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# INNOVATIONS IN COLLECTIVE BARGAINING: NUMMI — DRIVEN TO EXCELLENCE

*Marley S. Weiss\**

## I. INTRODUCTION

NUMMI, New United Motor Manufacturing, Inc., has surely accomplished one of the most remarkable transformations in the annals of U.S. manufacturing.<sup>1</sup> In 1982, General Motors Corp. ("GM") closed its twenty year old automobile production plant in Fremont, California. This plant was renowned for the militancy of its unionized workforce, represented by Local 1364 of the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America ("UAW"). The Fremont operations were characterized by extreme hostility between labor and management, low productivity levels, and

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1. For factual material, this article relies heavily upon the presentations of Martha Quesada, NUMMI employee and active, rank and file member of UAW Local 2244, and its predecessor when General Motors operated the plant, UAW Local 1364; Elisa Martinez, NUMMI labor relations representative; and Jim Burch, NUMMI Manager for Government Affairs, and former Manager, Human Resources, at the Canada-Mexico-U.S. Workshops on Labor Law and Practice, Workshop No. 3, "Innovations in Collective Bargaining," June 29, 1994, La Jolla, California, U.S.A. (unpaginated transcript on file with the United States Department of Labor, Office of the American Workplace) [hereinafter respectively Quesada Presentation, Martinez Presentation, and Burch Presentation]. It also draws extensively upon the text of the AGREEMENT BETWEEN NEW UNITED MOTOR MANUFACTURING, INC. AND UAW (July 1, 1991) (a copy of this agreement is on file with the author) [hereinafter NUMMI-UAW AGREEMENT]. This contract was in effect for the period of July 1, 1991 through July 31, 1994. A new agreement was ratified on August 10, 1994. See *NUMMI Workers Approve New Four Year Contract*, Daily Lab. Rep. (BNA) No. 156, at A11 (Aug. 16, 1994). References in this paper are to the 1991-1994 agreement in effect at the time of the tri-national, LaJolla workshop.

Ms. Martinez' presentation was largely based upon the NUMMI 1993 Speaker's Bureau Slideshow Script (unpublished document, copy on file with the author) [hereinafter NUMMI Script]. In addition, the author conducted lengthy preparatory interviews in LaJolla with both Ms. Martinez and Ms. Quesada on June 29, 1994. Where information is derived from the author's notes of those interviews, rather than the formal workshop presentations, it is so indicated.

high defect rates in their products.<sup>2</sup>

In 1983, Toyota and GM formed a joint venture, NUMMI, to produce Toyota-designed small cars, under Toyota management, at the shuttered plant. Using a workforce composed primarily of former GM Fremont plant employees, by 1986, NUMMI was matching the productivity and quality standards set in Toyota's Japanese plants.<sup>3</sup> Absenteeism has remained a consistently low three percent.<sup>4</sup> NUMMI is now the only automobile manufacturing plant remaining in operation in California.<sup>5</sup>

NUMMI succeeded despite the absence of certain factors often considered to be advantageous to other Japanese automobile industry transplant facilities. The plant was not originally designed to function with Japanese production methods; the workforce was not handpicked for its adaptability to team manufacturing and company goals; and the NUMMI workforce is not predominantly composed of young workers, untainted by prior exposure to traditional U.S. manufacturing systems, and lacking strong commitment to unionization.

On the contrary, NUMMI started with a workforce typical of older, existing Big Three automobile manufacturing plants. Some eighty-five percent of initial hires were prior GM Fremont plant workers. Most were UAW members. Many were over age forty, with attendant higher pension and insurance benefit costs.<sup>6</sup> The workforce was at least as diverse on the basis of race and sex as a typical GM plant,<sup>7</sup> and considerably more so than most of the new, Japanese automobile transplant facilities.<sup>8</sup> Moreover, NUMMI recognized and bargained

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2. Quesada Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 1; Paul S. Adler, *Time-and-Motion Regained*, HARV. BUS. REV., Jan.-Feb. 1993, at 97, 97-98; Lowell Turner, *Industrial Relations and the Reorganization of Work in West Germany: Lessons for the U.S.*, in UNIONS AND ECONOMIC COMPETITIVENESS 217, 232 (Lawrence Mishel & Paula B. Voos eds., 1992).

3. See, e.g., Adler, *supra* note 2, at 99; Turner, *supra* note 2, at 233-34, 246 nn.30-31; Ray Marshall, *Work Organization, Unions and Economic Performance*, in UNIONS AND ECONOMIC COMPETITIVENESS 287, 303 (Lawrence Mishel & Paula B. Voos eds., 1992). Productivity at the plant is 50% higher than it was under GM control, and 40% higher than the average in traditional GM plants. *Id.* NUMMI "doubled productivity in a nine month period." Donna Brown, *Why Participative Management Won't Work Here*, 81 MGMT. REV. 42 (June 1992).

4. Paul S. Adler & Robert E. Cole, *Designed for Learning: A Tale of Two Auto Plants*, 34 SLOAN MGMT. REV. 85, 87 (Spring 1993).

5. Gary S. Vasilash, *NUMMI: Proving that Cars Can Be Built in California*, 104 PRODUCTION 36, 37 (Feb. 1992).

6. Adler, *supra* note 2, at 99; see also Turner, *supra* note 2, at 233, 246 n.30 (setting the figure at 80% rather than 85%).

7. Quesada Presentation, *supra* note 1.

8. Adler, *supra* note 2, at 99.

collectively with the UAW from its inception; this plant has never been a non-union operation.<sup>9</sup>

None of the usual American excuses for weak production apply, when confronted with the success of the NUMMI management system at the Fremont plant. The combination of lean manufacturing methods, familial organizational philosophy, worker participation, and cooperative labor-management relations has consistently yielded award-winning vehicles, and has become a model for American industry. In 1994, for example, the Geo Prizm that the plant builds for Chevrolet was rated by J.D. Power & Associates as the fourth best built car in the industry, only following behind three Lexus models.<sup>10</sup>

Nevertheless, creating and maintaining a mutually acceptable, cooperative labor-management environment has entailed sustained efforts on all sides. The plant's future, while bright, is not entirely secure.

This article will examine the NUMMI system in greater detail, focusing particularly upon the organization of work and the workforce, key aspects of labor-management relations, and the role played by worker participation. It will then situate the NUMMI approach in the context of other models of lean manufacturing and worker participation. Finally, it will address legal questions pertaining to the NUMMI model of collective bargaining and union representation, and will consider the need for labor law reform in the U.S. if such a model is to be encouraged.

## II. HISTORICAL BACKGROUND

GM opened the Fremont, California assembly plant in 1962, eventually employing about 7,000 UAW members to build about 300,000 cars and trucks per year. By 1982, when it closed the plant, bargaining unit employment had fallen to about 5,000, absenteeism was running about twenty percent, and labor-management relations at the plant were plagued by wildcat strikes, low productivity, and other blatant manifesta-

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9. Marshall, *supra* note 3, at 302. This is particularly unusual since Japanese-owned factories in the United States are largely non-union. See *Japanese-owned Companies in United States Tend To Mimic Non-union U.S. Firms, Study Finds*, Daily Lab. Rep. (BNA) No. 39, at A-5 (Feb. 27, 1992). While several other Japanese joint ventures with Big Three automakers have followed NUMMI's lead and recognized the American or Canadian Auto Workers union when they have taken over existing plant facilities, no Japanese automobile manufacturer has yet permitted unionization at any greenfield site. See Ernest J. Yanarella & William C. Green, *The UAW and CAW Confront Lean Production at Saturn, CAMI, and the Japanese Automobile Transplants*, 18 LAB. STUD. J. 52, 57, 60 nn.23-24, 70-72 (Jan. 1994).

10. Martinez Presentation, *supra* note 1.

tions of mutual hostility.<sup>11</sup> Hundreds of grievances remained unresolved at the time of the closing.<sup>12</sup> GM was, however, in the process of recentralizing its production in the midwestern United States, and closing many plants to reduce overall production capacity.<sup>13</sup> The closure decision, therefore, cannot be blamed squarely on adversarial labor-management relations.

In late 1982, GM and Toyota entered into negotiations, and in 1983, reached an agreement in principle to establish the joint venture subsequently named NUMMI. The joint venture was to be an independent company, using production concepts and techniques similar to those employed by Toyota in its Japanese facilities. GM wanted to obtain direct experience with the highly-acclaimed Toyota production system, as well as a high quality subcompact automobile to be sold under its Chevrolet label. Toyota wanted to explore the feasibility of using its Japanese production methods with American workers and suppliers.<sup>14</sup> The Japanese automaker also hoped to reduce the protectionist political pressures generated by large volume imports of Japanese-made automobiles.<sup>15</sup>

Initially, Toyota sought to operate the plant on a non-union basis.<sup>16</sup> However, as a result of pressure placed upon GM from the UAW, Toyota was ultimately persuaded to enter into a letter of intent with the union.<sup>17</sup>

Toyota agreed to fill a majority of the initial employee complement from among the 5,000 laid-off GM Fremont employees, to recognize their union, the UAW, as the collective bargaining agent for the plant, and to pay prevailing U.S. auto industry wages and benefits. In return,

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11. Quesada Presentation, *supra* note 1; Adler, *supra* note 2, at 98. Adler claims employment had fallen to 3,000 at closure. Adler, *supra* note 2, at 98. Quesada, who then was working in the plant as a GM employee, estimated that about 5,000 employees remained on the active payroll shortly before closure. Approximately the same number of employees retained layoff status when the plant closed, ensuring that if the plant were to reopen under GM auspices, they would be entitled to recall to employment in order of seniority. Quesada Presentation, *supra* note 1.

12. Adler, *supra* note 2, at 99.

13. See, e.g., Maryann Keller, *Labor Unrest at GM*, 175 AUTOMOTIVE INDUS. 13 (May 1995).

14. NUMMI Script, *supra* note 1, at 1-2; Joseph L. Badaracco, Jr., *Alliances Speed Knowledge Transfer*, 19 PLAN. REV. 10, 12 (1991).

15. See Badaracco, *supra* note 14, at 12; Martin Kenney & Richard Florida, *How Japanese Industry Is Rebuilding the Rust Belt*, 94 TECH. REV. 24, 27 (Feb. 1991); Edward K. Miller & Drew Winter, *The "Other Big 3" Are Becoming All-American*, 27 WARDS AUTO WORLD 24, 37 (Feb. 1991).

16. Adler, *supra* note 2, at 98; Lindsay Chappell, *Labor Rules Are Models for Partners, Transplants*, AUTOMOTIVE NEWS, Oct. 19, 1992, at 39.

17. Adler, *supra* note 2, at 98-99.

the UAW agreed to accept the Toyota production system, based upon team concepts and broad job classifications.<sup>18</sup> In addition, the union agreed to “a non-adversarial relationship built on mutual trust, respect, and cooperation.” The company and union operated under this letter of understanding for twenty-two months, before entering into a formal collective bargaining agreement.<sup>19</sup>

After several months of factory renovation, NUMMI commenced hiring workers and reopened the Fremont facility in 1984.<sup>20</sup> NUMMI sent application forms to all 5,000 laid off Fremont plant bargaining unit employees. The application materials advised the employees that NUMMI would not be bound by the collective bargaining agreement formerly in effect between GM and the UAW at the Fremont facility. The materials also informed prospective applicants that unlike its predecessor employer, NUMMI would not tolerate such poor employment practices as high absenteeism and low quality. The company received back about 3,000 completed applications from the former GM employees.<sup>21</sup> After screening out those it evaluated as unacceptable, NUMMI hired a majority of the remaining applicants.<sup>22</sup>

Originally, the plant exclusively made subcompact cars for GM and Toyota. However, in 1991, the facility was expanded to add a compact truck line for Toyota.<sup>23</sup>

As of this writing, NUMMI employs about 4,300 workers, including 3,500 bargaining unit employees, working on two shifts, and is in the process of further expansion. The plant presently makes the Geo Prizm for Chevrolet and the Toyota Corolla Sedan and Toyota compact pickup trucks for Toyota. It has the capacity to manufacture about 220,000 cars and 125,000 trucks per year.<sup>24</sup> This compares quite favorably with GM's previous production of some 300,000 vehicles per year using 6,000

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18. NUMMI Script, *supra* note 1, at 3; Adler, *supra* note 2, at 99.

19. NUMMI Script, *supra* note 1, at 3.

20. NUMMI Script, *supra* note 1, at 3-4; Adler, *supra* note 2, at 99.

21. NUMMI Script, *supra* note 1, at 4.

22. See Turner, *supra* note 2, at 246 n.30 (stating that of the 3,300 applications received, NUMMI hired approximately 2,000 out of an initial workforce of 2,500); see also Adler, *supra* note 2, at 99 (stating that about 85% of approximately 2,200 initially hired hourly employees at NUMMI were former GM Fremont plant workers). Despite the screening, “in the end, most workers from the old plant who wanted jobs at NUMMI were hired, including former union activists.” Turner, *supra* note 2, at 233; accord Quesada Presentation, *supra* note 1.

23. NUMMI Script, *supra* note 1, at 10-11; see also Thomas F. Black, *Things “Pick Up” at NUMMI*, 27 WARD'S AUTO WORLD 41 (Feb. 1991); Vasilash, *supra* note 5, at 37.

24. NUMMI Script, *supra* note 1, at 10-11.

employees.<sup>25</sup>

NUMMI has a separate corporate identity, with a Board of Directors composed of equal numbers of GM and Toyota representatives. GM is charged with marketing and financial responsibility. Toyota is responsible for the day to day management of the enterprise.<sup>26</sup>

At its inception, the U.S. Federal Trade Commission ("FTC") was reluctant to approve the joint venture because of the size and market share of the two participants.<sup>27</sup> It did so, nevertheless, but restricted the life of the joint venture to twelve years, and imposed further restraints upon the sharing of information between GM and Toyota.<sup>28</sup> In 1993, however, GM and Toyota successfully petitioned the FTC to eliminate the time limit, on grounds of the vast competitive changes within the automobile industry.<sup>29</sup> NUMMI is now free to continue operations as long as its two corporate parents so desire.

Prior to the decision to continue operations in the joint venture format, it was widely speculated, among workers in the plant as well as among outsiders, that Toyota would buy the facility from GM.<sup>30</sup> GM, after all, has been reducing an enormous amount of excess capacity, while Toyota has been trying to expand its limited, fully-exhausted production capacity in North America.<sup>31</sup>

One important factor cited by Toyota management in deciding to retain the joint venture format was the fear of more adversarial labor-management relations. While at present, it enjoys excellent relations with both the UAW local union and the international union, Toyota recognizes that the UAW is a democratic organization. Toyota has repeatedly expressed concern that at some future point, more militant

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25. See Quesada Presentation, *supra* note 1.

26. Martinez Presentation, *supra* note 1; Vasilash, *supra* note 5, at 38.

27. Martinez Presentation, *supra* note 1; Lindsay Chappell, *It's NUMMI Forever, or NUMMI No More; Plant's Fate Awaits FTC Decision*, AUTOMOTIVE NEWS, July 5, 1993, at 16. Chrysler Corp. and Ford Motor Corp., fearing the competition, strongly objected to the joint venture which was originally scheduled to cease in December, 1996. *Id.*

28. NUMMI Script, *supra* note 1, at 2; Chappell, *supra* note 27, at 16; Vasilash, *supra* note 5, at 38.

29. Martinez Presentation, *supra* note 1; Lindsay Chappell, *Toyota Seeks NUMMI Boost; Wants To Double Output*, AUTOMOTIVE NEWS, Nov. 8, 1993, at 1.

30. See, e.g., Chappell, *supra* note 27, at 16; Black, *supra* note 23, at 41; Vasilash, *supra* note 5, at 38. Vasilash notes that "according to a consensus of several industry observers, . . . the plant going to Toyota seems to be the [possibility] to bet on." Vasilash, *supra* note 5, at 38. *But see Profitability Is Now Toyota's Main Focus*, AUTOMOTIVE NEWS, Nov. 30, 1992, at 26 (quoting President Tatsuro Toyoda of Toyota Motor Corp., previously the founding president of NUMMI, as saying that the NUMMI joint venture partnership "should continue, as is.").

31. See, e.g., Chappell, *supra* note 27, at 16.

leadership might ascend to power within the union and pursue a less cooperative course.<sup>32</sup>

Nevertheless, Toyota has made several decisions to expand plant capacity and production operations, and is in the process of another expansion of truck production. However, as a condition of committing capital to expansion, NUMMI extracted from the union a major concession on workers' schedules, which the union rank and file plainly would not have accepted otherwise.<sup>33</sup> The limit, then, for the union and the workers, of the relationship of trust and cooperation, is the employer's implicit threat of withdrawal of capital or refusal to commit further investment.<sup>34</sup>

For the first several years after the plant opened, the elected local union administration was highly supportive of the NUMMI lean production process, worker participation, and cooperative labor-management relations.<sup>35</sup> However, there have been a series of elections in which representatives of an opposition faction, the People's Caucus, has won seats on the bargaining committee, which negotiates and administers the collective bargaining agreement. Insurgent candidates have also won elected office within the administrative governance structure of the local

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32. Cf. Turner, *supra* note 2, at 235 (stating that NUMMI's "management clearly aimed for and would be more comfortable with a tamer enterprise union."); see also Turner, *supra* note 2, at 240 (discussing the notion that one path to successful work reorganization into the lean production system is through "the integration of subordinate local unions into managerial processes."). Turner added that "[t]he Japanese model, which poses current dangers for unions in the U.S., is probably the model that NUMMI management had in mind until union politics intervened." Turner, *supra* note 2, at 240. The dissident wing of the UAW, New Directions, has opposed the trend towards labor-management cooperation and urges the UAW to return to a more adversarial stance. See, e.g., Robert R. Rehder, *Japanese Transplants After the Honeymoon*, 33 BUS. HORIZONS 87, 88 (Jan. 1990); Bob Filipczak, *Unions in the '90s: Cooperation or Capitulation?*, 30 TRAINING 25, 25-26, 30 (May 1993). The anti-lean production/team-based participation view is most fully articulated in MIKE PARKER & JANE SLAUGHTER, CHOOSING SIDES: UNIONS AND THE TEAM CONCEPT (1988).

