediary Outcomes: The Effects of Partnership Cancellation and Late Adoption (Standard Errors in Parentheses)

Variable	Supervisor- employee relations	Employee involvement	Training	Collaboration
1995	-1.039*** (.121)	-0.859*** (.117)	-0.839*** (.131)	-0.491*** (.118)
1996	-1.088*** (.120)	-0.919*** (.115)	-0.817*** (.129)	-0.513*** (.117)
1997	-0.910*** (.046)	-0.676*** (.044)	-0.387*** (.049)	-0.409*** (.045)
1998	-0.970*** (.044)	-0.695*** (.043)	-0.401*** (.047)	-0.468*** (.043)
Madison	0.148 (.115)	0.121 (.109)	0.105 (.121)	0.188 (.112)
Lee	-0.061 (.188)	0.012 (.184)	-0.283 (.206)	-0.264 (.185)
Madison * 1995	-0.213* (.128)	-0.080 (.122)	-0.113 (.136)	-0.155 (.125)
Madison * 1996	-0.280*** (.134)	-0.078 (.127)	-0.237 (.141)	-0.125 (.129)
Madison * 1997	-0.486*** (.167)	-0.771*** (.161)	-0.705*** (.178)	-0.695*** (.164)
Madison * 1998	0.070 (.243)	0.269 (.234)	0.038 (.256)	0.008 (.236)
Lee * 1995	-0.048 (.278)	-0.347 (.275)	0.744** (.301)	-0.001 (.284)
Lee * 1996	0.568** (.244)	0.392* (.238)	0.435 (.265)	0.684*** (.240)
Lee * 1997	-0.634* (.371)	-0.905** (.360)	-0.228 (.394)	-0.333 (.361)
Lee * 1998	0.016 (.331)	-0.032 (.310)	0.766** (.352)	0.586* (.327)
Constant	3.791*** (.243)	4.044*** (.235)	4.240 (.263)	3.708*** (.238)
<i>N</i>	4167	4700	4934	4599
<i>R</i> ²	.23	.12	.07	.07

Omitted year 1994; omitted facility is the mean of the remaining facilities.

*Denotes statistical significance at the .10 level or better. **Denotes statistical significance at the .05 level or better. ***Denotes statistical significance at the .01 level or better.

Table 6. Determinants of Employee Outcomes: The Effects of Partnership Cancellation and Late Adoption (Standard Errors in Parentheses)

Variable	Stress	Job satisfaction	Job security	Employment security	Alienation
1995	-0.352*** (.141)	-0.430*** (.084)	-0.699*** (.146)	-0.487*** (.081)	-0.519*** (.110)
1996	-0.520*** (.134)	-0.073 (.083)	0.334** (.144)	-0.780*** (.080)	-0.508*** (.109)
1997	-0.564*** (.053)	-0.029 (.033)	0.309*** (.058)	-0.350*** (.032)	-0.654*** (.043)
1998	-0.537*** (.051)	0.024 (.032)	0.304*** (.056)	-0.348*** (.031)	-0.673*** (.042)
Madison	0.187 (.123)	0.001 (.078)	-0.359 (.136)	-0.168 (.075)	0.039 (.102)
Lee	0.041 (.199)	0.031 (.125)	0.057 (.218)	0.044 (.117)	-0.139 (.165)
Madison * 1995	-0.137 (.143)	-0.055 (.088)	0.392*** (.152)	0.085 (.085)	-0.067 (.114)
Madison * 1996	-0.135 (.144)	-0.082 (.091)	0.537*** (.158)	0.213*** (.088)	-0.191* (.119)
Madison * 1997	-0.547*** (.180)	-0.070 (.115)	0.003 (.198)	-0.256*** (.109)	0.227 (.149)
Madison * 1998	-0.292 (.291)	-0.221 (.177)	0.474 (.319)	-0.102 (.168)	0.543** (.241)
Lee * 1995	0.148 (.316)	-0.059 (.195)	0.106 (.340)	-0.221 (.187)	0.334 (.257)
Lee * 1996	-0.088 (.264)	0.171 (.165)	-0.035 (.289)	0.231 (.159)	0.111 (.218)
Lee * 1997	-0.354 (.389)	0.040 (.243)	0.208 (.426)	-0.647*** (.242)	0.412 (.321)
Lee * 1998	-0.031 (.371)	0.127 (.232)	0.059 (.406)	-0.459 (.229)	0.565* (.307)
Constant	4.010*** (.282)	1.554*** (.175)	1.545*** (.302)	1.269*** (.168)	5.670*** (.228)
<i>N</i>	3589	3677	3765	3569	3773
<i>R</i> ²	0.08	0.48	0.24	0.69	0.41

Omitted year 1994; omitted facility is the mean of the remaining facilities.

