

Preliminary draft .
Not for quotation

When Does Union-Management Cooperation Work?

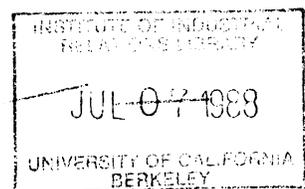
A Look at NUMMI and GM-Van Nuys,

by

Clair Brown and Michael Reich,

Institute of Industrial Relations (Berkeley)
University of California,
Berkeley, CA 94720

→ Prepared for the Conference, "Can California be Competitive and Caring?"
UCLA, May 6, 1988.



A major transformation in industrial relations -- the rise of employee involvement programs -- has occurred during the 1980's.¹ A variety of such programs exist -- from the simple creation of a labor-management committee to the dramatic restructuring of the labor process with work teams. This transformation was born during hard times, including a sluggish economy at home and intense industrial competition from abroad.

One 1982 survey of 49,000 corporations (with 100 or more employees) found that, during the severe recession of 1980-82, three out of four had added quality circles and approximately one out of three had each added job redesign, group incentive plans, and production teams.² Another study of 195 firms found that almost one-half had established worker participation programs (mainly quality circles or labor-management committees) between 1979 and 1983. One-half of the firms reported plans to initiate a program during 1984-85.³

In the popular press and at academic conferences, a familiar refrain is the superiority of the Japanese cooperative industrial relations system over the American adversarial system. Disagreements arise only over how transferable the Japanese system is to American corporations. Certainly, cooperative systems have been used previously in the U.S and in Europe (especially Sweden). Earlier cooperative structures in the U.S. have been found mainly at nonunion plants and were viewed as part of a strategy to prevent union organizing. More recently, such programs have been adopted by union as well as by non-union plants. Generally, management is more positive than the union about cooperation programs. Twice as many managers (59%) as union members (26%) found such programs "very useful". Another one-third of each found them "somewhat" useful.⁴

Reorganizing work into teams is not the same process as involving workers in decision-making. On the one hand, team assembly can be implemented without increasing the flow of company information to workers and without providing significant channels for employee input into shopfloor decision-making. On the other hand, labor-management committees can be implemented without any change in the organization of work. One study of the automobile industry found that 1) more worker involvement in decision-making and in implementation of new technology is associated with productivity gains (as measured by fewer supervisors and less labor hours per vehicle) and 2) work team systems by themselves did not improve productivity, although more managerial discretion over work rules (for example, work pace, overtime, and transfers) did improve productivity.⁵

The automobile industry has become one focal point of the debate about the transferability of cooperative industrial relations, since the Japanese car industry has excelled in producing high quality cars with highly productive labor compared to the American automobile industry. Standardized for type of car, capital stock and technology, GM plants at Fremont and Framingham used 50% more labor than the Toyota plant in Japan.⁶ Ford plants are generally more productive than GM plants, but less productive than Japanese plants.

In the 1970's, the UAW and Big Three have experimented with various types of worker participation or Quality of Work Life (QWL) programs. As a 1973 letter of understanding between UAW and GM indicated, the goal of QWL programs was to make work more satisfying, to reduce absenteeism and turnover, and to improve quality. Generally, the QWL programs produced

mixed results. Overall, however, they had limited impact on the automobile industry by 1980.⁷

The QWL programs became more prevalent during the 1980's. The 1982 national agreements with Ford and GM included guide-lines for developing QWL programs, including quality circles. In the midst of severe recession, however, the QWL goals became cost reduction and productivity improvement. GM began implementation of the Operating Team System in its new or refurbished plants. This new organization of work dramatically changed local work rules as a detailed job classification scheme was replaced by only one to three classifications.⁸ Peer pressure was to replace the supervisors as the control for ensuring high productivity and quality. The Team System has been implemented with varying success. As GM tried to implement operating teams at its older plants, it began to meet with worker resistance.

The problems of implementing cooperation-- both the team system and joint decision-making-- in the American automobile industry are shown in the stark contrast between the Toyota-General Motors joint venture assembly plant at Fremont (NUMMI) and the General Motors assembly plant at Van Nuys. The NUMMI plant has a well-functioning cooperative labor relations system. They produce a high quality car, and their productivity is comparable to productivity at the sister plant in Takaoda City.⁹ The Team System was instituted with much enthusiasm from the union. The Van Nuys plant continues to suffer from poor labor-management relations. Absenteeism and warranty charge-backs are both high. The Team System was implemented in May 1987 after divisive negotiations over several years. The union is still divided over "cooperating" with the company, and at times the union has refused to participate in joint meetings.

Seeking to understand the possibilities and dynamics of labor-management cooperation in unionized settings, this paper offers a review and comparison of the contrasting cases of NUMMI and GM-Van Nuys. We are concerned with the factors that facilitate such cooperation in one case, and that seem to block it in the other. We discuss the policy instruments available to the State that might enhance cooperative outcomes.

NUMMI

Located in Fremont, California in a former Chevrolet plant, the New United Motor Manufacturing Co., Inc. (NUMMI) employs about 2,500 workers and assembles Chevrolet Novas (a subcompact car) for sale by General Motors dealers.¹⁰ In operation since December 1984, the company represents a joint venture between the largest U.S. and the largest Japanese automakers.¹¹ Toyota has supplied the car design and the reconfiguration of the plant and is responsible for managing the plant. General Motors has provided the facility and is responsible for selling the cars.¹²

NUMMI is but one of over a half-dozen automobile plants to be established by Japanese companies in the United States in the 1980s. It differs from the others, however, in several important respects. The other Japanese plants are newly constructed and are located in rural areas of the midWest and the South; they have hired a predominantly youthful and white workforce and are not unionized. NUMMI has reopened a recently-closed plant and rehired the former workforce; and it has an agreement with the United Automobile Workers that establishes greater worker involvement and employment security.¹³