33. Interview with Martha Quesada, NUMMI employee and UAW Local 2244 activist, in LaJolla, Cal. (June 29, 1994). The 1994 expansion is only the most recent in which NUMMI has extracted a quid pro quo. NUMMI has displayed a pattern of demanding union concessions on work schedules and break times as a condition of new investment and expansion of production at the Fremont facility. Management attempted to extract concessions from the union regarding break-time as a condition of its 1991 expansion, adding compact truck production. See Black, *supra* note 23, at 41. In 1993, expansion plans were canceled when Local 2244 membership refused to ratify a contract amendment permitting a three crew, 10 hour per day work schedule for certain operations. Lindsay Chappell, *NUMMI Cancels Expansion*, AUTOMOTIVE NEWS, June 28, 1993, at 1. When the members reversed themselves in a second ratification vote, expansion plans were reinstated. Lindsay Chappell, *NUMMI Revives Expansion*, AUTOMOTIVE NEWS, July 12, 1993, at 1; *UAW Agrees to Contract Modifications at NUMMI*, 1993 Daily Lab. Rep. (BNA) No. 131, at d15 (July 12, 1993).

34. See Quesada Presentation, *supra* note 1.

35. Interview with Martha Quesada, *supra* note 33.



union. The opposition faction seeks a return to more traditional, adversarial representation, particularly on the shop floor. So far, however, political control of both the bargaining committee and the local union executive board has remained in the hands of leaders favoring continuation of the NUMMI-style cooperation and participation processes.<sup>36</sup>

At the international union level, for the past ten or fifteen years, there has been consistent, high level support for innovative, cooperative approaches to labor-management relations and worker participation. Nevertheless, the UAW has been deeply divided about how far and how fast to proceed in this direction.<sup>37</sup> Now that Owen Beiber has retired and Stephen T. Yokich has assumed the office of president of the international union, it is probable that the UAW will take a stronger position against what some would regard as erosion of the traditional union arms-length relationship with the employer. The international union may well view experimental, cooperative relations more cautiously.<sup>38</sup> NUMMI's concerns about a change in union direction are not

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36. Quesada Presentation, *supra* note 1; Interview with Martha Quesada, *supra* note 33; Turner, *supra* note 2, at 234-35; see also *GM, Toyota Joint Venture Provides Model of Labor-Management Cooperation*, 1993 Daily Lab. Rep. (BNA) No. 233, at d20 (Dec. 7, 1993) [hereinafter *Joint Venture*]. Local union president Charles Curry, elected on the People's Caucus slate in 1991, switched one year later to the Administration Caucus.

37. Quesada Presentation, *supra* note 1; Interview with Martha Quesada, *supra* note 33. See generally Harry Katz & John Paul MacDuffie, *Collective Bargaining in the U.S. Auto Assembly Sector*, in CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR 181, 210-11, 213 (Paula B. Voos ed., 1994).

38. The mixed reactions to, and even withdrawal from some key aspects of the UAW's most extensive experiment in labor-management cooperation and worker participation, with GM's Saturn subsidiary, is illustrative. *Shift-Rotation Vote Scheduled at General Motors Saturn Plant*, Daily Lab. Rep. (BNA) No. 167, at d11 (Aug. 31, 1994); see *Saturn Workers Vote to Reconsider Nontraditional, Rotating Work Schedule*, Daily Lab. Rep. (BNA) No. 173, at d9 (Sept. 9, 1994). The local union president, Mike Bennett, has complained that then international vice president responsible for Saturn and GM operations, Stephen P. Yokich, is "too slow to relinquish traditional union concepts like seniority." *Id.* Yokich has intervened at Saturn in response to member complaints that the rotating shift schedule, favored by Bennett, disrupts family relationships and poses health hazards to employees. Yokich has also pressured both Saturn and the local leadership to permit Saturn employees to write traditional formal grievances over routine shop floor disputes, in response to persistent member complaints of serious shop floor problems. See *UAW Leaders Agree Saturn Must Expand, Despite Problems with Current Contract*, Daily Lab. Rep. (BNA) No. 9, at d11 (Jan. 13, 1994). The rotating schedule has deeply divided the local's membership, producing a series of contradictory membership votes. See *Saturn Workers Vote to Reconsider Nontraditional, Rotating Work Schedule*, Daily Lab. Rep. (BNA) No. 173, at d9 (Sept. 9, 1994) (initial, pre-contract negotiations advisory referendum favors ending rotating shifts); *Saturn Workers Again Reject Agreement*, Daily Lab. Rep. (BNA) No. 232, at d19 (Dec. 6, 1994) (two ratification votes rejecting proposed contract); *Auto Industry: Saturn Corp. Says Its Workers Approve Modifications to Contract*, Daily Lab. Rep. (BNA) No. 10, at d10 (Jan. 17, 1995) (approving contract with renegotiated terms);

wholly without foundation.

Until now, there has been widespread acceptance on the part of both labor and management at NUMMI, that the collective bargaining process itself is the main forum in which to resolve major topics upon which the parties' interests diverge, and that adversarialism in the service of the parties' respective interests need not poison the prevailing cooperative atmosphere.<sup>39</sup> In August of 1994, however, collective bargaining for a new agreement resulted in the first serious strike threat, albeit one that was narrowly averted when the parties reached a new agreement shortly after the strike deadline.<sup>40</sup>

### III. THE NUMMI MANAGEMENT PHILOSOPHY AND PRODUCTION SYSTEM

Under the terms of the joint venture, Toyota has control over manufacturing operations. Both joint venture partners contemplated from the outset that Toyota's operations in Japan would be the model for NUMMI,<sup>41</sup> with the sole significant exception being the difference between recognizing and bargaining with an American labor union as opposed to a Japanese one.<sup>42</sup>

NUMMI adopted from Toyota its primary mission statement and its four supporting philosophical policies. The fundamental goal is "to build products with quality as high as anywhere in the world while ensuring that costs are the most competitive of any manufacturer."<sup>43</sup> Shorter term goals are adopted annually.<sup>44</sup> The team concept is the central means of accomplishing NUMMI's goals,<sup>45</sup> and it permeates the company's organizational structures as well as all of NUMMI's functional processes.

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*see also UAW Workers Permitted To Apply for Jobs in Traditional GM Plants*, Daily Lab. Rep. (BNA) No. 205, at d14 (Oct. 26, 1994) (in yet further departures from the original concept, Saturn employees have the opportunity to transfer back to GM plants, and Saturn workers have decided to eliminate certain participatory meetings to use the extra time to increase car production).

39. Interview with Martha Quesada, *supra* note 33.

40. *See UAW, NUMMI Agree on New Pact*, Daily Lab. Rep. (BNA) No. 148, at d18 (Aug. 4, 1994); *NUMMI Workers Approve New Four-Year Contract*, Daily Lab. Rep. (BNA) No. 156, at d14 (Aug. 16, 1994).

41. NUMMI Script, *supra* note 1, at 3-4.

42. In the end, however, the plant adapted the Japanese model to more individualistic American values. *See, e.g., Joint Venture*, *supra* note 36, at d20.

43. NUMMI Script, *supra* note 1, at 4; Burch Presentation, *supra* note 1.

44. NUMMI Script, *supra* note 1, at 5.

45. NUMMI Script, *supra* note 1, at 5, 9.

NUMMI has also embraced Toyota's four philosophical policies to support this central mission:

- (1) foster a stable and cooperative relationship between all team members, particularly between labor and management;
- (2) implement the philosophy that "quality should be assured in the production process itself;"
- (3) establish long-term and stable relationships with qualified suppliers; and
- (4) maintain a cooperative, friendly relationship in the community and maintain a company image of being a fair employer and neighbor.<sup>46</sup>

NUMMI, like Toyota, has designed its production system around four central concepts to achieve its twin objectives of highest quality and lowest cost: (1) just-in-time production; (2) "*jidoka*," designing quality into the production process itself;<sup>47</sup> (3) team-based organization of the workforce and of production, coupled with a philosophical commitment to full utilization of team members' abilities; and (4) "*kaizen*," or continuous improvement of the manufacturing process.<sup>48</sup> These concepts should be thought of as interrelated, integrated, and mutually reinforcing, rather than independent.<sup>49</sup> Together, the process is intended to ensure that no defects are passed on or overlooked. Instead, all are to be caught and rectified at the earliest possible point, where the causation of the problem can be traced and corrected before further defective parts are produced.<sup>50</sup> This process also makes workers far more readily accountable for their errors or omissions than they would be under more conventional American manufacturing systems.<sup>51</sup>

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46. NUMMI Script, *supra* note 1, at 5.

47. *Jidoka* is often equated with Total Quality Management or Total Quality Control in American terminology. See, e.g., S. Mark Young, *A Framework for Successful Adoption and Performance of Japanese Manufacturing Practices in the United States*, 17 ACAD. OF MGMT. REV. 677, 683 (1992).

48. NUMMI Script, *supra* note 1, at 6.

49. See NUMMI Script, *supra* note 1, at 6.

50. NUMMI Script, *supra* note 1, at 6.

51. Young, *supra* note 47, at 683. For a more detailed description of NUMMI's organizational philosophy, manufacturing systems, and labor relations, see Adler, *supra* note 2, at 97-98; Clair Brown & Michael Reich, *When Does Union-Management Cooperation Work? A Look at NUMMI and GM-Van Nuys*, 31 CAL. MGMT. REV. 26, 28 (Summer 1989).

## 1. Just-in-Time Production

Just-in-time production is production in which the customer order “pulls” the product through the manufacturing process, with as little inventory kept on hand as possible. The materials and parts must arrive “just-in-time” at the appropriate production station where they are processed, assembled, or otherwise integrated into the product. This method keeps costs of parts and materials, as well as storage space requirements, to a minimum.<sup>52</sup> It is essential, however, that materials arrive on time, or costly delays will result. The workforce is likewise organized with few utility workers, reserves, or other buffers. While extremely efficient, this method is also highly vulnerable to disruption in the event of a labor dispute. From management’s point of view, a successful operation is highly dependent on stable, harmonious labor-management relations.<sup>53</sup>

At NUMMI, Toyota “*kanban*” or computer card technology is relied upon to ensure timely arrival of appropriate parts and materials at the correct sites. The *kanban* cards determine the flow of parts and material throughout the facility, control volume and prevent overproduction. The cards also provide guidance and instruction to the teams of workers regarding new methods of production.<sup>54</sup> The *kanban* system thus controls the pace of production and worker slack time.<sup>55</sup>

## 2. “*Jidoka*” or Total Quality

*Jidoka* is the philosophy underlying and binding together the manufacturing method. The central idea is that quality should be designed into the production process itself, that the process should be arranged so as to ensure quality. This is primarily accomplished through designing the product for manufacturability, engineering the manufacturing process to ensure quality, including some production equipment that can sense malfunctions or product defects, and organizing the work of

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52. NUMMI Script, *supra* note 1, at 6. This is the reverse of the traditional U.S. “push”-based manufacturing process, in which workers push the completed sub-assembly through for further manufacturing, followed by the eventual final “push” by marketing and sales to dispose of the product via consumer purchase.

53. See, e.g., Young, *supra* note 47, at 692; John Humphrey, *Japanese Production Management and Labour Relations in Brazil*, 30 J. DEV. STUD. 92, 96-97 (1993).

54. NUMMI Script, *supra* note 1, at 6.

55. See, e.g., Young, *supra* note 47, at 686.

the workers making components, subassemblies and the final product itself to facilitate and, indeed, require, attention to quality maximization and elimination of waste. Where team members identify defects, they are to correct them, if possible, or else pull the Andon cord and stop the line.<sup>56</sup>

### 3. The Team Concept

The team concept and the goal of full utilization of team members' abilities constitute the human resources philosophy upon which NUMMI's organization is premised.<sup>57</sup> Workers are organized into teams of about five workers each, headed by a team leader. Each team is responsible for a set of jobs; a piece of the production process. For example, one team might assemble the chassis of the car, the next might align it, the third would add the cab, the fourth would add the deck, and so on.<sup>58</sup>

All team positions, including that of team leader, are in the UAW-represented collective bargaining unit. The team leader is roughly equivalent to "leaders" in many traditional industrial plants, and is paid an additional sixty cents per hour to coordinate the team's functions.<sup>59</sup> When NUMMI first reopened the plant, management selected the team leaders. After several disputes over the fairness of the selection process, however, the company agreed to the creation of a joint union-management committee, which selects leaders on the basis of a set of collectively-bargained, objective criteria.<sup>60</sup>

Several teams together form a group, under the direction of a group leader. The group leader is the front-line supervisor or foreman in ordinary parlance, but is supposed to exercise authority in a much more flexible and supportive manner than the traditional, authoritarian supervisor. Managers, engineers, and other support staff also work

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56. NUMMI Script, *supra* note 1, at 7; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1; art. XXVIII, § 1.2. *See generally* Young, *supra* note 47, at 683.

57. Burch Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 5, 7, 9.

58. Quesada Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1.

59. *See* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1.2; art. XVII, § 2.

60. Quesada Presentation, *supra* note 1; Adler & Cole, *supra* note 4, at 87, 90; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XVI; Letter of Understanding from Thomas King, Jr., NUMMI Manager, Labor Relations, to George Nano, UAW Local 2244 Bargaining Committee Chairman (July 1, 1991), ¶¶ 1, 5 (on file with author).

closely with each team, as problems arise.<sup>61</sup>

In all matters, the team is intended to function as the primary problem-solving structure. The team draws upon the expertise, advice, counsel, and assistance of the managers and technical experts in a manner less like hierarchical authority and more closely approximating athletic coaching.<sup>62</sup> “An integral part of the management style is a decision-making process based on consensus by all areas affected by the decision to be made,” according to the company.<sup>63</sup> The NUMMI view is that those who work with the problem, best understand it, and can contribute the widest possible array of potential solutions for consideration in the decisionmaking process.<sup>64</sup>

Both the groups of teams, and the company’s workforce as a whole are regarded as larger teams. At each level, teams are expected to pull together for the common good, the corporate objectives of highest quality and lowest costs.<sup>65</sup>

At its start-up, NUMMI re-hired none of the laid-off GM supervisors.<sup>66</sup> This eliminated the risk of supervisory resistance to a management style which pushes authority down to the rank and file worker, disempowering controlling-style supervision.<sup>67</sup> The managerial hierarchy has been flattened from eight managerial levels under GM to five under NUMMI.<sup>68</sup> There are no industrial engineers because those job functions have effectively been transferred to the production teams.<sup>69</sup>

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61. Adler, *supra* note 2, at 104; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XV, § 1.2; art. XXIX, § 1. For another description of the plant hierarchy, *see* Adler & Cole, *supra* note 4, at 86.

62. *See* Burch Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 5, 7, 9; Gary S. Vasilash, *Reengineering: Your Job May Depend on It*, PRODUCTION, June 1993, at 10.

63. NUMMI Script, *supra* note 1, at 5.

64. Burch Presentation, *supra* note 1; Quesada Presentation, *supra* note 1.

65. NUMMI Script, *supra* note 1, at 9.

66. Quesada Presentation, *supra* note 1.

67. Many commentators view such resistance as a key obstacle to successful implementation of worker participation-based forms of lean production. *See, e.g.*, Young, *supra* note 47, at 691-92; *see also* Humphrey, *supra* note 53, at 107 (detailing the Brazilian experience).

68. *See* William A. Nowlin, *Restructuring In Manufacturing Management, Work and Labor Relations*, 32 INDUS. MGMT. 5, 5-6 (Nov.-Dec. 1990). NUMMI reduced GM’s two dozen salaried managerial classifications to five: president, vice president, general manager, manager, and group leader. *Id.*

69. Burch Presentation, *supra* note 1; Robin Y. Bergstrom, *NUMMI: Engineering the Process*, 105 PRODUCTION 58, 58-59 (June 1993). For the pertinent collective bargaining agreement provisions, *see* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1.1. Team members share responsibility for participating in quality/productivity improvement programs, such as quality circles and Kaizen. NUMMI-UAW AGREEMENT, *supra* note 1, at art. XXVIII, §§ 1.1, 1.2 (establishing and revising “standardized work.”). This also is discussed in Appendix C of the Agreement. *See*

Employees usually rotate positions within their teams, typically about three times a day, although the teams have the option of limiting or eliminating job rotation.<sup>70</sup> Team members are extensively cross-trained to facilitate both shared problem-solving and job rotation.<sup>71</sup>

Nevertheless, teamwork does not eliminate the routine, repetitive nature of automobile production tasks. On the contrary, as Toyota boasts, the company's manufacturing methods are Taylorism to the maximum.<sup>72</sup> *Kaizen* is the final leg of the four production system concepts upon which the NUMMI method rests. *Kaizen* ensures that the actual manufacturing work performed by the teams is not variable or creative in the slightest, but rather is wholly dictated by set patterns that are to be followed unless a defect or production problem is diagnosed.

#### 4. *Kaizen*, or Continuous Improvement

The philosophy of *kaizen* is that the workers should strive forever to improve the processes under which they work.<sup>73</sup> While Americans have historically favored major innovations, the Japanese manufacturers have customarily relied most upon frequent, small, incremental improvements to steadily improve upon previous methods.<sup>74</sup> *Kaizen* at NUMMI is an integral part of the team process, based upon empowerment of rank and file workers to develop such incremental improvements in production processes, and indeed, imposing upon the teams the obligation to do so as part of their job responsibilities.<sup>75</sup>

The time and motion entailed in each piece of the manufacturing process is broken down and analyzed, and reexamined as finely as possible, to isolate opportunities for improvement in speed, quantity, or method. Instead of industrial engineers standing over workers with stop

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NUMMI-UAW AGREEMENT, *supra* note 1, at app. C.; *see also* Vasilash, *supra* note 62, at 9, 10 (describing how NUMMI teams developed the production process for building the new 1993 model cars).

