

# DUAL ALIGNMENT OF INDUSTRIAL RELATIONS ACTIVITY: FROM STRATEGIC CHOICE TO MUTUAL GAINS

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## ABSTRACT

*This chapter addresses a practical industrial relations problem, namely the absence of a monitoring framework to assess and improve labor-management relations in organizations. The authors argue that assessing and improving organizational labor relations requires attention to both vertical and horizontal alignments of labor relations institutions and practices. Vertical alignment refers to the internal consistency across the strategic, functional, and workplace levels noted by Kochan, Katz, and McKersie in their strategic choice framework (1986). Drawing on two “best practice” labor relations cases, Saturn and Kaiser Permanente as well as two original case studies of healthcare organizations, the authors develop the notion of horizontal alignment, i.e., the internal consistency across labor relations processes, substantive issues, and outcomes.*

**Keywords:** Labor relations; strategic choice; transformation; healthcare

## INTRODUCTION

The study of industrial relations has long been interested in the ways in which labor and management actors can enhance both separate and mutual gains (see, for example, Kochan & Osterman, 1994; Katz, Kochan, & Gobeille, 1983). Despite the extensive research on many different labor-management initiatives intended to achieve this objective in a variety of settings, there is still a great deal of ambiguity as to the factors that allow for industrial relations actors to advance and sustain both distinct and joint labor-management gains.

Building on and extending the *strategic choice* framework (Kochan, Katz, & McKersie, 1986), this chapter provides a practical lens through which to understand and *assess* industrial relations systems and their potential to address multiple interests. Specifically, we analyze the implementation of a labor-management initiative in two healthcare organizations and provide evidence for the importance of three central evaluative dimensions of industrial relations activity, namely, *procedural*, *substantive*, and *outcomes*. We argue that in addition to the *vertical* alignment noted by Kochan, Katz, and McKersie, sustained joint labor-management initiatives must also strive for *horizontal* alignment of these dimensions across the different levels of engagement (strategic, functional, and workplace).

*The Strategic Choice Framework*

In the mid-1980s, industrial relations scholars set forth a strategic framework for the study of labor relations and collective

bargaining (for the most notable examples, see Kochan et al., 1986; Kochan, McKersie, & Cappelli, 1984; Katz et al., 1983). This stream of research departed from a more traditional and static conception of industrial relations systems articulated by Dunlop (1958), and noted that key actors (employers and unions) made a series of strategic decisions across different levels of activity.

At the heart of the strategic choice model are two interrelated propositions about labor relations structures and outcomes. First, this model moved away from structural and predominantly deterministic accounts of how labor relations generally and collective bargaining specifically affected outcomes (Kochan et al., 1986). Outcomes, it was argued, were the result of decisions made by management and unions among a number of possible choices. Managers and union leaders play a strategic role in maneuvering and navigating the uncertain industrial relations terrain, and therefore control, to some degree, the outcomes experienced by management, unions, and their workforce.

The second proposition was that the study of industrial relations needs to expand its traditional focus on the functional level of collective bargaining to both the strategic and workplace levels (Kochan et al., 1994). It is impossible to understand labor relations outcomes, it was argued, without accounting for strategic decisions made at the highest levels, or the implementation of practices and policies at the shop-floor level. Thus, for example, Kochan et al. (1984) developed a strategic matrix assessing what decisions were being made at each of the three levels of industrial relations activity (p. 23; this matrix formed the foundation for Kochan et al. (1986)'s framework).

This research set forth two central insights regarding the understanding of industrial relations. First, it clearly demonstrates the importance of evaluating industrial relations activity at multiple levels. In other words, it is not sufficient to assess an organization's industrial relations by merely examining what happens at the bargaining table or on the shop floor. Rather, an accurate portrait of labor relations must integrate an evaluation of actors' strategies, behaviors, and perceptions at each of the three tiers discussed.

Second, this perspective emphasizes the need for internal consistency across the three tiers. In other words, evaluating an industrial relations system must not only examine each one of the tiers of activity separately, but also examine whether the state of labor relations at each of these levels is in *alignment*. Organizations that seek to assess the health and strength of their labor-management relations must therefore examine whether what they do at each level within their industrial relations system is consistent with what they do at other levels.

Combining both of these central propositions, Kochan et al. (1984) hypothesized that labor relations "instability is more likely when internal contradictions exist among strategies followed across the three levels within the firm" (p. 36). The authors proposed that "more significant and lasting changes occur when there is internal consistency in strategies at the three levels and a match between the strategies of one actor ... and the other actors..." (p. 36). Finally, the authors challenged future researchers to elaborate and extend this framework including the development of "testable propositions."

More than two and a half decades after this challenge was issued, it has only been partially met, at best. There has been relatively little research about the internal consistency of industrial relations activity across levels. Furthermore, the underlying questions that sparked the strategic choice framework to begin with are far from answered. For example, Cutcher-Gershenfeld and Kochan (2004) reported findings from a unique dataset of matched union management negotiators. They suggest that while a large number of respondents reported experimenting with strategic-level interactions, adopting interest-based bargaining and workplace innovations, only a small minority, fewer than 10%, reported improvements to their collective bargaining relationships (Cutcher-Gershenfeld & Kochan, 2004). Thus, although the mechanisms for industrial relations innovation seem to be clear and identifiable, the realization of truly transformed labor-management relationships is still the exception. Their analysis did, however, show partial support for the

vertical alignment proposition, i.e., the authors documented a positive relationship between innovations at the collective bargaining level and subsequent workplace-level innovations (p. 21).

The puzzle that emerges from this discussion is as follows: despite volumes of scholarly work over the last 25 years, it is still unclear why so many initiatives and attempts to transform labor relations fail to deliver on their anticipated promise. Convincing analyses of failures are largely absent, and there is a distinct possibility that there was a lack of the internal consistency across levels that Kochan et al. (1986) thought was necessary. The intriguing question of how labor relations actors can achieve what many aspire to but few are able to attain - a healthy, stable and mutually beneficial industrial relations system, persists.

This chapter addresses this persistent industrial relations enigma by examining two healthcare organizations that underwent a dramatic labor-management initiated technological transformation. The study is motivated by an attempt to better understand what takes place within each of the levels of industrial relations activity. Using two extreme cases, we highlight three key dimensions across each of the traditional three tiers that must, we argue, be aligned in order for the potential for a successful labor-management initiative to take hold. Building on inductive case studies, we document that alongside the vertical alignment emphasized by Kochan et al. (1986), there is a strong role for horizontal alignment within each level of activity. Based on this evidence we propose a comprehensive industrial relations framework, which highlights both vertical and horizontal alignment. Before doing so, we use two well-studied industrial relations cases, which motivate our focus on the procedural, substantive, and outcomes dimensions.

## LESSONS FROM BEST PRACTICE: LABOR RELATIONS DIMENSIONS

Two of the most prominent case studies on successful industrial relations transformation and cooperation are those of General Motor's Saturn and the Kaiser Permanente healthcare system. Both cases have been extensively researched and there is considerable published material highlighting the variety of factors that have been crucial to their success. In addition, there is general agreement among the scholarly community that these organizations achieved a healthy and mutually beneficial labor relations pattern (at least for substantial periods). The question explored in this section is what common factors accounted for the ability to achieve this labor-management partnership in two very diverse settings. We argue that a review of these cases highlights the importance of addressing process, substantive, and outcome issues across each level of industrial relations activity. More specifically, the parties paid careful attention to the particular *processes* intended to support their labor-management relationship; the *substantive issues* that needed to be placed front and center in the labor-management relationship; and the *outcomes* delivered to the different stakeholders as a result of the organization's industrial relations conditions.

The *Saturn* case involved the creation of a path-breaking labor-management partnership in one of the GM's green-field manufacturing facilities. This partnership between GM and the United Auto Workers, which was announced in 1983 and became operational in 1992, constituted an effort to experiment with a different kind of labor-management relationship than was common in most other auto manufacturing settings in and outside GM (Rubinstein & Kochan, 2001).

The *Kaiser Permanente* case, which has been referred to as "the largest, most complex, ambitious, and broad-based labor-management partnership in U.S. history ... " (Kochan, Eaton, McKersie, & Adler, 2009, p. 2), represents the efforts to overhaul labor-management relations between one of the country's largest healthcare providers and its 27 unions. This partnership, which began in 1997, has been extensively documented and has recently been captured in the book *Healing Together* (Kochan et al., 2009).

In their article examining the Kaiser Permanente partnership, McKersie, Eaton, and Kochan (2004) summarize the "highlights" of this complex case by stating "The parties trained and engaged more than 400 management and union leaders in joint problem solving *processes* that focused on seven key economic and organizational *areas*... They established a framework for sharing *rewards* from

future performance improvements .” (p. 34; italics added to text). Thus, the parties implemented a specific set of processes, focused on identifiable substantive issues, and paid attention to the outcomes that both of these dimensions produced and the manner in which they were distributed. In what follows, we outline the key aspects of each of these three dimensions for both cases. Table 1 illustrates the general shell for this evaluative framework.