In its short lifetime NUMMI has already been cited as a great success story, an example of how the so-called Japanese-style management system creates cooperative rather than adversarial labor-management relations.¹⁴ The example of NUMMI is said to indicate that Japanese management can be transplanted to the United States, despite the cultural differences between the two countries. NUMMI is also cited to show that labor-management cooperation enhances productivity, profits, product quality and worker satisfaction, and that other companies should follow this example. The

growing interest of U.S. companies in learning from the Japanese, and the growing direct investment of the Japanese in plants in California and the United States (see Table 1) further underscore the significance of the NUMMI example.¹⁵

Teams

The team concept is central to the NUMMI production system. Workers are organized into teams of about five to eight members. The team leader is one of the hourly employees and gets paid a fifty cents per hour premium; team leaders are often also the union representative. Every three to four teams constitute a group, with a group leader, who is part of management. The teams divide up and rotate job among their members; they meet periodically to discuss how to improve the work, how to reduce the number of tasks, improve quality and so forth. Teams can make limited shop-floor decisions, such as how frequently to rotate jobs among the members. Problems on the line are solved whenever possible by the team members, instead of waiting for a skilled trades worker or management representative to handle the problem. Workers have the right to stop the line at any time without disciplinary action, in order to solve an assembly problem.

The organization of teams is facilitated by having only one job classification among production workers, where previously (at GM-Fremont) there had been over eighty, and by a reduction in the importance of seniority in allocating workers to jobs. Workers' rights to transfer to another team are based not on seniority but on production needs, with seniority only a tiebreaker. The number of skilled job classifications was also sharply reduced, to three skill classes: tool and die, tool and die

tryout, and general maintenance (pipefitters, electricians, and so forth). The emphasis is on worker flexibility rather than specialization and on worker involvement in the production process.

Contrasts With GM-Fremont

NUMMI indeed provides an interesting case study because the plant, the technology in the plant, the workforce, the pay scale, the presence of the union, and the union leadership are each essentially the same before-- when it was the GM-Fremont plant-- and after-- when it became the NUMMI plant. Yet the NUMMI plant exhibits a remarkably different record of productivity, profitability, product quality, labor-management relations and worker satisfaction. The comparison between GM-Fremont and NUMMI is simpler than between Japanese and U.S. automobile companies in general, and is therefore instructive.

The GM-Fremont plant, opened originally in 1962, was closed indefinitely in March, 1982. At that time, the plant ranked at the bottom of GM's plants nationally in productivity. It recorded absentee rates of over 20 percent, accumulated a backlog of over a thousand grievances¹⁶, and exhibited a union-management relationship that is repeatedly described as ongoing war. The local leadership was described by the International's President, Douglas Fraser, as one of the most militant in the country. Indeed, this leadership at first vociferously opposed the joint venture (and sued, unsuccessfully, to block it) and continued to voice skepticism in the first months after the plant reopened.

The plant reopened as NUMMI in December, 1984 and achieved its targeted full-capacity output of 20,000 Novas per month in April 1986. By

that time, productivity (expressed in vehicles per worker, and corrected for differences in capital stock per worker, use of intermediate parts from suppliers, etc.) was about fifty percent higher than previously, comparable to the level of NUMMI's sister plant in Takaoka City, Japan and at the very top of GM's rankings.¹⁷ This high level of labor productivity was achieved with a workforce that on average was over ten years older than those on Japanese assembly lines.

In addition to productivity improvements, product quality has also turned around, as measured defects have plummeted.¹⁸ These transformations have had predictable effects upon profits. Despite disappointing sales of the Nova, the company is reported to have made profits of twenty million dollars in both 1986 and 1987.¹⁹

Finally, labor-management relations and worker satisfaction are also much changed. Unexcused absenteeism is now about one-half of a percent and the number of filed grievances fell to three and one arbitration. The union local leadership is enthusiastic about the new management system; even the opposition caucus within the union wants to keep the team concept and other elements of NUMMI in place.

What accounts for this turnaround? Commonplace explanations are threefold. First, the two-year closure constituted a traumatic emotional event that made the workforce and union more cooperative. The workers were so relieved to recover their jobs that they were willing to work harder and agree to all sorts of concessions. Second, NUMMI conducted extensive selection and screening and did not rehire the more troublesome workers. The rehired workers were a more cooperative group than the overall Fremont workforce. Third, the new management philosophy, personnel and practices

(often referred to as the Japanese management system, or as the team concept) elicit more worker cooperation and involvement, resulting in higher productivity gains and higher quality cars (and therefore, lower warranty costs).²⁰

These three explanations are not mutually exclusive and each could provide an important part of the total explanation. Nonetheless, we find the first and second explanations to be relatively unimportant, especially regarding their long-term effects. We find the third explanation important but highly incomplete, especially in relation to attempts to reproduce the NUMMI success at other GM plants and as an account of the practices of the other new Japanese automobile plants in the United States. In particular, the union has played a crucial and constructive role at NUMMI.

The Impact of the Plant Closure

There can be little question that the experience of the plant closure, the crisis of the U.S. automobile industry as a whole in 1982-83, and the continuing impact of international competition, contribute to the desire of the workforce and the union to make NUMMI a success. Unemployment in the automobile industry nationally in 1983 was in the neighborhood of fifteen to twenty percent, and four out of the five auto plants in the West (including Fremont) had closed since the late 1970s. Employment at the Fremont plant peaked at about 7,000 in 1979²¹; by 1982, employment in the plant had fallen to a little over 3,000. California Employment Development Department data indicate that 40% of the displaced GM-Fremont workers were still unemployed at the end of 1983; those displaced auto workers who

did obtain jobs in other industries experienced pay cuts of about forty percent.²²

While these figures represent evidence of a traumatic shock, they must also be seen in a larger context. Although rumors that the plant might be closed indefinitely had circulated for months before the actual announcement, GM had also continually invested in updating the plant, spending \$280 million just in the last eighteen months of the plant's operation (according to Joel Smith, 1987, p. 71). Auto workers are accustomed to indefinite short-term layoffs, and Fremont workers had experienced layoffs in nearly every year of the plant's twenty-year existence. The February 1982 announcement of indefinite closure, which provided only three weeks advance notice, significantly left open the possibility of GM's reopening the plant. These factors contributed to many worker's expectations of reemployment.²³

Toyota and GM announced their intentions to open a joint venture based at Fremont on February 17, 1983, only eleven months after the closure.²⁴ By that point, many of the former Fremont workers' hopes for reemployment were raised further, even though Toyota originally opposed rehiring former GM-Fremont workers. These hopes continued to increase, as the UAW began to negotiate with NUMMI to give hiring priority to the laid-off workers. The UAW and NUMMI reached such an agreement on September 21, 1983.²⁵ Actual hiring for the first shift began in May, 1984.

