

TAKING STOCK: COLLECTIVE BARGAINING AT THE TURN OF THE CENTURY

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Examining data from two national surveys of matched pairs of union and management lead negotiators, the authors evaluate the current state of practice in labor relations and test several propositions related to the transformation of American industrial relations. They find that 30–40% of the parties reported that they had introduced negotiated, workplace-level innovations or engaged in strategic-level interactions—both important aspects of transformation. Also, nearly half of the parties reported experience with use of interest-based bargaining practices. At the same time, relatively few parties reported relationships that were improving, and views on the extent of change differed between labor and management. Thus, there is an identifiable path supporting the transformation process, but only a minority of bargaining relationships are moving down that path.

During the first two-thirds of the twentieth century, collective bargaining achieved broad legitimacy in society, increased protection under the law, and an expanding reach across sectors of the economy. By the 1980s, however, it had become increasingly evident that the institution was in a state of decline and, absent a fundamental transformation, would play a greatly diminished role in society. At the time, it was hypothesized that such a transformation would require the negotiation

of innovative new language at the bargaining table, as well as parallel innovations in daily workplace relations and in strategic union-management relations (Kochan, Katz, and McKersie 1986).

What is the state of collective bargaining as an institution today? Clearly, the most visible signs point to continued decline. Union membership in the private sector has fallen to below 9%—essentially pre-New Deal levels. Many of the more highly visible experiments with the elements of the transformed model of labor-management relations have not been sustained. The changes in American labor policy that were believed to be necessary to support and encourage the transformation process have not been forthcoming. Efforts to make

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These data are available for public use. They may be obtained by contacting the authors or the FMCS—though all use of the data will be with notification to the FMCS.

such policy changes have been rebuffed by the same stalemate in labor politics that carried over from the 1970s (Commission on the Future of Worker Management Relations 1994; Kochan 1995).

Yet the visible overall indicators mask the fact that collective bargaining continues to serve as the central institution for engaging worker and employer interests. It is a dominant force for setting the terms and conditions of employment directly for nearly 20 million workers and indirectly for many more through its threat and spillover effects. Approximately 35,000 private sector labor negotiations take place each year, reflecting tremendous diversity in labor relations practices and relationships across these bargaining units. There remains strong support among the American public for the right of workers to organize for the purpose of collective bargaining. The law in principle still protects these rights, and a significant and perhaps growing number of American workers indicate they would prefer to be represented by a union (Freeman and Rogers 1999; Lipset and Meltz 2004). Furthermore, there have been important shifts in the bargaining process itself, involving longer-term agreements¹ and a higher profile given to the use of interest-based or mutual gains approaches.² There have also been notable shifts in union strategies supportive of workplace restructuring (Frost 2000, 2001; Rubinstein 2001). Thus, it is an appropriate time to evaluate whether the institution of collective bargaining is adapting to the changes occurring in its environment, whether and to what extent labor-management relations

are undergoing a transformation, and whether that transformation is assisting the parties in the adaptation process.

In this paper we draw on a unique set of survey data collected from a nationally representative sample of lead union and management negotiators. The data come from the second national customer survey conducted for the Federal Mediation and Conciliation Service (FMCS) as part of that agency's response to the requirements of the National Performance Review process initiated by the Clinton Administration. The data set contains responses from matched pairs of union and management lead negotiators, drawn as a random sample from all private sector negotiations covered by the National Labor Relations Act during the period 1997–99. On many issues we also have comparable data from a prior random sample of union and management pairs involved in negotiations between 1994 and 1996.

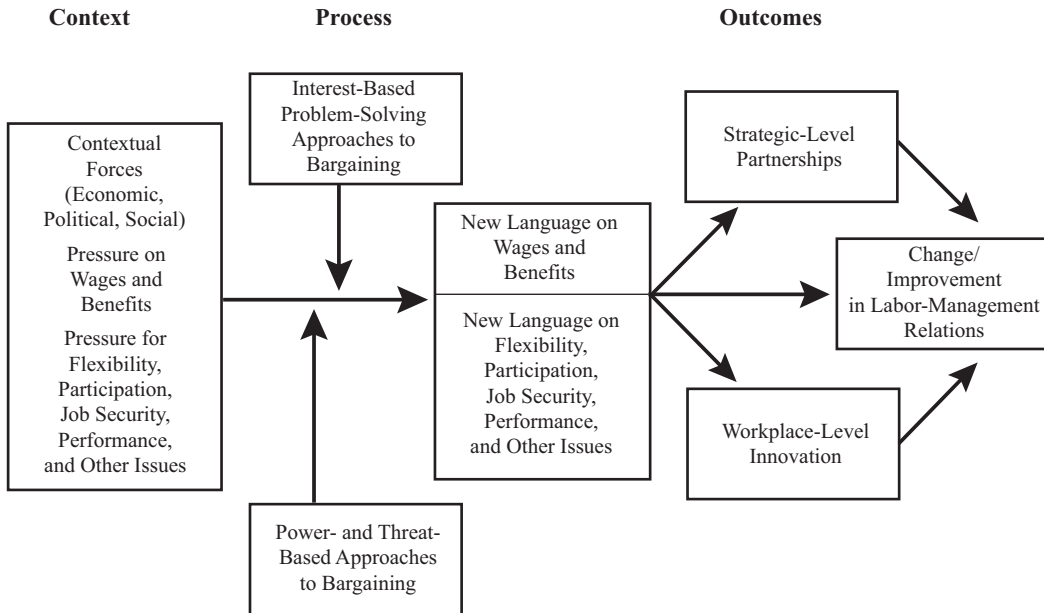
While no single survey or data set can capture the rich variation in contemporary collective bargaining, these data provide a more complete and representative profile of current practices than any other source. We use these data to describe the current state of collective bargaining and the extent of labor-management transformation. We then analyze the effects of the parties' efforts to change and improve their labor-management relationships.

Framework for the Analysis

Collective bargaining has traditionally been viewed as a multi-dimensional system incorporating both (1) the process of negotiating new agreements and (2) the day-to-day interactions that implement the terms of the agreement and shape the climate for employment relations between negotiations (Chamberlain and Kuhn 1965; Walton and McKersie 1965). Dunlop (1958) expanded the boundaries of the system to incorporate the key features of the external environment—markets, power relations, and technological contexts—that influence collective bargaining processes and outcomes. More recently, as noted above,

¹The percentage of contracts extending beyond three years grew from 8% in 1994 to 22% in 1999, and there is evidence of yet further increases in contract duration since then.

²In particular, interest-based bargaining practices (Fisher, Ury, and Patton 1991), derived from earlier theoretical models of integrative bargaining (Walton and McKersie 1965; Follett 1942), have been advanced as ways to enhance the problem-solving potential of collective bargaining.

Figure 1. Collective Bargaining Context, Process, and Outcomes.

Kochan, Katz, and McKersie (1986) suggested that interactions occurring at three different levels of an industrial relations system are interrelated. What is negotiated in collective bargaining is influenced by and influences workplace practices and relationships as well as high-level strategic interactions and decisions. Even more recently, basic theoretical concepts of distributive and integrative bargaining have been used in interest-based negotiations and strategic bargaining that mix problem-solving (use of brainstorming, facilitation, joint training, and other fostering-oriented change strategies) with more power-oriented approaches (use of strike threats or exit strategies in negotiations as forcing techniques to produce change). (Fisher, Ury, and Patton 1991; Walton, Cutcher-Gershenfeld, and McKersie 1994.)

Figure 1 illustrates the interconnections among these features of collective bargaining and depicts the framework that will

guide the analysis to follow. We first present descriptive data to assess the state of labor-management relations. We begin at the far right of the model shown in Figure 1, with data on the extent of change in labor-management relations, as well as post-agreement initiatives at the strategic and workplace levels. This is followed by data on traditional areas of contract language (wages and benefits), as well as innovative contract language concerning work rule flexibility, job security, worker participation, teams, new pay systems, and joint labor-management committees. Data are also presented on the frequency of renewal agreements and first contract agreements. Two key process factors are examined—the use of interest-based bargaining and the use of threats or power (through strikes or replacement workers). Finally, we examine data on various internal and external contextual factors regarding the intensity of domestic and international competition, pressure for flexibility, and the presence of

low trust and fear, all of which are factors that shape the parties' views as they head into collective bargaining.