**Table 1. Assessment Framework Shell of Three Activity Levels and Three Assessment Dimensions.**

| Level of Analysis                      | Assessment Dimensions |                  |                    |
|--|-----------------------|------------------|--------------------|
|  | Process dimension     | Issues dimension | Outcomes dimension |
| Strategic                              |                       |                  |                    |
| Functional/collective bargaining level |                       |                  |                    |
| Workplace level                        |                       |                  |                    |

*The Process Dimension*

Both cases illustrate the strong emphasis placed on the specific procedural structures implemented by the industrial relations actors across the different levels of activity. For example, one of the central features in the restructuring of traditional industrial relations in the Saturn case relied on the establishment of co-management, providing labor with formal input regarding both online and offline issues (Rubinstein, 2000, p. 200). Achieving co-management required the establishment of appropriate processes that could engender this dramatic shift from traditional labor-management engagement. Thus, while co-management reflects a labor relations philosophy or strategy, but its operational manifestation was achieved through specific processes put into place to allow for a different type of interaction and engagement between the union, its members and management, and its supervisors and managers (for a discussion see Rubinstein, 2000).

For example, Rubinstein states “In the original agreement between the UAW and GM, four arrangements in particular defined the partnership: the entire workforce would be organized into self-directed work teams; decisions would be made through a consensus process; the union would be made a full partner in all business decisions; and the corporation would be governed by joint labor-management committees at all levels...” (Rubinstein, 2000, p. 200; also see Rubinstein & Kochan, 2001, p. 50). Thus, one of the dominant dimensions associated with the Saturn case is the implementation of very specific problem-solving and communicationenhancing processes implemented across the three industrial relations tiers from the strategic down to the workplace level. It is important to note that contractual agreement regarding the implementation of such processes does not imply that these were appropriately used. Nevertheless, this does provide strong evidence for the clear emphasis on process issues at all levels of industrial relations activity.

In their effort to create a different kind of labor-management partnership in the healthcare arena, the parties in the Kaiser Permanente case also relied heavily on the implementation of clear process-centered restructuring (McKersie et al., 2004). In an effort to diffuse the concept of partnership across Kaiser Permanente’s system, different processes were put into place at different levels (Kochan et al., 2008). At the strategic level, labormanagement councils were set up at the regional and local levels (Kochan et al., 2008, p. 50). At the strategic and functional levels and also at the center of the Kaiser Permanente process reconfiguration was the adoption of interest-based bargaining, a negotiation process that emphasized problem solving and the search for common interests of both parties as opposed to their divergent positions (McKersie et al., 2004, p. 23). In fact, the shift from a traditional bargaining process to

an interest-based one became the hallmark of the Kaiser Permanente partnership, supported by extensive training and bargaining committees across the levels of the labor-management relationship (McKersie et al., 2004). At the workplace level, the parties attempted to create processes to enhance partnership and cooperation as well (Kochan et al., 2008). Interestingly, unlike the innovations at the strategic and functional levels, it appears that process innovations at this level have not been widely adopted (Kochan et al., 2008).

### *The Substantive Issues Dimension*

The second central dimension that emerges from a review of the Saturn and Kaiser Permanente cases is the focus on specific substantive issues that guided labor-management interactions. In other words, the establishment (in the Saturn case) and transformation (in the Kaiser Permanente case) of an industrial relations system was not only a matter of setting up appropriate processes for labor-management engagement, but of identifying the central substantive issues that needed to and could realistically be addressed through these mechanisms. This is central to this chapter's overarching argument, since it is possible that one of the reasons for failed labor-management initiatives is the tendency to overemphasize process with less attention to the more difficult substantive issues that must be worked through. The process dimension, crucial as it is, is only a vehicle through which the parties can achieve progress on substantive and tangible issues.

In the Saturn case, three broad substantive issues appear to have dominated the labor-management relationship from the inception of its industrial relations partnership. First, given the unique nature of this co-management experiment, both the union and management had a substantial stake in attaining quality and productivity gains (Rubinstein & Kochan, 2001). Unlike traditional labor-management relationships, where the concern for quality and productivity improvements rests primarily on management's shoulders, the Saturn actors were all extremely focused on ensuring the success of Saturn in terms of standard performance and productivity measures, through the full engagement and participation of the workforce and based on their knowledge and commitment to the organization (Rubinstein, 2000; Rubinstein & Kochan, 2001).

The Saturn labor-management partnership rested on the premise that allowing the union and its members to have greater input in production-related decision and activities would enhance the company's performance (Rubinstein & Kochan, 2001). In fact, the focus on this central substantive issue was so dominant in the labor-management relationship that it substantially affected the shape and structure of the first diagnostic dimension - namely, the processes put into place, such as joint quality committees at different levels (Rubinstein & Kochan, 2001).

The Kaiser Permanente case also illustrates the centrality of a broader set of specific substantive issues processed through the system. As noted above, the parties to the Kaiser partnership identified seven substantive areas that were dealt with using a process in line with the general interest-based negotiation process representative of the entire case - *Bargaining Task Groups*. These task groups dealt with (1) wages, (2) benefits, (3) work life balance, (4) performance and workforce development, (5) quality and service, (6) health and safety, and (7) work organization and innovation (McKersie et al., 2004, p. 25).<sup>1</sup>

Two unique elements make Kaiser Permanente's focus on substantive issues so pertinent to the development of a diagnostic framework. First, the selection of these substantive issues was, in and of itself, an integral part of the processes set up by the labor-management parties (McKersie et al., 2004). Second, each of these seven substantive issues was addressed across the three levels of industrial relations activity, with involvement from strategic-level actors down to the workplace-level actors. In other words, it represents an example of alignment across tiers with regards to *substantive issues*.

### *The Outcomes Dimension*

The third dimension highlighted in these two cases is the focus on clear and defined outcomes for the industrial relations actors across each of the three levels. Labor-management relations, by their very nature, produce different outcomes, positive or negative, for the stakeholders they represent. What is interesting about the Saturn and Kaiser Permanente cases is the awareness of the parties of the need to deliver on specific tangible outcomes as well as the recognition that these outcomes will vary not only for each side but also as a function of the industrial relations tier being examined.

At the strategic level, the Saturn partnership had associated outcomes for both management and the union. For management, the industrial relations system was associated with anticipated gains in terms of quality and customer satisfaction, although as Rubinstein and Kochan (2001) note, productivity gains were not as clearly delivered (p. 42). Interestingly, and important for our proposed diagnostic framework, Rubinstein and Kochan (2001) also found a relationship between the extent to which problemsolving teams were implemented and the levels of productivity (p. 45). On the union side, the Saturn partnership reportedly substantially increased and maintained the number of covered employees in the United Auto Workers' bargaining unit (Rubinstein & Kochan, 2001, p. 41).

The Saturn partnership also affected outcomes at the functional and workplace levels. Since the Saturn experiment dramatically altered the nature of the relationship between the union and management, it had very concrete effects on outcomes at this level, affecting the manner in which the parties engaged each other through collective bargaining. The key collective bargaining structures and institutions were restructured, from the collective bargaining agreement itself to the structure and inner workings of the local union (Rubinstein & Kochan, 2001, p. 75).

At the workplace level, the outcomes associated with the partnership were actually mixed. For example, although workplace processes such as problemsolving teams and decision rings had a positive effect on certain performance outcomes, shop-floor employee and union perceptions of the partnership were not all positive (Rubinstein & Kochan, 2001, p. 79). In addition, during periods of this partnership, grievance filings, a central diagnostic for workplace-level outcomes, spiked higher than pre-partnership levels (Rubinstein & Kochan, 2001, pp. 91-92).

In the Kaiser Permanente case, a clear attention to outcomes across levels is also evident. For example, at the strategic level, the Kaiser Permanente partnership was focused on the financial and budgetary crises affecting the Kaiser system (Kochan, 2008, p. 6). Also, at the strategic level, recent evidence suggests that the partnership, through its processes designed to increase labor-management trust and cooperation at the highest levels of engagement, was able to gain support from top-level leadership on both the union and management sides (Kochan et al., 2009, p. 152; Kochan, 2008, p. 6).

At the functional level, where much of the Kaiser partnership activity took place, research has shown a growth in the acceptance of the interest-based bargaining framework, an increase in union representative and manager bargaining skill level and positive outcomes from the two national-level bargaining rounds in 2000 and 2005 (McKersie et al., 2004; Kochan, 2008). Finally, at the workplace level, the partnership also reportedly produced a set of positive outcomes, such as an improvement in staff attitudes and perceptions, a decline in grievance filings, and an expansion of partnership activities at the frontline employee level (Kochan, 2008, p. 6).

Based on the lessons learned from these cases, we maintain that a comprehensive assessment of industrial relations activity calls for the examination of each of the three dimensions and their interrelatedness for each of the three tiers of activity. Table 2 summarizes the dimensions for both cases using the proposed framework.

## **A TALE OF TWO HEALTHCARE ORGANIZATIONS: ASSESSING A JOINT LABOR-MANAGEMENT TECHNOLOGY INITIATIVE**

In an effort to shed new light on the factors that contribute to the ability of labor-management actors to initiate meaningful change, we employ data collected from two New York City nursing homes engaged in the process of adopting an electronic medical records (EMR) system. This is an especially fitting setting in which to examine industrial relations activity. The healthcare industry is one of the fastest growing sectors in the U.S. economy, employing approximately 1 in every 10 employees (Bureau of the Labor Statistics, 2009). This is also one of the few sectors experiencing increases in union density. The unionization rate for “healthcare practitioner and technical occupations” was 12.5% in 2006 (about 800,000 union members out of 6.4 million employees). Union density for “healthcare support occupations” was 10.4% in 2006 (about 312,000 out of 3 million employees in this category). Furthermore, the industry has numerous pockets of high union density, as is the case in the New York City area from where our two nursing homes are drawn. The issues facing the healthcare industry in terms of workforce demands and constraints, technological innovations, and quality of care pressures place significant burdens on the labor-management relationship (see, for example, Clark, Clark, Day, & Shea, 2001; Clark, 2002).