The experience of the plant closing was softened by the SUB benefits available to automobile workers. Further assistance was provided from Trade Adjustment Assistance funds, by relocation to other GM locations (accepted by about 750 workers) and by company, Federal and state training and job development programs. Also, unlike the case in the Midwest, in 1983 and

1984 employment was growing relatively rapidly in southern Alameda County and in Silicon Valley, across the bay. As unemployment benefits ran down, alternative employment opportunities expanded, although, as already mentioned, at much lower wage rates than in the automobile industry.

However traumatic the experience of the plant closing, it is doubtful that this shock would very long dominate the day-to-day relationships in the new plant. Previous experiments with worker participation instituted in "hard times" suggest that the "gratefulness" of the workforce and the "generosity" of management are short-lived if there are not other decisive ongoing benefits from labor-management cooperation. A key indication of this point is that threatened plant closings, such as at GM-Van Nuys, and growing general awareness of the challenge of foreign competition in the industry, have not elsewhere produced the same kinds of changes in worker and union attitudes and behavior.

Screening

How significant was worker selection and screening in obtaining a more cooperative workforce at NUMMI? It is useful here to distinguish between two distinct selection processes. One process involves selectively rehiring the workers who already were the most cooperative; the other involves the transformation of attitudes of formerly-adversarial workers during the selection process itself. Some observers have noted that Toyota administered a series of psychological and cognitive tests to potential employees and put the successful applicants through a training program that in its length and content is unusual in the industry.²⁶ It is unlikely that workers who knew they would not fit in with the new management style would put themselves

through these paces, suggesting the first of the selection processes mentioned above. Nonetheless, we are impressed with the far greater importance of the second process, that of attitude transformation.

It is important to know that Toyota and the UAW local jointly selected the workforce. The union was committed to a policy of rehiring the former workers and engaged in an aggressive program of facilitating the return of former workers. (Smith and Childs, 1987) As already mentioned, Toyota at first had been opposed both to giving any hiring preference to former workers, and to recognizing the union. Their first concession was to recognize the union and to hire primarily from the previous workforce, but not necessarily exclusively, and without regard to previous seniority. Toyota also wished to make selections without accountability for individual decisions. During the initial negotiations the union insisted that the company must have compelling reasons not to rehire an individual worker and that an arbitration procedure be in place to provide an outside check on management.

The arbitration procedure is reported to have been the biggest sticking point in the initial negotiations.²⁷ The union's success on this point indicates that management decided to take the risk of cooperating with the union and facilitating the union's task of winning cooperation from the workers. Selective hiring would not be consistent with this goal.²⁸

For these reasons, the union played a major role in the original recruitment and application processing efforts. The union succeeded in obtaining 3,500 former Fremont workers to apply for nearly 3,000 NUMMI positions.

As it turned out, the entire previous union hierarchy and well-known plant militants and activists were included among those hired. The union filed hiring decision grievances against the company in only three cases. The demographic composition of the labor force resembles the GM-Fremont workforce closely, also suggesting that very little screening took place.²⁹ Indeed, all of the production workers and three-fourths of the skilled craft workers were former GM-Fremont employees.³⁰

What emerges as impressive, then, is not a weeding-out process of hiring, but rather the high rates of rehiring.³¹ The selection process made workers more interested in the new company rather than less, indicating that a process of increasing commitment between labor and management was already underway. This observation brings us to the third explanation, the NUMMI labor-management system.

The NUMMI Labor-Management System

The key to NUMMI's success is the application of the team concept to reorganize production in the context of union-management cooperation. Other factors, such as the reconfiguration of the plant, the construction of an adjacent stamping plant, the high quality expected of suppliers, and robotization of some of the toughest and dirtiest jobs, have also contributed to increased productivity and decreased costs. However, it is the change in worker involvement and motivation and the completely different relationship between management and the union that are most impressive.

Employee involvement through teams results in improvements such as reductions in the number of steps needed to accomplish a specific task, or modifications to ease the task, such as installing rubber pads to ease worker

strain. These improvements occur because workers are interested in making improvements and because management actively solicits and encourages them. Waiting and down time are reduced and, on average, workers are working more minutes per hour than previously. The pressure to "pass on no defects" is alleviated by the right of workers to stop the line at any time to correct problems. The team system discourages unscheduled absenteeism because team members (usually the leader) fill in for absent workers.

Productivity is also enhanced because fewer supervisors and managers are needed. Several layers of management were eliminated at NUMMI compared to Detroit, and there are a smaller number of managers at each level. Industrial engineers are not needed as workers set work standards directly in consultation with management.

Finally, the cooperation of labor and management means that less time is wasted on strategic but unproductive conflict between the two sides. Fewer resources are devoted to processing grievances and complaints of contract violations when problems can usually be worked out directly and informally on the shop floor. Workers have input into the extensive and constant training programs, and are consulted and informed on all major issues facing the plant.

The union (Local 2244) maintains an active presence in the plant, both on major issues facing the plant as a whole and on issues concerning individual workers. The union has 60 coordinators in the plant, as well as about 15 full-time local representatives. While the local leadership preaches and practices union-management cooperation at NUMMI, it is evident that the power of the UAW enhances the degree of equality and reciprocity inherent in this case.