Collective Bargaining Context, Process, and Outcomes

Following our presentation of the descriptive data, we test a series of specific hypotheses concerning the extent of transformed labor-management relations. First, we examine the degree to which various contextual factors are associated with new contract language on topics commonly associated with transformed labor-management relations. The following three hypotheses are tested:

H1a: Pressure from domestic and international competition will increase the likelihood of new, transformative contract language.

H1b: Pressure for increased flexibility will increase the likelihood of new, transformative contract language.

H1c: Pressure from low trust and fear of job loss will reduce the likelihood of new, transformative contract language.

Note that all three of these hypotheses reflect an underlying view that transformative contract language represents a constructive response to external pressures. An alternative series of hypotheses could also be presented in which the pressures are simply viewed as driving increased tension and conflict in labor-management relations. We consider that alternate perspective when we examine the results of the analysis.

Next, we assess whether process factors, including interest-based bargaining and the use of threats and power, increase the likelihood of new contract language. These relationships are tested with the following hypotheses:

H2a: The use of interest-based bargaining processes will increase the likelihood of new, transformative contract language—holding constant contextual pressures.

H2b: The use of threats and power will reduce the likelihood of new, transformative contract

language—holding constant contextual pressures.

Finally, we examine what can be thought of as core hypotheses derived from Kochan, Katz, and McKersie (1986) on the transformation of U.S. industrial relations, which can be stated as follows:

H3a: New, transformative contract language will increase the likelihood of new or expanded labor-management initiatives at the workplace and strategic levels—holding constant contextual pressures.

H3b: The use of interest-based bargaining processes will increase the likelihood of new or expanded labor-management initiatives at the workplace and strategic levels—holding constant contextual pressures.

H3c: The use of threats and power will reduce the likelihood of new or expanded labor-management initiatives at the workplace and strategic levels—holding constant contextual pressures.

The terms “workplace level” and “strategic level” come from the Kochan, Katz, and McKersie text, which argued that a transformation of U.S. industrial relations would require alignment across daily workplace relations and practices (such as the use of teams and self-inspection for quality), collective bargaining processes and outcomes (codifying innovations and setting the stage for further innovation), and strategic decision-making concerning investment and related matters. In presenting these hypotheses, we do not necessarily assume that the workplace and strategic initiatives are only prompted by collective bargaining agreements—such activities can and often do precede bargaining. The hypotheses focus, however, on the impact of bargaining on subsequent initiatives at these other two levels.

The construction of the variables associated with these hypotheses is presented in conjunction with the descriptive analysis of the various elements of the core model. Before we turn to the descriptive and multivariate analysis, it is important to provide more details on the data set.

Data

As part of its efforts to fulfill its responsibility under the National Performance Review initiative, the FMCS commissioned a National Performance Review Customer Survey. The initial survey, the first of its kind ever conducted by FMCS, interviewed union and management representatives who had helped negotiate approximately 1,050 randomly sampled collective bargaining agreements in the agency's database. In total, 1,557 responses were received from 777 union and 780 management representatives, with 586 matched pairs and an overall response rate of 74%.

The second survey contains completed interviews with respondents in 2004, of whom 1,040 were union representatives and 964 were management representatives. The 626 matched pairs in this sample are the primary focus of our analysis.³ In the second survey a subsample of 461 respondents were interviewed from public sector negotiations in four states where the FMCS has a substantial role in public sector negotiations. These responses have been excluded from the analysis presented in this paper, but will be the focus of subsequent research.

In both surveys, the samples were pulled on a random basis from the total population of bargaining units submitting legally required 60-day notices of contract expiration to the FMCS, eliminating to the greatest extent possible any unintended selection bias in the sample. By design, large bargaining units (250 or more workers) were over-sampled, as were users of FMCS services. In the charts and tables presenting descriptive data, the results are weighted to account for the over-sampling on size and use of FMCS services. Unweighted data are used in all multivariate regression analysis.⁴ The sampling frame included all

60-day notices from the prior three years (1994, 1995, and 1996 for the first survey; 1997, 1998, and 1999 for the second) to ensure sampling across contracts that are only negotiated once every two or three years.⁵ A telephone survey protocol was used to collect the data. Both surveys were administered by the Center for Survey Research at the University of Massachusetts–Boston.

A Descriptive Profile of Contemporary Bargaining Relationships

Descriptive statistics from the national survey provide a snapshot of collective bargaining and labor-management relations. These data highlight points of tension in U.S. industrial relations as well as areas with significant innovation and improvement in relationships. The presentation is organized around the various elements in Figure 1, beginning with the outcomes on the far right-hand side of the chart and working leftward to the initial contextual forces. These variables will also be used to test key hypotheses regarding the extent and nature of the transformation under way in this system.

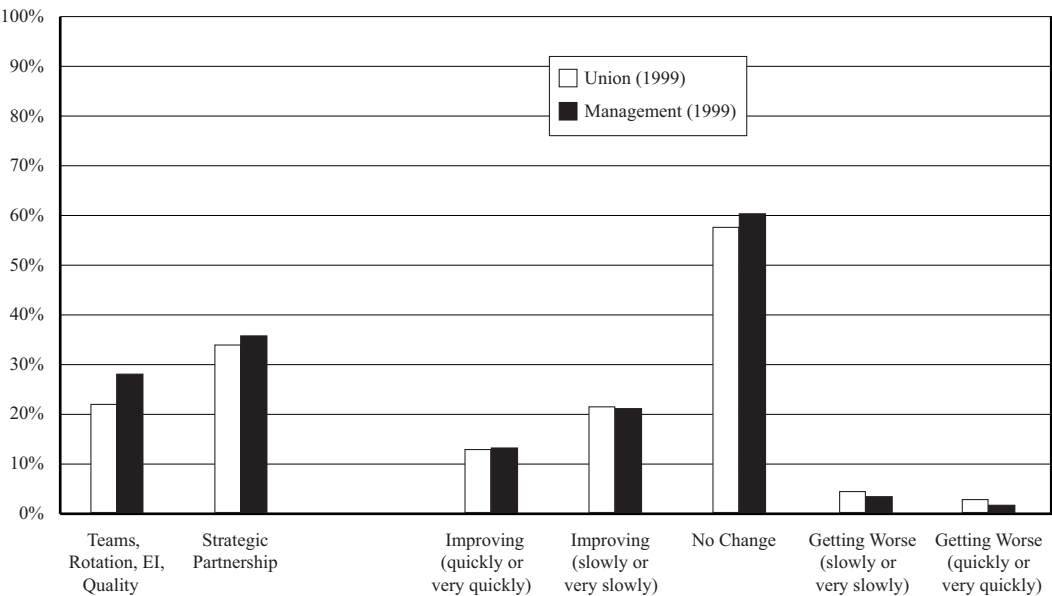
Change/improvement in labor-management relations. Because collective bargaining involves on-going relationships, a key question is how well—if at all—it is adapting to changes in its environment. One set of questions in our survey sought the parties' assessment of this issue by asking about the extent to which their relationship was getting worse, staying the same, or improving. As Figure 2 indicates, a sizeable majority of union and management representatives reported that their relationships were *not* changing (approximately 60%) or were getting worse (approximately 5–7%). Only about a third of respondents reported that their labor-management relationships were improving, and among those respondents, the majority reported a slow or very slow rate of change. In other words, across the

³It is hard to assess whether or not this second survey is fully comparable to the first, since some unionized firms may have gone out of business during the intervening years and new union organizing occurred during the same period.

⁴The equations already include measures for size—so the weighted data would distort this measure.

⁵With the trend toward longer agreements, future analysis may require a longer sampling frame.

Figure 2. Post-Agreement Initiatives and Changes in Labor-Management Relationships.



full sample of relationships, less than 10% of the parties indicated that their relationships were improving at a quick or very quick rate.

Post-Agreement Initiatives and Labor-Management Relationships

When these data were presented in regional briefings, organized by the FMCS, considerable debate emerged. Some practitioners stated that these numbers were not at all troubling, commenting that labor relations were fine as they were and that, as one person put it, “If it’s not broke, why fix it?” Others, however, stated that “no change” in labor-management relations in the midst of such a dynamic and turbulent era was a troubling signal. They expressed concern, in particular, about the responsiveness of labor-management relations to the complex problems surfacing as a result of intensified domestic and international competition, new workplace systems, work/family challenges, and other matters.