*Denotes statistical significance at the .10 level or better. **Denotes statistical significance at the .05 level or better. ***Denotes statistical significance at the .01 level or better.

intermediary measures. Only supervisor-employee relations showed a consistent pattern of decline throughout the years under partnership.

The first full year of partnership at Lee, on the other hand, was associated with an improvement in the perceived level of collaboration and increase in the opportunities for training. The effects on relations between supervisors and employees and the level of perceived employee involvement were insignificant.

As the results in Table 6 indicate, improvements in perceived job and employment security and a reduction in alienation were associated with a functioning local council at Madison. Beginning in 1997, however, the results suggest the cancellation of the local council was linked to a reduction in employment security and an increase in feelings of alienation. The effects at Lee, however, are mixed with a decrease in employment security in 1997 and an increase in perceived alienation in 1998.

SUMMARY AND CONCLUSION

The present models were designed to test the effects of variation in partnership implementation on several employee attitudes and perceptions. The results suggest that how joint labor-management partnership councils are implemented and function will have a significant influence on the intermediary workplace outcomes, which in turn affect key employee perceptions and attitudes. Further, the internal characteristics of the local councils—those under direct control of the union leadership and management—appear to have a substantial effect on employee outcomes. In particular, councils that meet frequently (at least biweekly) and councils that regularly discuss both traditional and nontraditional topics appear to improve perceived training opportunities, perceived supervisor-employee relations, and foster a greater perception of collaboration and employee involvement than facilities that meet less frequently and/or discuss a narrower range of topics. Similarly, perceptions of each intermediary outcome, excluding collaboration, improve when council composition includes both the facility manager and union president and training is given to the members.

Perceptions of each intermediary outcome diminish more, however, when the councils have co-decision-making authority (including veto power for the union president) than when they have advisory or consultative authority only. This outcome is contrary to the conceptual model and difficult to readily explain. One potential explanation may rest with the relatively small number of facilities included in the study, since there is relatively little variance in how decisions are reached among the individual local councils.

As predicted, employee job satisfaction and perceived job and employment security improved, while feelings of alienation and job-related stress decreased with improvements in the relations between supervisors and employees and in the perceived level of collaboration. With the exception of job-related stress, each employee outcome improved when perceptions regarding the opportunity for

employee involvement and access to training improved. A self-selection issue may be conditioning the results. It could be that individuals with more positive attitudes toward work are given greater opportunities to participate. Since data on the nonrespondents were not available, it was not possible to measure the potential bias due to self-selection.

To some extent, the observed effects on job-related stress contradict earlier research, which had found that participative practices had led to increases in employee stress [32, 33], but supports the findings reported by Karasek [34]. The presence of the indirect negative effects on stress therefore demonstrates support for the use of a more comprehensive model of partnership implementation.

The strong positive effects on perceived job and employment security found here are consistent with some previous studies, although the evidence in the literature remains mixed [35, 36]. The innovations in productivity and introduction of new technologies, so frequently associated with participative work practices, often lead to increased displacement of employees [37] which in turn, creates uncertainty and increased pessimism among employees regarding the security of their jobs and continued employment [36]. The perceptions among employees across the facilities in this study, however, contradict the assertions by both Osterman [36], and Simmons and Mares [37]. Partnership council functioning had both a strong direct and indirect effect on both perceptions of job and employment security.

With respect to factors external to partnership process, those facilities with a more senior workforce have overall lower perceptions of employee involvement, training, and employment security. These findings are consistent with the earlier work by Cooke [11] and may suggest that attitudes and perceptions are more likely to be entrenched among more senior employees than those who joined just before or after the partnership had begun. Further, the improved outcomes associated with increases in bargaining power support the earlier work by Kochan, Katz, and McKersie [30].