Both nursing homes (henceforth “Senior Care” and “Elder Medical”) participated in a larger study we conducted examining the adoption of EMR in long-term care. Both organizations are unionized and engaged in collective bargaining. Senior Care, a for-profit institution, employs approximately 216 individuals and cares for approximately 270 residents. Elder Medical, a not-for-profit nursing home, employs approximately 104 individuals and cares for approximately 200 residents. The dominant union representing the majority of each of the nursing homes’ frontline employees is 1199SEIU<sup>2</sup> (this factor allows us to control, to some degree, for variation on the union side and to examine the utility of our framework in terms of management’s labor relations strength, health, and strategic orientation). We selected these two organizations from the many other nursing homes that were available to us because their labor relations patterns seemed very different (using “extreme” cases would be more useful to demonstrate the utility of our approach). To be clear, the analysis below is not intended to support a causal argument regarding labor-management relations and nursing home outcomes. Rather, our objective is to demonstrate that the framework introduced above has value in identifying organization strengths and weaknesses across different levels of labor relations activity. Each of the strengths and weaknesses outlined in the case analyses below allows, we maintain, for the establishment of a more nuanced and delineated assessment of labor-management relations and the interrelatedness of dynamics across levels of activity.

The broader context of this study, namely, the implementation of EMR technology, provides an opportunity to examine factors that hinder or enhance labor-management cooperation in the presence of both a substantial change within the organization and one that involved the active engagement of the union. More specifically, the adoption of the technology was facilitated through a unique industry-level labor-management partnership supported by top leadership within 1199SEIU and owners of the nursing homes (for a discussion see Lipsky, Avgar, & Lamare, 2009). This allows us to compare both organizations given very similar external and internal pressures. Using the Kochan et al. (1986)’s framework as an overarching guide, we analyzed industrial relations activity around this initiative at the strategic, functional, and workplace levels. As noted above, this approach was motivated by our assumption that the dynamics within each of these levels is likely to be as important to the success or failure of labor-management initiatives as the relationship between the different levels.

**Table 2.** Assessment Framework Applied to the Saturn and Kaiser Permanente Cases.

| Level of Analysis                       | Assessment Dimensions  |   |  |
|---|--|---|--|
|   | Process dimension  | Issues Dimension  | Outcomes Dimension   |
| Strategic                               | <ul style="list-style-type: none"> <li>- Co-management processes (<i>Saturn</i>)</li> <li>- Labor-management councils (<i>Kaiser Permanente</i>)</li> <li>- Problem-solving forums (<i>Kaiser Permanente; Saturn</i>)</li> </ul> | <ul style="list-style-type: none"> <li>- Quality and productivity gains (<i>Kaiser Permanente; Saturn</i>)</li> <li>- Employee and union input (<i>Saturn</i>)</li> <li>- Work organization and innovation (<i>Saturn</i>)</li> <li>- Bread and butter issues (<i>Kaiser Permanente</i>)</li> </ul> | <ul style="list-style-type: none"> <li>- Product and service quality gains (<i>Saturn</i>)</li> <li>- Enhanced financial viability (<i>Kaiser Permanente</i>)</li> <li>- Improved labor-management trust (<i>Kaiser Permanente</i>)</li> <li>- Number of covered employees in the UAW bargaining unit (<i>Saturn</i>)</li> </ul> |
| Functional/ collective bargaining level | <ul style="list-style-type: none"> <li>- Interest-based negotiation (<i>Kaiser Permanente</i>)</li> </ul>  | <ul style="list-style-type: none"> <li>- Quality and productivity gains (<i>Kaiser Permanente; Saturn</i>)</li> <li>- Employee and union input (<i>Saturn</i>)</li> <li>- Work organization and innovation (<i>Saturn</i>)</li> <li>- Bread and butter issues (<i>Kaiser Permanente</i>)</li> </ul> | <ul style="list-style-type: none"> <li>- Restructuring of key collective bargaining structures and institutions (<i>Saturn</i>)</li> <li>- Mutual gains CBA outcomes (<i>Kaiser Permanente</i>)</li> </ul>   |
| Workplace level                         | <ul style="list-style-type: none"> <li>- Self-directed teams (<i>Saturn</i>)</li> <li>- Problem-solving forums (<i>Kaiser Permanente; Saturn</i>)</li> </ul>   | <ul style="list-style-type: none"> <li>- Quality and productivity gains (<i>Kaiser Permanente; Saturn</i>)</li> <li>- Employee and union input (<i>Saturn</i>)</li> <li>- Work organization and innovation (<i>Saturn</i>)</li> <li>- Bread and butter issues (<i>Kaiser Permanente</i>)</li> </ul> | <ul style="list-style-type: none"> <li>- Mixed attitudes and perceptions outcomes (<i>Kaiser Permanente; Saturn</i>)</li> <li>- Changes in grievance filing rates (<i>Kaiser Permanente; Saturn</i>)</li> </ul>  |

Data for this study were collected at two points in time, once prior to the introduction of EMR technology and one year following implementation. Time 1 data were collected in July and August of 2007 and time 2 were collected in August and September of 2008. We conducted approximately 15 interviews in each nursing home across both time periods. Interviewees ranged from the nursing home administrators, directors of nursing, union representatives, and unionized frontline staff. Interviews lasted between 30 and 90 min and included questions regarding work at the nursing home, labor-management relations, and the effects of the jointly introduced EMR project. Interviews were semistructured and interviewers used a unified protocol, which was developed iteratively. Interview questions focused on employee, supervisor, and management expectations and experiences in the process of adopting and implementing the EMR system. Interviewees were also asked about the role of management and the union and their general relationship throughout the process. In order to complement our information of each individual home with a more general understanding of labormanagement relations and collective bargaining at the industry level, we spoke with key union and

management informants. Data from these sources were particularly helpful in applying the evaluation framework to the three functional-level dimensions below.

In addition, all frontline employees in each of the homes were asked to complete a survey administered by phone at the respondents' home prior to the introduction of the technology and one year after implementation. The survey included a wide range of items measuring employee attitudes and perceptions regarding their work, labor-management relations, and the adoption of the technology. We focused the survey on direct caregivers (RNs, licensed practical nurses (LPNs), certified nursing assistants (CNAs), and allied professionals). We excluded from the survey administrators and supervisors who were not in regular contact with residents in the homes. The survey was administered by Cornell University's Survey Research Institute. Survey interviews lasted an average of 30 min and included over 100 items covering work design and structure, employee attitudes and perceptions, and employee background information. Of the 216 frontline employees at Senior Care, 104 completed the survey at time 1 and 133 at time 2 for a response rate of approximately 48% and 61%, respectively. Of the 93 frontline employees at Elder Medical, 37 completed the survey at time 1 and 31 at time 2 for a response rate of approximately 40% and 33%, respectively. Descriptive statistics for both samples are reported in Table 3.

In what follows, we analyze the labor relations factors that influenced the implementation of the aforementioned technological labor-management initiative based on the three dimensions highlighted in the Saturn and Kaiser Permanente cases discussed above. Analysis of these two cases illustrates the importance of assessing three distinct dimensions of industrial relations activity. We

**Table 3. Senior Care and Elder Medical Descriptive Statistics (Means) at Time 1 and Time 2.**

|                                       | Time 1        |               | Time 2        |               |
|---------------------------------------|---------------|---------------|---------------|---------------|
|                                       | Senior Care   | Elder Medical | Senior Care   | Elder Medical |
| Age                                   | 46.91 (11.36) | 48.59 (10.24) | 47.89 (11.48) | 49.03 (10.91) |
| Tenure                                | 8.09 (6.73)   | 9.16 (8.76)   | 8.43 (7.27)   | 8.71 (7.48)   |
| Gender <sup>a</sup>                   |               |               |               |               |
| Female                                | 102 (96.2%)   | 34 (91.9%)    | 115 (86.5%)   | 25 (80.6%)    |
| Male                                  | 4 (3.8%)      | 3 (8.1%)      | 18 (13.5%)    | 6 (19.4%)     |
| Total                                 | 106 (100%)    | 37 (100%)     | 133 (100%)    | 31 (100%)     |
| Education level <sup>a</sup>          |               |               |               |               |
| Below high school                     | 10 (9.5%)     | 3 (8.1%)      | 4 (3.1%)      | 1 (3.2%)      |
| High school                           | 50 (47.6%)    | 19 (51.4%)    | 45 (34.4%)    | 14 (45.2%)    |
| Above high school                     | 45 (42.8%)    | 15 (40.5%)    | 82 (62.6%)    | 16 (51.6%)    |
| Professional affiliation <sup>b</sup> |               |               |               |               |
| CNA                                   | 68.6%         | 75.7%         | 59.4%         | 67.7%         |
| LPN                                   | 16.2%         | 8.1%          | 15.0%         | 16.1%         |
| RN                                    | 7.6%          | 13.5%         | 16.5%         | 12.9%         |
| Allied professional                   | 1.0%          | 0%            | .8%           | 0%            |
| Other                                 | 6.7%          | 2.7%          | 8.3%          | 3.2%          |
| Total                                 | 100%          | 100%          | 100%          | 100%          |

<sup>a</sup>Frequency (percentage).