The NUMMI production system undoubtedly contains some disadvantages for the workers and the union. The heightened pace of work is the disadvantage mentioned most frequently by interviewed workers, union representatives and dissidents, and by management. The work intensity is aggravated by no layoffs and reduced absenteeism resulting in many fewer days off work. A worker with "standard attendance," which allows up to 10 sick days yearly, is eligible for 10 days paid vacation.³²

The blurring of lines between union and management is seen as a disadvantage by some unionists, who cite lower membership attendance at union meetings. Union-management cooperation could lead to rank-and-file disenchantment with the present union leadership if management reneges on its commitments. The real test of workers', unionists' and managers' enthusiasm for the current system will occur this spring with the upcoming contract negotiations and union elections.

In sum, NUMMI has a highly motivated and committed workforce. The causes of this high level of motivation and commitment are partly attributable to the desire to save the plant and to the high wages, comparable to the rest of the industry, that were bargained.³³

But the important causes of high motivation go beyond such traditional factors as wage rates. The company has succeeded in instilling in the workers a sense of pride in making a high quality product, and the company has shown that it is committed to the workers' quality of work life. The company has made a high commitment to the workforce: to working with the union, to hiring from the former workforce, to job security, and to eliciting worker input. The company has made commitments not just to changes that directly save it money. It has agreed also to matters that are important to

workers, such as having full-time union representatives, even when they are not part of the "Japanese system." (Important symbolic issues include one parking lot, and one cafeteria.) In conclusion, the company and the union both took risks and succeeded in building increasing levels of commitment to each other.³⁴

Van Nuys

The Van Nuys plant, which currently produces Pontiac Firebirds and Chevrolet Camaros, has been in production since 1947. It employs 4200 workers (including 3800 hourly employees) in two shifts. In 1982, GM placed Van Nuys on the "danger list" of five surplus plants. GM was certain that some plants would be closed, but no specific closings were set. Workers were told that if they would cooperate to improve production and quality, their plant could be replaced on the list by another plant. In July 1983, a labor-community coalition formed a "Campaign to Keep GM Van Nuys Open". The Campaign was built around the proposed boycott of all GM products in the Los Angeles area if the Van Nuys plant closed.³⁵

In the presence of intense foreign competition, GM wanted to change local work rules and implement the team concept as part of its program to reduce costs. Typically, UAW locals bargain over local work rule outside of the national agreement, which sets wages and fringe benefits and provides for income security. The International would not interfere with local bargaining over work rules. In deciding which plants to close, GM met with various local unions to negotiate local work rules changes. The more vulnerable older plants felt under tremendous pressure to find ways to improve productivity. Van Nuys workers thought that, without a new car, their plant would be closed by 1989. In May 1986, after a half year of intense debate within the local union and between the union and local management, the workers voted (53%) to adopt the new team concept. As a compromise, the agreement was a "hinged" acceptance, so that the "agreement will become effective only when a new product is announced for the Van Nuys Plant."³⁶ Five weeks later, the second shift was laid off.

Interpretation of the "hinged agreement" became highly controversial. Management's interpretation was that GM planned to continue production of the Camaro and Firebirds, and they would introduce a new model only in the event those production plans changed. GM had made a three-year commitment to the State of California in order to receive a \$20 million grant from the state's Employment and Training Panel (ETP). GM denied the rumor that the Camaro is slated to be produced elsewhere after 1989. In early October 1986, UAW Shop Chair Ruiz argued that negotiation of new local agreements at other plants required that the team concept be implemented immediately at Van Nuys without the new model guaranteed.³⁷ Worker reaction against this proposed "informal understanding" was strong. At a meeting attended by a minority of workers (1,000), 80% voted to recall Ruiz. Implementation of teams was stalled for a while.

In November 1986, GM announced it would close the Chevrolet-Pontiac plant in Norwood, Ohio, instead of its sister plant Van Nuys.³⁸ The Van Nuys plant had been given at least a temporary reprieve. Local observers and participants cite both the Boycott Campaign and the ETP grant as factors that helped keep the Van Nuys plant open. The Boycott Campaign had at least forced GM to seriously consider keeping the Van Nuys plant open. The \$20 M ETP grant, available in a timely fashion, showed the ability of the union, state, and local management to work together in a crisis situation. GM's sending Ernie Shaeffer out as the new plant manager showed GM's commitment to making major changes at the Van Nuys plant. Shaeffer was considered one of their "shining stars" and had an impressive track record implementing teams at the Fiero plant.³⁹

The ETP training grant to UAW-Van Nuys extended over nine months in three phases. The training program began with 125 workers and managers, who volunteered for training to become trainers (Phase 1). In Phase 2, the team and group leaders, which totalled 300 people on each shift, were given five weeks of classroom training combined with five weeks of specific exercises back at work on the shop floor. In Phase 3, all workers were given a 49 hours of classroom training in Spring 1987. The training included seven courses on "inter-personal skills", including listening, conflict resolution, group dynamics, and problem solving, and seven courses on "building our World Class Product", including motivation, the production system, safety, and ergonomics.

The development of the training was hampered by the fact that the actual team production process was not spelled out until the training of the team leaders had begun. No new shopfloor skills were taught during the training. Workers learned how to break down and measure a job, since each team member was to establish a standardized work sheet for his/her job as it is presently performed within the month following training. Workers were expected to learn other team members' jobs through job rotation during the first two months back on the shopfloor. Any changes in the standardized work process would require approval by the team.

The actual training focused on fairly abstract concepts, including interactions with family members as well as with co-workers and team members. Simulations of concrete "shopfloor production problems" or "team meetings" by the actual teams with members in their real life roles were not included.⁴⁰ For example, the eight hour problem solving class, which taught a six step process, focused on selecting the right problem to solve, which

was not beyond the teams' "control to solve," as well as the need for the teams acceptance of a consensus decision. In the four hour conflict resolution class, two examples used were (1) hypothetically selecting the people to leave a fallout shelter and (2) deciding as a hypothetical team if they should try to solve problem of an oil leak or of broken concrete (i.e., if these were correct problems to tackle).