70. Burch Presentation, *supra* note 1; Martinez Presentation, *supra* note 1; Quesada Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1.1.

71. Burch Presentation, *supra* note 1; Quesada Presentation, *supra* note 1; Bergstrom, *supra* note 69, at 60-61.

72. *See* Adler & Cole, *supra* note 4, at 86. "[T]he resulting job designs are very Tayloristic in their narrow scope and gesture-by-gesture regimentation." Adler & Cole, *supra* note 4, at 86.

73. *See* NUMMI Script, *supra* note 1, at 8.

74. *See, e.g.,* Michele K. Bolton, *Imitation Versus Innovation: Lessons To Be Learned from the Japanese*, 21 ORGANIZATIONAL DYNAMICS 30, 38-42 (Winter 1993).

75. Burch Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 5, 7-9; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.6; art. XIV, § 1.1; art. XXVIII, § 1.2; app. C.

watches, however, at NUMMI the teams do this essential work themselves, with back-up technical and professional support available upon their request. Because the employees know their jobs in a thorough and detailed way, they are able to constantly devise small refinements which accumulate into large improvements in productivity and quality.<sup>76</sup>

There is one team on each of the two shifts performing a particular operation, and the standardized routine for the job is set by consensus between the two teams. Team meetings are regularly held for that purpose, as well as to address incipient problems.<sup>77</sup> When two teams devise divergent standardization routines, often because of physical differences between the members of each team, a “standardized work committee” takes into consideration all ergonomic matters and attempts to reach an optimal solution.<sup>78</sup>

Because the employees themselves determine the details of the process, they internalize and accept the changes in a way that seldom occurs when industrial engineers and management impose production modifications from above.<sup>79</sup> Moreover, the opportunity to perform such intellectual tasks provides relief from pure production activities.<sup>80</sup>

Nevertheless, at NUMMI, the production work itself remains routinized and repetitive. In fact, “standardized work” is considerably more fully specified, in every detail of motion and timing, than the typical assembly line process. Cycle time averages about sixty seconds. Determination and specification of the optimal motions for every step of the process, and rigid adherence thereto by the teams, is intended to eliminate waste of motion, ensure employee safety, and maximize quality and efficiency.<sup>81</sup> As NUMMI describes it: “by definition, standardized work is work done at the highest efficiency when all tasks at the worksite are organized into a perfect sequence where all waste can be eliminated.”<sup>82</sup> Standardization also ensures that when the first shift ends and the second begins, with a car or subassembly only partially completed, the completion of the product will turn out exactly the same

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76. Burch Presentation, *supra* note 1; Quesada Presentation, *supra* note 1; Bergstrom, *supra* note 69, at 58-59.

77. Quesada Presentation, *supra* note 1.

78. Quesada Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XIV, § 1.1; art. XXVIII, § 1.2; app. C, at 88-89.

79. Interview with Martha Quesada, *supra* note 33; Vasilash, *supra* note 62, at 10; Bergstrom, *supra* note 69, at 60.

80. Interview with Martha Quesada, *supra* note 33; *see also* Nowlin, *supra* note 68, at 6; Bergstrom, *supra* note 69, at 60.

81. Bergstrom, *supra* note 69, at 86, 89, 91; *see* Adler, *supra* note 2, at 102-04.

82. NUMMI Script, *supra* note 1, at 8.



as if the first shift had completed the process.<sup>83</sup>

Compared to traditional automobile factory workers, NUMMI workers are expected to perform rapidly and identically, repetitive tasks, under substantially greater pressure toward perfection, and with the additional responsibility of spotting, diagnosing, and if necessary stopping the line to correct either their own errors or those of others.<sup>84</sup> The just-in-time process, and the timing and balancing of the component jobs within the particular team's work process, makes each team member's timing and quality dependent upon prior team members' proper performance. The combination of the just-in-time process, kanban cards, jidoka, kaizen, and the team structure permit ready identification of and feedback to any worker whose performance is causing deficiencies in quality or quantity of production. Employees are therefore motivated not only by professionalism and loyalty to the company as a whole, and by fear of loss of employment, but by close peer pressure and group loyalty toward their team, and by pressure generated by other teams farther downstream in the production process.<sup>85</sup>

Plainly, the motivation works. It induces employees to work productively and effectively, and to share suggestions and improvements within the team and for the production process as a whole.<sup>86</sup> More negatively, however, the cumulative process may be viewed as management's use of "weapons of transparency, surveillance, peer group pressures in teams, and control between teams,"<sup>87</sup> to promote management control over the workforce, offsetting the inherent dependency on labor built into a just-in-time, worker participation system.<sup>88</sup> These psychological factors, as well as the more rapid pace of the production process, have caused a militant wing within the labor movement to label the process "management by stress."<sup>89</sup>

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83. Quesada Presentation, *supra* note 1.

84. Interview with Martha Quesada, *supra* note 33; Robert Rehder & Howard Finston, *How Is Detroit Responding to Japanese and Swedish Organization and Management Systems*, 33 *INDUS. MGMT.* 6, 7-8 (1991).

85. See, e.g., Rehder & Finston, *supra* note 84, at 8 (noting that "[t]he typical Japanese transplant team organization is a powerful social control system based on peer pressure.").

86. See Adler, *supra* note 2, at 105-06; Rehder & Finston, *supra* note 84, at 8.

87. Humphrey, *supra* note 53, at 99.

88. See Humphrey, *supra* note 53, at 97, 99-100.

89. PARKER & SLAUGHTER, *supra* note 32, at 16-19.

## 5. Practices to Complement The Four Basic Manufacturing Concepts

NUMMI relies upon two other key practices to implement its foundation philosophy. The first is extensive integration of suppliers upstream and dealers downstream into the company's operations.<sup>90</sup> NUMMI is not quite yet a "boundary-less" corporation,<sup>91</sup> but it is much farther along that path than the typical American corporation.

Second, NUMMI relies heavily upon initial and continuing training to ensure that its workforce has the requisite skills. NUMMI is committed to intense investment in its human capital and embraces a philosophy of promotion from within. The company trains workers in the job analyzation methodology they will need to perform the technical activities underlying constant improvement of their manufacturing work. The company also extensively trains employees in group dynamics, social and organizational skills which will facilitate the team process. In pre-team leaders' training, potential team leaders receive more intensive education in such topics. In addition, NUMMI and the UAW have a joint apprenticeship training program, to permit semi-skilled workers to promote from within into the craft positions in the plant.<sup>92</sup>

NUMMI has a training and development section budgeted at about \$800,000 per year, and workers average at least forty hours of training per year, plus separate training in the event of promotion. Toyota's approach, embraced by NUMMI, is not to compute separately, detailed training cost analyses. The company views training as a long-term investment in its human capital, which will eventually reap its own reward.<sup>93</sup> A typical U.S. business devotes its training budget to about

90. NUMMI Script, *supra* note 1, at 5, 10; Martinez Presentation, *supra* note 1. Professor Badaracco summarizes relations between Toyota, the model for NUMMI, and its suppliers:

Toyota exercises hegemonic influence over its family of suppliers. It usually buys a large fraction of their output, often helps finance them, provides equipment and managerial advice, and sometimes lends its executives to them. Above all, it has integrated their production operations, intricately and intimately, with its assembly operations through JIT (just-in-time) supplying.

Badaracco, *supra* note 14, at 14; *see also* Katz & MacDuffie, *supra* note 37, at 192; Joel Cutcher-Gershenfeld & Patrick P. McHugh, *Competition and Divergence: Collective Bargaining in the North American Auto Supply Industry*, in CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR 225, 230 (Paula B. Voos ed., 1994) (discussing integration between transplants and just-in-time suppliers); *accord* Kenney and Florida, *supra* note 15, at 24, 26, 28-29.

91. For a broader discussion of the "boundary-less" corporation, see Frederick E. Webster, Jr., *The Changing Role of Marketing in the Corporation*, 56 J. OF MKTG. 1, 12 (Oct. 1992).

92. Quesada Presentation, *supra* note 1; Burch Presentation, *supra* note 1.

93. Martinez Presentation, *supra* note 1.

ten percent of its employees, primarily managerial level. NUMMI regularly provides training to all of its employees.<sup>94</sup>

#### IV. THE COLLECTIVE BARGAINING RELATIONSHIP AND LABOR RELATIONS

##### A. Labor-Management Relations as Embodied in the Text of the Labor Agreement

The collective bargaining agreement, and the labor-management relationship that it establishes, are distinctive in many respects. Emphasizing that the relationship is to be one of mutual trust and respect,<sup>95</sup> the agreement incorporates certain key features to implement this philosophy, together with the team concept<sup>96</sup> and the production methods described previously.<sup>97</sup>

##### 1. Information and Consultation

First, NUMMI agrees to provide the UAW with advance information about all major business issues, including semi-annual business plans, major organizational changes, the company's long range plans and policies, quarterly production schedules, contemplated outsourcing or insourcing decisions, and technological changes which will affect bargaining unit work.<sup>98</sup> Obligatory information-sharing goes far beyond mandatory subjects of bargaining. Moreover, as to the broad range of matters directly relating to terms and conditions of employment, the company agrees to provide advance information and to engage in advance consultation with the union.<sup>99</sup>

The collective bargaining agreement establishes multiple forums for information sharing, and structures a somewhat sequential process as NUMMI decisions move through concretization and into implementation. Typically, discussions begin as early, informal "advance information"

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94. See Nowlin, *supra* note 68, at 7-9; Vasilash, *supra* note 5, at 40.

95. Burch Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 9; NUMMI-UAW AGREEMENT, *supra* note 1, at art. I, § 1.1; art. IX, § 1.

96. See NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, §§ 1.3, 1.6; art. XIV.

97. See NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, §§ 1.2, 1.3, 1.5, 1.6.

98. NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.4; see also NUMMI-UAW AGREEMENT, *supra* note 1, at art. XXVIII, § 1.3 (listing monthly production schedule meetings).

99. NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.4.

discussions. As operational decisions begin to evolve, further discussions ensue in meetings under more formal, top level, and later section level, “joint conferences.” In addition, the agreement provides for formal, frequent, round-table communications among company and union leaders in both executive and sectional level conferences, at which both sides keep their opposite numbers broadly informed and share mutual concerns, focusing on specific, operational decisions, especially those affecting the workforce. Lines of communication in both directions are thereby kept wide open, whether the corporate or union matter is linked to employment directly, indirectly, or not at all.<sup>100</sup>

This labor-management relationship has sharply departed from the traditional “the company acts, the union reacts” scenario. Instead, the company attempts to work out an agreement with the union prior to the finalization and implementation of important changes affecting employees.<sup>101</sup>

## 2. Consensus-based Problem-solving and Advance Agreement in Lieu of Adversarial Grievance Dispute Resolution

Second, the grievance procedure is characterized as a “non-confrontational, problem-resolution procedure based on discussion and consensus.”<sup>102</sup> In structure, the details differ little from a typical collectively-bargained grievance and arbitration procedure.<sup>103</sup> The contractual verbiage, however, is more conciliatory, and less adversarial and litigious in tone.<sup>104</sup> Moreover, the attitudes of the participants in

100. NUMMI-UAW AGREEMENT, *supra* note 1, at art. IX, §§ 1-2; Letter of Understanding from Thomas King, Jr., NUMMI Manager, Labor Relations, to George Nano, UAW Local 2244 Bargaining Committee Chairman (July 1, 1991), ¶ 8 (attached to NUMMI-UAW AGREEMENT); *see also* Burch Presentation, *supra* note 1; Martinez Presentation, *supra* note 1.

101. NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.4.

102. NUMMI Script, *supra* note 1, at 9.

103. NUMMI-UAW AGREEMENT, *supra* note 1, at art. X. The “Problem Resolution Procedure” sets forth a pyramid dispute resolution process similar to those in more traditional, automobile industry agreements.

104. NUMMI-UAW AGREEMENT, *supra* note 1, at art. X. For example, the NUMMI-UAW Agreement grievance procedure provisions include the following language:

Because of the value and importance of full discussion in clearing up misunderstandings and preserving harmonious relations, every reasonable effort shall be made to resolve problems promptly at this point through discussion. The resolution of an employee problem at this stage shall not set a precedent or a binding past practice on either party.

NUMMI-UAW AGREEMENT, *supra* note 1, at art. X, § 2.2.

The agreement reflects this approach in multiple provisions. The introductory language provides: “[i]n the administration of this Agreement, and in our day-to-day relationship, we will exhibit mutual trust, understanding and sincerity, and, to the fullest extent possible, will avoid

utilizing the process are far more cooperative on all sides.<sup>105</sup> Union representation is farther removed from the shop floor compared to a typical auto industry collective bargaining agreement, with more employees per union representative,<sup>106</sup> and with consultation regarding grievances arranged for employee break-time to minimize disruption of production.<sup>107</sup> Most significantly, many issues are resolved by advance agreement of labor and management, exempting them from the grievance and arbitration process entirely.<sup>108</sup> NUMMI's rate of grievances and arbitration is minuscule, and contrasts sharply with the inordinately high rate of grievance filings and arbitrations when the plant was operated by GM.<sup>109</sup>

### 3. Job Security

Third, the company commits to a job security clause recognizing its

confrontational tactics." NUMMI-UAW AGREEMENT, *supra* note 1, at art. I, § 1.2. Among the parties' mutual commitments and responsibilities, they agree to "resolve employee concerns through procedures using problem solving and non-adversarial techniques that are based on consensus instead of confrontation." NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.3.

105. The role of the "union coordinator" at the informal, first step of the procedure is explicitly cooperative, rather than confrontational. *See* NUMMI-UAW AGREEMENT, *supra* note 1, at art. X, § 2.2 ("clearing up misunderstandings and preserving harmonious relations."). The role of the district committeeperson is defined to be both cooperative and confrontational. *See* NUMMI-UAW AGREEMENT, *supra* note 1, at art. VIII, § 6.2. Section 6 notes that duties include

meeting with the Company to resolve complaints under the Problem Resolution Procedure; [p]articipating with the Company in Standards of Conduct and Attendance Counselling Committees; [j]oint investigations with the Company in potential suspension/discharge cases; [r]epresent[ing] an employee . . . in disciplinary action that may result in suspension or discharge; and . . . cooperating with the company in implementing Labor Relations Policies such as attendance control, vacation scheduling, safety records, call-in duties, lost-time accident reports, and leaves of absence.

NUMMI-UAW AGREEMENT, *supra* note 1, at art. VIII, § 6. The rank and file's perception that some committeepersons and bargaining committee members were insufficiently identified with workers' interests probably was a key factor in electoral turnover in these offices. Quesada interview, *supra* note 33.

106. Quesada Presentation, *supra* note 1. Employees are to see their "union coordinator" regarding unresolved problems. NUMMI-UAW AGREEMENT, *supra* note 1, at art. X, § 2.1. There is one coordinator for every two groups, producing a fairly low employee to representative ratio. NUMMI-UAW AGREEMENT, *supra* note 1, at art. VIII, §10.1. At the second level, however, the contract provides for 10 or 12 district committeepersons, representing some 3,500 bargaining unit employees. A more typical automobile industry ratio would be 250:1, or less. NUMMI-UAW AGREEMENT, *supra* note 1, at art. VIII, § 5.1.

107. NUMMI-UAW AGREEMENT, *supra* note 1, at art. VIII, § 10.3; art. X, § 2.1.

108. NUMMI-UAW AGREEMENT, *supra* note 1, at art. X, § 1.1 (exempting those employee "problems" subject to other resolution procedures).

109. *See* Adler, *supra* note 2, at 99. Grievances decreased from 2000 pending when GM-Fremont closed to 700 filed at NUMMI over an eight year period. Adler, *supra* note 2, at 99.

“responsibility, with the cooperation of the Union, to provide stable employment to the workers . . . [and agreeing] that it will not lay off employees unless compelled to do so by severe economic conditions that threaten the long term financial viability of the Company.”<sup>110</sup> In addition, NUMMI commits to taking “affirmative measures before laying off any employees,” including, but not limited to, reducing the salaries of NUMMI officers and management, and reassigning work normally performed by subcontractors to qualified bargaining unit employees.<sup>111</sup>

The company is very proud of this clause, although it was initially reluctant to reduce it to writing, and to enforceably commit to this longstanding, oft-stated corporate policy.<sup>112</sup> Nevertheless the company has, so far, thoroughly adhered to this commitment. In 1987, car sales were slow and production schedules were drastically cut. The company, instead of opting for layoffs, provided all workers with forty hours of training on topics such as job safety, work standards, and problem solving. People were rotated between those jobs and production work, and everyone remained on the active, full-time payroll.<sup>113</sup> Similarly, during annual model change-overs, unlike traditional automobile plants, NUMMI does not close down, but conducts training and employs unoccupied workers on deferred plant maintenance projects, such as painting the walls.<sup>114</sup>

This policy has built immense trust in a workforce inured to the GM tradition of layoffs roughly every year because of model changes and market fluctuations. The NUMMI commitment to job security has reinforced the employees’ willingness to make productivity improvement suggestions they might otherwise withhold. As Ms. Quesada put it:

I . . . as a regular worker . . . in my department can make changes within my system. The only reason I am willing to do that is because I have been guaranteed that no matter what jobs I eliminate no one will be laid-off. Now if you had ever told me that the gentleman on my right was going to lose his job as a result of my improving something, as a result of my installing a robot that is now doing his job, I would’ve never done it. There is no way that I as a good union person

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110. NUMMI-UAW AGREEMENT, *supra* note 1, at art. III.

111. NUMMI-UAW AGREEMENT, *supra* note 1, at art. III.

112. NUMMI boasts that the clause “is considered to be the strongest in the industry.” NUMMI Script, *supra* note 1, at 9.