<sup>b</sup>CNA: certified nursing assistant; LPN: licensed practical nurse; RN: registered nurse; allied professionals: physical therapist, speech therapist, etc.; Other: specify.

*Note:* Standard deviations are in parentheses.

summarize our findings in Tables 4 and 5. As seen in these summary tables, integrating the three tiers of industrial relations with an

assessment of three central evaluation dimensions provides for the assessment of the state of labor relations dynamics across nine “coordinates.”

The argument developed is both descriptive and prescriptive. From a descriptive standpoint, evidence from this study demonstrates the importance of aligning industrial relations activity. Failures to sustain labor management initiatives intended to produce mutual gains are likely to be the result, among other things, of misalignment in the implementation of these efforts. From a prescriptive standpoint, the framework developed below can serve a roadmap for labor and management in the evaluation of their individual and joint industrial relations strengths and weaknesses.

*Table 4. Senior Care Nursing Home Assessment Framework.*

| Level of Analysis |     | Assessment Dimensions  |               |     |   |   |     |   |          |
|-------------------|-----|--|---------------|-----|---|---|-----|---|----------|
|                   |     | Process dimension (P)  |               |     | Issues dimension (I)  |   |     | Outcomes dimension (O)  |          |
| Strategic (S)     | SP1 | Formal and informal processes for strategic level interactions         | Yes           | SI1 | Clear articulation of substantive issues                                      | Yes   | SO1 | Achieving strategic objectives                                      | Yes      |
|                   | SP2 | Joint strategic planning sessions                                      | Yes           | SI2 | Information sharing procedures between management and labor negotiating teams | Yes at industry level not at organization level | SO2 | Addressing main problems  | Yes      |
|                   | SP3 | Engagement in joint strategic planning                                 | Yes           | SI3 | Comparison of goals to other organizations                                    | Advanced  |     |   |          |
|                   | SP4 | How do the parties themselves view existing strategic level processes? | Positive view | SI4 | Clear articulation of labor relations problems                                | Yes   | SO3 | Results and experience of your strategic planning joint discussions | Positive |
|                   | SP5 | Are there any joint evaluation or reviews of strategic planning?       | No            | SI5 | Comparison of problems with other similar organizations                       | Much less pronounced                            |     |   |          |

Table 4. (Continued)

| Level of Analysis                                       | Assessment Dimensions     |   |   |  |   |                                  |   |  |                    |
|---|---------------------------|---|---|--|---|----------------------------------|---|--|--------------------|
|   | Process dimension (P)     |   |   | Issues dimension (I)   |   |                                  | Outcomes dimension (O)                                      |  |                    |
| Functional/<br>collective<br>bargaining<br>level (F/CB) | Overall assessment strong |   |   | Overall assessment broad   |   |                                  | Overall assessment successful labor-management intervention |  |                    |
|   | FP1                       | Negotiation training  | No  | FI1  | Clear articulation of substantive issues  | Yes                              | FO1   | Number of strikes and or impasses  | None               |
|   | FP2                       | Information sharing procedures between management and labor negotiating teams | Yes at industry level not at organization level | FI2  | Comparison of goals to other organizations  | Similar                          | FO2   | Are the issues in dispute reducing over time?                              | No                 |
|   | FP3                       | The use of interest-based bargaining processes                                | No  | FI3  | Are the substantive issues being addressed at the collective bargaining table consistent with the key issues identified at the strategic level? | Partially                        | FO3   | Union views, employer views, and discrepancies between views on both sides | Positive           |
|   | FP4                       | Labor-management councils that work well                                      | Yes   |  |   |                                  | FO4   | Number of LMC meetings during the year                                     | On a regular basis |
|   |                           |   |   |  |   |                                  | FO5   | Overall joint evaluation of LMC activity for the year                      | Strong             |
|   |                           | Overall assessment moderate   |   | Overall assessment clear   |   |                                  | Overall assessment moderate                                 |  |                    |
|   | WP1                       |   | Yes/regularly                                   | WI1  |   |                                  | WO1   | Positive   |                    |
| Workplace level (W)                                     |                           | Are there labor-management councils that work well?                           |   |  | What are other problems between individual employees and management?  | Staffing and job security issues | Employee evaluations of labor-management relations          |  |                    |
|   | WP2                       | Use of the Grievance/dispute resolution procedure                             | Infrequent                                      |  |   |                                  | WO2   | Supervisor evaluations of labor-management relations                       | Positive           |
|   | WP3                       | Are there other modes of grievance handling?                                  | Yes   | WI2  | Are there instances of labor-management collaboration?  | Yes                              | WO3   | Shop-floor productivity measures   | Positive           |
|   | WP4                       | Do LMCs handle grievances?  | Yes   |  |   |                                  | WO4   | Employee attitudes and perceptions   | Positive           |
|   |                           | Overall assessment strong   |   | Overall assessment mixture of traditional and collaborative issues |   |                                  | Overall assessment positive                                 |  |                    |

*Table 5. Elder Medical Nursing Home Assessment Framework.*

| Level of Analysis                             | Assessment Dimensions               |   |   |                          |   |                                  |   |  |                 |
|---|-------------------------------------|---|---|--------------------------|---|----------------------------------|---|--|-----------------|
|   | Process Dimension (P)               |   |   | Issues Dimension (I)     |   |                                  | Outcomes Dimension (O)  |  |                 |
| Strategic (S)                                 | SP1                                 | Formal and informal processes for strategic level interactions                | Not functioning                                 | SI1                      | Clear articulation of substantive issues  | Yes                              | SO1   | Achieving strategic objectives   | No              |
|   | SP2                                 | Joint strategic planning sessions   | No  | SI2                      | Issues jointly identified and deliberated   | Yes                              | SO2   | Addressing main problems   | No              |
|   | SP3                                 | Engagement in joint strategic planning  | No  | SI3                      | Comparison of goals to other organizations  | Advanced                         |   |  |                 |
|   | SP4                                 | How do the parties themselves view existing strategic level processes?        | Very negative views                             | SI4                      | Clear articulation of labor relations problems  | Yes                              | SO3   | Results and experience of joint strategic planning discussions             | Nonexistent     |
|   | SP5                                 | Are there any joint evaluations or reviews of strategic planning?             | No  | SI5                      | Comparison of problems with other similar organizations   | Much more pronounced             |   |  |                 |
|   | Overall assessment weak–nonexistent |   |   | Overall assessment broad |   |                                  | Overall assessment unsuccessful labor–management intervention |  |                 |
| Functional/collective bargaining level (F/CB) | FP1                                 | Negotiation training  | No  | FI1                      | Clear articulation of substantive issues  | Yes                              | FO1   | Number of strikes and or impasses  | None            |
|   | FP2                                 | Information sharing procedures between management and labor negotiating teams | Yes at Industry level not at organization level | FI2                      | (pension and healthcare benefits alongside wages and use of temporary staff)<br>Comparison of goals to other organizations                      | Similar                          | FO2   | Are the issues in dispute reducing over time?                              | No              |
|   | FP4                                 | The use of interest-based bargaining processes                                | No  | FI3                      | Are the substantive issues being addressed at the collective bargaining table consistent with the key issues identified at the strategic level? | Partially                        | FO3   | Union views, employer views, and discrepancies between views on both sides | Negative        |
|   | FP5                                 | Labor–management councils that work well                                      | No  |                          |   |                                  | FO4   | Number of LMC meetings during the year                                     | Very infrequent |
|   |                                     | Overall assessment weak moderate  |   |                          | Overall assessment clear  |                                  |   | Overall assessment moderate  |                 |
| Workplace level (W)                           | WP1                                 | Are there labor–management councils that work well?                           | No  | WI1                      | What are other problems between individual workers and management?  | Staffing and job security issues | WO1   | Employee evaluations of labor-management relations                         | Negative        |
|   | WP2                                 | Use of the grievance/dispute  | Frequent  |                          | Alongside temporary agency workers, discipline issues   |                                  | WO2   | Supervisor evaluations of labor-management relations                       | Negative        |

*Table 5. (Continued)*

| Level of Analysis | Assessment Dimensions                        |      |                      |  |                        |   |
|-------------------|--|------|----------------------|--|------------------------|---|
|                   | Process Dimension (P)                        |      | Issues Dimension (I) |  | Outcomes Dimension (O) |   |
|                   | resolution procedure                         |      |                      |  |                        |   |
| WP3               | Are there other modes of grievance handling? | No   | WI2                  | Are there instances of labor-management collaboration?             | Yes                    | WO3 Shop-floor productivity measures Negative   |
| WP4               | Do LMCs handle grievances?                   | No   |                      |  |                        | WO4 Employee attitudes and perceptions Negative |
|                   | Overall assessment                           | weak |                      | Overall assessment mixture of traditional and collaborative issues |                        | Overall assessment negative                     |

*The Strategic Level*

*Strategic-Level Processes*

Industrial relations research has provided a support for the claim that many of the strengths and weaknesses of a labor-management initiative can be traced back to the strategic level of activity (the Saturn and Kaiser Permanente cases described above provide a good illustration for this linkage). Research on well-established labor-management collaborations, such as Kaiser Permanente and Saturn, has documented the linkage between strategic-level decisions and interactions and the ability to sustain such partnerships. Nevertheless, there is still absence of a systematic assessment of what factors at this level actually contribute to the outcomes associated with strategic choices.