The training program was intended as only the first step in implementation of teams, which was to include "continuous training" on the job. Ultimately, teams were to establish a line-stop criterion as part of the effort to ensure quality and "pass on no defect." The decision to stop the assembly process was to be a team decision.

In April 1987, GM announced the recall of the second shift workers effective May 11, 1987. All employees were to have the week-long training and then return to work under the team concept. A leader of the Campaign and the local president, Pete Beltran, unsuccessfully tried to block implementation of the team agreement through the court. The team concept was implemented in May 1987 as planned. In early June the UAW local held a bitterly contested election: with 70% voting, the two main offices were split. Beltran, on the "Fighting Back" slate, was elected Shop Chair; Shrieves, on the "Responsible Representation" slate, was elected President.⁴¹

A Comparison of NUMMI and Van Nuys

Why have cooperative labor-management relations led to improved productivity and worker morale at NUMMI? Why did the attempt to implement a cooperative labor-management system at Van Nuys become another antagonistic round in industrial relations? The different outcomes at

the two plants stem from the philosophies underlying the two company's commitments to their workers. This is well exemplified by the way the two corporations have handled production declines, which were necessitated in both cases by large inventories of unsold cars.

GM traditionally has laid workers off temporarily to allow inventory liquidation. Consequently, the UAW has sought forms of income security in the national contract. Bargained initially in the mid1950's, income security has been greatly improved since then. The two major components of the income security plan are the Supplement Unemployment Benefits (SUB) and the Guaranteed Income Stream (GIS). The SUB allows workers to draw up to 95% of base pay (minus \$17.50 weekly to offset work-related expenses) for a maximum of two years for workers with at least twenty years seniority, or for one year with ten years seniority if the SUB funds (including back-up accounts) have not been depleted.

GIS provides earnings security for long-term laid-off workers with at least fifteen years seniority (or ten years if the plant is permanently closed); it was bargained in 1982. Once SUB benefits are exhausted, GIS pays the worker 50% of base earnings, plus 1% for each year of seniority in excess of 15 years to a maximum of 75% of earnings, until early retirement, the return to work, or the fund is exhausted.⁴²

Beginning in 1984, the national agreement also included a job security program except for decreases in employment resulting from a fall in sales. If jobs are eliminated for other reasons, such as technological change (broadly defined as "any change in production, methods, processes or the means of manufacturing"), outsourcing, or productivity improvements, the displaced workers are placed in a job bank and receive full pay and benefits

(excluding accumulation of SUB credits) until the funds are exhausted. While in the Bank, the worker may be placed in a training program or in a temporary traditional or non-traditional job. The local joint committees administering the programs decide the number of slots in the bank, which can become a point of contention.⁴³

The 1987 agreements strengthened the job security program by guaranteeing the number of jobs, except for a decline in sales, and shifting to the Corporation the burden to prove why a worker should be laid off.⁴⁴ In addition, the union must receive advance notice of and information about any impending volume-related layoffs. The companies also made commitments to minimize layoffs, even when volume-related declines were unavoidable, by reducing overtime, and reducing outsourcing whenever practical. In addition to the national agreement, the local agreement at Van Nuys includes wording in its preamble that reflects the wording on job security in the NUMMI contract, except that indefinite layoff is used instead of layoff.⁴⁵

An employee training and development program was negotiated in 1982, and subsequently strengthened. This program pays tuition (up to \$2000 annually) for workers for general education programs. While on lay-off workers are eligible for up to \$5500 for tuition.

Under the UAW-NUMMI agreement, the NUMMI workers have a stronger commitment to no layoffs, but they have less formal job or income security plans than provided to Ford or GM workers. The NUMMI job security clause (section III of the contract) consists of three paragraphs. It states that "job security is essential to the employee's well being," and NUMMI "has a responsibility, with the cooperation of the Union, to provide stable employment." Furthermore, the Union's commitments (as stated in

Section II), which include increasing productivity and quality, supporting the team concept, and meeting production goals, "are a significant step towards the realization of stable employment." Specific measures, including reducing management salaries and bringing inhouse previously subcontracted work, will be taken before laying off employees. But layoffs are not completely prohibited, and could be compelled by "severe economic conditions that threaten the long-term financial viability of the Company."⁴⁶

In practice, NUMMI has fulfilled its commitment to no layoffs. Even with up to a 30% reduction in production, no hours reduction or layoffs have occurred at NUMMI. The workers were offered a voluntary "extended vaction" during the Christmas holidays, which many workers took. Meanwhile, the speed of the assembly line has been reduced and inventories have piled up. This spring, an 80 hour (two week) training program has been scheduled for all workers. The training program, jointly developed by labor and management, will teach both industrial relations skills and on-the-job-skills. Generally, the workers appear impressed with NUMMI's commitment to no layoffs. Such a policy seems to have generated loyalty from the workforce.

In contrast, GM seems adamant about not making long-term commitments to any plan, terming such a commitment "unrealistic". They still lay workers off whenever car inventories accumulate. By contrast, GM pays millions of dollars for these layoffs without gaining the gratitude or loyalty of the workers, many of whom view GM as spending as little money as possible to satisfy the national agreement and as not caring about their long-term welfare.

Workers at Van Nuys have experienced frequent layoffs in recent years. The second shift at Van Nuys was laid off from July 1986 until May 1987. All workers were placed on a mandatory "extended holiday" from December 23, 1987 to January 18, 1988. Then in February, 1988, all workers were put on 50% time, with each shift rotating two weeks work with two weeks layoff.⁴⁷

This attempt to organize layoff-sharing as a substitute for the traditional layoff-by-seniority procedure constituted an innovative experiment. The lay-off sharing plan had the potential of serving as a transition toward guaranteeing jobs for more workers. It also facilitated teamwork, since layoffs by seniority disrupt the composition of individual teams.