Workplace innovations. One of the most

important developments in industrial relations over the past two decades has been the spread of significant changes in workplace practices in both union and non-union establishments (Appelbaum and Batt 1994; Lawler, Ledford, and Mohrman 1992; Black and Lynch 1997; Osterman 2000). A central proposition in the transformation literature is that changes in workplace practices are a necessary complement to changes in collective bargaining and strategic-level interactions. The data reported in Figure 2 summarize the degree to which initiatives following the most recent negotiations involved the use of teams, or job rotation, or increased worker responsibility for quality, or increased worker involvement in operations decisions. Approximately 22% of union representatives and 30% of management representatives reported such initiatives.

These numbers are difficult to benchmark against other workplace surveys because the sample here includes many more small bargaining units than most national surveys and the survey questions here focus

specifically on initiatives following the most recent negotiations. The percentages are somewhat smaller than those reported by Osterman (2000) and in the national survey done by the Census Bureau for the Education and Quality of the Work force (EQW) Center (Black and Lynch 1997). However, the results of a separate analysis of the FMCS data from larger bargaining units are consistent with the findings from other surveys. For example, 20.8% of the union respondents in bargaining units with fewer than 250 employees, compared to 31.4% of union respondents in larger bargaining units, reported one or more of the workplace initiatives discussed here. The gap is comparable among managers, with 28.0% in smaller bargaining units reporting such initiatives, compared to 42.1% in bargaining units of over 250 employees. Note too that union and management respondents differed in their reports on such workplace activities, a pattern that appears on many dimensions investigated by this survey and that we discuss in more detail later in this paper.

These data suggest that between one-fourth and one-third of the surveyed bargaining units had in place one or more of the workplace practices that were hypothesized to be essential building blocks for transforming industrial relations. Approximately 19% had two or more of these practices—a benchmark that Osterman (1994, 2000) suggested constitutes a conservative standard for judging whether significant workplace transformation is under way within an establishment.

Strategic-level practices. The transformation model of labor-management relations also proposes that workplace and collective bargaining innovations need to be complemented and reinforced by more consultation, information sharing, or other forms of union participation in strategic business decisions. The survey asked about the extent to which there existed some form of “partnerships to promote joint approaches for addressing strategic business issues such as new technology or new products, things that management has historically done

alone.” The survey did not specify the form taken by these partnerships, and therefore these activities might range from information sharing, to consultation, to the actual sharing of decision-making authority.

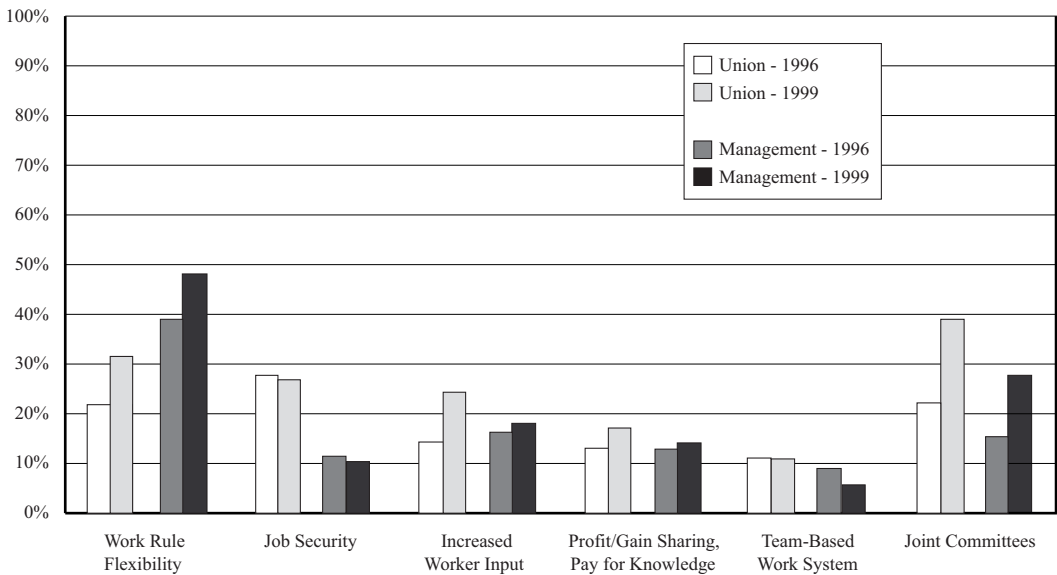
Again, the data reveal differences by bargaining unit size, with strategic-level initiatives reported by 31.4% of union respondents in bargaining units under 250 employees and by 49.3% of union respondents in larger bargaining units. Managers reported strategic initiatives in 34.1% of smaller units, in contrast with reported strategic initiatives in 50.9% of larger bargaining units. These data identify cases in which strategic activities produce alignment in activities across the various levels of industrial relations.

New Language on Wages, Benefits, Flexibility, Teams, Job Security, and Other Issues

In addition to post-negotiation initiatives at the workplace and strategic levels, it is important to assess the nature and content of agreements reached at the bargaining table. Approximately 95% of the surveyed agreements featured wage increases, and approximately two-thirds featured benefit increases. Union and management respondents differed considerably regarding the latter, however, with 70% of union negotiators and 54% of management negotiators reporting benefit increases—a discrepancy reflecting, perhaps, the different ways in which the two parties reported the settlement to their constituents.

Concessions in wages and benefits surface as an extreme outcome when there is much pressure to break from past trends. We find that the wage concessions so prominent from the 1980s through the mid-1990s appear to have mostly abated by the late 1990s, with 11.4% of managers and 7.5% of union representatives reporting a wage freeze or “below pattern” wage increase in the FMCS data. Another 21.7% of managers and 12.0% of union respondents reported benefit reductions. Naturally, these categories are not mutually exclusive. For example, half of the union respondents

Figure 3. Frequency of Contract Language on Six "Innovative" Issues.



who reported a benefit decrease (6.2%) also reported a benefit increase. This could happen, for example, where there were gains in some benefits, such as pensions, and concessions in others, such as health care. The same combination of an increase and decrease in benefits was reported by 10.9% of management respondents.

While wages and benefits are important outcomes for both labor and management, other issues provide a basis for alignment across levels—issues such as work rule flexibility, job security, worker participation, new pay systems (such as profit sharing, gainsharing, and pay-for-knowledge), team-based work systems, and joint labor-management committees. As Figure 3 indicates, none of these issues dominated the collective bargaining landscape—new language on these issues was mostly found in a third of agreements or fewer—but this provides evidence that these issues at least were “on the agenda” to some degree in U.S. collective bargaining.⁶ Specifically,

18–25% of relationships had negotiated language providing for worker input and less than half as many had negotiated language providing for some form of team-based work organization. Approximately 15% of negotiations also featured new pay systems. These are all examples of contract language that would both enable and codify workplace innovations.

Frequency of Contract Language on Six “Innovative” Issues

Both union and management respondents reported somewhat greater frequency of negotiations over work rule flexibility, which could include changes in seniority bumping and bidding rights, reductions in job classifications, changes in overtime scheduling, and similar contractual adjust-

⁶Note that the focus in Figure 4 is on new language being negotiated on these issues (without specifying

the exact new language). Additional data are available to interested readers on the presence of language in the contract regardless of whether it was just negotiated and also the degree to which the issue was proposed, even if there was not a final agreement on the language.

ments (in contrast to the worker input frequencies discussed above). Agreements containing flexibility provisions were reported by one-third to one-half of the respondents, with union negotiators less likely to report this than were their management counterparts. Management typically seeks flexibility provisions to support new work systems.

Conversely, unions usually pointed out that work rules provide protection against arbitrary actions by management. The conventional wisdom has always been that workers will not offer their inputs on how to improve productivity unless they know they will not be working themselves out of a job (Slichter, Healy, and Livernash 1960; Hartman 1969). Thus, relaxing such work rules is often assumed to be linked to increases in job security. Unions report new language on job security in about one-quarter of all negotiations (26.7%) and management in about 10%. As noted earlier, there is a gap in the degree to which the two sides report new language on certain issues; this time it is unions that are more likely to report such language.

The contrast between the views of union and management respondents on the negotiation of new contract language about work rule flexibility, job security, and other matters is a finding in itself—particularly since the sample consists of matched pairs. As noted above, this may reflect the contrasting ways in which representatives report negotiations outcomes to constituents, with union representatives more likely than their management counterparts to report gains in job security, and management representatives more likely than their union counterparts to report gains in work rule flexibility. But this contrast in perspectives may be an important indicator of the ability of the parties to work together under a contract.