Our own research during the period of EMR adoption in these two organizations highlighted the central role of processes through which labormanagement interactions were facilitated at the macro strategic level. Our analysis of Senior Care and Elder Medical's strategic level of labor relations activity pointed to stark differences. First, the two organizations differed significantly in the processes they had set forth in order to roll out the EMR initiative. Management at Senior Care viewed the introduction of EMR in their nursing home as an opportunity to involve the union and create the foundation for a collaborative approach to the use of the technology. Talking about how the project affected the relationship between management and the union, the Senior Care administrator stated:

We definitely have a better relationship, and I think they see us differently. I see them differently and I just think there's more common ground and I think that what we learned from it is that we really can accomplish much, much more if we work collaboratively on different things. And I'm actually part of a committee now with 1199 with other nursing home administrators both in this grant and outside the grant to work on initiatives. What other initiatives can we work on? It's a no-brainer. If we're ... if the employees from, are hearing something from the union and they hear the same thing from the employer, they're hearing the same thing, I just believe that they say OK, you know, the union is saying it's good and management is saying it's good, then it must be good.

Both nursing homes received support in order to implement an EMR- specific labor-management committee. These committees were designed to provide employee, union leaders, and management with a vehicle through which to provide input on the introduction of the new technology. However, the actual scope of implementation and mandate for these committees varied by nursing home. At Senior Care a labor-management committee for the introduction of the EMR was set up and included the nursing home administrator, the assistant director of nursing, and others from the organization's top management team alongside union

leaders and representatives. This committee also included union and nonunion representative, managers, and frontline employees and was used as a means to engage different stakeholders in the implementation process and to solicit input. In other words, formal processes were not only set up in accordance with the broader technology project, but were utilized and institutionalized by both management and the union. With the assistance of a facilitator provided through the project, this labor-management committee discussed central operational and workforce-related aspects of EMR implementation (field notes, December 2007).

In addition to interviews, we also observed a Senior Care EMR labormanagement committee meeting. Our observations supported what our interviewees had indicated, which was that both labor and management viewed this committee as a crucial forum for the joint and strategic deliberations about how the technology would be implemented, central issues that needed to be addressed, and possible tensions that could surface. These deliberations led to real changes in the process of rolling out the technology. Thus for example, the schedule and stages of technology implementation were influenced by discussions conducted in this labormanagement committee.

In addition to this formal procedural element, Senior Care insured that the informal line of communication with 1199SEIU leadership was open and resulted in real and meaningful dialogue. The administrator consulted with the union about employment-related decisions that resulted from the EMR implementation and sought their direct involvement. At the heart of management's participatory approach to the union's involvement in the EMR adoption was not only an understanding of both the potential vested in the technology, but also, more importantly, the ability of the union to ease the process and to enhance the likelihood of a successful implementation. Thus for example, when asked about this relationship with the union throughout the process, Senior Care's administrator stated

I think that because it was a formalized partnership, there's no question that it had a benefit. There's just no question. It created an environment of peace, it created an environment of collaboration ... it was fantastic, it was brilliant... if I went into another facility that was not part of a grant. I would reach out to my union people and I would get their buy-in, because the buy-in from the union side, there's no question that has benefited us. I think we would have done it, I just think it would have been more difficult to get the staff to buy-in.

Elder Medical, on the other hand, did not seem to view the union as a partner in the implementation of the technology and did very little by way of putting procedural mechanisms into place in order to deal with the labormanagement implications associated with the technology. Although, like all organizations in the broader initiative, Elder Medical did set up an EMR labor-management committee, its role and significance were marginalized by both the nursing home administration and the union leadership. Thus for example, participants included middle managers with very little top management involvement. The committee's existence was short-lived, fading after the initial introduction of the technology, and played a very minor role in the roll out of the technology.

When asked about the role of union in the adoption and implementation process, Elder Medical's administrator provided very little evidence for any meaningful coordination, dialogue, or engagement. This administrator viewed the union's primary role as a guarantor that jobs would not be lost in the process of implementing the new technology. Thus, the administrator noted that "They, employees, went into this with less anxiety knowing that the union promised them that no one would lose their job. If it was management making that promise without a union, the anxiety would be there". Although an expression of the benefits of union involvement, this statement represents the much less strategic nature of union involvement at Elder Medical.

#### *The Substantive Focus*

Our analysis of these two cases also provides evidence for the role of the substantive focus of strategic-level actors. We found that in addition to the processes set forth by labor and management, the substantive issues placed at the center of this initiative varied

greatly. Thus, in addition to clear differences in terms of labor-management processes set up at the strategic level, the two organizations also differed with regards to the substantive issues they addressed. Senior Care, which was proactive in its approach to the labor relations component of the EMR adoption, made use of its formal and informal procedural avenues in order to address a number of important substantive issues.

First, the labor-management committee addressed central logistical issues associated with the introduction of the EMR technology. This strategic setting was used in order to identify and ease many potential hurdles and barriers facing a change of this magnitude in any organization. In our observation of the labor-management committee discussions, management and labor representatives discussed issues regarding the timing of EMR implementation, “marketing” of the new technology, and methods to insure stakeholder buy-in.

In addition to the logistical substantive issues, the strategic labor relations level also dealt with quality of care issues, discussing the ways in which the technology will be used to insure clinical and quality improvements. Union leaders and delegates were included in strategic-level discussions regarding the manner in which to attain a pronounced effect on resident care. Finally, Senior Care also saw the implementation of EMR as an opportunity to increase organizational efficiency and reduce costs. Reducing the time spent by frontline staff documenting using paper and pencil alongside a more efficient method of monitoring resident care practices was expected to lead to reduced costs and enhanced reimbursements. In reflecting back on the adoption of the EMR technology and its use in the organization, Senior Care administrator stated

Now we see an application for everybody in the organization, with the right permissions because not everybody should see everything, but with the right permissions pertaining to what their work is, it can be very beneficial. The thing that I like about it is that it removes redundancy, it removes labor, waste paper, waste time, when you can pull the information directly out of the system. The system has so much information, just trying to harness it all and make use of it all is at times overwhelming, but at the same time very exciting because it gives you the opportunity to run the organization much more efficiently, and just run the organization in a different way, in a better way.

Thus, addressing these broader goals and applications of the new technology had clear labor relations implications in terms of affecting how frontline staff would perform their work and whether efficiencies could be found. Here too, Senior Care’s administration utilized its formal and informal communications channels to address these issues with union leaders and sought their input. In this sense, there was an alignment between the processes implemented and the substantive issues addressed and each dimension influenced the other.

At Elder Medical, on the other hand, there was very limited substantive strategic dialogue between the management and the union regarding the implementation of the EMR technology. First, as mentioned above, this organization provided very little by way of a procedural forum for strategic-level substantive discussions between the parties. In addition to the absence of a well-defined process dimension, however, was also the absence of a strategic vision for what the technology would be used for. Management did not engage the union in ways to leverage the technology for either clinical quality of care improvements or for efficiency cost reduction. As noted above, the nursing home administration focused on the role the union could play in alleviating employee fears regarding job security. In fact, most of the substantive interactions with the union around the implementation of the technology focused on the union’s perception that this technology would be used to ease staffing reductions and use of temporary nonunion staff.

Interviews with union representatives at Elder Medical highlighted the extent to which labor-management interactions were primarily focused on traditional and adversarial issues (field notes, December 2007). In other words, as opposed to Senior Care that engaged in an integrative forward looking dialogue with the union about the strategic implications of the technology, Elder Medical engaged in what appeared to be a much more adversarial discussion regarding short-term employment and labor repercussions. When

asked about the relationship between management and the union, interviewed employees stated that it was nonexistent. One employee would not discuss this relationship unless we turned off our recording device. Again, this is in large part due to a different substantive strategic focus, but also the result of very different procedural mechanisms available to the actors. Thus, understanding strategic labor-management deliberations and focus must also take into account the procedural apparatuses used by the parties.

### *Strategic-Level Outcomes*

A third central dimension that was clearly highlighted by the comparison of both organizations' experience is that of outcomes. In examining the implications of different processes and substantive foci, it became clear that the associated outcomes were also markedly different. As might be expected, the differences between the two nursing homes for the process and substantive dimensions carry over into this dimension. Having provided clear process mechanisms with defined substantive issues to be dealt with, Senior Care was able to capitalize on many of its strategic objectives. In our field visit one year following the introduction of the technology, we were confronted with an array of evidence that strongly suggested that the implementation of the EMR technology had been successful on a number of central fronts.