113. Burch Presentation, *supra* note 1.

114. Burch Presentation, *supra* note 1.

would help management in eliminating a job.<sup>115</sup>

Because of the job security covenant, she could explain that "what we have done is made changes that improve things for workers" by installing robots to perform particularly difficult and injurious tasks, such as seat installation.<sup>116</sup>

#### 4. Flexible Attendance and Acceptance of the Worker As A Mature Adult

Fourth, there is a flexible attendance policy which treats employees like adults, assuming they will miss work only for important family and personal reasons.<sup>117</sup> There are no time clocks.<sup>118</sup> This trust is bolstered, in practice, by the powerful peer pressure exerted by remaining team members who must pick up the slack for the absent co-worker.<sup>119</sup>

#### 5. Advance Consultation With the Union in Major Disciplinary Cases

Fifth, the company agrees to review, with union officials, mitigating circumstances prior to suspension or discharge of a worker.<sup>120</sup> Again, this modifies the traditional "employer decision, union grievance" scenario in favor of attempts to reach consensus in advance of the decision.

#### 6. Greatly Broadened Job Classifications

Sixth, the number of job classifications is sharply reduced, from over 100 in the GM era to three, one for production work, and two for skilled trades, ensuring NUMMI a maximally flexible workforce.<sup>121</sup>

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115. Quesada Presentation, *supra* note 1.

116. Quesada Presentation, *supra* note 1.

117. Martinez Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XXIII.

118. Burch Presentation, *supra* note 1.

119. *See, e.g.*, Rehder & Finston, *supra* note 84, at 8.

120. NUMMI-UAW AGREEMENT, *supra* note 1, at art. X, § 11.2.

121. NUMMI-UAW AGREEMENT, *supra* note 1, at art. XVII, § 1.1. Article XVII, section 1.1 lists three classifications: Division I (production) and Division II (general maintenance and tool and die). NUMMI-UAW AGREEMENT, *supra* note 1, at art. XVII, § 1.1; *see* Vasilash, *supra* note 5, at 39.

## 7. Employees Empowered To Stop The Assembly Line

Seventh, the broad “no-strike” clause applies to all disputes, but the employees are nevertheless trusted and expected to pull the Andon cord and stop the assembly line when necessary for reasons of safety as well as production quality.<sup>122</sup>

## 8. Enhanced Security For The Union

In the spirit of mutual trust and the expectation of a stable relationship, NUMMI has also agreed to a form of organizational security for the union, as well as job security for the individual employees. The parties have signed a letter of understanding which affords the union the option of card check recognition, in the event that future facilities are opened by NUMMI.<sup>123</sup>

## 9. Overall

Perhaps most important is the overall approach of the agreement. It is much shorter and less detailed than a typical UAW collective bargaining agreement, and many of the commitments contained in it are broader and more general. These provisions are aimed at capturing shared purposes and intent, rather than pinning down details in anticipation of breach of contract and arbitral enforcement.<sup>124</sup> The union abandons conventional “job control” strategies. In return, it gains the subtler power built into the vulnerability to disruption of a manufacturing process highly dependent upon the good will and strenuous voluntary efforts of workers, as well as the union’s explicit participatory role in consensus-oriented strategic and functional decisionmaking processes. While based upon Japanese cultural approaches to contractual relationships built upon mutual trust,<sup>125</sup> the NUMMI-UAW contract also accords more closely to the model of the collective bargaining agreement as laying a constitutional foundation of principles guiding the parties’

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122. NUMMI-UAW AGREEMENT, *supra* note 1, at art. XXVII, § 1.2 (prohibition of strikes and lockouts); art. XXVIII, § 1.2 (permitting stopping the assembly line without risk of discipline).

123. Letter of Understanding from D.W. Childs, Vice President of Human Resources to Bruce Lee, Director, Region 6, UAW (June 30, 1988), ¶ 3 (attached to NUMMI-UAW AGREEMENT); *see also* Quesada Presentation, *supra* note 1.

124. Burch Presentation, *supra* note 1.

125. Burch Presentation, *supra* note 1.



relationship, and then serving as a living document under which they negotiate the resolution of particular problems as they arise. Such a relationship epitomizes the philosophy of trust underlying this form of labor-management cooperation.

### B. Employee Relations

The company encapsulates its employee relations philosophy in four summarizing concepts:

- 1) mutual trust and respect;
- 2) teamwork and the team concept;
- 3) equity and fair treatment; and
- 4) employee involvement.<sup>126</sup>

The company has taken steps to eliminate nearly all of the traditional indicia of corporate hierarchy, such as separate enclosed offices, different clothing, separate parking areas or dining rooms.<sup>127</sup> Rather, NUMMI embraces the concept that each worker is a member of the company-wide team, making an appropriate contribution to its overall success, and entitled to be equally valued and treated with dignity and respect.<sup>128</sup>

NUMMI follows a philosophy of training and promoting from within, including a vigorous joint (labor-management) apprenticeship training program for skilled jobs, which has so far graduated about fifty apprentices.<sup>129</sup>

NUMMI's policy of teamwork and employee involvement embraces the notion of pushing decision-making down to the lowest possible level.<sup>130</sup> Employees do not merely participate by reorganizing the work in which they are immediately involved. Through a company-wide suggestion program, employees are able to suggest improvements in operations at all levels. The average participation rate in such programs

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126. Burch Presentation, *supra* note 1; NUMMI Script, *supra* note 1, at 12; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.3; art. XIV, § 1.1.

127. Burch Presentation, *supra* note 1. Contrast this with Quesada's recollection of being forced out of the GM-Fremont salaried employees' ladies room, when she attempted to use it during a visit to the front office. Quesada presentation, *supra* note 1.

128. Burch Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. II, § 1.6; art. XIV, § 1.1.

129. Burch Presentation, *supra* note 1; *see also* NUMMI-UAW AGREEMENT, *supra* note 1, at art. XXIX (detailing the apprenticeship training program).

130. Burch Presentation, *supra* note 1.

in the U.S. is about fifteen or twenty percent, but at NUMMI in 1993, ninety-four percent of employees participated through one or more suggestions, totalling over 14,000.<sup>131</sup> With an average of three suggestions per year per worker,<sup>132</sup> it is evident that many employees actively participate. No doubt this is because NUMMI management consistently implements a high proportion of the suggestions.<sup>133</sup>

The workforce at NUMMI is extremely racially diverse, approximately thirty percent female, although there are only a few women in skilled trades.<sup>134</sup> It has taken a while for management to adjust to working with such a diverse, nonhomogeneous workforce.<sup>135</sup>

## V. EMPLOYEE ATTITUDES AND SUCCESSFUL TRANSITION

The most moving portion of the NUMMI workshop at the LaJolla conference was the remarks of Martha Quesada. She is a long-time GM Fremont plant assembly line worker and militant UAW member, now employed at NUMMI as an electrician, after completing the NUMMI apprenticeship training program. A central question regarding many of the corporate experiments in teams, worker participation, and lean production, is whether workers actually prefer involvement. Several commentators have contended that the heightened responsibility, faster pace, and greater stress inherent in teamwork-based lean production are outweighed only by employees' fear of job loss, in inducing cooperative attitudes.<sup>136</sup> Ms. Quesada was a forceful advocate for the view that participation enriches the work and dignifies the worker, yet she retains some deep ambivalence.

She vividly described the intense, mutual hostility between worker and supervisor, union member and management, that pervaded the GM system, workers' derogatory views about the quality of their own products, and their feeling of being just additional, fungible parts for the

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131. Burch Presentation, *supra* note 1; see also Tibbett L. Speer, *Foreign Investors: An Equity Stake in California*, 27 CAL. BUS. 22, 27 (Mar. 1992) (citing 92% of employees as offering suggestions in 1991).

132. Burch Presentation, *supra* note 1.

133. In 1991, for example, approximately 85% of employee suggestions were implemented. Speer, *supra* note 131, at 27.

134. Quesada Presentation, *supra* note 1.

135. Quesada Presentation, *supra* note 1.

136. See PARKER & SLAUGHTER, *supra* note 32, at 16-19; Katz & MacDuffie, *supra* note 37, at 194-95; Rehder, *supra* note 32, at 89-90; Young, *supra* note 47, at 685-88; Rehder & Finston, *supra* note 84, at 8.

company to use in manufacturing automobiles.<sup>137</sup>

As a result,

[W]hen NUMMI opened, the former GM workers were adamant about this new system not working. . . . We felt that it was a sellout. We felt that . . . we as a union would really have no voice. . . . [T]here was debate on how you handled something like what NUMMI was proposing to us, . . . to this group of militant people and people who had only been treated like dirt by GM management . . . .<sup>138</sup>

After extensive negotiations among both parent corporations and the UAW,

you get this agreement, and after you come up with all these beautiful words about mutual trust and respect, how do you get people like myself to buy into it? . . . How do you really take the words and the phrases and the cliches and make them work? . . . It's my personal opinion that, unfortunately, it takes a crisis before you can cooperate. In our situation, it was the plant closing and it was the end of a lifestyle for us.<sup>139</sup>

Ms. Quesada had such a strong reputation as a militant trade unionist that she had to work hard to persuade the NUMMI labor relations department that she could be trained to be a cooperative, productive employee under its system. Nevertheless, she estimated that it took her only about six months, rather than several years, of working under NUMMI management to transform her initial skepticism and suspicion into belief.<sup>140</sup>

Ms. Quesada described the immense resocialization task facing NUMMI management as they rehired GM workers and reopened the plant. NUMMI had "to take . . . people who don't believe you, people who don't trust you, people who had never known management to be honest in any sense of the word and convince them that what [NUMMI was] saying [was] going to work."<sup>141</sup>

She now feels very differently about her job at NUMMI. "I happen to love working where I work. I've gone through training programs that would never have been available to me at General Motors. I've . . . had

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137. Quesada Presentation, *supra* note 1; Interview with Martha Quesada, *supra* note 33.

138. Quesada Presentation, *supra* note 1.

139. Quesada Presentation, *supra* note 1.

140. Quesada Presentation, *supra* note 1.

141. Quesada Presentation, *supra* note 1.

opportunities that were never given to me before.”<sup>142</sup>

Quesada is not atypical. NUMMI surveys its workforce annually. The proportion of employees declaring themselves satisfied or very satisfied with their employment has risen steadily, from 76% in 1987, to 85% in 1989, to 90% in 1991.<sup>143</sup> Even the members of the local union’s dissident caucus prefer NUMMI management methods to those of General Motors. They would prefer to reduce the pace of work, eliminate alleged favoritism in certain types of assignments, and put greater distance into the relationship between management and union representatives, but they support the team-based production system as a whole.<sup>144</sup>

Describing her local union’s relationship with NUMMI management, Ms. Quesada said, “Our union is still the UAW, and we can be a very strong union, [but] we’re a more cooperative union. [T]he antagonism wasn’t working. . . .”<sup>145</sup>

Ms. Quesada is enthusiastic about a company which treats its employees as full members of its team and as dignified human beings. Still, when pressed about trade union antagonism toward lean production methods and the impact of such methods on the role of the union, Ms. Quesada retreated in describing her motives, from the carrot to the stick. Her fears and guilt about being a “traitor to the trade union movement” revive when she is confronted with such accusations from within her own local union, from other local unions within the UAW, from the Canadian Auto Workers union, and from unions in other industries.<sup>146</sup>

She expressed some concern about the altered role of the union, particularly in shop floor representation, but Ms. Quesada then explained her bottom line:

I’ve always been a very strong union person and I believe strongly in unions and hope never to have to work in a non-union shop again. But . . . until you’ve walked in our shoes and been out of work for two years and had people kill themselves and had families divorce and had essentially lost everything that you ever owned, . . . you can’t criticize

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142. Quesada Presentation, *supra* note 1.

143. Adler & Cole, *supra* note 4, at 87. This is consonant with several studies suggesting that many workers derive increased job satisfaction from genuinely participatory working arrangements. See, e.g., Paula B. Voos, *Introduction — An Economic Perspective on Contemporary Trends in Collective Bargaining*, in *CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR* 1, 5 (Paula B. Voos ed., 1994).

144. See Turner, *supra* note 2, at 234-35.

145. Quesada Presentation, *supra* note 1.

146. Quesada Presentation, *supra* note 1.

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If you [had a] community of seven thousand workers and a plant closed down and someone came along with a system that would allow you to bring back four thousand of those workers, what would you say? . . . I wish . . . I could say that I will walk out on any issue, on any principle that matters that much to me, I've always felt that way. . . . [T]he competition internationally [meant]. . . that we could not continue in the way the Big Three, General Motors, Ford and Chrysler, were continuing to do business. And we as a union had gotten so militant and so strong that we were kind of biting our nose off to spite our face. I think a lot of it has to do with different [economic and legal] situations, but I admire your [more militant, Canadian] unions and if I could subscribe to that, trust me, I'd be right behind you.<sup>147</sup>

## VI. THE FOUNDATIONS OF NUMMI SUCCESS

The NUMMI success story is founded on changes in structures, changes in processes and changes in attitudes, compared to operations under GM. NUMMI management brought with them expectations of honesty, hard work, participation, and faithful performance by the employees, and attitudes of trust and cooperation. Once employees became persuaded that these attitudes were genuine, reciprocation spread gradually among the workforce. It is evident that the interaction of all three facets—structure, processes, and organizational culture—is at the root of NUMMI's success. No one component standing alone would have sufficed to produce the results.

A series of inquiries naturally follows. Which aspects of the NUMMI system are essential, which are modifiable, which are dispensable? What background factors are significant in the success of this style of work organization, and how adaptable is it across industries? Why have seemingly similar programs elsewhere proven less successful? Some comparisons shed light on these questions, although valid answers are embedded in nuances of corporate culture and workplace context, making analysis and generalization difficult.

It is helpful to review the old, command and control workplace model, and the main factors underlying its current breakdown. The old model was based on routinized jobs, unskilled or semi-skilled work, specialization and extensive division of labor, rigid, highly formalized job

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147. Quesada Presentation, *supra* note 1.

descriptions and many layers of bureaucratic hierarchy. It was originally developed to facilitate mass production.

Three major factors are leading to its decline. First, the command and control model was designed for an environment of stable mass production, abundant natural resources, and economies of scale. This structure copes poorly with sudden and rapid shifts of demand now prevalent in an era of short product life cycles and niche markets. Second, full utilization of new manufacturing technologies is incompatible with the division of labor between brains and brawn, management and labor, inherent in the command and control model.

Third, the tacit, job control-based, social contract between labor and big business has broken down. The desirability to both sides has plummeted regarding an arrangement in which employers paid workers well to permit management to do all of the decisionmaking. Workers prefer to use their minds, and employers seek to draw upon their ideas. The economic presuppositions for the social contract no longer apply in many industries. The unions' strike weapon has weakened, and the extent of unionization has decreased. Hence unions' ability to remove wages from competition has deteriorated. The employers' ability to pass on wage increases through higher prices to consumers has declined under the pressure of global competition.<sup>148</sup>

In contrast to the hierarchical, rigid, old system, commentators describe the successful organizational mode of the future as one fostering initiative, drive, quality, productivity, flexibility, continuous improvement, continuous learning, and a shared sense of purpose among the workforce, qualities precluded by the traditional mode of work organization. Many observers now believe that organizational learning is the key to future corporate profitability and that "high trust" and "high mutual commitment" organizations, such as NUMMI, are best positioned to succeed in the competitive environment of the future.<sup>149</sup>

This brief review highlights two areas in which the NUMMI model bears only limited application because the environment has not altered along the lines sketched out above. First, non-manufacturing employ-

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148. John F. Tomer, *The Social Causes of Economic Decline: Organizational Failure and Redlining*, 50 REV. OF SOC. ECON. 61, 70-71 (Mar. 1992); see also Marshall, *supra* note 3, at 288-90.

149. See, e.g., Marshall, *supra* note 3, at 302; Tomer, *supra* note 148, at 74; Raymond F. Zammuto & Edward J. O'Connor, *Gaining Advanced Manufacturing Technologies' Benefits: The Roles of Organization Design and Culture*, 17 ACAD. OF MGMT. REV. 701, 717-18 (1992); Ernest J. Savoie, *Rough Terrain for Collective Bargaining: A Management View*, in CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR 529, 534 (Paula B. Voos ed., 1994).

ment, while traditionally subject to hierarchical, bureaucratic management, has otherwise varied tremendously in its conformity to a job control model and involves productivity and quality variables that may be harder to measure than those in manufacturing, both in the past and today. Separate consideration should be given to quality improvement, productivity, and quality of work life justifications for both old and new methods of work organization in service sector workplaces. Second, within manufacturing, in those industries where long production runs and economies of scale continue to dominate, and particularly if other aspects of historic conditions remain intact, the command and control model may be more efficient than any alternative.

Team-based organization may have been oversold as the key to success in a wide range of business organizations. Teams are especially valuable in businesses requiring flexibility. In industries where products or services are seldom modified, traditional hierarchical structures may be more efficient. On the other hand, if products or services are too variable, the time entailed in coordination and reorganization of team efforts may outweigh productivity gains, making individual-based operations more successful.<sup>150</sup> In manufacturing, the standardized work aspect of NUMMI's lean production model is probably subject to similar constraints.<sup>151</sup>

Moreover, the utility of team-based production depends upon the extent to which within each team, the jobs of team members are, or can be, redesigned as interdependent. The successful completion of the work for which the team is responsible should depend heavily on collective, rather than individual effort, and successful performance of individual tasks should demand close and frequent coordination among team members. Team size should also remain small, ranging from five to ten members.<sup>152</sup>

An industry may satisfy other pre-conditions for success with a lean

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150. See Kathryn M. Bartol & Laura L. Hagmann, *Team-Based Pay Plans: A Key to Effective Teamwork*, 24 COMPENSATION & BENEFITS REV. 24, 27 (Nov. 1992); Paul S. Adler & Robert E. Cole, *Rejoinder*, 35 SLOAN MGMT. REV. 45, 48 (Winter 1994); cf. Maryellen R. Kelley & Bennett Harrison, *Unions, Technology, and Labor-Management Cooperation*, in UNIONS AND ECONOMIC COMPETITIVENESS 247, 266-69 (Lawrence Mishel & Paula B. Voos eds., 1992) (finding that employee participation programs render production significantly less efficient in nonunion plants, and not significantly more efficient in metalworking and machinery sector unionized plants. Unionized plants were more efficient than nonunion, regardless of worker participation programs.)