One more standard contractual feature, the use of joint labor-management committees to address specific workplace issues, is, as one would expect based on other surveys of contract terms (Bureau of National Affairs 2000), quite common. New or modified contract language on joint committees

is reported by 39% of union negotiators and 23% of management.

Contract deadlines, renewals, and first contract agreements. The vast majority of contract renewal negotiations ended with an agreement, though approximately 3–4% did not (due to firms going out of business, union decertification, or other factors). The picture for first contract negotiations differs markedly, however, from that for contract renewal negotiations. In the 1996 survey, only about 75% of first contracts reached agreements. This percentage is at the high end of the range of estimates derived from other internal FMCS data sources (Commission on Worker Management Relations 1994:74–75). It still was viewed as a source of significant concern to FMCS officials, to managers, and, especially, to labor representatives who participated in regional briefings of these data.

The 1996 survey results prompted the FMCS to increase its support to parties in first contract negotiations—with specific mediators assigned on a “case-management basis” to monitor first contracts well in advance of the normal timing for FMCS involvement. In the 1999 survey there was a marked increase—to around 90%—in the settlement rate for first contracts. Given the small number of first contract cases in the sample, caution must be exercised in interpreting these findings. Still, we conclude that there is an important risk that negotiations in first contract situations will not reach an agreement; that targeted intervention by the FMCS may help mitigate the risk; and that this is a high-priority issue, since first contracts are one of the key ways through which the institution of collective bargaining renews itself.

The existence of a definite contract deadline has traditionally been a prominent feature of collective bargaining—noted as a focal point helping to compel agreement. However, these data suggest that this aspect of collective bargaining may not be as universal as commonly believed, or it may have deteriorated from common practice in prior decades. Approximately one-third of negotiations reached agreement either a

*Table 1. Union and Management Reports on Job Actions and Replacement Workers.
(Weighted Data, 1996 and 1999 FMCS Surveys)*

	<i>Union</i> (1996)	<i>Union</i> (1999)	<i>Management</i> (1996)	<i>Management</i> (1999)
<i>Reported Events and Dynamics</i>				
Job Actions				
Strikes, Lockouts, and Other Job Actions	7.5%	5.7%	4.6%	4.2%
Job Actions under 15 days	2.9%	3.7%	2.4%	3.5%
Threat of a Strike				
Union Strike Threat	11%	12%	4%	4%
Replacement Workers				
Threat of Replacement Workers	14.1%	11.2%	10.1%	6.0%
Use of Replacement Workers	0.9%	2.1%	1.7%	1.2%

month or more prior to the contract expiration or more than a month afterward.

Power and threat approaches to collective bargaining. The threat to use power or the actual use of power to motivate a favorable agreement has always been assumed to play a significant role in collective bargaining. Thus, power or forcing strategies (Walton, Cutcher-Gershenfeld, and McKersie 1994) are both a feature of the process of negotiations and a factor that is expected to influence bargaining outcomes. The most visible manifestations of power involve the threat or use of strikes, lockouts, other types of job actions, the threat or use of replacement workers, and the threat of closing the facility. Respondents were asked about the importance or prevalence of these events or threats in their negotiations.

As shown in Table 1, strikes, lockouts, or other job actions occurred in approximately 5% of contract negotiations. The threat of a strike was perceived by labor representatives to have “heavily influenced” negotiations (as compared to “moderately,” “slightly,” or “not at all”) in approximately 12% of the cases, while management negotiators saw it as a heavy influence in about 4% of the cases—primarily the cases in which a strike or job action actually occurred.

Management’s threatened use of replacement workers was perceived by union representatives to be a factor in about 10% of

negotiations; management saw this as a significant factor in only 6% of the cases. The actual use of replacement workers occurred in only 1–2% of negotiations, or in conjunction with approximately one out of every four strikes. Prior research shows that strikes have occurred only in a small minority of negotiations (Kaufman 1982; Grahm 1986). What is somewhat surprising in these data, however, is that nearly 90% of the negotiators did not see a strike or lockout threat as a major factor driving negotiations.

Union and Management Reports on Job Actions and Replacement Workers

It is important to note that the potential for a strike may be an unstated factor in nearly all negotiations, but the evidence here suggests that it is a salient factor only in a limited number of cases. Indeed, anecdotal conversations with numerous union leaders confirmed a great reluctance to threaten and use the strike as a form of leverage, given stated or implicit fears that permanent replacement workers would be used, that the spirit of the partnership arrangement (in some cases) might be harmed, or that such an action might harm the competitiveness or viability of the operations in the bargaining unit.⁷ Certainly

⁷Consider, for example, some words by Peter diCicco, former president of the AFL-CIO’s Indus-

Figure 4. Familiarity and Experience with Interest-Based Bargaining.



the fact that approximately a third of the negotiations continued past the contract expiration date for a month or more pro-

vides further evidence that the strike was not playing a central role in motivating agreement in U.S. collective bargaining.

trial Union Department and now Executive Director of the coalition of unions bargaining with the Kaiser Permanente health care organization (representing over 75,000 union members). In reflecting back to 1995, prior to the launch of a partnership between the unions and the employer, he noted that the strike and other power options were considered and rejected:

It became evident, given the negative attitude of the public toward strikes in health care, we had to consider other options—and so we began looking at other means to achieve bargaining strength—corporate campaigns and such.... But it became clear to us if we proceeded with the campaign we would lose control. The government might step in and we would all lose. So I went to the International union presidents and told them these guys [Kaiser] are not the worst of employers we deal with and we might do permanent damage to them and to our 75,000 members if we mount an all-out corporate campaign or use the information amassed [through a special supplemental budget established by the unions to support a corporate campaign].... Was there an alternative? (Cited in Kochan, Eaton, and McKersie 2003.)

Interest-based problem-solving approaches to collective bargaining. The use of power is not the only dynamic influencing the process or outcomes of negotiations. Problem-solving, or what more recently has been labeled “interest-based” approaches to bargaining (Fisher, Ury, and Patton 1991) or in more theoretical language “integrative bargaining” (Walton and McKersie 1965; Follett 1942), also plays a role. Indeed, interest-based bargaining (IBB) has emerged as one of the most visible innovations in negotiations practice in labor relations and other domains in recent years. Respondents were therefore asked about their level of awareness and use of IBB and their satisfaction with it.

In the 1996 survey, over two-thirds of respondents indicated familiarity with the IBB concepts, and approximately 40% reported having employed these principles in bargaining (47% of union respondents

Table 2. Union and Management Reports on Interest-Based Bargaining (IBB) and Related Activities. (Weighted Data, 1999 FMCS Surveys)

<i>Reported Events and Dynamics</i>	<i>Percentage of Those Familiar with IBB, 1999</i>	
	<i>Management</i>	<i>Union</i>
Pre-Bargaining Activities		
Joint Pre-Training in IBB	33.0%	40.4%
Joint Task Forces (prior to bargaining)	26.5%	17.5%
Prior Notice to Union Constituents	22.2%	7.3%
Prior Notice to Management Constituents	0.0%	22.0%
Activities During Bargaining		
Joint Task Forces Used a Lot (during bargaining)	20.2%	17.6%
Brainstorming and Problem-Solving	44.0%	34.5%
Use of a Facilitator	6.1%	5.5%
Union Sharing of Collected Data	61.1%	27.9%
Management Sharing of Economic Performance Data	61.4%	66.6%
Consensus Decision-Making	79.6%	74.4%
Activities at Conclusion of Bargaining		
Increased Brainstorming at Conclusion	66.0%	55.0%
Shift to Traditional Bargaining at Conclusion	57.2%	58.0%
Backlash/Criticism of the Bargaining Process	17.0%	19.8%
Use of IBB in Contract Administration	42.0%	67.5%

and 35% of managers). As Figure 4 indicates, the results from the 1999 survey reflect an even higher proportion of negotiators who were familiar with and used these principles. The chart also indicates, however, some decline in the number of negotiators who rate this approach as good, very good, or excellent—a trend more pronounced among union negotiators. There was also some fall-off in managers' rating of the value of traditional approaches.

Familiarity and Experience with Interest-Based Bargaining

In order to better understand what is behind these ratings of IBB, the 1999 survey focused on a set of behaviors associated with the bargaining process. The results of that survey are summarized in Table 2. Note that the percentages here are based on the subsample that indicated experience with or use of IBB in their most recent negotiations.