Unlike other earlier studies, the present study includes, albeit in only two facilities, the opportunity to examine the effects of variation in partnership functioning within facilities that have chosen and not chosen to participate. The suspension of partnership activities at Madison in 1997 provided an opportunity to assess how the otherwise unobservable differences in managerial support or interest in partnership may have affected employees. The plant manager's decision to suspend Madison's council in 1997 corresponded with a sharp decline in three of the four intermediary factors. That same year the employees at Madison, on average, felt that they were less-involved in decisions, felt there was less teamwork and collaboration, and that there were fewer opportunities for new training. The changes in these intermediary factors, in turn, had their expected effects on other employee attitudes and perception, including lower levels of job satisfaction, a greater feeling of alienation, and less perceived job and employment security. Job-related stress, however, was marginally lower in 1997. All the

other facilities with active councils did not experience declines in the intermediary factors or the employee outcomes, thus suggesting the importance of managerial commitment and support to the partnership process.

With the exception of Lee, all facilities implemented partnership in 1994. In the first full year after the implementation of local councils, the means for each dependent variable changed significantly and in the expected direction. If the improvements in job security, employment security, job satisfaction, and alienation are due to the introduction of partnership, as suggested by the theoretical model, then a similar increase would be expected in facilities that adopt partnership in later years. Fortunately, Lee provided this opportunity when it formed its council in 1997. As expected, sharp improvements in each outcome variable were observed in the 1998 responses of employees at Lee. While this is only one example and cannot be conclusively attributed to the rise to partnership, it is nonetheless highly suggestive of the impact partnership councils at the facility level may have on employee attitudes and perceptions.

The results presented here, together with the few earlier studies about joint labor-management council functioning, clearly demonstrate the need for a more comprehensive evaluation of participative practices. In particular, how participative practices are implemented and function can, to a large degree, determine employee outcomes.

Measuring the partnership variables at the facility level and regressing them onto employee-level data suggest that I have inadvertently captured other facility-level factors that are not associated with partnership but are otherwise reflected in the results. The inclusion of year dummies, however, would have theoretically captured all the fixed effects associated with increased productivity on employees, assuming that they affect each employee equally. The unmeasured facility-level characteristics, on the other hand, assuming they are stable over time, will be controlled for by the intercepts. It is the time-variant factors, such as managerial commitment to the partnership, that may be conditioning the results and consequently causing the effects of partnership to be either under- or overstated. Analyzing the mean trends over time, and in particular looking at the effects of Lee's late adoption of the process and Madison's early termination, suggests that the partnership process did have a significant impact on employee attitudes and perceptions beyond any otherwise-unobserved facility-level factors.

The approach followed here suffers from several limitations. First, the lack of available data at the subcommittee level reduced the number of locations in the fixed-effects model to the number of actual facilities. Secondly, the effects of overtime would have been strengthened had it been possible to track individual employee responses in each wave of the organizational assessment survey. Furthermore, there are two potential sources of bias related to the representativeness of the survey sample. First, the respondents are more likely to have worked less than 10 years, which does not reflect the actual population, where more than half have worked for the agency 10 years or more. Thus, they are

less likely to harbor entrenched attitudes toward the agency that may have been formed in the years prior to the implementation of the partnership. Secondly, the sample population underrepresents bargaining-unit employees, who through the union play a larger role in the partnership process than nonbargaining-unit employees.

Additionally, the lack of written records regarding council functioning necessitated reliance on individual recollections, which likely understate the true extent of variation in functioning over time within each facility. Reduced variation within facilities therefore will likely increase the difficulty in finding statistically significant fixed effects when these are added to the employee survey data. Nevertheless, there is sufficient evidence to underline the importance of examining how partnership councils function instead of simply treating them as a dichotomous dummy variable. The inclusion of specific implementation factors has extended our understanding of how councils operate and the significant effect differences within “like” councils have on employee perceptions and attitudes. Extending this theoretical model to a larger number of facilities in both the private and public sectors will no doubt strengthen the relationships found and underscore the need for more complex conceptualizations of participative practices.

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