After a highly divisive debate within the union, which pit the more senior first shift against the less senior second shift, the union voted against the shared layoff plan by 8 votes. Two weeks later, the plan passed by a few hundred votes and went into effect. Within two weeks, a recall date beginning in the middle of March was announced.⁴⁸ The more senior workers felt their seniority rights were being taken away and were discontent about the shared layoff.⁴⁹ A GM official conceded that the shared layoff experiment had not gone well, and GM-UAW would probably not try it again.⁵⁰

Why did this innovative layoff plan fail? We suspect that the workers would have been more receptive to the plan if they had been more involved in the decision-making process and had known initially how long the layoff would last. The lay-off plan, in other words, was not implemented in a way that fostered worker's trust of management.

In traditional U.S. collective bargaining contracts, seniority rights have been built into the industrial relations process as a substitute for job security. As long as there is no long-run job security at a plant, workers will cling to their seniority for security and to job classifications and contract rules for their power on the shop floor. With the current uncertainty in the automobile industry, many workers experience a high degree of job insecurity. GM would benefit if it took more aggressive action to allay those fears when they are ungrounded, as in the short-term layoff. We also need to analyze the costs of the NUMMI no-layoff approach versus the GM layoff-with-SUB approach to ask how much more NUMMI pays in the short-run for long-term gains in worker satisfaction and commitment. The main difference in total cost to the company is the U.I. benefits paid by the state to the laid-off workers.

Since job security can only work in the long run if the company sells the output, a commitment to job security puts pressure on the company to sell the product. For example, analysts see the guaranteed jobs program as ensuring that Ford will keep a certain amount of automobile production in this country. At NUMMI, as sales fell and inventories piled up, the company took several steps to shore up its market. First, it began production of the Nova's sister car, the Toyota Corolla FX. Later, it made a major commitment to redesign the Nova and spend at least \$200 million retooling the factory. Finally, GM announced an aggressive sales incentive program to make the Nova more price competitive. More (and higher quality) advertising of the Nova seemed to take place at this time. In contrast, the plans for the Van Nuys plant (as well as GM plants generally) remain unknown.

After a disappointing year in 1987, when GM lost 10% of its market share (down to 36%), GM seems focused on its short-run strategy to minimize labor cost (given the national agreement). Plans for major improvements in productivity seem irrelevant when the Corporation's concern is how to effect layoffs until its sales improve. Productivity improvements at this time would only exacerbate its layoff problem.

The crucial difference between Van Nuys and NUMMI is in the union and management strategies used to build trust. On the union side, this means a commitment to maintaining work standards and enforcing agreements with a minimal amount of conflict. On the management side, this means a commitment to job security for its workers. The strategies adopted by the union and management are interdependent. Since the Corporation has greater long-run power than the union because of its ability to close plants, its strategy will tend to dominate the industrial relations path taken. The company's actions will set the boundary for how much trust can be developed.

Both sides must take risks in trying new forms of labor-management relations and of work organization. In order for the workers to be convinced that working both harder and smarter will not cost them their jobs, they must be given job security. In order for the companies to be convinced that providing secure jobs will not result in long-term commitments to an inadequate workforce, they must be assured of improvements in productivity and quality. Implementation of a new labor relations program, such as the one at Van Nuys, is best enhanced when job security and productivity improvements are part of the same package.

Policy Issues

The developments in industrial relations at NUMMI and GM-Van Nuys are not isolated cases. Examples of union-management cooperation and the reshaping of adversarial labor-management relations can be found in other industries in the rest of California and the nation.⁵¹ The two cases we have examined here have highlighted the role of job security in fostering cooperation and the necessity of risk-taking by both unions and management in the forging of a new social partnership. Public policy can and has played a role in facilitating such a transition.

The State already plays a role in facilitating improved job security and productivity, and this role should be expanded. The centerpiece of the State's efforts is the Employment Training Panel, a joint labor-management group that awards up to \$50 million yearly out of the unemployment insurance fund for job-related training to create or preserve jobs. Both NUMMI-UAW and Van Nuys-UAW were awarded ETP grants for their training programs. These grants were important in facilitating the implementation of the team concept, which required extensive and expensive training of both workers and managers. NUMMI in the recent sales slow-down has gone one step further than Van Nuys by implementing training to upgrade workers' skills instead of laying workers off.

These examples suggest that public funding for training to replace lay offs should be supported and expanded. This approach places the company in a much better position to be more productive and cost competitive when full production resumes. It provides workers with upgraded skills so that they are more secure in their jobs in the long run. This approach of

government-subsidized on-the-job training during slack periods has been used in both Japan and Sweden.

We should explore the possibility of allowing Job-sharing Unemployment Insurance funds to be used more broadly for labor-management training programs during slack periods. This is a complex policy area, however. Policy initiatives should provide mechanisms to ensure that funds are actually used to preserve and upgrade jobs in place of laying off workers.

More generally, the State of California played an important role in the two-year transition period between the GM-Fremont plant closing and the NUMMI plant opening. Together, the State and the UAW-GM national agreement provided some income maintenance, job placement, and training for the workers, which served as an important bridge between the two production periods. The workers' situation would have been better had they known in early 1982 that the plant would reopen in 1984, so that they could have planned for the transition.⁵² Even without certain knowledge that the plant would reopen, many workers clung to the rumors that it would reopen and planned their lives to be ready for recall.

In the situation where a plant will be reopened, we want the workers to use state and bargained programs during the transition period so that they are available for recall. Otherwise, we want the workers to use the programs to transition to other jobs. A crucial element in this process is advance notification, as early as possible, of what will happen to the plant. In either case--a reopening or a permanent closure--the State plays an important role.