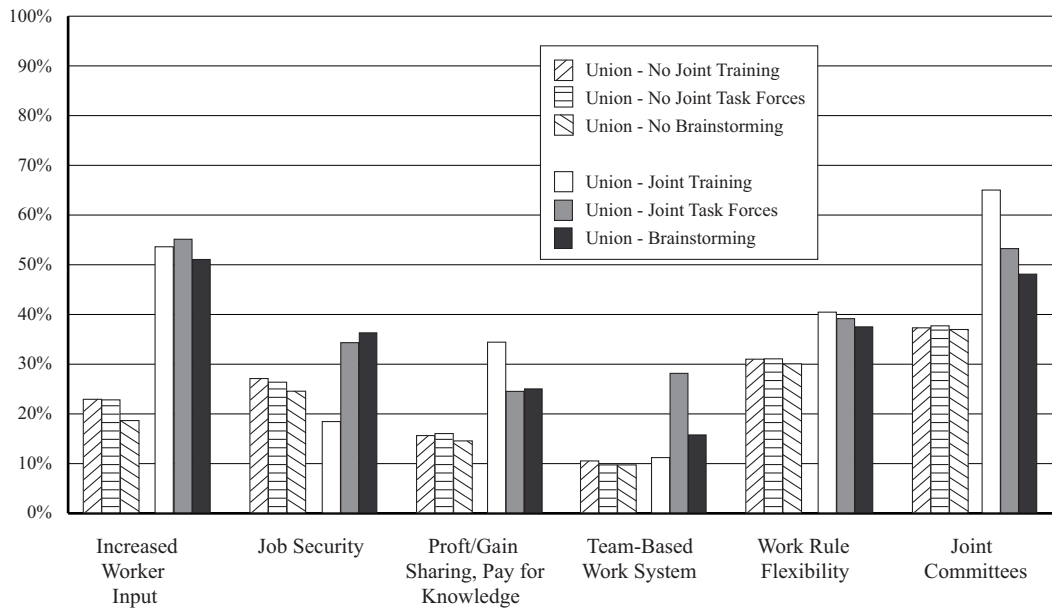
Joint training in IBB principles was relatively common, occurring in approximately one-third of the cases where there was some

reported use of IBB. This variable will be used in the later multivariate analysis, since it is often cited as essential to the successful use of IBB in actual negotiations (Katz and Kochan 2000:222). Less than a quarter of negotiators reported providing advance notice to their own constituents regarding the use of IBB principles. During the bargaining process there was extensive use of brainstorming or problem-solving (though limited use of formal facilitators) and substantial sharing of data. Among parties familiar with IBB, over two-thirds also reported the use of consensus decision-making. Approximately one in five of these IBB-associated negotiations also involved the use of joint subcommittees or task forces. This latter variable also will be used in our multivariate analysis, since it too is highly characteristic of a joint commitment to the IBB approach.

Union and Management Reports on IBB and Related Activities

Over half of the parties familiar with IBB

Figure 5. Impact of Joint Training, Joint Task Forces, and Brainstorming on Selected Outcomes: Union Respondents, 1999 Survey.

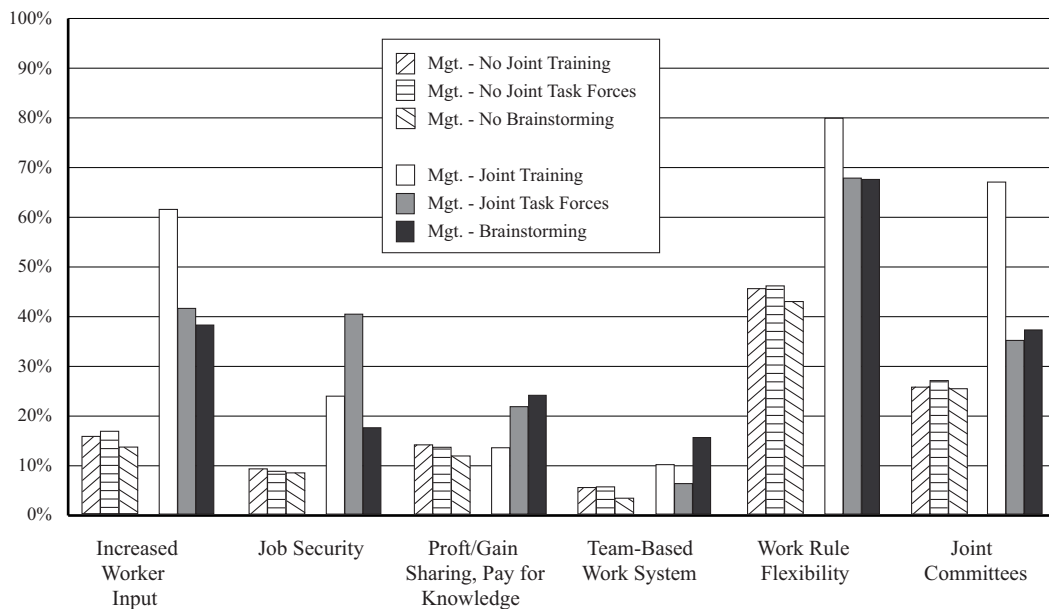


reported an increase in the amount of brainstorming used as negotiations moved to a conclusion, but a similarly large percentage reported a shift to traditional bargaining at this point in negotiations. Following negotiations, approximately 20% reported experiencing a backlash or criticism of the process. Two-thirds of managers and approximately 40% of union representatives reported the continued use of IBB principles in contract administration. While these descriptive data suggest that an appreciable number of labor and management negotiators were experimenting with the use of IBB or at least some of its associated behaviors, our analysis of the effects of IBB using the first round of the FMCS survey (with less precise measures of IBB) (Cutcher-Gershenfeld, Kochan, and Wells 1998) found it had limited effects on bargaining outcomes. With these more detailed measures, however, we do see evidence that interest-based bargaining affected contractual outcomes that were as-

sociated with a transformation in labor-management relations. As Figures 5 and 6 indicate, joint training, joint task forces, and joint brainstorming/problem-solving were all associated with an increased likelihood of negotiating new contract language on matters commonly associated with a transformation in labor-management relations, such as increased worker input, job security, new pay systems, team-based work systems, work rule flexibility, and joint committees.⁸

⁸The same analysis was also run for wage and benefit outcomes. The results did not materially differ from those we obtained using either wage increases or wage concessions. There was also no effect associated with joint training and benefit gains or losses. There was some increased likelihood of benefit concessions associated with joint task forces and brainstorming, which may account to some extent for why more union respondents than managers expressed a wary attitude toward interest-based bargaining.

Figure 6. Impact of Joint Training, Joint Task Forces, and Brainstorming on Selected Outcomes: Management Respondents, 1999 Survey.



We examine this relationship more fully below using regression analysis that allows us to control for the influence of a number of contextual factors and other dynamics.

Contextual forces. Table 3 reports on how labor and management perceived the influence of a range of contextual factors on labor negotiations. For comparative purposes, data from the 1996 survey are presented in the table along with responses from the 1999 survey. We see, for example, that relatively few negotiators reported that domestic or international competition had a “heavy influence” on their negotiations. A similarly small number of respondents reported that pressures from work rules flexibility, skills upgrading, and new technologies had a heavy influence on negotiations (these last three factors do co-vary and will be combined into a “flexibility” scale in our multivariate analysis).

Trust and employment-related fears also influence negotiations. As Table 3 indi-

cates, approximately 10% of managers and 20% of union respondents reported that “low trust” heavily influenced bargaining—a substantial decline from the 1996 survey. There was also some decline in the fear of job loss as a factor heavily influencing negotiations—perhaps reflecting the growing tightening of the labor market that was taking place during the time period covered by this survey (national unemployment rates in 1999 hovered between 4.0% and 4.3%, for example). We combined the job loss with the perceived threat of plant closing or movement of work to nonunion locations to form a “fear” scale that will be used in our multivariate analysis as well.