151. See Adler & Cole, *supra* note 150, at 48.

152. Bartol & Hagmann, *supra* note 150, at 25-27. Adler & Cole also limit their belief in the superiority of lean production coupled with worker participation to the context of high volume, fairly repetitive, labor-intensive production. Adler & Cole, *supra* note 150, at 48-49.

production, team-based system, but find that existing technology renders it inefficient to reorganize work for teams of five to ten with interdependent functions. Factors regarding the suitability of the industry, its external environment, and technological constraints on the organization of manufacturing operations may account for much of the divergence of experience with team-based, lean production. Studies of new production organization which aggregate data may obscure such important, differentiating variables.

NUMMI is the quintessential, lean production, worker participation company in most respects, but its distinctive features bear noting. Because it has operated so successfully with an independent, industrial union, it belies the argument that Japanese and similar lean production methods cannot be accomplished in a unionized environment. Indeed, some recent research suggests that, at least in the U.S., most non-union employee involvement programs fail because of the lack of autonomy and enforceable job security of the employee groups, while programs in unionized settings are more likely to succeed because the unions and workers have enough independent leverage to press for significant change.<sup>153</sup>

NUMMI also calls into question the contention that “greenfield” operations are far more successful with lean production methods than converting existing plants and workforce.<sup>154</sup> Greater initial skill and understanding may be required of management to build trust with a suspicious workforce, but thereafter, there appears to be little difference in long term success. The six month period required for Martha Quesada’s change in attitude, if typical, suggests that a mass attitudinal shift to a new corporate culture is more feasible, in far shorter time, than often assumed.

NUMMI did not rehire members of GM’s lower and middle management. The wholesale change was certainly important in persuading workers that the new management had internalized very

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153. See Kelley & Harrison, *supra* note 150, at 255-56, 275-76; Brown, *supra* note 3, at 43-44, 46.

154. See Thomas A. Mahoney & John R. Deckop, *Y’gotta Believe: Lessons from American-vs. Japanese-Run U.S. Factories*, ORGANIZATIONAL DYNAMICS 27 (Spring 1993) (concluding that the success of Japanese manufacturing models in U.S. plants is mainly dependent upon managerial values). Apparently, GM has successfully retrained for lean production teams of auto workers formerly employed in the brownest of possible settings, the state-owned East German Wartburg plant, now owned by Opel. See Karen L. Miller & Kathleen Kerwin, *GM’s German Lessons*, BUS. WK., Dec. 20, 1993, at 67, 68.



different attitudes towards workers than their predecessors.<sup>155</sup> Moreover, supervisors and middle managers often pose a greater obstacle to innovative labor-management relations schemes than rank and file workers because of managers' reluctance to accede power and position to their subordinates.<sup>156</sup>

NUMMI follows a philosophy contrary to the recommendations of most experts, in providing no gainsharing or productivity or skill improvement rewards for individuals or teams, but only a small bonus for the entire hourly workforce if their products meet external recognition goals.<sup>157</sup> Pride in product, a good day's pay for a hard day's work, and identification with the company as a whole through membership in the larger "team," have produced sufficient motivating forces to yield NUMMI's outstanding results. NUMMI's ongoing investment in training the entire workforce in teamwork-related empowerment techniques no doubt also contributes to its success.<sup>158</sup>

NUMMI relies less on the new generation of high technology systems automation than many other automobile plants, either in Japan or in the U.S.<sup>159</sup> The company believes that "the key to productivity is simplicity,"<sup>160</sup> because "automation is not as flexible as a multi-skilled worker."<sup>161</sup> Central to the successful NUMMI philosophy is the

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155. Quesada Presentation, *supra* note 1.

156. *See, e.g.*, Brown, *supra* note 3, at 45; *see also* Humphrey, *supra* note 53, at 107; Zammutto & O'Connor, *supra* note 149, at 718 (commenting that "these changes disrupt existing power and status networks making significant resistance likely as well as costly and time-consuming to overcome.").

157. The Performance Improvement Plan Sharing program [hereinafter PIPS], establishing a maximum annual bonus of \$1,600 per employee is outlined in the Letter of Understanding from Thomas King, Jr., Manager, Labor Relations, to George Nano, Chairman, Bargaining Committee (July 1, 1991), ¶ 9 and attached Exhibit "A" (attached to NUMMI-UAW AGREEMENT). *See also* Adler & Cole, *supra* note 4, at 87. For a description of recommended forms regarding merit or incentive pay practices designed to accompany lean production and team-based manufacturing, *see generally* Adler & Cole, *supra* note 4, at 90; Bartol & Hagmann, *supra* note 150, at 27-29. NUMMI may have chosen to follow W.E. Deming's philosophy in avoiding such compensation systems. He disapproves of incentive pay systems because they inevitably require appropriate forms of work measurement, creating the risk that the workers will "game the system" to maximize their own personal rewards instead of focusing on company goals. *See* Sanjiv Sarin, *Can Work Measurement and TQM Get Along?* 25 INDUS. ENGINEERING 14-15 (Oct. 1993).

158. *Cf.* Brown, *supra* note 3, at 44 (one reason so many corporate experiments in employee involvement fail is management's unwillingness to invest time and money in pertinent training); Nowlin, *supra* note 68, at 7-9.

159. *See, e.g.*, Rehder & Finston, *supra* note 84, at 21; Marshall, *supra* note 3, at 302.

160. Kevin L. Miller, *The Factory Guru Tinkering with Toyota*, BUS. WK., May 17, 1993, at 95 (quoting Toyota Director of Production Engineering Mikio Kitano, formerly employed at NUMMI).

161. *Id.* (quoting Professor Koichi Shimokawa).

proposition that “men control machines, not the other way around.”<sup>162</sup>

NUMMI’s prospects for success were greatly advanced by its determination to avoid layoffs in 1987, despite the sharp reduction in production. Analysts universally agree with the thrust of Martha Quesada’s comments, that absent a deep managerial commitment to job security for employees, workers will be unwilling to participate in improving productivity when they may be improving themselves or coworkers right out of a job.<sup>163</sup>

Finally, the crisis generated by GM’s closure of the plant drastically altered the thinking and behavior of the union, workers, and community. The NUMMI workforce has been characterized as traumatized by the previous plant closure and desperately fearful of employment loss.<sup>164</sup> NUMMI fits within the broad pattern of “crisis to cooperation,” despite the company technically being a new operation. Nevertheless, the factor may be overemphasized in many accounts; later hires not involved in the plant closure are indistinguishable from more senior workers in their enthusiasm about working at NUMMI.

Comparisons of NUMMI to other automobile industry operations are instructive in holding constant for “hard,” industry-based constraints, highlighting the significance of human relations factors. Team-based operation, in any industry, requires that: (1) management at all levels fully support the team concept; (2) the norms, beliefs and values of the company include mutual trust, respect, and confidence, and the organizational culture as a whole encourage both vertical and horizontal cooperation among employees; (3) the company have a flat organizational hierarchy; and (4) the company have flexible communication channels, good communication skills, and an open flow of information.<sup>165</sup> The NUMMI organization, top to bottom, epitomizes these factors.

One may profitably compare the use of the Japanese lean production/worker participation model at NUMMI with its less successful

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162. *Id.*

163. See, e.g., Adrienne E. Eaton & Paula B. Voos, *Unions and Contemporary Innovations in Work Organization, Compensation, and Employee Participation*, in *UNIONS AND ECONOMIC COMPETITIVENESS* 173, 195-96 (Lawrence Mishel & Paula B. Voos eds., 1992) (arguing that “job loss, reduced amount of employment, and wage reductions are all feared”); Kelley & Harrison, *supra* note 150, at 256-57; Voos, *supra* note 143, at 5; Nowlin, *supra* note 68, at 9, 30; see also Humphrey, *supra* note 53, at 103-04 (detailing a Brazilian study).

164. See Turner, *supra* note 2, at 6. “In the minds of NUMMI employees, job security is closely tied to continued high levels of productivity, quality, and constant improvement.” Rehder & Finston, *supra* note 84, at 7-8.

165. Bartol & Hagmann, *supra* note 150, at 25-27.

adaptation at several other automobile transplant and joint venture facilities. These and other Japanese transplants started out espousing a common set of formal structures and organizational values, including the team concept, a quest for perfection as to both quality and quantity (*jidoka* and *kaizen*), mutual trust, stable employment, win-win labor management relations or harmonious employee relations, and just-in-time inventories.<sup>166</sup>

However, the gap between conception and execution seems to have been considerably greater at other transplant facilities than at NUMMI. NUMMI has, at least so far, managed to transplant key intangibles which have fallen by the way side in many of the other Japanese transplant operations: openness, sharing of both power and information, a culture of shared membership in a team running throughout all vertical and horizontal relationships in the plant, and a hostility to the opposite—turf control, power brokering, information hoarding.<sup>167</sup>

The collective bargaining relationships between CAMI and the Canadian Auto Workers (“CAW”), covering the GM-Suzuki joint venture in Ingersoll, Ontario; between AutoAlliance, Inc. and the UAW, covering the Mazda-Ford joint venture in Flat Rock, Michigan; and between Diamond Star Motors Corp. and the UAW, a Mitsubishi-Chrysler joint venture in Normal, Illinois; as well as the non-union Subaru-Isuzu joint venture automobile plant in Lafayette, Indiana, represent less successful efforts to institute teamwork-based, intensified work, continuous improvement, lean production models. In each of these plants, aspects of the Japanese model eventually broke down because of what workers perceived as broken promises of shared decisionmaking on the job. If a proposed manufacturing practice strongly affected both the bottom line and workers’ job conditions, or in some plants, if the supervisor’s own power or interests were at stake, “consensus” was only possible on management’s terms.<sup>168</sup> In addition, in at least some cases, the trans-

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166. Rehder & Finston, *supra* note 84, at 6.

167. See Bergstrom, *supra* note 69, at 60; see also Adler & Cole, *supra* note 4, at 89-91.

168. See Liz Pinto, *Japanese Labor Ideals Don't Fly*, AUTOMOTIVE NEWS, Nov. 9, 1992, at 3; see also Katz & MacDuffie, *supra* note 37, at 214 (transplant facilities are evolving into diverse combinations of typical as well as innovative Japanese manufacturing practices). For an overview on CAMI, see Yanarella & Green, *supra* note 9, at 66-70. For an overview on Mazda, see Steve Babson, *Lean or Mean: The MIT Model and Lean Production at Mazda*, 18 LAB. STUD. J. 3 (Summer 1993); Christian Berggren, *NUMMI vs. Uddevalla*, 35 SLOAN MGMT. REV. 37, 45 n.12 (Winter 1994) (Mazda/AutoAlliance’s and GM/Suzuki’s outcome is very different than at NUMMI). Babson quoted a AutoAlliance human resources manager saying, Mazda had “a very unhappy workforce.” Babson, *supra* note. Mazda’s difficulties ultimately led to Ford assuming a more explicit joint venture role, and greater responsibility in the management of the enterprise. Yanarella

plant firms inflexibly attempted to institute and retain the Japanese model wholesale, with few changes tailored to fit the very different North American social and institutional culture. This seems to have played an important role in the failure of lean production/worker participation models at several plants.<sup>169</sup>

The NUMMI success story is not just one of transplantation of Japanese philosophy and methods to the United States. While NUMMI management initially attempted to do this, over time, the corporate culture has been Americanized, creating more breathing room for individuality and greater acceptance of conflict than is customary in a land where conformity is traditional. NUMMI has been described as “a more humanistic variant [of the Toyota system, designed] to accommodate an older and more militant labor force.”<sup>170</sup> Several observers have predicted that successful transplantation of Japanese manufacturing systems to U.S. industry would require modification of both historic U.S. manufacturing methods, particularly work organization and labor management relations, and modification of Japanese practices.<sup>171</sup>

The mood in some transplant facilities was summarized by Rehder and Finston: “Many U.S. transplant employees are asking what the point is of duty, loyalty, quality, teamwork, and productivity if the end result is loss of individual freedom, compromised individual due process, and diminished quality of work life.”<sup>172</sup> As Steve Babson noted in his study of the Mazda plant, “the emancipative potential of lean production is easy to invoke in the abstract, but difficult to specify in concrete terms; [meaningful analysis depends on] detailed inspection of how power is distributed and conflict negotiated.”<sup>173</sup> The problem of

& Green, *supra* note 9, at 60 n.24; Katz & MacDuffie, *supra* note 37, at 215 n.5 (outlining the changes in corporate ownership at the plant).

169. See, e.g., Young, *supra* note 47, at 678-79.

170. Adler & Cole, *supra* note 150, at 49; see also Tomer, *supra* note 148, at 74; Turner, *supra* note 2, at 235. Adler & Cole wrote, “A good case can be made that the Japanese have been forced to modify the harsher aspects of their production system to make them more compatible with the expectations of Western workers.” Adler & Cole, *supra* note 4, at 88.

171. See, e.g., Young, *supra* note 47, at 678. For a broader description of Japanese management philosophies, their relationship to Japanese manufacturing techniques, and an in depth discussion of how the differences between Mexican and Japanese cultures may affect the adoption of Japanese manufacturing methods, see generally John J. Lawrence & Rejh-Song Yeh, *The Influence of Mexican Culture on the Use of Japanese Manufacturing Techniques in Mexico*, 34 MGMT INT’L REV., 49, 57-59 (1994). For a description of the value differences between Japanese and American societies posing obstacles to the straightforward adoption of Japanese lean production methods in the U.S., see Rehder & Finston, *supra* note 84, at 17.

172. Rehder & Finston, *supra* note 84, at 6.

173. Babson, *supra* note 168, at 3.

consistent leadership and thorough managerial commitment to the power sharing entailed in employee empowerment has been the stumbling block in many efforts to institute such corporate transformations, and hardly limited to the auto industry transplant operations.<sup>174</sup>

Numerous American companies have attempted to “cherry pick” features of the model, attempting to institute intensified work, reduced buffers, and other lean production practices while generally maintaining the command and control model of employer-employee relations and in particular, preserving more flexibility regarding job security promises.<sup>175</sup> Practice among domestic auto manufacturers has been extremely diverse at the plant level, although recent national collective bargaining agreements between the UAW and the Big Three have provided workers with increasing levels of income and job security.<sup>176</sup>

Central to the success of the NUMMI version of employee empowerment is the depth of delegation of true decision-making power. One employee involvement consultant has categorized three options for employers soliciting employee input into problem solving: management can ask for input but make the final decision alone, management can ask for the employee group’s recommendation, participate in the discussion and decisionmaking, but reserve the right to veto the decision; or management can wholly delegate the decisionmaking to the group, by agreeing in advance to follow the group’s consensus.<sup>177</sup> The teams at NUMMI have this third, final level of authority, or something very close to it, as to most operational matters affecting the work they do day-to-day. As to many broader matters, management deals with both the union and the work teams in a way approximating the middle position, attempting to reach mutual consensus, while not committing to implementing the consensus outcome. Even as to areas of broad entrepreneurial decisionmaking, such as changes in manufacturing or product, the union is informed early on, and its reactions sought.

Most American businesses, on the other hand, apply the “employee involvement” label to programs which seek employee ideas and suggestions while reserving all decisionmaking power to management and narrowly circumscribing the sphere in which employee participation is sought. Such programs tend to be abandoned within a few years.<sup>178</sup>

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174. See, e.g., Brown, *supra* note 3, at 42, 45-46.

175. See, e.g., Katz & MacDuffie, *supra* note 37, at 195.

176. Katz & MacDuffie, *supra* note 37, at 203-08.

177. Brown, *supra* note 3, at 45.

178. See, e.g., Kelley & Harrison, *supra* note 150, at 254-55, 277.

A large part of the reason the workers and the union believe NUMMI means business when it speaks of employee participation is that the company's participation structures and processes actually share large swaths of real decisionmaking authority with the employees in teams or through their union, and members of management throughout the hierarchy by and large act in conformity with the values they espouse.<sup>179</sup> Counterfeits simply don't work, at least over extended periods of time.<sup>180</sup>

One should not overstate NUMMI's commitment to the UAW. The company has in effect, agreed not to try to eliminate or escape from the union, unless it closes the business completely. Yet NUMMI has used its heavy leverage in the form of new investment and expansion of jobs in the plant, and the reverse, the threat of disinvestment and decline, to extract concessions on several occasions going beyond what the union and the work force felt it could comfortably live with. Such pressure-based changes plainly fray the fabric of the NUMMI-UAW relationship.<sup>181</sup> In addition, Toyota, the managing partner in the joint venture, has chosen to operate all of its non-joint venture plants in North America on a non-union basis.<sup>182</sup> Moreover, unionization of NUMMI was acceptable to Toyota if, and only if, the union was willing to function within the company's broadly defined parameters for the role of the union, which required it to accept the premise that mutual advantage is to be gained through harmonious industrial relations.<sup>183</sup> It appears to be Toyota's view, like many other Japanese transplants operating in the U.S., that reconciling independent union representation with their

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179. Cf. Adler & Cole, *supra* note 150, at 48 (commenting that "the highly disciplined Toyota approach is viable from a human point of view only when associated with a management system considerably more enlightened than that found in the average U.S. [assembly] plant.>").

180. See, e.g., Kelley & Harrison, *supra* note 150, at 254-55, 277. One analyst has hypothesized, "The greater an organization's emphasis on control-oriented values, the more likely it will experience implementation failure" in efforts to gain productivity and flexibility benefits from advanced manufacturing technologies. Zammuto & O'Connor, *supra* note 149, at 716.