These two case studies illustrate that the union has an important role to play in the successful implementation of labor-management cooperation

and joint decision-making. The activities of the union are a central part of the necessary trust building process between the "social partners." The union must be able to assure its members that productivity improvements will not cost them their jobs and that work rule changes will not undermine their rights on the shopfloor. The union must also be able to assure management that the new partnership with job security will result in high productivity and quality. The union provides the mechanism by which workers can safely challenge management actions. Without a union, dissatisfaction can be voiced primarily by quitting. In the long run, the union must learn to serve as a check on strategic management decisions that might not be in the company's interest. Outside the union, no organizational structure exists within which labor has systematic input into strategic planning.

The State could play a facilitating role in the trust-building process between the union and management that is a prerequisite to successful cooperation. A State Bureau of Labor-Management Cooperation could provide the institutional structure needed for studying and supporting labor-management cooperation. Case studies need to be done to discover what types of cooperative relations work best in what types of industry settings. Based on this research, educational programs to facilitate cooperative industrial relations can be developed. These are functions that the State traditionally has served well. In conclusion, there are many steps in the area of industrial relations that the State of California can take to be both more competitive and caring.

END NOTES

1. Thomas A. Kochan, Harry C. Katz, and Robert B. McKersie, The Transformation of American Industrial Relations, New York: Basic Books, 1986; Charles C. Heckscher, The New Unionism: Employee Involvement in the Changing Corporation, New York: Basic Books, 1988.
2. Reported in Michael Schuster, Union-Management Cooperation, Kalamazoo, MI: W.E. Upjohn, 1984.
3. Bureau of National Affairs, Inc., Productivity Improvement Programs, PPF Survey No. 138, September 1984.
4. Schuster, 1984.
5. Harry Katz, Thomas Kochan, and Jeffrey Keefe, "The Impact of Industrial Relations on Productivity: Evidence from the Automobile Industry," Brookings Papers on Economic Activity, (forthcoming).
6. John Krafcik, "Learning From NUMMI", An International Motor Vehicle Program Internal Working Paper, MIT, Sept. 15, 1986.
7. Harry C. Katz, Shifting Gears, Cambridge, MA: MIT Press, 1985, pp. 74-77. During this period, UAW-GM implemented the largest number of QWL programs.
8. See Katz, Shifting Gears. Even when teams have been implemented, the work is still usually done in assembly line form with short cycles. Some teams have included job rotation.
9. Krafcik, 1986.
10. The Nova is identical to the Toyota Corolla produced in Japan. NUMMI added production of a second car, the Corolla FX16, in September 1986; this car is sold by Toyota dealers. GM-Fremont had produced the Chevrolet Malibu and Century.
11. The FCC approved the joint venture for an initial twelve-year period.
12. General Motors has about two dozen managers stationed in the plant, but responsibility for management rests primarily with Toyota.
13. Workers at the Mazda assembly plant in Flat Rock, Michigan have recently ratified a collective bargaining agreement. Mazda is 25 percent owned by Ford. See "U.A.W. Members Back Pact at

Mazda Plant in Michigan," New York Times 20 March 1988, p. 8.

14. For example, Fortune (9 July 1984) stated that "NUMMI is the most important labor relations experiment in the United States today." At a 1986 International Labor Organization conference, the U.S. Department of Labor described NUMMI as the best example of labor-management cooperation in the United States.

15. According to a recent report, California currently contains 155 Japanese-owned manufacturing plants. Ulmer Brothers Japan M and A Reporter, cited in San Francisco Chronicle, 8 March 1988, p. C1.

In Japan most unions are enterprise (i.e., plant-based) unions with considerably less clout than national unions in the United States. Most Japanese-owned plants in the United States are not unionized. A recent survey of such plants found that only 4 out of 159 firms considered employment security "as an essential ingredient in their management system." See Stanley Brown, "The Japanese Approach to Labor Relations: Can It Work in America?" Personnel, vol. 64, no. 4, April 1987, p. 23.

16. "New United Motor Manufacturing, Inc. and the United Automobile Workers: Partners in Training," U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, Labor-Management Cooperation Brief, No. 10, March 1987, p. 1. Joel Smith, formerly the chief UAW representative at NUMMI and currently Western regional representative, notes that a load of five to six thousand grievances was not unusual. Joel Smith and William Childs, "Imported from America: Cooperative Labor Relations at New United Motor Manufacturing, Inc.," Industrial Relations Law Journal, vol. 9, no. 1, 1987, p. 71.

17. Krafcik, 1986 provides a careful calculation of comparative productivity levels. Gross figures (Krafcik, Table 2) show NUMMI productivity as double that of GM-Fremont or GM-Framingham. This gross figure is often cited by NUMMI management (e.g., Dennis Cuneo, Chief legal Counsel, NUMMI, Faculty Seminar at University of California at Berkeley, July 21, 1987. Krafcik's corrections for technology, product complexity and so forth yield the fifty percent differential. The before and after rankings were cited by Mark Hogan, GM's General Manager at NUMMI. Faculty Seminar at Stanford University, December 4, 1987.

18. According to William Childs, General Manager for Human Resources at NUMMI, the product quality is equivalent to the Toyota, the industry leader for quality. (Smith and Childs, 1987, p. 77) High quality translates not only into greater sales, but also lower warranty repair cost. The Nova has received high ratings from several leading consumer magazines. (U.S. Department of Labor, 1987, p. 1) For example, in the most recent Consumer Reports survey (April 1988), Nova owners rank in the highest group in customer satisfaction.

19. San Francisco Chronicle, 6 February, 1988, p. B1. Low sales of the Nova are causing negative earnings for NUMMI in 1988. The innovative responses of the company and the union to this volume reduction are discussed later in this paper.

20. Two other frequently-mentioned aspects of the Japanese management system-- relationships with suppliers, and the use of just-in-time inventories-- also can reduce costs by reducing inventory costs and by placing greater pressure on the achievement of quality standards. We do not discuss the inventory or supplier systems in this paper.