First, despite some concerns raised early on by the union with regards to how the technology would affect key labor issues such as staffing levels and managerial control, the consensus among union employees and representatives was that the technology had not negatively affected their working condition. In fact, as will be discussed below, most employees and union representatives saw the new technology as a positive force in their organization. Thus for example, when interviewing both Senior Care union representatives, they both were adamant that this technology benefited the members they represented and the organizations as a whole (field notes, December 2007). Second, both the administration and frontline staff pointed to clinical improvements in the care of the residents, one of the overarching strategic objectives sought by both the union and management. Senior Care's director of nursing reported both organizational and clinical improvements made possible due to the technology. For example, Senior Care was able to dramatically reduce medications provided to residents due to better use of information now easily accessible through the EMR system. Finally, Senior Care administration was also able to make the case that this technology had reduced their costs substantially, through time efficiency and better delivery of care through enhanced organizational learning. Addressing both of these gains Senior Care's administrators noted about the technology "It's better quality of care for the resident, and it's also financial savings for the nursing home. So you're, you know, you're just able to get your arms around this information that you just couldn't get on paper."

At Elder Medical, the absence of a strategic process and clear substantive labor-management issues was followed by limited strategic-level outcomes associated with the adoption of the EMR technology. Although the adoption of the technology had a number of organizational improvements, such as a reduction in logistical costs and in time spent on resident care documentation, Elder Medical did not seem to have benefited in a variety of areas that Senior Care (and other nursing homes included in this study) had been able to. First and foremost, unlike Senior Care, Elder Medical had not utilized the adoption of the technology to enhance labor-management communications and the overall relationship with the union and its representatives. Furthermore, tensions between the union and management appeared to have been strained as a result of the top down adoption approach that the nursing home administration had taken. Second, Elder Medical was unable to demonstrate clear quality of care improvements associated with the technology, although the administration did anticipate that such gains would manifest themselves in the future.

An analysis of the strategic-level dynamics around the EMR collaboration at both organizations provided support for our overarching claim that there is a complex set of dimensions that operate within a given level of industrial relations activity. More specifically, that there is a central interrelationship between procedural mechanisms set forth to carry out a specific substantive focus, and that this relationship accounts for associated outcomes. From a practical standpoint, this insight calls for a more nuanced

assessment of the strategic strengths and weaknesses characterizing a given labor-management relationship. Furthermore, we argue that strengths and weaknesses for each of these dimensions at the strategic level are likely to have dramatic implications for labor-management relations at the functional and workplace level.

### *The Functional Level*

Although there was significant variation across the two organizations at the strategic level, we would expect less variation at the functional level. This is largely due to the de facto centralization of bargaining at the industry level. The vast majority of employees (CNAs and LPNs) at both nursing homes were represented by the SEIU local 1199. Both nursing homes were represented by the same attorney in their negotiations with the SEIU and much of the negotiations for all 170 nursing homes represented by the SEIU in the area are conducted jointly.

With regards to the procedural dimension, the assessment criteria paint a mixed portrait. On the one hand, collective bargaining processes developed at the industry level tend to be well developed and utilized at the highest labor-management levels. Nevertheless, at the individual nursing home level, functional-level processes are less advanced and used less frequently. As proposed above and illustrated in Table 2, one of the central processes at this level of activity relates to the formal and informal mechanisms by which union and management engagement occurs. At the industry level, 1199SEIU and the owners of the nursing homes under the reach of the collective bargaining agreement have established mechanisms for information sharing and exchange in a collaborative manner.

At the individual nursing home level, however, there is very little by way of information sharing before, after or during the collective bargaining process. Interest-based bargaining, another criterion for the functional-level processes in place, is not used at either the industry or the individual home levels. Finally, given the overarching bargaining structure, there is essentially no variation in terms of the timeframe for attaining a collective bargaining agreement. For most bargaining cycles, this takes approximately five sessions at the industry level and an additional three sessions for the individual homes.

One of the procedural areas where there is variation between Elder Medical and Senior Care has to do with their use of labor-management bargaining committees. Although all homes in the bargaining unit are supposed to establish these labor-management committees, the level of institutionalization varies. Thus, for example, at Senior Care, this committee is extremely active, meets regularly and drives the collective bargaining process at the individual home level. At Elder Medical, this committee is mostly passive, meets infrequently and has little actual effect on the collective bargaining process.

With regards to the substantive issues dimension, there is also only a moderate level of variation between the two organizations. Given that much of the collective bargaining takes place at the regional industry level, the dominant issues raised are, for the most part, similar. The two central substantive issues dealt with at the bargaining level are the funding of pension funds and the level of contribution for health benefits. Over the course of the last three negotiations cycles, both of these issues have been at the heart of the bargaining between the parties. 1199SEIU has negotiated relatively favorable health benefits with no required contribution on the part of the members. This arrangement is not aligned with other agreements in the healthcare industry and has created frequent tensions between labor and management at the bargaining unit level. Nursing home operators have been consistently pushing for employee contributions to the health benefits with intense opposition on the part of the union. Although there is little variation between organizations on the dominance of these two issues, there is variation in terms of additional substantive concerns.

Thus for example, for a variety of historic and industry reasons, Elder Medical's wage pattern is well below the average for the bargaining unit average. In addition, Elder Medical's use of temporary and agency employees is much higher as compared to other

nursing homes bargaining with 1199SEIU. Thus, both of these issues have also dominated bargaining at the organizational level. As a result, the bargaining tone at Elder Medical has been much more adversarial than at Senior Care, where the substantive issues were mostly addressed at the industry-level bargaining.

Finally, with regards to the outcomes dimension, an assessment using our monitoring criteria leads to a mixed picture as well. On the one hand, the number of strikes and impasses that have occurred over the last five cycles have been minimal with two strikes occurring at the bargaining unit level and none at the two organizations examined here. On the other hand, when examining the pattern regarding the resolution of disputes and substantive tensions over time, there is no indication that for either nursing home, such concerns are declining. Thus, from an assessment perspective, there are mixed signals about the health and stability of the functional level for both organizations.

### *The Workplace Level*

How did the labor-management relations dynamics at the strategic and functional levels at each of the two organizations play out at the workplace level? Our research suggests that differences between the two nursing homes at the strategic level of industrial relations activity did transfer to the frontline or workplace level as well. Analysis of the two cases illustrates key differences across the three framework dimensions.

From a procedural standpoint, one of the main indicators of industrial relations health and stability is use of the grievance process. Both nursing homes fall under the same collective bargaining, yet the utilization patterns of the grievance mechanism it affords unionized members was vastly different. Elder Medical, which had very little by way of procedural mechanisms at the strategic or workplace levels, had a high rate of informal grievance activity on the part of the union representatives. Thus, this trend provides support to one of the chapter's overarching propositions that weak processes at the strategic level have implications in terms of the pressures placed at the functional and workplace levels. In this case, ignoring process issues at the strategic level appears to have pushed unresolved issues down to the workplace level.

Senior Care, on the other hand, had few grievances during either period. Many of the pre and post EMR implementation concerns were addressed at the strategic level, leaving the workplace level less congested with unresolved conflicts and tensions. This is not to say that employees did not have concerns or disagreements with administration. Rather, it appeared that the role of the labor-management committee, which dealt with primarily strategic-level issues, also provided a forum for addressing frontline-level issues. In addition, the informal channels between management and leadership described for the strategic level also served the role of providing an avenue for dealing with workplace concerns and problems. Put differently, as opposed to Elder Medical, at Senior Care grievance filing was not the sole or dominant mechanism through which employees exercised voice.

Variance between the two organizations on the substantive issues front was also pronounced. At Elder Medical, the dominant issues dealt with at the workplace level both formally and informally were issues of staffing and use of temporary workers. In our interviews with frontline staff and supervisors, there was a high level of frustration and tension between labor and management in terms of the levels of staff maintained in the facility and the reliance on a high proportion of temporary contracted staff. Union leaders and members saw this as both a violation of the collective bargaining agreement and a reflection of the administration's lack of commitment to real resident care improvements through the introduction of EMR.

Top management, for their part, was primarily focused on discipline related concerns. In our interviews with the administrator and other managers, they expressed their interest in finding ways to implement their EMR system as a way to increase managerial control and authority (also see Lipsky et al., 2009). Thus, in addition to the absence of procedural mechanisms other than the traditional

grievance process, labor relations actors at Elder Medical focused on primarily adversarial substantive issues. Survey data collected before and after the adoption of the EMR technology provide support for the qualitative assessment of the relationship between management and its employees in both organizations. As seen in Table 6, the level of organizational trust in both organizations is significantly different with higher levels reported at Senior Care than at Elder Medical.

At Senior Care, the adoption of EMR technology also raised concerns for both labor and management. The union wanted to insure that the expected timesaving from more efficient documentation procedures would not be used to reduce staffing levels (especially unionized positions). As illustrated in the administrator’s quotes above, the organization’s top management was also concerned and was focused on their expectations that union members and their leaders would “buy in” to the adoption of new technology and would actively participate in the implementation phases.