181. Compare Voos, *supra* note 143, at 17 (expressing doubts about the viability of combining hard bargaining strategies with shopfloor participation programs) with RICHARD E. WALTON ET AL., STRATEGIC NEGOTIATIONS x, 212, 321, 350 (1994) (contending that for corporate management seeking transition from traditional to lean production/team based work organization systems, optimal negotiation strategy is a combination of "forcing," *i.e.*, confrontational hard bargaining to eliminate traditional union protections and undermine union power, with "fostering," or bargaining emphasizing cooperation and consensus).

182. See Yanarella & Green, *supra* note 9, at 57, 71; Katz & MacDuffie, *supra* note 37, at 185, 187, 191-92.

183. Cf. Humphrey, *supra* note 53, at 98. The Japanese transplant strategy often used in the UK is to recognize a union, "but it is carefully selected for its acceptance of company goals, and its representation is severely circumscribed by . . . agreement." Humphrey, *supra* note 53, at 98.

production and workforce organization methods puts a strain on their institutions and expectations.

NUMMI should not be mistaken for more expansive models of worker participation, such as those presented by Volvo and Saturn.<sup>184</sup> NUMMI adheres to rather traditional norms in completely separating labor from management regarding both the composition of its Board of Directors and the union's or workers' role in traditional managerial decisions such as product choice, marketing strategies, and hiring decisions.<sup>185</sup> Nevertheless, NUMMI is far more open to input and more forthcoming with advance information and consultation, than the traditional American employer. Professors Adler and Cole have aptly coined the phrase "democratic Taylorism" to epitomize the NUMMI model.<sup>186</sup>

Nor should NUMMI be mistaken for worker participation schemes which permit workers greater freedom in the actual performance of their tasks.<sup>187</sup> NUMMI permits workers much more input into the design of the details of their jobs than would a traditionally organized automobile manufacturing plant. Nevertheless, once the design is established in the form of "standardized work," the employee must rigorously adhere to it, absent safety hazard or mistake.<sup>188</sup> Thus, this system is distinguishable from those where workers have reorganized the work into a more craft-like production system, or into one permitting greater individual variation. In particular, the demands of mass, albeit somewhat customized, production may encourage a different approach in the automobile

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184. For a description of labor relations and production methods at Saturn, see Katz & MacDuffie, *supra* note 37, at 209-10; Yanarella & Green, *supra* note 9, at 60-66; Filipczak, *supra* note 32, at 29-30, 32. Governance aspects of the now-closed Volvo Uddevalla plant are discussed in Adler, *supra* note 4, at 90; Berggren, *supra* note 168, at 37, 40-41, 44; Rehder & Finston, *supra* note 84, at 19-20.

185. See, e.g., Quesada Presentation, *supra* note 1.

186. Adler & Cole, *supra* note 4, at 89.

187. The literature discussing the now-defunct Volvo plant at Uddevalla provides the most extensive description of a "neo-craft" approach to automobile manufacturing. See generally Rehder & Finston, *supra* note 84, at 18-21. The developing German model falls into yet a third category. Turner, *supra* note 2, at 220-32. Volkswagen has worker representation on its corporate supervisory board where the employees have input but no formal control over matters such as product choice and marketing strategies. Nevertheless, VW workers have works council-based input and partial co-determination rights regarding the institution and functioning of new teamwork experiments. Their work is organized with longer cycle times, permitting more freedom to workers than at NUMMI, but far less than would be the case in a "neo-craft", Volvo-like environment.

188. See Adler & Cole, *supra* note 4, at 86, 89; Adler & Cole, *supra* note 150, at 46; Berggren, *supra* note 168, at 41.

industry than might be feasible in other fields.<sup>189</sup>

At bottom, NUMMI provides one, lawful, highly successful model for operating a high productivity, high quality manufacturing plant with a unionized workforce, in a participatory system. Under current U.S. labor law, a wide range of possible models are available. Experimentation is particularly desirable in a period when manufacturing and information processes are themselves in an extreme state of flux.

## VII. LEGAL OBSERVATIONS

One set of pertinent legal questions relate to the present lawfulness of the NUMMI labor relations system, and whether comparable systems are protected, prohibited, encouraged, or discouraged by existing labor law. A second set of questions inquires whether advantages or disadvantages of this type of production and labor relations system support legal changes to protect, prohibit, or encourage adoption of various aspects of this model. How can we encourage broad dissemination of this model, do we want to, and under what conditions?

To a very large extent, one must conclude, the success at NUMMI depends upon the cooperative attitudes and personal support of both management and the workforce, throughout all levels of the firm. Law can mandate structures with some success, processes with less success, corporate culture only indirectly and tenuously through the first two.

To the extent legally required or encouraged structures facilitate the inception or maintenance of high productivity, cooperative labor-management relationships, the goal of improving North American global competitiveness could justify appropriate legal policy changes. However, disadvantages in modifying the status quo, upsetting existing expectations, institutional arrangements, and the balance of power between labor and management, demand great caution, as well as thoughtfulness and

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189. Professors Adler and Cole contend that for automotive and other "labor-intensive volume production," the NUMMI model is more efficient and appropriate than more flexible forms of production exemplified in the Volvo Uddevalla plant. Adler & Cole, *supra* note 150, at 49. They reason that because of "the high ratio of routine to non[-]routine tasks . . . in auto assembly, . . . the sacrifice of efficiency and conformance [entailed in Volvo-style production is unlikely to be] worth the gains in flexibility." Adler & Cole, *supra* note 150, at 48. They believe that NUMMI is the more effective model for encouraging organizational learning because the standardized work process greatly facilitates both incremental innovation and diffusion of the results throughout the plant. "The NUMMI model thus assumes a higher growth rate for productivity and manufacturing quality." Adler & Cole, *supra* note 4, at 86. They hold open the possibility, however, that in operations involving higher variety production, Volvo-like neo-craft models might prove superior. Adler & Cole, *supra* note 4, at 46, 48.



attention to detail in analyzing the impact on the labor relations system as a whole of even seemingly minor modifications.

#### A. Lawfulness of the NUMMI Model

In accord with most other commentators, save for a few doubts about some minor details, I regard the system in operation at NUMMI as lawful, neither protected nor prohibited by law in its broad design. However, several legal issues take on quite a different appearance if one assumes, instead of a strong, independent union such as the UAW, a weak or unaffiliated union, or no union at all.

The key features of the NUMMI model for purposes of this examination include team-based work organization and worker participation, union-management joint committees, round tables and other forums, advance negotiation and pre-implementation settlement throughout mid-term of the labor agreement of most operational, non-individual worker-oriented issues, mixed cooperative and confrontational roles assigned to shop floor representatives, and health and safety problems stemming from lean production. In legal terms, three clusters of issues are raised: (1) National Labor Relations Act ("NLRA")<sup>190</sup> questions, centering on employer domination, support, or interference with a labor organization in violation of section 8(a)(2)<sup>191</sup>, as well as exclusivity of representation under section 9(a);<sup>192</sup> (2) duty of fair representation problems; and (3) occupational safety and health, workers' compensation, tort and disability-related discrimination issues. The nature of the inquiry in the first two legal areas depends on the presence and nature of unionization at the plant, and therefore will be examined under alternative assumptions as to unionization, followed by consideration of safety and disability problems.

##### 1. Section 8(a)(2) and Other NLRA Issues in the Union Case

When a NUMMI-like model is agreed upon between management and a strong, independent union, one may raise technical questions of compliance with the NLRA, but the doctrine can be shaped to accommodate NUMMI-type structures without undue strain, provided the employer, like NUMMI, is indeed acting cooperatively with the union,

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190. 29 U.S.C. §§ 151-69 (1988 & Supp. V 1994).

191. *Id.* § 158(a)(2).

192. *Id.* § 159(a).

and not simultaneously seeking to undermine it.

Each of the multiple organs of union and employee participation structures can be questioned as involving employer dominated labor organizations under section 8(a)(2), and invasions of the union's exclusive representation franchise under section 9(a), hence in violation of section 8(a)(5).

Many of these questions, however, appear more theoretical than actual. Where the union is clearly independent of the employer's organization, and the union and employer, in arms' length negotiations, enter into a substantial collective bargaining agreement, one can characterize worker participation in the various labor-management structures as either involving representatives of the union, or as bodies whose employee members are acting with authority delegated to them by the union. So long as the union, rather than management, selects or elects members to the committee, even a mutually agreed upon charter of activities and procedures for a joint body should not vitiate the fact that the union remains free to withdraw from the arrangement in the future. Mutual, good faith negotiation of such arrangements should not constitute illegal domination of or interference with the resulting "labor organization." There can be no "mistaken belief that [an organization] is truly representative and afford[s] an agency for collective bargaining"<sup>193</sup> when the belief is not mistaken.<sup>194</sup>

Alternatively, insofar as bodies such as employee teams make decisions addressing employee "grievances" on behalf of only their own members, they fall within the proviso to section 9(a) permitting individual or group adjustment of grievances, provided the outcome is not inconsistent with the terms of the collective bargaining agreement. The union is either present, if these bodies are regarded as falling within the structure of the local union as well as the company, or the union has waived its entitlement to be present by contractually passing through to the employee body entitlement to represent itself.<sup>195</sup>

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193. *Federal-Mogul Corp. v. NLRB*, 394 F.2d 915, 918 (6th Cir. 1968).

194. The relaxation of any of these constraints, however, present more doubtful cases which are addressed below.

195. See *Caterpillar v. Williams*, 482 U.S. 386, 395 (1987); *J.I. Case Co. v. NLRB*, 321 U.S. 332, 339 (1944). It may be that work teams in any event fall outside the strictures of section 8(a)(2) on grounds that they are not "labor organizations" within the meaning of section 2(5) of the Act, either because they are not "representative," since they reach decisions affecting only their own group, or because in the aggregate, all bargaining unit employees participate in the teams, or because the team decision making is autonomous. This argument shapes up somewhat differently, depending on the details of how the teams function, and whether either the team leader is construed to be a supervisor, or if the group leader, who clearly is supervisory, participates in the decision making.

At bottom, contentions that the NLRA flatly prohibits NUMMI-style labor-management cooperation with an independent union are based upon two points: the NUMMI model eliminates the open battle, and where successful, even the covert struggle, for control over the shop floor.<sup>196</sup> Simultaneously, it encourages management to buy, and workers to sell, their mental as well as physical labor, rather than to retain the traditional division between management and workers.<sup>197</sup> The contention is often made that both of these changes are at odds with basic assumptions embedded in the NLRA. Even assuming that the framers of the Wagner Act premised its design upon these assumptions, and that they were not modified in the enactment of Taft-Hartley,<sup>198</sup> the language and structure of the NLRA as a whole appear flexible enough to readily absorb the structural design of a NUMMI-type labor-management relationship.

The limit on how far a union can proceed in this direction is better set through the broad policies shaping the duty of fair representation, rather than through parsing the language of sections 2(5), 8(a)(2), 8(b)(1)(A), and 8(b)(2). A neat solution as to the employer might involve construing section 8(a)(2) to define unlawful employer domination in this setting as co-terminous with employer insistence upon union acceptance of an arrangement violative of the union's duty of fair representation. This equates reasonably well with the injunction that the employer not place itself "on both sides of the bargaining table."<sup>199</sup> In any event, an employer bargaining demand which requires the union to breach its duty, would violate the employer's duty to bargain in good faith under section 8(a)(5), as a demand for agreement to an illegal contract term.

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These two arguments, together with the argument that the subjects considered in the teams fall outside the coverage of section 2(5), taking them outside the scope of section 8(a)(2), will be addressed in the non-union context *infra*.

196. See, e.g., Young, *supra* note 47, at 680-81, 684.

197. See, e.g., Barry Wilkinson & Nick Oliver, *Power, Control, and the Kanban*, 26 J. OF MGMT. STUD. 47 (Jan. 1989).

198. This point is, of course, the subject of considerable debate. See, e.g., Mark Barenberg, *The Political Economy of the Wagner Act: Power, Symbol, and Workplace Cooperation*, 106 HARV. L. REV. 1381 (1993); Samuel Estreicher, *Employee Involvement and the "Company Union" Prohibition: The Case for Partial Repeal of Section 8(a)(2) of the NLRA*, 69 N.Y.U. L. REV. 125 (1994); Karl E. Klare, *The Labor-Management Cooperation Debate: A Workplace Democracy Perspective*, 23 HARV. C.R.-C.L. L. REV. 39 (1988).

199. *NLRB v. Mt. Clemens Metal Prods. Co.*, 287 F.2d 790, 791 (6th Cir. 1961).

## 2. The Union's Duty of Fair Representation

The union owes all employees in the bargaining unit it represents a duty of fair representation. This duty requires it to avoid conduct as to any of its members that is "arbitrary, discriminatory, or in bad faith."<sup>200</sup> The union's actions are arbitrary only if, in light of the factual and legal circumstances at the time of the union's actions, the union's behavior is "so far outside a 'wide range of reasonableness' . . . that it is wholly 'irrational' . . ."<sup>201</sup> The union must also at all times represent the interests of its members "in complete good faith and honesty of purpose," like a fiduciary, wholly loyal to the interests of the bargaining unit members alone.<sup>202</sup>

Three sets of fair representation issues result from the NUMMI model. The first set involve claims that particular participatory structures of the NUMMI model entail union breaches of the duty. The second set parallel the first, but involve claims that the participatory structures will greatly increase the incidence of violations, even if they don't compel them. The third set relate to the values embodied in the NUMMI system, rather than the structures.

The first category includes claims that joint union-management committees, advance negotiation and resolution of potential disputes, and the mixed cooperative and confrontational roles of shop floor union representatives blur the distinction between the interests and identity of union and employer. The contention is that the union's role is disrupted to so great an extent as to preclude compliance by the union with its duty of undivided loyalty and service to the interests of the bargaining unit. The weaker version of these claims, the second category, asserts that

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200. *Vaca v. Sipes*, 386 U.S. 171, 190 (1967).

201. *Air Line Pilots Ass'n v. O'Neill*, 499 U.S. 65, 77 (1991), (quoting *Ford Motor Co. v. Huffman*, 345 U.S. 330, 338 (1953)).

202. *Ford Motor Co. v. Huffman*, 345 U.S. 330, 338 (1953). The exclusive bargaining agent is to act for and not against those whom it represents. It is a principle of general application that the exercise of a granted power to act in behalf of others involves the assumption toward them of a duty to exercise the power in their interest and behalf, and that such a grant of power will not be deemed to dispense with all duty toward those for whom it is exercised unless so expressed.

*Steele v. Louisville & Nashville R.R. Co.*, 323 U.S. 192, 202 (1944); see *Humphrey v. Moore*, 375 U.S. 335, 342 (1964); see also *O'Neill*, 499 U.S. at 74. Section 501(a) of the Labor-Management Reporting and Disclosure Act also imposes fiduciary obligations upon "officers, agents, shop stewards and other representatives of a labor organization." 29 U.S.C. §§ 401-531 (1988 & Supp. V. 1994).

each of these structural arrangements multiplies the probabilities of union breaches of duty, and either taken separately or cumulatively, so reduces prospects for compliance that the structures should be themselves held to violate the duty.

As to joint committees and advance resolution of disputes, these claims seem ill-founded. Advance negotiation of potential disputes in place of unilateral implementation by the employer followed by a protesting union grievance seems well within the "wide range of reasonableness"<sup>203</sup> afforded a union in representing employees. Plainly, however, the union must act wholeheartedly in the interests of the employees, and consider the employer's interests only as a means to that end.<sup>204</sup> However, courts and the National Labor Relations Board, when confronting duty of fair representation claims arising in the "living agreement" context might do well to carefully scrutinize the union's performance.

The third point, the mixed collaborative and confrontational roles assigned to shop floor representatives, poses somewhat greater danger of confusion for both members and union representatives alike. Clarification and differentiation of the settings in which shop floor representatives play a cooperative as opposed to an adversarial role would greatly reduce the legal and practical problems with this aspect of NUMMI's structural configuration. Even better would be a division of labor eliminating the overlap of inconsistent roles and functions. Internal union political pressures appear to be inducing change along these lines in several local unions in the automobile industry.

The core set of objections to the NUMMI model arise in reaction to its unified teamwork-based philosophy. The traditional U.S. industrial relations model relies on external, or primary controls to ensure that workers' performance conforms to the employer's needs. External controls include layers of supervision, rigidly structured jobs, and detailed worksite rules. The Japanese model, on the other hand, relies on indirect, or secondary controls, including both individual identification with internalized loyalty to both work-team and company, and consensus decisionmaking to ensure that having participated in reaching the decision, employees will identify with it and feel bound by it.<sup>205</sup>

This system also is intrinsically opposite to the traditional U.S. system in its handling of recognition of competing interests. The U.S.

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203. *Huffman*, 345 U.S. at 338.

204. *See, e.g., id.* at 338-39; *Steele*, 323 U.S. at 202-03.

205. *See Young, supra* note 47, at 684; *Rehder & Finston, supra* note 84, at 8, 17.

system emphasizes the discrete interests of workers and their collective representative, the union, on the one side, and management on the other, and highlights individual and collective autonomy. It plays down the shared interests of labor and management. The Japanese model, on the other hand, highlights common interests of workers and company and deemphasizes to the point of attempted obliteration, the continued existence of disparate needs and concerns.

While the U.S. system does not require extreme adversarialness, it is predicated on a healthy independence and arms-length dealing between union and employer. The duty of fair representation,<sup>206</sup> as well as Board doctrines about disqualification of union representatives for conflict of interest,<sup>207</sup> and employer domination under sections 2(5) and 8(a)(2), presuppose a degree of independence of identity and action between union and employer that coexists uneasily with teamwork systems premised on a partnership relationship that approaches the familial.