Union and Management Perceptions of Factors “Heavily Influencing” Collective Bargaining Contract Negotiations

Taken together, these descriptive data suggest that while the majority of labor-

Table 3. Union and Management Perceptions of Factors
 “Heavily Influencing” Collective Bargaining Contract Negotiations.
 (Weighted Data, 1996 and 1999 FMCS Surveys)

<i>Factors Influencing Bargaining</i>	<i>Union (1996)</i>	<i>Union (1999)</i>	<i>Management (1996)</i>	<i>Management (1999)</i>
Competitive Pressure				
Domestic Competition	22%	12%	22%	23%
International Competition	8%	11%	4%	6%
Flexibility/Capability Pressure Scale^a				
Work Rule Flexibility	20%	15%	15%	19%
Pressure to Upgrade Skills	5%	7%	4%	5%
New Technology	6%	5%	2%	4%
Trust				
Low Trust	28%	20%	14%	10%
Employment Fear Scale^b				
Fear of Job Loss	24%	17%	12%	10%
Threat of Plant Closing	8%	7%	5%	5%
Fear of Movement to Nonunion Operation	4%	4%	1%	1%

^aAlpha = .71 for management respondents and .66 for union respondents.

^bAlpha = .55 for management respondents and .75 for union respondents.

management relationships had not been transformed in any fundamental sense, there was considerable use of the separate elements of the transformed model, with transformational practices used in approximately 20–30% of this national sample of bargaining units. Although labor-management relations were not transforming, important changes were occurring. For example, there was considerable use of IBB techniques. In addition, traditional means of threatening or using power in negotiations were reported to be important factors in only a small minority of negotiations. The key question is whether individually or jointly transformed negotiations practices were leading to meaningful improvements in these labor-management relationships, as evaluated by their chief negotiators.

New Contract Language Enabling Transformation

We now turn to a regression analysis that brings together all of the above descriptive data. Our analysis proceeds in three steps. First we examine the effects exerted on contract terms by contextual factors and

both traditional and interest-based negotiations processes. Second, we examine the effects these workplace and strategic innovations had on the on-going labor-management relationship. Finally, we ask how all of these factors—contextual forces, features of the bargaining process, negotiated outcomes, and workplace and strategic interactions—affected the extent of change in labor-management relationships.

The first four equations presented in Table 4 assess the influence of various factors on the negotiation of new contract language concerning (1) new pay systems (pay for knowledge, gainsharing, and profit sharing); (2) increased worker input into management decisions; (3) team-based work systems; and (4) joint committees. Note that all of these topics were reported by both the union and management negotiators only in a minority of agreements (at 7.8%, 9.4%, 3.7%, and 19.4%, respectively). We test the first three hypotheses (H1a, H1b, H1c), namely, the influence of contextual pressures on the likelihood of negotiating each of the four types of new contract language. Then we test hypotheses H2a and H2b, concerning the effects of

Table 4. Likelihood of Union and Management Both Reporting Agreements with New Language on New Pay Systems, Worker Input, Teams, Joint Committees, and Any Pairs of Transformation-Related Issues. (Logistic Regression; n = 617)

Independent Variable	New Pay Systems (pay for knowledge, gainsharing, profit sharing) ^a		Worker Input in Management Decisions ^a		Team-Based Work Systems ^a		Joint Committees ^a		Any Pairs among Flexibility, New Pay Systems, Worker Input, Teams, and Joint Committees ^a	
	yes = 48		yes = 58		yes = 23		yes = 121		yes = 116	
	Beta	S.E.	Beta	S.E.	Beta	S.E.	Beta	S.E.	Beta	S.E.
Control/Structural Variables										
Service Sector (1=yes; 0=no)	-.374	.449	.020	.364	-1.511	.833*	.240	.265	-.331	.295
Bargaining Unit Size (actual no.)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Gender—Mgt. (1=male; 0=female)	.877	.625	.128	.401	-.647	.577	.208	.313	.258	.330
Gender—Union (1=male; 0=female)	.571	.646	-.693	.396*	.765	1.093	-.261	.324	-.425	.344
First Contract (1=yes; 0=no)	.184	.790	1.071	.519**	-5.106	15.619	2.022	.386***	2.078	.410***
Bargaining Context										
Domestic Competition ^b	.235	.337	.133	.328	.209	.480	-.252	.260	.081	.254
International Competition ^b	1.341	.378***	.296	.441	.764	.548	.802	.323***	1.006	.312***
Flexibility Scale ^b	.281	.335	.416	.311	.748	.452*	.259	.242	.817	.238***
Economic Fear Scale ^b	-4.997	14.221	.797	1.149	1.240	1.280	-4.620	8.879	.866	.938
Low Trust ^b	-.514	.372	.118	.318	.137	.492	.037	.239	-.102	.250
Bargaining Process										
Strike Threat ^b	.433	.449	.572	.393	.661	.653	.089	.314	.432	.314
Repl. Worker Threat (1=yes; 0=no)	1.138	.617*	-.222	.796	.497	1.098	.398	.512	.837	.502*
IBB Training (1=yes; 0=no)	.344	.521	.705	.404*	.495	.616	.663	.346*	.733	.352**
Brainstorming/Problem-Solving (1=yes; 0=no)	.722	.364**	1.192	.319***	1.804	.507***	.697	.251***	1.075	.257***
Constant	-4.315	.910***	-2.697	.605***	-4.529	1.261***	-2.085	.472***	-2.333	.503***
Cox & Snell R ² / Nagelkerke R ²	.05 / .13		.05 / .12		.06 / .21		.09 / .14		.12 / .19	

^aScale for all dependent variables: 1 = yes; 0 = no.
^bScale for Contextual and other factors: 1 = both report either “Heavy” or “Moderate” influence; 0 = all others.
*Statistically significant at the .10 level; **at the .05 level; ***at the .01 level.

process factors—interest-based bargaining and threat/power—on the negotiation of each of the four types of new contract language.

The hypotheses are tested with a logit model in which the dependent variables for each type of contract language are defined by whether a new agreement was reached on this topic (1 = yes, 0 = no). Data from the matched labor-management pairs are used in the analysis, so many variables (including the dependent variables) are only included where both sides recorded the same response for a particular factor. Included in the model are control variables for sector (service sector = 1, all others = 0), the bargaining unit size (the actual number), the gender of the respondents from labor and management (1 = male, 0 = female), and whether or not this was a first contract. Various contextual factors are also entered as controls, including pressure from domestic and international competition (1 = a reported “heavy” or “moderate” influence by both labor and management and 0 = little or no influence), the flexibility scale (alpha = .71 for management respondents and .66 for union respondents), the economic fear scale (alpha = .55 for management respondents and .75 for union respondents), and the measure for low trust (all of which are derived the same as with the two measures of domestic and international competition, with 1 = a heavy or moderate influence and 0 = little or no influence). Finally, a set of process measures is included. Power dynamics are controlled for with variables measuring the strike threat and replacement worker threat (1 = both yes, 0 = no), while IBB is entered as control variables for pre-training in IBB and the use of brainstorming or problem-solving during bargaining (1 = both yes and 0 = no).

The results in Table 4 support both hypotheses H1a and H1b, though there are also some unexpected findings. Contextual forces were having what might be thought of as an “unfreezing” effect in three of the four models, partly consistent with hypotheses H1a and H1b. The concept of “unfreezing” comes from Lewin’s analysis

of social change, which involves successive stages of unfreezing, search for alternatives, and institutionalization of new patterns (Lewin 1951). In this case, international competition was associated with new pay systems and joint committees, while flexibility pressure was associated with team-based work systems. These contextual factors were not associated with increased worker input into managerial decisions, and domestic competition did not have statistically significant effects (holding constant the other contextual factors). The link found between pressure for increased flexibility and new contract language on teams makes conceptual sense, as does the link between international competition and new pay systems. We conclude that new, innovative contract language (associated with transformation in industrial relations) is more likely to emerge where external contextual forces have an unfreezing effect and where there are direct links between those pressures and new contract language.

Likelihood of Union and Management Both Reporting Agreements with New Language on New Pay Systems, Worker Input, Teams, Joint Committees, and Any Pairs of Transformation-Related Issues

Interest-based bargaining is the subject of hypothesis H2a, and it is relevant to all four work practice subject areas. As shown in Table 4, the use of IBB training was positively associated with joint committees and worker input into management decisions, while brainstorming and problem-solving were linked to all four work practices. These associations clearly support the notion that a fostering approach is needed to promote these transformation-related work practices.