21. Smith and Childs, 1987, p.70; Douglas Henne, Marvin J. Levine, W.J. Usery, Jr. and Herbert Fishgold, "A Case Study in Cross-Cultural Mediation: The General Motors-Toyota Joint Venture," The Arbitration Journal, vol. 41, no. 3, September 1986, p.7 report that employment had peaked at under 6,000 workers. The discrepancy does not affect the argument made here.

22. Dale Yoder and Paul Staudohar, "Management and Public Policy in Plant Closure," Sloan Management Review, vol. 26, no. 4, Summer 1985, p. 49; see also Milkman 1988.

23. The cycle of layoffs and recalls that is endemic to the U.S. automobile industry is now also beginning to be played as a cycle of announced plant closings, followed by reopenings. When General Motors recently announced the closing of its Framingham plant, few of the workers believed the company sufficiently to search for new employment opportunities. In fact, the plant re-opened six months later. A similar cycle was repeated at Framingham in later 1987 -- early 1988.

24. GM did not announce that the plant was closed permanently until April 1983.

25. Dale Yoder and Paul Staudohar, 1985, p. 47. According to Henne et al (1986, p. 6), Toyota and GM had been holding informal discussions about a joint manufacturing venture throughout 1982. It was GM that suggested the Fremont plant as the location for the joint operation.

26. An initial group of 240 production workers were sent to Japan for three weeks training. All subsequent hires were put through three days at an assessment center and five days of orientation. Clearly, some commitment is indicated simply by the willingness to undergo such a lengthy process.

27. Interview with Steven Berzon, attorney for the UAW local at NUMMI, March 2, 1988.

28. According to a company representative (Cuneo seminar, 21 July 1987) those workers who were not rehired had such poor records, such as assault of co-workers or supervisors, that they would have been discharged in a traditional adversarial labor-management system. The union activists who were rehired included several who had pressed the lawsuit to block the joint venture in the first place.

29. The median age of the NUMMI workforce is 42, over ten years higher than at Toyota plants in Japan. About one-fourth of the NUMMI workforce are women, and an equal proportion are minorities.

30. United Automobile Workers, "NUMMI: A New Kind of Workplace," Solidarity, vol. 28, no. 8, August 1985, p. 14.

31. The contrast is especially great with Toyota's very selective hiring practices at its (nonunion) Georgetown, Kentucky plant. Although 90,000 applications were received for 2,700 production jobs, Toyota is moving very slowly to fill these position. See, for example, Richard Koenig, "Exacting Employer: Toyota Takes Pains, and Time, Filling Jobs at its Kentucky Plant." Wall Street Journal, 1 December 1987, p.1. Over 100,000 people filed applications for 3,200 positions when the (also nonunion) Nissan plant opened in Smyrna, Tennessee in 1982. See Kenneth B. Noble, "Union Organizer's Task is uphill at Nissan Plant", New York Times, 3 April 1988, p. 12.

32. "Perfect attendance" in a given year earns the worker one more vacation day; less than standard attendance reduces vacation time by 20%. After five consecutive days of sick leave, a worker is eligible for unpaid leave of absence. Vacation days declined from 16 days in the first year of the contract to 14 days in the third year. (Agreement between NUMMI and UAW, July 1, 1985, Articles XXI, XXII, XXIII.)

33. NUMMI can afford high wages in part because management and the union built Health Maintenance Organizations and restructured pension plans into the compensation package, holding down overall compensation costs.

34. The story of how this virtuous circle of increasing trust commitment was started is very important, but because of space constraints will have to be told on another occasion.

35. Eric Mann, Taking on General Motors, Institute of Industrial Relations, UCLA, 1987.

36. Wording of proposed agreement reproduced in Mann, p. 246.

37. Reproduction of leaflet in Mann, p. 246.

38. The Norwood local had resisted implementing teams, and GM said Norwood had an older, less desirable building structure. On the positive side, Norwood's central location saved it \$70 million annually over Van Nuys in shipping costs. Mann, pp. 124, 252 - 254.

39. Teams were being successfully implemented at the Fiero plant under Schaeffer until GM began massive layoffs as sales fell because of recalls.

40. Training manuals used at the training for all workers. Also, telephone conversation (March 23, 1988) with Gloria Busman, Coordinator at the Center for Labor Research and Education, IIR, U.C.L.A. Busman was one of the principal instructors in charge of the training program.

41. Mann, pp. 285 - 286, ch. 12.

42. Daily Labor Reporter, Sept. 23, 1987, Section D; October 23, 1984, Section D. This is the source of the following description of the UAW national agreements with Ford and GM, which are basically the same on these issues.

43. See Milkman on the GM plant.

44. For every two jobs lost through attrition (retirement, quit, or death), only one would be subtracted from the total number of guaranteed jobs. In addition, Ford and GM agreed to no new plant closings (other than those already announced) during the life of the contract, which expires in 1990.

45. In addition, measures taken before layoffs do not include salary reductions for management, and any measures taken must be jointly agreed-upon.

46. Agreement Between New United Motor Manufacturing, Inc. and the UAW, July 1, 1985, Sections II and III).

47. The 1987 local agreement stated that "all employees should share in adjustments necessary to avoid indefinite layoffs of large groups of employees."

48. Daily Labor Reporter.

49. Kenneth Noble, New York Times, March 15, 1988, p. 1.

50. Alfred Warren, Vice President for Industrial Relations, G.M. Faculty Seminar at Stanford University, March 18, 1988.

51. Another prominent California example is provided by the recent Pacific Bell--Communications Workers of America cooperative agreement. See also Heckscher 1988 and "U.S. Labor Law and the Future of Labor-Management Cooperation," First and Second Interim Reports, U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, February and October 1987.

52. For example, some workers might not have made the traumatic move to GM plants in Oklahoma and Missouri. Some of these workers and their families suffered needlessly from the uprooting.