Nevertheless, despite these substantive concerns, the labor-management relationship at Senior Care addressed a host of issues that went well beyond these potentially adversarial ones. Alongside “traditional” substantive issues, union members and representatives were concerned with how they could utilize the EMR technology so as to enhance resident care. The nursing home top and middle management were interested in attaining staff input regarding the most effective use of the technology. Thus, the collaborative dynamic around the adoption of EMR that was fostered and attained at the strategic level was, to a large extent, replicated at the frontline workplace level. One way to examine the alignment between the strategic-level concerns over the

**Table 6. Mean Differences in Employee Attitudes and Perceptions at the Workplace Level between Senior Care and Elder Medical.**

| Variables                   | Time 1                  |                         | Time 2                   |                          |
|-----------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
|                             | Senior Care             | Elder Medical           | Senior Care              | Elder Medical            |
| Job Satisfaction            | 4.19 (.89)***           | 3.62 (1.28)***          | 4.02 (.99)               | 3.79 (1.35)              |
| Turnover Intention          | 2.48 (1.22)*            | 2.97 (1.32)*            | 2.18 (1.10)****          | 3.08 (1.28)****          |
| Stress                      | 3.13 (1.17)             | 3.11 (1.01)             | 2.96 (1.02) <sup>+</sup> | 3.35 (.98) <sup>+</sup>  |
| Organizational Trust        | 3.83 (1.09)****         | 3.03 (1.26)****         | 3.96 (.96)****           | 2.79 (1.44)****          |
| Staffing Level Adequacy     | 3.56 (.94) <sup>+</sup> | 3.24 (.89) <sup>+</sup> | 3.56 (1.10) <sup>+</sup> | 3.10 (1.32) <sup>+</sup> |
| EMR Decreases Errors/Misses | Not applicable          |                         | 3.88 (.93)*              | 3.38 (1.24)*             |

<sup>+</sup>*p* < .1, \**p* < .05, \*\**p* < .01, \*\*\**p* < .005, \*\*\*\**p* < .001.

Note: Standard deviations are in parentheses

effect of technology on staffing and their manifestation at the workplace level is to examine the extent to which employees are concerned about the adequacy of staffing levels. As noted, our qualitative research suggested that concerns about staffing played a much more dominant role at Elder Care than at Senior Care. Using survey data collected before and after the adoption of the technology, we compared employee reported perceptions of staffing adequacy. As seen in Table 6, employees at Elder Care reported a significantly lower level of staffing adequacy.

Another prism through which to examine workplace outcomes is through the assessment of employee-level attitudes and perceptions about their organization. As noted above, survey data collected before and after technology adoption demonstrated differences employee reported trust in their organization. What about other key relational and attitudinal variables? In addition to trust indicators for workplace level outcomes, we included measures for employee turnover intentions, job satisfaction and employee stress as a means of assessing outcomes at the workplace level.<sup>3</sup> These are, clearly, not an exhaustive list of workplace-level assessment criteria, but they address relational, attitudinal, and attachment measures helpful in better analyzing the health of an organization’s labor-management relationship

Given the discussion regarding the differences between both organizations at the strategic level, we expected to find clear differences regarding outcomes at the workplace level. This proposition goes back to Kochan et al.'s (1986) fundamental assumption that what happens at the strategic level has implications for the workplace level. Our framework allows for a clear illustration of the extent to which this assumption holds. By measuring constructs such as trust, job satisfaction, turnover intentions, and stress, we are able to empirically examine the extent to which workplace-level outcomes are patterned in a similar manner to outcomes at other levels of labor relations activity.

Results from survey data collected before and after the adoption of the technology supported the overall proposition that labor relations patterns at the strategic level play out similarly at the workplace level. As reported in Table 6, the differences in the means between the two homes for each of the constructs examined were statistically significant at the .1 level or higher. For the most part, frontline employees at Senior Care reported, on average, statistically significantly higher levels of trust, job satisfaction, and commitment alongside lower intentions to quit than did employees at Elder Medical. It is interesting to note that for two of the constructs measured, namely job satisfaction and stress, the statistically significant difference between samples only holds for one of the time periods. For job satisfaction, the differences are significant at time 1 and not at time 2. With regards to stress, however, the sample differences are statistically significant at time 2 and not time 1. Nevertheless, the general proposed pattern of improved workplace outcomes at Senior Care holds.

Finally, our survey instruments at time 2 asked respondents about the extent to which the introduction of the new technology resulted in decreased errors and near misses. As seen in Table 6, the two samples differed significantly in the extent to which they attributed improved patient care, as measured by perceived reduction in errors and near misses, to the new EMR technology. Employees at Senior Care reported more of a decrease in errors and near misses following the introduction of EMR technology. Here too, the framework's assessment at the workplace level allows us to support evidence gathered at the strategic level.

Clearly, we cannot argue that working in one industrial relations setting as opposed to the other serves as the only explanation for the mean differences across these constructs. We do, however, argue that the diagnoses of an organization's labor relations should also include an assessment of frontline employee attitudes and perceptions and that the results should be examined in the context of other diagnostic cells.

The results suggest that dual alignment was higher in the case of Senior Care as opposed to Elder Medical. The discussion also suggests support for our basic argument, namely that the alignment across levels of labor relations activity alongside alignment across the three assessment dimensions will lead to a healthier and more stable labor-management relationship, including individual-level perceptions and attitudes at the workplace level.

In many ways, outcomes at the workplace level represent, in our framework, the cumulative effects of the eight other cells in the framework. In other words, one way to view the framework developed in this chapter is in attempting to better understand the origins of specific workplace-level outcomes (for an early discussion of the importance of focusing on this level's outcomes see Katz et al., 1983). Each of the eight cells across the three industrial relations levels of activity represents junctures along the relationship where there is potential for the weakening or strengthening of the overall relationship leading to enhanced or diminished outcomes on the shop floor. That said, as noted above, we do believe that some of the junctures may have a more pronounced effect on the nature of the labor-management relationship and its associated outcomes. More specifically, the quality of the strategic-level dimensions, we argue, will have a cascading effect (positive or negative) down through the levels of activity.

Differences observed at the strategic and workplace levels at both of the nursing homes analyzed in this chapter carried over into

the outcomes dimension. In addition to our qualitative data, which supported clear differences for this cell, we analyzed survey data from each of the nursing home's frontline staff in an effort to assess whether their perceptions and attitudes were statistically significantly different.

## CONCLUSION

Industrial relations and economic researchers have provided support for the potential vested in a "transformed" collaborative labor-management relationship (see for example Black & Lynch, 2001). Nevertheless, the proportion of firms and unions adopting and sustaining this approach is relatively low. We maintain that one of the reasons for this paradox rests on the fact that sustaining such a model is a function of labor-management activities at different levels and across different dimensions. Thus, our goal in this chapter was to tackle a practical industrial relations problem for organizations, namely, the absence of appropriate evaluative frameworks to assess and enhance labor-management relations at the organizational level. We summarize the general diagnostic criteria that might occupy each of the nine cells in the framework in Table 7.

We argued in this chapter that evaluating organizational labor relations requires the examination of two complementary forms of alignment. Kochan et al. (1986) highlighted the importance of *Vertical* alignment, i.e., the need for internal consistency in industrial relations institutions and practices across three vertical levels of industrial relations activity, i.e., the strategic, functional and workplace levels. Based on both best practices and our own study of labor relations in two healthcare organizations, we stress the need for *horizontal* alignment as well, i.e., the need for internal consistency across processes, substantive issues, and outcomes at all three levels. In essence, we argue that dual alignment is a necessary condition for successful labor relations. These two forms of alignment, when put together, result in the development of a labor relations information system that can be used by both top management and union leaders in the monitoring and assessment of an organization's labor relations. In doing so, this framework makes both scholarly and practical contributions.

One of the central motivations driving Kochan and colleagues to develop their three-tiered framework was the inadequate conceptual foundation for the study of industrial relations activity across "geographic" levels of activity. They were also interested in a model that could better predict an industrial relations system's health, stability and potential for transformation. More than 25 years after this framework was set forth, both of these scholarly pursuits are as relevant today as they were at that time. Existing academic models are *still* lacking in their ability to explain and predict industrial relations successes and failures. Industrial relations research has long recognized the interrelationships between different characteristics and outcomes (see for example Katz et al., 1983), yet there continues to be some ambiguity in identifying these linkages and relationships. The dual alignment framework presented here, contributes to the scholarly literature by taking into account additional nuances and complexities inherent to labor relations systems and activity.

From a practical standpoint, the utility of this framework rests both on its simplicity and in its versatility. Its simplicity stems from the ability to reduce complex and dynamic labor-management relationships into nine identifiable cells, i.e., it allows managers and union leaders to channel a great deal of information and data into a structured framework. Furthermore, the framework can assist the parties in making decisions about what types of information to track and utilize. The assessment can be completed using a host of different data sources combining both quantitative and qualitative indicators.