Two of the work practices—joint committees and worker input into decisions—were more likely when first contracts were being negotiated. While we did not formulate a hypothesis regarding this factor, the results may point to a greater likelihood that transformation-related agenda items

will be on the table in first contract situations. There is also an interesting finding concerning gender: new language on worker input was more likely to be negotiated when there was a female rather than a male lead negotiator on the union side. This was not the subject of a specific hypothesis, but qualitative evidence suggests that it is not an isolated correlation. More research is needed on the role of negotiator gender.

There is a positive relationship between the threat of replacement workers and new pay systems, which is the opposite of our prediction in H2b. In formulating this hypothesis, we may have been guilty of a common false assumption that labor-management cooperation is needed for innovative contract language. In fact, this finding is consistent with management's use of forcing strategies to implement "modern operating agreements" that reduce the number of job classifications and introduce new pay systems (Hunter, MacDuffie, and Doucet 2002).

Table 4 also reports results of an estimation in which the dependent variable is constructed from all possible pairs of the four work practice items, along with flexibility and job security measures.⁹ This was done to examine whether the factors that influence more systemic work practice transformation differ from those affecting stand-alone innovations (Cutcher-Gershenfeld 1991; Osterman 1994; MacDuffie 1995; Ichniowski, Shaw, and Prennushi 1997). The results in the last column of Table 4 indicate that international competition and pressure for flexibility are important drivers of systemic work practice changes. Similarly, the evidence that interest-based bargaining training and brainstorming/problem-

solving are linked to the systemic work practice change dependent variable ($p < .01$ and $p < .10$, respectively) indicates the contribution of a fostering process. Together, these results suggest that a mix of forcing and fostering dynamics is at play in negotiations that produce contract changes that support a transformation in industrial relations.

Alignment across Levels

Fully assessing the way the collective bargaining process contributes to a transformation of practices and relationships at the workplace and strategic levels requires further investigating the dynamic labor-management interactions that occur subsequent to contract negotiations. Respondents were asked a number of questions concerning these dynamics. The three equations presented in Table 5 focus on whether new initiatives are reported at the workplace level (specifically, change efforts involving the introduction of teams, the use of job rotation, increased worker responsibility for quality, or increased worker involvement in operations decisions) and at strategic levels (specifically, joint approaches for addressing strategic business issues such as new technology or new products) following the most recent negotiations. Here, we are testing the three transformation hypotheses (H3a, H3b, and H3c), all of which concern the way in which innovation at the workplace and strategic levels is interdependent with processes and outcomes at the collective bargaining level.

A total of 13.2% of the union and management pairs reported follow-on workplace-level initiatives. Some of the findings in the first column in Table 5 reinforce lessons from our analysis of contract outcomes. For example, workplace initiatives were more likely where international competition was a contextual factor and where interest-based bargaining training had been used prior to negotiations—pointing to the need for a mix of unfreezing and fostering dynamics.

⁹The variables "flexibility" and "job security" were also used separately as dependent variables with relatively low explanatory power. To conserve space, we do not include them here, but they are available from us on request.

Table 5. Likelihood of Union and Management Both Reporting
New Workplace and New Strategic Initiatives Following Negotiations.
(Logistic Regression; n = 617)

<i>Independent Variable</i>	<i>New Workplace Initiatives Following Negotiations^a</i>		<i>New Strategic Initiatives Following Negotiations^a</i>		<i>Both New Workplace and New Strategic Initiatives Following Negotiations^a</i>	
	<i>yes = 82</i>		<i>yes = 127</i>		<i>yes = 37</i>	
	<i>Beta</i>	<i>S.E.</i>	<i>Beta</i>	<i>S.E.</i>	<i>Beta</i>	<i>S.E.</i>
Control/Structural Variables						
Service Sector (1=yes; 0=no)	-.615	.390	-.012	.273	-1.210	.634*
Bargaining Unit Size (actual no.)	.000	.000	.000	.000**	.000	.000
Gender—Mgt. (1=male; 0=female)	.113	.410	-.197	.300	1.402	.833*
Gender—Union (1=male; 0=female)	-.871	.414**	-.064	.349	-1.397	.598**
First Contract (1=yes; 0=no)	-.012	.668	-1.082	.662*	-7.320	24.718
Bargaining Context						
Domestic Competition ^b	.022	.302	-.168	.257	-.977	.496**
International Competition ^b	.956	.366***	.118	.352	.592	.527
Flexibility Scale ^b	.176	.297	-.111	.255	-.087	.438
Economic Fear Scale ^b	-6.258	13.289	-4.912	8.510	-7.439	59.240
Low Trust ^b	-.215	.306	.028	.241	-.025	.453
Bargaining Process						
Strike Threat ^b	-.050	.403	-.327	.340	-.180	.667
Repl. Worker Threat (1=yes; 0=no)	.432	.647	-.151	.599	-6.978	30.807
IBB Training (1=yes; 0=no)	.940	.406**	1.194	.333***	1.801	.502***
Brainstorming/Problem-Solving (1=yes; 0=no)	.128	.330	.672	.248***	.614	.451
New Contract Language						
Work Rule Flexibility (1=yes; 0=no)	.952	.285***	.051	.258	.304	.435
Improved Job Security (1=yes; 0=no)	-.052	.472	.155	.417	.093	.644
New Pay Systems (1=yes; 0=no)	1.161	.401***	.960	.365*	1.241	.541**
Team-Based Work Systems (1=yes; 0=no)	1.437	.544***	.601	.511	1.509	.624**
Worker Input in Mgt. Decisions (1=yes; 0=no)	1.399	.393***	.507	.366	1.236	.529**
Joint Committees (1=yes; 0=no)	-.122	.355	.316	.288	.117	.489
Constant	-2.148	.597***	-1.692	.473***	-3.604	1.018***
Cox & Snell R ² / Nagelkerke R ²	.15 / .28		.12 / .19		.13 / .35	

^aScale for all dependent variables: 1 = yes; 0 = no.

^bScale for Contextual and other factors: 1 = both report either "Heavy" or "Moderate" influence; 0 = all others.

*Statistically significant at the .10 level; **at the .05 level; ***at the .01 level.

Most telling, however, is the clear and strong relationship between the negotiation of new contract language at the collective bargaining level and follow-on innovation at the workplace level. This relationship is seen for four of the six new contract language topic areas—work rule flexibility, new pay systems, team-based work systems, and worker input

into management decisions. This finding clearly supports a key element of the transformation theory, namely, the proposition that linkages across levels are needed for a transformation in industrial relations. The link observed here is between collective bargaining and workplace levels, which confirms the workplace level portion of Hypothesis H3a.

Likelihood of Union and Management Both Reporting New Workplace and New Strategic Initiatives Following Negotiations

Management in the United States has been the primary driver of many of the new contractual provisions that are associated with subsequent workplace initiatives. It will be important to bear this in mind when turning to the strategic level, which is a domain dominated by management rights. While unions also have independent strategies, both in the wider society and in enterprise operations, the reality in the United States is that much of the substance of strategic linkages involves an incursion by labor into a managerial domain. As a result, respondents were asked about “joint approaches for addressing strategic business issues such as new technology or new products, things that management has historically done alone.”

A total of 21% of the respondent pairs reported follow-on strategic-level initiatives, although the results in the middle column of Table 5 suggest that that linkage between new contract language and subsequent strategic initiatives was not as clear as it was at the workplace level. The only area of new contract language that had a statistically significant relation to strategic-level initiatives was new pay systems. Thus, there is only limited support for the strategic-level portion of Hypothesis H3a.

The results reported in columns (3) and (4) of Table 5 indicate that interest-based training and the use of brainstorming or problem-solving processes can have positive spillover effects at the strategic level. Of course, another possibility is that parties launching new initiatives at the strategic level also bring this orientation to the bargaining process and that the causality runs the other way. Either way, there does seem to have been a link between collaborative bargaining processes and strategic-level initiatives. Additionally, we see that strategic initiatives were more likely in large bargaining units than in smaller ones and were less likely in first contract negotiations than in subsequent contract negotiations.

The right-most columns in Table 5 focus on assessing the factors influencing the relatively small proportion (6%) of union-management pairs that reported new initiatives at both the workplace level and the strategic level following negotiations. The likelihood of this alignment across levels increased with contract language on new pay systems, team-based work systems, and worker input into management decisions. It was also more likely where interest-based bargaining training occurred prior to negotiations. The alignment was less likely in the service sector and also where there was strong domestic competition. Gender also appears to be an important factor here: positive effects were associated not only with female union negotiators, but also with male management negotiators. Clearly, the effect of negotiator gender is a topic that calls for further investigation.