This dissonance in underlying culture and values manifests itself in operational terms in two, closely-connected fears, both implicating the union's ability to fulfill its duty of fair representation. First, cooperation may mean greater integration of the union and employees into managerial decisionmaking processes, a partial form of shared governance of the enterprise. The concern is that this entails the reverse — that management will insinuate itself structurally, formally or informally, into the union's decisionmaking processes, impairing the union's ability to represent employees as an autonomous actor. Second, psychologically, union and team leaders may lose their exclusive or even primary loyalty to the rank and file when they become too closely integrated into management's decisionmaking structures, thereby depriving employees of the independent voice to which they are entitled.

As to the first, there is no inextricable logic intertwining union and worker participation in enterprise governance with the reverse, managerial participation in union governance. The exclusion of workers and unions from participation in managerial decisionmaking is a function of the scope of bargaining under the NLRA, together with state corporate and property law traditions.<sup>208</sup> The union's exclusion is not legally

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206. See, e.g., *Vaca v. Sipes*, 386 U.S. 171 (1967); *Ford Motor Co. v. Huffman*, 345 U.S. 330 (1953); *Steele v. Louisville & Nashville R.R.*, 323 U.S. 192 (1944).

207. See, e.g., *Bausch & Lomb Optical Co.*, 108 N.L.R.B. 1555, 1557 (1954).

208. Karl Klare made this point, in a slightly different context. Karl E. Klare, *Workplace Democracy & Market Reconstruction: An Agenda for Legal Reform*, 38 CATH. U. L. REV. 1, 49-50 (1989).

mandatory, but at the employer's option.

As to management intervention in internal union processes, on the other hand, the duty of fair representation, NLRA doctrine regarding disqualification of a union as a "labor organization" on the basis of structural conflict of interest,<sup>209</sup> the categorization of internal union affairs as a permissive subject of bargaining,<sup>210</sup> sections 8(a)(1) and (2) of the NLRA, and the policies of internal union democracy embodied in the Labor- Management Reporting and Disclosure Act ("LRMDA"),<sup>211</sup> all militate to the contrary. Unions may participate with management in corporate joint structures, but should be required to preserve separate, core internal structures operating devoid of managerial presence and participation. Assuming they do so, existing duties of fair representation and fiduciary obligation, if complied with, are sufficient guarantee of union independence. A structure which would formally compromise that independence should be held to be unlawful. There remains a risk that a weak union may succumb to cooptative, "cooperative" enticements, but that is true even in more traditionally structured workplaces.

The more difficult problem is the question of psychological dependence following from interdependence. The empirical evidence on this point is mixed. The most meaningful check on managerial cooptation of the union leadership plainly is not the duty of fair representation or other NLRA-based legal obligations. Rather, it is the presence of strongly democratic internal union norms and structures, bolstered by the requirements of the LMRDA. In several instances where the workers have felt that their leaders have "sold them out" or become "too cozy with management" as part of participatory workplace arrangements, they have voted them out of office.

The claim, however, is that the rank and file, as well as the leadership, is subverted from accurately perceiving its legitimate interests through ongoing participation and identification with the corporate "team" interests. In addition, cooptation of the union may lead to erosion of its internal democracy. Short of an absolute prohibition upon

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209. The NLRB will disqualify a union where a conflict of interest between the roles of managerial and supervisory employees within the organization creates "an innate danger of abuse of the collective bargaining process at the expense of the unit employees." *Anchorage Community Hosp.*, 225 N.L.R.B. 575 (1976); *see also* *Bausch & Lomb Optical Co.*, 108 N.L.R.B. 1555 (1964). The union must come to the bargaining table "with the single minded purpose of protecting and advancing the interests of the employees who have selected it as their bargaining agent . . ." *Bausch & Lomb Optical Co.*, 108 N.L.R.B. at 1559.

210. *NLRB v. Wooster Div., Borg-Warner Corp.*, 356 U.S. 342 (1958).

211. 29 U.S.C. §§ 401-531 (1988 & Supp. V 1994).

cooperative arrangements, it is hard to see how this situation can be precluded through legal norms, as opposed to membership mobilization. More focused research, at the level of the firm or workplace, would be useful in assessing the degree of risk of subversion of union processes. Most likely, for unions as for nations, “eternal vigilance is the price of freedom.”

### 3. The Non-Union Case

The non-union setting raises a host of legal and policy problems regarding all forms of employee involvement, many of which have already been exhaustively discussed elsewhere. The discussion here will be limited to a brief examination of issues arising in non-union plants adopting a NUMMI-like model without a certified union on the premises. A unionized employer could, in theory, attempt to implement a NUMMI-like system over the union’s opposition. As a practical matter, organized resistance would render the system unworkable. As a legal matter, the employer would be subject to section 8(a)(2) allegations similar to those in the non-union case,<sup>212</sup> as well as to claims that the employer violated the union’s exclusivity of representation rights and, dependent on circumstances, claims of failing to bargain over a mandatory subject contrary to section 8(a)(5).<sup>213</sup>

Some non-union companies have applied lean production together with team-based work organization without providing for employee participation at the functional or strategic levels; others have created joint worker-manager committees to provide employee input at either or both of these higher levels. The lawfulness of the NUMMI model in a non-union environment is uncertain, and depends upon how thoroughly the employer adheres to elements of the model.<sup>214</sup>

*Electromation* and its progeny set some parameters for legal analysis of these cases.<sup>215</sup> Section 8(a)(2) proscribes employer domination or interference with the formation or administration of a “labor organiza-

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212. Compare, e.g., *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. 893 (1993) and *Vons Grocery Co.*, 320 N.L.R.B. No. 5 (1995) with, e.g., *Electromation, Inc.*, 309 N.L.R.B. 990 (1992), enforced, 35 F.3d 1148 (7th Cir. 1994).

213. 29 U.S.C. § 158(a)(5).

214. No consideration will be given to an employer who attempts to institute NUMMI-like production models in order to establish his own, Japanese-style, company union. Traditional section 8(a)(2) analysis of such cases provides the appropriate resolution.

215. *Electromation, Inc.*, 309 N.L.R.B. at 990.



tion.”<sup>216</sup> Section 2(5), in turn, broadly defines a “labor organization” as including “any organization of any kind, or any agency or employee representation committee or plan,” provided (1) employees participate in it, (2) it exists, at least in part, for the purpose of “dealing with employers,” and (3) those dealings concern “grievances, labor disputes, wages, rates of pay, hours of employment, or conditions of work.”<sup>217</sup> Assuming an organization meets the section 2(5) definition, section 8(a)(2) is intended to ensure that the “organization itself [is] independent of the employer-employee relationship”<sup>218</sup> and is “entirely the agency of the workers.”<sup>219</sup>

Where joint committees are established at the employer’s behest, to address functional issues, it seems almost unavoidable that issues of “grievances, labor disputes, wages, rates of pay, hours of employment, or conditions of work” will be discussed in a setting in which the employee members of the committee “deal with” members of management.<sup>220</sup> A pattern or practice of bilateral interaction between the management and employee members of the joint committees will satisfy the section 2(5) test for “dealing.”<sup>221</sup> The employer’s establishment of the structures and processes of the committees, and the employer’s ability to abolish them at will, then suffices to demonstrate employer “domina-

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216. 29 U.S.C. § 158(a)(2). Contributing financial or other support to a labor organization is also proscribed in the statute. *Id.* Both the Board and courts routinely categorize minor secretarial and telephone support as *de minimis*, while including paid release time from work as falling within the proviso to section 8(a)(2), which permits employees “to confer with [the employer] during working hours without loss of time or pay.” *Id.*

217. See *Electromation, Inc.*, 309 N.L.R.B. at 992.

218. *NLRB v. Cabot Carbon Co.*, 360 U.S. 203, 213 (1959).

219. *Electromation, Inc.*, 309 N.L.R.B. at 994 (quoting remarks of Senator Wagner).

220. *Id.* at 1004. (Member Oviatt, concurring). Employee committees that “act together with [management for] the purpose of communicating, addressing, and solving problems in the workplace that do not implicate the matters identified in Section 2(5).” *Id.* However, constant improvement of quality and productivity, as constructed at NUMMI, entails consideration of subjects covered under section 2(5). Compare *id.* at 1005 (Member Raudabaugh, concurring) (reasoning that in most cases, quality and productivity committees have to address mandatory subjects of bargaining in the course of problem solving) with *id.* at 1003-04 (Member Oviatt, concurring) (suggesting that productivity committees do not meet to discuss mandatory subjects). See also, e.g., *Reno Hilton Resorts Corp.*, 319 N.L.R.B. No. 140 (1995) (even if most topics addressed by quality action teams were lawful, section 8(a)(2) was violated by consideration of subjects contained in section 2(5) in more than isolated instances).

221. *Electromation, Inc.*, at 995 n.21, 997-98; *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. at 894; *Stoody Co.*, 320 N.L.R.B. No. 1 (1995); *Webcor Packaging, Inc.*, 319 N.L.R.B. No. 142 (1995); *Electromation, Inc. v. NLRB*, 35 F.3d 1148, 1161 (7th Cir. 1994). See also *NLRB v. Cabot Carbon Co.*, 360 U.S. 203, 218 (1959).

tion” under 8(a)(2).<sup>222</sup>

The essence of the Japanese model is the claim that participation “counts”, that worker input is part of a consensus building decisionmaking process. These committees cannot be labelled mere “communication devices,” if they are to perform properly within the overall teamwork concept. Moreover, the committees are generally representative but not autonomous, two other potential safe harbors.<sup>223</sup> The likely result is that joint committee structures coupled with Toyota-like teamwork consensus building probably violate section 8(a)(2). The teams themselves, however, may evade claims of section 8(a)(2) violation, depending on several factors.

The teams usually bilaterally “deal with” management. Their “constant improvement” or *kaizen* activities inextricably include matters such as job assignments and work duties, mandatory subjects of bargaining encompassed within section 2(5). Nevertheless, their status under section 8(a)(2) may be lawful. One important question is the extent to which the communication between teams or team leaders and management may fairly be characterized as “representational” in nature, whether inclusion of all employees in the teams makes them in effect a lawful committee of the whole, whether other structures exist providing representation for broader aggregations of employees vis a vis management, and whether, in any event, representationality is required to establish a violation of section 8(a)(2).<sup>224</sup>

The employer can avoid section 8(a)(2) problems in several other

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222. See, e.g., *Electromation*, 35 F.3d at 1170. In the author’s opinion, the Seventh Circuit presented a more convincing argument than the one offered by Member Raudabaugh’s concurring opinion in *Electromation*. The Court of Appeals rejected Member Raudabaugh’s contention that the Taft-Hartley amendments expanded the range of employee free choice from having to decide between rival unions or no union at all, to a broader set of choices among participatory representation structures. See *id.* at 1168-69. Where employers seek to adopt the package of NUMMI structures and culture, however, it would seem that the unilateral employer determination of the nature and scope of employee participation precludes an argument based on employee choice, in any event. See, e.g., *Keeler Brass Automotive Group*, 317 N.L.R.B. 1110 (1995); *Webcor Packaging, Inc.*, 319 N.L.R.B. No. 142 (1995).

223. See, e.g., *General Foods Corp.*, 231 N.L.R.B. 1232, 1234 (1977); *Mercy-Mem. Hosp.*, 231 N.L.R.B. 1108, 1121 (1977); *John Ascuaga’s Nuggett*, 230 N.L.R.B. 275, 276 (1977).

224. Compare, e.g., *Electromation Inc.*, 309 N.L.R.B. at 997 (leaving the question of representationality unresolved) and *Electromation, Inc. v. NLRB*, 35 F.3d at 1158 (leaving open the question of representationality) with *Electromation*, 309 N.L.R.B. at 1007 n.13 (Member Raudabaugh, concurring) (stating that representationality is not an essential factor); with *id.* at 999-1003 (Member Devaney, concurring) (stating that representationality is an element to consider) and *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. 893 n.6 (1993) (Member Oviatt, concurring) (stating that representationality is required) and *NLRB v. Scott & Fetzer Co.*, 691 F.2d 288 (6th Cir. 1982) (commenting that representationality is required).

ways, each of which, however, could severely impair the functioning of the NUMMI model. One method is to deprive the teams of meaningful input, limiting them to "brainstorming".<sup>225</sup> However, this would cut to the quick of the NUMMI philosophy of consensus decision making<sup>226</sup> and participation in decision making by all workers to be affected. Another choice would be for the employer to limit team discussions to problems of "quality, efficiency, or productivity," and prohibit touching upon matters such as job assignments, overtime, and other mandatory subjects of bargaining.<sup>227</sup> To do this, however, employees would have to cease *kaizen* type activities, vitiating the point of the exercise. A final alternative is for non-union employers to fully empower the work teams, making them truly autonomous by treating their decisions as controlling, eliminating any requirement of consultation with or approval by management. Whether on grounds that the functions delegated to the teams are managerial, hence permissive bargaining subjects, or on grounds that the complete autonomy eliminates the element of "dealing with" management, such an approach would be consistent with section 8(a)(2).<sup>228</sup> However, few employers so enthusiastically proclaiming their interest in employee participation have embraced a solution which would shift power so far into the hands of ordinary workers.<sup>229</sup>

In his concurring opinions in *Electromation* and *DuPont*, Member Devaney articulated a test akin to full disclosure of conflict of interest, or the negation of potential misrepresentation regarding loyalties and duties of the committee. He would have exempted from section 2(5) on grounds of lack of "agency," an employee committee which is "unambiguously established to serve as agent of the Employer," rather than "act[ing] as the agent or advocate of other employees." Member Raudabaugh's four-part test of domination under section 8(a)(2) included

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225. See, e.g., *NLRB v. Peninsula Gen. Hosp. Medical Ctr.*, 36 F.3d 1262, 1271-72 (4th Cir. 1994) (distinguishing legal brainstorming and one-way communication sessions from bilateral "dealings" involving a pattern of proposals and responses); see also *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. at 894.

226. Participating in the team process, under a "rule of consensus," not only provides statutory supervisors and managers with veto power, but it also ensures that the decision making process falls within the scope of "dealing." See *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. at 895.

227. *Vons Grocery Co.*, 320 N.L.R.B. No. 5 (1995).

228. See *General Foods Corp.*, 231 N.L.R.B. 1232, 1233, 1235 (1977); *Mercy-Mem. Hosp.*, 231 N.L.R.B. 1108, 1121 (1977); *John Ascuaga's Nuggett*, 230 N.L.R.B. 275, 276 (1977).

229. Recent employer efforts to rely on this line of case have ended in failure for precisely this reason. See, e.g., *Keeler Brass Automotive Group*, 317 N.L.R.B. at 1110 (grievance committee's "final authority" found insufficiently binding); *Magan Medical Clinic, Inc.*, 314 N.L.R.B. 1083 (1994).

overlapping criteria, and could produce similar results in application.

Employers instituting NUMMI-like structures, however, will undercut the foundational culture of shared interests and mutual representation they seek to inculcate if they disavow any role for either joint committees or worker teams in kaizen or quality circles as acting for employee interests and declare them to be acting on the employer's behalf alone. Such candor would procure legal immunity at the price of precluding attainment of the desired mental and emotional investment by workers in the enterprise. In the end, Member Devaney acknowledged the reality underlying his position. If you watch what the companies do, and not what they say, "I find it difficult to conceive of a situation where the very existence of an employee committee depends on the will of the employer, that would not merit a finding that the employer dominated the committee."<sup>230</sup>

There is also considerable evidence to suggest anti-union animus in both site selection and screening of new hires for many of the transplant facilities.<sup>231</sup> While the NLRB and the Courts of Appeals have expressed various views of the elements of a section 8(a)(2) charge, the presence of anti-union animus in conjunction with the institution and maintenance of alleged employer dominated labor organizations nearly always militates in favor of a finding of violation.<sup>232</sup>

230. *E.I. duPont de Nemours & Co.*, 311 N.L.R.B. at 901 (Member Devaney, concurring).

231. *See, e.g., Kenney & Florida, supra* note 15, at 32. The authors stated,

Transplant assemblers . . . prefer to settle in rural areas, where unions are weak or nonexistent. . . . Honda managers explain that they wanted to be able to hire workers who had not picked up 'bad habits' in U.S. factories. . . . A top executive of another automotive transplant says his company picked its site because the community is union free and to avoid blacks.

*Kenney & Florida, supra* note 15, at 32. Other commentators have argued,

Many Japanese-owned auto firms in the United States have taken great precautions in deciding where to locate the plants. Typically, such plants are located in right to work or antiunion states and areas where unemployment is high. . . . [A] key recruiting strategy is to hire workers without any union experience because union experience hinders assimilation into the desired culture of the firm.

*Young, supra* note 47, at 690; *see also Miller & Winter, supra* note 15, at 25 ("mainly interested in finding a hard-working, non-union work force of rural Americans to staff their assembly lines. . . ."). *Subaru-Isuzu Automotive, Inc.*, officials have frankly acknowledged their fear that unionization would interfere with their "participatory" production system. "It has been my experience that the team concept is slowed down when you have to work through a third party, and that affects cost. . . . The UAW is a political organization and very unpredictable." Marjorie A. Sorge & Douglass T. Davidoff, *Union Fears & Poor Sales*, 27 *WARD'S AUTO WORLD* 42 (Feb. 1991). For a description of the failed union organizing efforts at transplant facilities, see *Yanarella & Green, supra* note 9, at 70-73.