**Table 7. Assessment Framework with Proposed Cell Assessment Criteria.**

| Level of Analysis                             | Assessment Dimensions                    |  |                      |   |                        |  |
|---|--|--|----------------------|---|------------------------|--|
|   | Process Dimension (P)                    |  | Issues Dimension (I) |   | Outcomes Dimension (O) |  |
| Strategic (S)                                 | SP1                                      | The existence of formal and informal processes for strategic level interactions            | SI1                  | What are the three key labor-management relations strategic goals of the organization?  | SO1                    | Have LMR strategic goals and objectives been realized?                                       |
|   | SP2                                      | Are there any joint strategic planning sessions?   | SI2                  | Have these issues been jointly identified and deliberated?  | SO2                    | Have the central labor-management issues and problems been addressed at the strategic level? |
|   | SP3                                      | Engagement in joint strategic planning   | SI3                  | How do these goals compare with other organizations in the industry?  |                        |  |
|   | SP4                                      | How do the parties themselves view existing strategic level processes?                     | SI4                  | What are the key labor-management problems?   | SO3                    | What are the results and experience of the strategic planning joint discussions?             |
|   | SP5                                      | Is there any joint evaluation or reviews of strategic planning?                            | SI5                  | How do they compare with competitors?   |                        |  |
| Functional/collective bargaining level (F/CB) | FP1                                      | Training and background of negotiators   | FI1                  | What are the dominant issues in the contract this year?   | FO1                    | Number of strikes and or impasses  |
|   | FP2                                      | Existence of information sharing procedures between management and labor negotiating teams | FI2                  | How do these issues compare with contracts in other companies in your industry?   | FO2                    | Are the number of issues in dispute decreasing over time?                                    |
|   | FP3                                      | The use of interest-based bargaining processes   | FI3                  | Are the substantive issues being addressed at the collective bargaining table consistent with the key issues identified at the strategic level? | FO3                    | Union views, company views, and discrepancies between views on both sides?                   |
|   | FP4                                      | Are there labor-management councils that work well? How often do they meet? Are they used? | FI4                  | What were the sources of dissonance?  | FO4                    | Number of LMC meetings during the year?  |
|   | FP5                                      | What is the average time taken to negotiate a CB contract?                                 | FI5                  | Which issues were more hotly contested than others? Why?  | FO5                    | Overall joint evaluation of LMC activity for the year  |
| Workplace level (W)                           | WP1                                      | Are there labor-management councils that work well? How often do they meet? Are they used? | WI1                  | What are other problems between individual workers and management?  | WO1                    | Employee evaluation of worker-management relations through surveys                           |
|   |  |  | WI2                  | Are there instances of worker-management collaboration?   |                        |  |
|   | WP2                                      | Use of the grievance/dispute resolution procedure  | WI3                  | What are the main grievances? How often do they occur?  | WO2                    | Supervisor evaluations of worker-management relations  |
|   | WP3                                      | Are there other modes of grievance handling?   | WI4                  | Why do they occur?  | WO3                    | Shop-floor productivity measures   |
|   | WP4                                      | To what extent to LMCs handle grievances and disputes?                                     | WI5                  | What led to this collaboration?   | WO4                    | Employee attitudes and perceptions   |
|   | WP5                                      | Is the grievance process jointly negotiated?   | WI6                  | What lessons can one draw for instituting permanent structures that lead to more collaboration?   | WO5                    | Turnover and Absenteeism   |
| WP6   | Is the grievance process used regularly? |  |                      |   |                        |  |

The framework is versatile and can be used for multiple forms of analyses and purposes. First, it can be enlisted in the service of clearly identifying strengths and weaknesses inherent to a given industrial relations system. In delineating labor-management relations into three specific dimensions across three levels of analysis, parties are better able to map out and identify the “geography” of particular strengths and weaknesses. Thus, for example, labor relations specialists and union leaders can pin point the “coordinates” within this 3 x 3 for labor relations tensions (level of activity/ evaluation dimension). The empirical comparison used in this chapter serves as a good case in point. The use of the assessment framework allowed for an organized evaluation of how a particular collaborative labor-management initiative played out in two organizations. More specifically, it allowed us to highlight linkages within the labor-management architecture that explain why one organization was able to thrive while the other faltered.

One key advantage for industrial relations scholars and practitioners is the ability of the framework to illustrate and surface linkages between and across cells. Thus, the framework permits us to connect between strengths or weaknesses at one area within an industrial relations system and those playing out at other areas. Of particular importance is the ability inherent in the framework to trace the origins of outcomes at different levels of activity. Thus, attitudes and perceptions at the workplace level can be traced back to broader substantive issues and procedural infrastructure at the strategic and functional levels. It is also possible to utilize the framework at different levels of analysis, i.e., plant level, multiplant organizational level, or as a comparative tool at the national level as well.

Our chapter is not without its limitations. First, in using two extreme cases we are, in some ways, continuing a general industrial relations research pattern that tends to overemphasize, mostly positive, extreme cases. Our two cases are not representative of the industrial relations climate in U.S. healthcare organizations. Rather, they represent very distinct labor-management settings undergoing a similar change. As such they allow us to explore the utility of our evaluative framework as a tool through which to illuminate important labor relations dynamics and differences. That said, the academic and practical utility of this framework will clearly require further validation and empirical applications. Second, frameworks are generally only as good as the assumptions on which they are developed. We assume here that a strong and stable industrial relations system is one that strives towards collaborative labor-management dynamics. Thus, organizations that devote the time and resources needed in order to collect the diagnostic data stemming from this framework and necessary for a continuous assessment of labor relations are likely, we maintain, to see a return on this investment, which can, among other things, take the form of a clearer path to a transformed labor-management relationship.

## **NOTES**

1. It should be noted that these substantive issues were identified as part of the 2000 round of bargaining at Kaiser. It is likely that the configuration of this list has changed over time, as will the set of labor-management priorities in any organization. A diagnostic framework provides a snapshot in time and must be used on an ongoing basis.
2. 1199SEIU represents all of the certified nurses aides (CNAs) and licensed practicing nurses (LPNs). Registered nurses (RNs) are not unionized in either of the nursing homes. In the New York City region, 1199SEIU United Healthcare Workers East (1199SEIU) represents employees in approximately 170 for-profit and not-for-profit nursing homes.
3. Items used for each of these constructs are listed in the appendix.

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## REFERENCES

- Black, S. E., & Lynch, L. M. (2001). How to compete: The impact of workplace practices on productivity. *The Review of Economics and Statistics*, 83(3), 434-445.
- Bureau of the Labor Statistics. (2009). *Employment situation summary*. Report USDL 09-0742. GPO, Washington, DC.
- Clark, P. F. (2002). Health care: A growing role for collective bargaining. In: P. F. Clark, J. Delaney & A. Frost (Eds), *Collective bargaining in the public sector: Current developments and future challenges* (pp. 91-135). Champaign, IL: Industrial Relations Research Association.
- Clark, P. F., Clark, D. A., Day, D. V., & Shea, D. G. (2001). Healthcare reform and the workplace experience of nurses: Implications for patient care and union organizing. *Industrial and Labor Relations Review*, 55(1), 133-148.
- Cutcher-Gershenfeld, J. E., & Kochan, T. A. (2004). Taking stock: Collective bargaining at the turn of the century. *Industrial and Labor Relations Review*, 58(1), 3-26.
- Dunlop, J. T. (1958). *Industrial relations systems*. New York: Henry Holt.
- Katz, C. H., Kochan, T., & Gobeille, K. (1983). Industrial relations performance, economic performance, and QWL programs: An interplant analysis. *Industrial and Labor Relations Review*, 37(1), 3-17.
- Kochan, A. T., & Osterman, P. (1994). *The mutual gains enterprise: Forging a winning partnership among labor, management, and government*. Boston, MA: Harvard Business School Press.
- Kochan, T. A. (2008). Introduction to a symposium on the Kaiser Permanente labor management partnership. *Industrial Relations*, 47(1), 1-9.
- Kochan, T. A., Adler, P. S., McKersie, R. B., Eaton, A., Segal, P., & Gerhart, P. (2008). The potential and precariousness of partnership: The case of the Kaiser Permanente labor management partnership. *Industrial Relations*, 47(1), 36-65.
- Kochan, T. A., Eaton, A. E., McKersie, R. B., & Adler, P. S. (2009). *Healing together: The labor-management partnership at Kaiser*. Ithaca, NY: ILR Press.
- Kochan, T. A., Katz, H. C., & McKersie, R. B. (1986). *The transformation of American industrial relations*. New York: Basic Books.
- Kochan, T. A., McKersie, R. B., & Cappelli, P. (1984). Strategic choice and industrial relations theory. *Industrial Relations*, 23(1), 16-39.
- Lipsky, D. B., Avgar, A. C., & Lamare, J. R. (2009). Organizational strategies for the adoption of electronic medical records: Toward an understanding of outcome variation in nursing homes. *Proceedings of the sixty-first annual meetings*, San Francisco, January 3-6, 2009. Champaign, IL: Labor and Employment Relations Association.
- McKersie, R. B., Eaton, S. C., & Kochan, T. A. (2004). Kaiser permanente: Using interest-based negotiations to craft a new collective bargaining agreement. *Negotiation Journal*, 20(1), 13-35.
- Rubinstein, S. A. (2000). The impact of co-management on quality performance: The case of the Saturn corporation. *Industrial and Labor Relations Review*, 53(2), 197-218.
- Rubinstein, S. A., & Kochan, T. A. (2001). *Learning from Saturn*. Ithaca, NY: ILR Press.

## APPENDIX: VARIABLE DESCRIPTION

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| Variables                   | Measures  |
|-----------------------------|---|
| Job Satisfaction            | All in all, I am satisfied with my job  |
| Turnover Intention          | I often think about leaving this nursing home   |
| Stress (2 items)            | <ul style="list-style-type: none"><li>• My job is extremely stressful</li><li>• I feel a great deal of stress because of my work</li></ul>  |
| Organizational Trust        | I trust the administration at this nursing home   |
| Staffing Level              | <ul style="list-style-type: none"><li>• Staffing levels in my unit are reasonable</li></ul>   |
| Adequacy (3 items)          | <ul style="list-style-type: none"><li>• Staffing levels at my nursing home have reached a point of critical concern for resident care (reverse coded)</li><li>• My nursing home has sufficient staff to provide good quality of care to residents</li></ul> |
| Decreased Errors/<br>Misses | The adoption of EMR has led to decreased errors and near misses in my unit  |

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