Notable is the fact that the job security measure is not associated at a statistically significant level with workplace or strategic initiatives. As noted earlier, job security has traditionally been cited as a linchpin for alignment and transformation—serving as a *quid pro quo* for the work force that enables progress on management demands for flexibility and new work systems. A question that can be posed, but not answered here, is whether more extensive workplace and strategic transformation is sustainable in the absence of new language on job security.

Subsequent Trajectory for Labor-Management Relations

A final set of equations is estimated to test whether collective bargaining processes and outcomes, along with workplace and strategic initiatives, led to improvements in the overall trajectory of labor-management relations. A relatively small number of parties (8.6%) reported that they had somewhat or very cooperative relations *and* that their relationship was improving (as opposed to staying the same or deteriorating). This alone is a potentially distressing finding in a world that seeks continuous improvement on so many fronts—as was

Table 6. Likelihood of Negotiators Reporting That Labor-Management Relations Are “Cooperative” and “Improving” Following Negotiations. (Logistic Regression)

<i>Independent Variable</i>	<i>Both Union and Management Reporting Cooperative and Improving Relations^a</i>		<i>Focus Just on Management—Reporting Cooperative and Improving Relations^a</i>		<i>Focus Just on Union—Reporting Cooperative and Improving Relations^a</i>	
	<i>yes = 53</i>		<i>yes = 172</i>		<i>yes = 152</i>	
	<i>Beta</i>	<i>S.E.</i>	<i>Beta</i>	<i>S.E.</i>	<i>Beta</i>	<i>S.E.</i>
Control/Structural Variables						
Service Sector (1=yes; 0=no)	.269	.378	.210	.234	.144	.241
Bargaining Unit Size (actual no.)	.000	.000	.000	.000**	.000	.000
Gender—Mgt. (1=male; 0=female)	.213	.485	-.195	.271	.160	.287
Gender—Union (1=male; 0=female)	1.028	.620*	-.193	.309	.400	.340
First Contract (1=yes; 0=no)	-6.321	15.603	-1.997	.771***	.463	.469
Bargaining Context						
Domestic Competition ^b	-.209	.371	-.247	.227	-.230	.234
International Competition ^b	-.617	.604	-.405	.338	-.257	.347
Flexibility Scale ^b	.028	.362	.035	.225	.116	.230
Economic Fear Scale ^b	-6.088	40.119	-.088	1.127	-.206	1.125
Low Trust ^b	-.905	.404**	-.446	.218**	-.515	.227**
Bargaining Process						
Strike Threat ^b	.362	.458	.031	.282	.298	.287
Repl. Worker Threat (1=yes; 0=no)	.610	.754	-.167	.518	-.151	.560
IBB Training (1=yes; 0=no)	.653	.493	.254	.353	.444	.352
Brainstorming/Problem Solving (1=yes; 0=no)	-.459	.422	-.650	.266**	-.014	.259
New Contract Language						
Work Rule Flexibility (1=yes; 0=no)	-.182	.385	.064	.233	.291	.237
Improved Job Security (1=yes; 0=no)	-.842	.723	-.497	.423	-.467	.429
New Pay Systems (1=yes; 0=no)	-.333	.613	.450	.358	-.632	.426
Team-Based Work Systems (1=yes; 0=no)	-.456	.757	-.315	.530	-.441	.564
Worker Input in Mgt. Decisions (1=yes; 0=no)	1.277	.520**	.178	.362	.382	.375
Joint Committees (1=yes; 0=no)	-.485	.479	.342	.269	-.599	.307**
Workplace and Strategic Initiatives						
Workplace Level Initiatives (1=yes; 0=no)	1.326	.399***	1.161	.291***	.831	.298***
Strategic Level Initiatives (1=yes; 0=no)	1.027	.352***	.428	.241*	.708	.244***
Constant	-3.767	.813***	-.716	.420*	-1.728	.460***
Cox & Snell R ² / Nagelkerke R ²	.09 / .20		.10 / .14		.07 / .10	

^aScale for all dependent variables: 1 = yes; 0 = no.

^bScale for Contextual and other factors: 1 = both report either “Heavy” or “Moderate” influence; 0 = all others.

*Statistically significant at the .10 level; **at the .05 level; ***at the .01 level.

noted earlier in the paper. A clear prediction of the transformation theory is that new initiatives at both workplace and strategic levels will increase the likelihood that

the parties will be on a cooperative or improvement trajectory. The equations in Table 6 build on the same ones used in Table 5, with the addition of the paired

responses on workplace and strategic-level initiatives.

Likelihood of Negotiators Reporting That Labor-Management Relations Are “Cooperative” and “Improving” Following Negotiations

The results presented in the first column of Table 6 clearly support the role of alignment in driving transformation. That is, parties are more likely to report both cooperative and improving relations where they also report new initiatives following bargaining at the workplace and strategic levels. We see that there is an independent positive effect associated with contract language that increased worker input in managerial decisions and negative effects where low trust was prevalent prior to negotiations.

As noted in the earlier discussion on alignment, management’s agenda is more strongly represented in many subsequent workplace initiatives, while the union’s agenda is more strongly evident at the strategic level. In order to investigate these differences more closely, we again ran the equation in the first column of Table 6, but this time separately for the management and the union respondents. In each case the focus was on whether the union or management respondents reported cooperative and improving relations. These are the only equations in which we did not use matched pair responses in constructing the dependent variables.

While the importance of alignment across levels is just as strong for the union respondents as it was for the matched pairs, for managers the influence of strategic-level initiatives, though still statistically significant, is considerably weaker. We interpret this as a caveat to our results. We have found a clear linkage from collective bargaining to workplace-level initiatives. We have also found a weaker link between collective bargaining and strategic-level initiatives. Our results suggest that cooperative and improving relations depend on initiatives at both levels. This suggests that full alignment linking the workplace, collec-

tive bargaining, and strategic levels depends more on proactive efforts by unions to negotiate these arrangements (and to add value once they are in place) than on managerial initiatives. Absent such union efforts to achieve these strategic-level connections, there may continue to be only a small number of parties reporting both cooperative and improving relations.

Conclusions and Implications

We draw three broad conclusions from our results. First, we find support for the central transformation thesis—the transformation of U.S. labor-management relations depends on alignment across workplace, collective bargaining, and strategic levels. Second, the factors that support this transformative path are readily identifiable to those interested in pursuing them. Workplace practices that support workers’ use of their skills and knowledge, negotiations processes that encourage problem-solving and produce contractual terms that support on-going innovations during the term of the agreement, and joint interactions at the strategic level of the enterprise that provide a supportive umbrella for ongoing innovations all contribute to the transformation and improvement process. Third, only a small minority (under 10%) of labor-management relationships report positive outcomes from an integrated transformation in the form of cooperative and improving relations.

What implications for the future of collective bargaining can we draw from these results? Two different views might be expressed. One is that it is fine if traditional, “arm’s-length” collective bargaining continues—with no change in what are essentially adversarial labor-management relations. In this interpretation, it would be sufficient to see continued, incremental adjustments in wages, hours, and working conditions, with few links to daily workplace operations or strategic issues. There is, of course, great diversity in U.S. labor-management relations (Katz and Darbishire 2000), and this arms-length approach may well persist for many labor-management

relationships. For the parties in these settings, our finding of only limited evidence of systematic transformation might not be troubling.

The alternative view, one that we favor, is that we should be very concerned when only a minority of union and management negotiators indicate their relationships are improving (as opposed to staying the same or getting worse) and when less than 10% of negotiators indicate their relationships are both cooperative and improving. Like other American labor market institutions, collective bargaining is being challenged by changes occurring in the nature of work and the economy. Jobs across a broad range are becoming increasingly knowledge-driven, requiring changes in work organization and in practices that allow

workers to acquire and use their skills and knowledge to add value to their enterprise and build their human capital. At the same time, the traditional "social contract" between employers and employees is eroding and is being replaced by a more market-mediated system. In this context, if collective bargaining is to reverse the decline in its role in American labor markets, it will need to converge relatively rapidly and extensively in ways that will promote systemic transformation in labor-management relations at the workplace and strategic levels. Otherwise, we would predict that the future of collective bargaining will continue to be characterized by small pockets of innovation while the overall institution continues to experience steady and long-term decline.

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