232. *See, e.g., NLRB v. Newport News, Shipbuilding & Dry Dock Co.*, 308 U.S. 241, 251 (1939); *NLRB v. Electromation, Inc.*, 35 F.3d 1148, 1167 (7th Cir. 1994); *Electromation*, 309

In addition, the deliberate siting and hiring, to systematically avoid unions, is a topic worthwhile for the NLRB to pursue, on its own merits, under sections 8(a)(1) and (3), were an appropriate unfair labor practice charge to be filed.<sup>233</sup> If this were an employment discrimination case, it would be labelled a "pattern and practice" of violative activity.<sup>234</sup>

#### B. Legal Doctrine Which Encourages Or Inhibits Employer Adoption of the NUMMI Model

The NUMMI model is neither mandated nor prohibited by law in the unionized setting, but there are aspects of the NLRA which operate to discourage potential imitators which warrant consideration. Three overlapping facets of the NUMMI system are paradigmatic of flattened hierarchy, worker participation schemes: broad, generalized job classifications, self-managed teams, and bundling of indirect labor functions with production work.<sup>235</sup> Management guru Tom Peters quotes NUMMI's formal guiding philosophy statement as including among its elements, "every employee as a manager."<sup>236</sup>

The Supreme Court's expansive definitions of managerial and supervisory status operate to discourage unions from entering into agreements calling for broad assumption of participatory responsibilities. The rewriting of workers' job descriptions to push power downward in the hierarchy, risks transforming unionized employees into "non-employees," i.e., managers or supervisors, with unprotected status and no right to unionize under the NLRA.<sup>237</sup> Consider, for example, the

N.L.R.B. 990, 996-97 (1992) (proof of anti-union animus not required). *But see id.* at 1013 (Member Raudabaugh, concurring) (arguing that anti-union animus is a factor).

233. See David A. Tykulsker, *For a Reformed Labor Law To Limit Plant Closings*, 12 COLUM. HUM. RTS. L. REV. 205 (1981).

234. See generally Marley S. Weiss, *Risky Business: Age and Race Discrimination in Capital Redeployment Decisions*, 48 MD. L. REV. 901 (1989).

235. See, e.g., Nowlin, *supra* note 68, at 7.

236. TOM PETERS, *THRIVING ON CHAOS: HANDBOOK FOR A MANAGEMENT REVOLUTION* 341 (1988).

237. See *NLRB v. Health Care & Retirement Corp.*, 114 S. Ct. 1778 (1994) (excluding L.P.N.'s from bargaining unit, on grounds of supervisory status); *NLRB v. Yeshiva Univ.*, 444 U.S. 672, 672-73 (1980) (holding that university faculty members possess managerial status, hence are excluded from inclusion in the bargaining unit); *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 274-77 (1974) (same as to buyers' agents). *But see, e.g., Anamag*, 284 N.L.R.B. 621 (1987) (finding that autonomous work teams operating within a lean production/worker participation production system were neither supervisory nor managerial, despite team collective exercise of supervisory functions such as discipline, job and overtime assignments and performance appraisal). In *Health Care Retirement Corp.*, the Court used a textually-based statutory interpretation of section 2(11) of the NLRA, 29 U.S.C. § 152(11), to strike down the NLRB's longstanding distinction between

description of the team leaders' job at USX's Gary, Indiana facility. This position "effectively assigns supervisory responsibility and authority in all areas except discipline to a production or maintenance worker."<sup>238</sup> For workers excluded from the NLRA definition of "employee," continued representation by the union is permissible, but should the cooperative relationship turn adversarial, the employer would have the distinct advantage of a defensible legal position in refusing to recognize the union as the bargaining agent for non-statutory employees.<sup>239</sup> The self-determination, separate bargaining unit entitlement of professional employees<sup>240</sup> also becomes problematic when heretofore "professional" work is integrated into production worker job descriptions.

The three year contract bar rule,<sup>241</sup> similarly, operates to discourage all but the most self-confident unions from entering into long-term cooperation agreements, which frequently exceed three years,<sup>242</sup> thereby opening the union up to the risk of decertification or a rival union challenge during the additional term of the agreement. The mandatory-permissive bargaining subject distinction<sup>243</sup> provides further disincentive for unions to enter such agreements, while psychologically dissuading employers. The union which includes promises on such

managerial type duties that are "incidental to" or "in addition to" workers' jobs and duties of those "supervisory" workers whose major responsibilities involve the directing of others. *Health Care & Retirement Corp.*, 114 S. Ct. at 1782-83. The Court was forced to consider a longstanding problem - that Congress clearly intended professionals to be protected by the NLRA while excluding supervisors from coverage as employees. As Justice Ginsberg pointed out in dissent, the Court's decision is likely to substantially reduce the number of professionals who are covered by the Act. *Id.* at 1791-92 (Ginsberg, J., dissenting). A broad reading of the *Health Care Retirement Corp.* decision could support the exclusion from employee status and union representation of all employees who acquire any managerial-type skills or exercise independent judgment or discretion through team-based practices.

238. Jeffrey B. Arthur, *The Transformation of Industrial Relations in the American Steel Industry*, in CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR 529, 534 (Paula B. Voos ed., 1994).

239. Many employers have already implemented job redefinition strategies to include a sufficient number of supervisory or managerial tasks in rank and file workers' jobs to label them non-union bargaining units as a union-avoidance or minimization device. See Voos, *supra* note 143, at 12; Jeffrey Keefe & Karen Boroff, *Telecommunications Labor-Management Relations after Divestiture*, in CONTEMPORARY COLLECTIVE BARGAINING IN THE PRIVATE SECTOR 303, 331 (Paula B. Voos ed., 1994) (CWA suffering bargaining unit erosion via creeping transformation of unit job titles at the upper boundary into managerial and supervisory positions).

240. 29 U.S.C. § 159(b); see generally *Globe Machine & Stamping Co.*, 3 N.L.R.B. 294 (1937).

241. See *American Seating Co.*, 106 N.L.R.B. 250, 254 (1953).

242. Cf. *Cutcher-Gershenfeld & McHugh*, *supra* note 90, at 248 (discussing reasons for unions to enter into a longer-term contract with auto parts suppliers in a cooperative labor-management relationship).

243. See *NLRB v. Wooster Div. of Borg-Warner Corp.*, 356 U.S. 342, 348-49 (1958).

matters in a collective bargaining agreement may find only arbitral remedies, rather than an NLRB bad faith bargaining charge possible, should the employer have a change of heart.<sup>244</sup> The employer, on the other hand, is encouraged to breach such promises, and also is psychologically dissuaded from entering into such commitments in the first place, since the legal regime has so sharply defined certain territory as within the employer's prerogatives. Each of these doctrines warrants reexamination, legislatively if necessary, if government seriously wants to foster dissemination of NUMMI-like production and work processes by mutual agreement between employers and labor unions.

Given the importance of sharing information to successful implementation of labor-management partnerships, expanding the types of information to which the union is mandatorily entitled under the NLRA, either by NLRB re-interpretation of the Act or by amendment is likewise worth considering.

### C. Health, Safety, Disability and Privacy Problems

The lean production method raises grave doubts about its adaptability to accommodate workers with disabilities, particularly if job rotation is mandatory. Lean production also raises questions about the feasibility of externally regulating job health and safety under conditions of constantly improving and changing work practices. The sharpest criticisms of NUMMI and similar models of lean production and worker participation related to the impact on employees' health and safety of prolonged periods of work at the verge of maximum effort exertion under the stress of internalized demands for near perfection in quantity and quality of work.

Given the faster pace and intensified nature of the work, job safety problems are extremely worrisome. High incidence of repetitive motion injury has been reported at the Mazda, Nissan, and Subaru-Isuzu transplant operations,<sup>245</sup> as well as at Japanese automobile plants in Japan,<sup>246</sup> although the NUMMI-style, frequent job rotation approach works as at least a partial prophylactic measure against such problems. Adverse long term consequences of intensified work practices are particularly difficult to predict and protect against at this stage.

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244. See *Allied Chemical & Alkali Workers Local 1 v. Pittsburgh Plate Glass Co.*, 404 U.S. 157, 164-65 (1971).

245. Kenney & Florida, *supra* note 15, at 31.

246. See Young, *supra* note 47, at 686.

Job rotation thus poses an internally contradictory set of policy problems. Workers need to rotate to minimize risk of future injury, but those already partially disabled often find mandatory rotation an obstacle to employment. For them, reasonable accommodation requires limited or no rotation. In a team-based work environment, these two needs are difficult to reconcile.

Several factors contribute to workers in many lean production plants working at or beyond a healthily sustainable pace. First, and most important, is the sheer speed of the production process, at NUMMI collectively determined by the work teams through the standardized work process, and then programmed into the kanban cards which control the automated aspects of the system, as well as instructing workers on the timing they must observe. Many Japanese-owned companies operating in the U.S., for example, have increased the work pace far beyond that customary in U.S. manufacturing facilities.<sup>247</sup> This is simply the flip side of their famed increased productivity.

To the extent that pace is at the heart of the problem, one might think it could be decoupled from the rest of the system<sup>248</sup> by some form of external norm setting. Standards in theory could be enforceable by OSHA or state counterpart regulatory agencies, or by internal norms, set either through labor-management relations or by benevolent management, honestly invested in the long-term well-being of employees, as well as in minimizing workers' compensation and other fringe benefit costs.

However, in worker team-controlled systems, either management pressures or shared commitment of workers may lead to such enthusiastic worker "buy-in" to company goals that they themselves set standards too high. Some commentators view team-based lean production as the vehicle par excellence for organizational learning, productivity growth and quality improvement in high volume, relatively standardized production.<sup>249</sup> Even enthusiasts concede, however, that the model may be difficult to sustain without dehumanizing workers, absent vigorous, democratic, independent union representation.<sup>250</sup> Harsher critics say that the teams constitute a "highly threatening form of social manipulation and intimidation,"<sup>251</sup> and contend that the price of productivity

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247. See, e.g., Young, *supra* note 47, at 686-88.

248. See, e.g., Young, *supra* note 47, at 688 (arguing that "the JIT [just-in-time] system becomes confounded with the pace-of-work issue.").

249. See, e.g., Adler & Cole, *supra* note 4, at 85.

250. See, e.g., Adler & Cole, *supra* note 4, at 86.

251. Rehder & Finston, *supra* note 84, at 8.



improvements is an inhuman workplace that results in high injury and high turnover rates.<sup>252</sup>

On the other hand, some observers have attributed high levels of stress to the just-in-time system, independent of the overall pace of the work. The low levels of inventory are contended to require workers to perform their subassembly work perfectly and on time, every time, an internalized standard reinforced by their own team's and subsequent teams' dependence upon them. This is said continuously to cause a small crisis in workers' minds, improving their concentration and work discipline, hence productivity, but without prospect of any slack or relief except during formal break-times; it likewise maximizes their stress.<sup>253</sup> Only scrapping or outlawing just-in-time assembly could fully obviate this problem, and given the just-in-time process' link to higher productivity and profitability levels, this possibility is extremely remote.

A related factor exacerbates the problem. At NUMMI and most lean production, teamwork-based facilities, no relief workers are available, apart from the team leader. Together with the speed of the line, this factor has resulted in the average auto transplant factory worker working over fifty-six minutes per hour, compared to thirty-four to forty at General Motors.<sup>254</sup> Together with strict absenteeism rules, this induces greatly improved attendance and productivity, but at a steep price to the workers' emotional life and sometimes to their health and family commitments. Nonetheless, it is difficult to envision the appropriate form for an externally set health and safety regulation; this seems to be a classic workplace problem where localized norm-setting between union and employer makes the most sense.

At its best, teamwork implies a benevolent, mutual gain-sharing type of win-win investment by management in labor and vice versa. The NUMMI model in many respects seems to come close to matching its ideals. Internalized control, peer pressure, and broader social control function in this model as superior, and far more flexible methods of motivation than watchdog, drive-type supervision in command and control models. The line between such supportive benevolence and police state tactics, however, can be very thin. Certain automotive transplant companies have allegedly enforced their expectations that workers remain selflessly devoted to their employer and refrain from criticizing it, through methods of intimidation, surveillance, and

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252. Rehder & Finston, *supra* note 84, at 8; Katz & MacDuffie, *supra* note 37, at 195.

253. See Young, *supra* note 47, at 685-86.

254. Rehder & Finston, *supra* note 84, at 8.

disciplinary reprisal.<sup>255</sup> External regulation here, too, appears to have proven ineffective.

#### D. Broader Legal Policy Questions

NUMMI, as well as many other companies, but particularly Japanese transplants, have moved toward “boundaryless” relations with their suppliers.<sup>256</sup> This raises two, separate issues. First, the existing sharp demarcation between employer-employee relations and worker issues involving independent contractors should be reexamined. The distinction will increasingly fail to accurately portray reality, and the arbitrary ending of legal responsibility at the corporate boundary will prove destructive of worker workplace rights of all types.

Second, the idea of job security is widely accepted as integral to successful worker participation systems of all types,<sup>257</sup> for reasons aptly illustrated by Martha Quesada’s presentation at LaJolla. Integral to job security promises of original equipment manufacturers such as NUMMI, is their reliance upon suppliers and contractors and temporary and contingent workers to serve as the reserve labor pool buffer, making it possible to fulfill the company’s job security commitments.<sup>258</sup>

This strongly suggests that it is fallacious to believe our countries can move down the road toward high productivity, secure employment relationships for everyone. Rather, such a strategy is one of deliberately creating two, three or even four tiers within the workforce, much as exists in Japan.<sup>259</sup> In such a pyramid system, only workers employed in the top tier businesses are reasonably secure in continuous employment. In light of the history of the lower tiers in such stratified systems being disproportionately occupied by minorities and women, this is of particular concern.

Moreover, if job security is a prerequisite to meaningful worker participation schemes, absent imposition of either job security or worker participation obligations by law, it is predictable that the great majority of employees will be working without benefit of either, since they will be outside the “primary” employment sphere. Overall labor policy, then, should not be predicated on the mirage that either labor-management

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255. Kenney & Florida, *supra* note 15, at 31-32.

256. See Katz & MacDuffie, *supra* note 37, at 192.

257. See, e.g., Young, *supra* note 47, at 685.

258. See, e.g., Cutcher-Gershenfeld & McHugh, *supra* note 90, at 252-53.

259. See Cutcher-Gershenfeld & McHugh, *supra* note 90, at 252-53.

cooperation or job security will become the dominant approach to labor-management relations in the manufacturing sector, absent much broader changes in U.S. labor law.

Alternatively, one could suggest legally mandating far stronger job security measures than presently exist, including both protections against employment termination without just cause, and limitations on mass layoffs and reductions in force. Apart from broader considerations of labor policy and equity, such increased worker protections could be justified on grounds that their mandatory existence will increase the probability of adoption and the likely success rate of high productivity, team work-based work organization systems.<sup>260</sup> In addition, by eliminating the possibility of competing on the basis of more traditional, worker coercion/fear of discharge premises, legally mandating job security would further encourage adoption of teamwork and cooperation-oriented processes.

If employee job security is the quid pro quo for meaningful employee participation, union job security is probably the quid pro quo for cooperative labor-management relations. "Win-win" bargaining plainly requires mutual trust, and the absence of concern that the other side is attempting to eliminate or undermine its bargaining partner.

In addition, studies suggest that the key factors maximizing success in worker participation programs are themselves heavily correlated with union representation. Programs in organized workplaces "tend to be more and extensive than nonunion efforts, to result in more productivity improvement and to last longer."<sup>261</sup> NLRA changes which would increase the security of the union's status as the exclusive bargaining agent, increase the ease of gaining recognition, and close the many legal and illegal vehicles for deunionization and union avoidance, would thus increase the prospects for voluntary adoption of more cooperative, highly productive forms of labor relations.

At bottom, the less bureaucratized, less legalized, less rule bound system so productive at NUMMI depends upon mutual trust in the long-term relationship to produce shared interpretation of contract language;

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260. Some commentators have listed four criteria which they argue increase significantly the probability that a worker participation program will produce higher productivity. Two of the criteria are protection against unjust dismissal and long-term employment guarantees. David I. Levine & Laura D'Andrea Tyson, *Participation, Productivity, & the Firm's Environment*, in *PAYING FOR PRODUCTIVITY: A LOOK AT THE EVIDENCE* (Alan L. Blinder ed., 1990), discussed in Mishel & Voos, *Unions and American Economic Competitiveness*, in *Unions and Economic Competitiveness* 1, 10 (Lawrence Mishel & Paula B. Voos eds., 1992).

261. Voos, *supra* note 143, at 6; *accord* Marshall, *supra* note 3, at 299-300.

no legislation in the world can assure this. Nor, as sometimes suggested, would decreased legal regulation contribute to this; rather, it would decrease the overall level of trust if frequent breaches of mutual understandings led to the undermining of any mutual trust. Repeal or amendment of section 8(a)(2) to permit employers to institute the functional equivalent of a student council would be ill-advised on practical, economic grounds as well as on the basis of worker interests in a modicum of dignity and democratic representation in the workplace. Moreover, in many industries and job classifications, more traditional forms of work organization may well prove to be the most productive. Reconstructing federal labor relations policy on the fallacious assumption that team-based work organization should or will be the norm across-the-board might well prove to be a serious mistake, disadvantaging the U.S. in the globally competitive marketplace.

In addition to legal changes, broader macro-economic policy changes could promote the development of high performance workplaces. Both labor law and economic policy should be used to minimize the availability and attractiveness of competition based on low wage, low direct labor cost, deunionization strategies, to encourage investment in human capital, and competition based on high wages and high productivity.<sup>262</sup>

Finally, whether or not section 8(a)(2) prohibits most forms of true worker participation absent union representation, this writer would urge, legislatively if necessary, an absolute prohibition on implementation of lean production methods in non-union environments. The level of risk to worker health and safety, mental and physical, short and long term, in such high productivity environments, the impossibility of adequate governmental monitoring in an environment of constant improvement, hence constant change in the details of the production process, and the extreme pressure generated by the carrots of peer pressure and company loyalty, together with the sticks of fear of job loss, plant closure, or subcontracting of operations, is simply too great to counter with any sort of internal plant organization. Only an independent, trade union, whose existence is free of dependence on the employer, can adequately police these worker interests, even at the most minimal level.

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262. Voos, *supra* note 143, at 15, 18-19; Marshall, *supra* note 3, at 305-06.

