

The Impact of Foreign Investment on US Industrial Relations: The Case of California's Japanese-owned Plants

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This paper explores Japanese direct investment in the US and its impact on American workers and organized labor. Against the background of an analysis of the causes and consequences of the recent growth in Japanese direct investment, case study materials on Japanese-owned factories in California are presented. The findings show that outside the automobile industry, such factories do not conform to the 'Japanese' model of 'lean production' with extensive worker participation. Instead, when in America, these plants 'do as the Americans'. They hire US-trained managers, use standard US human resource techniques and follow the lead of US manufacturing firms committed to union avoidance. One result is that Japanese direct investment has done little to enhance the competitive position of the US or the living standards of its population; on the contrary, it may contribute to the continuing erosion of both.

The workers of the world are less united today than a century ago, when labor was international and capital national in orientation. Labor movements around the world now operate primarily on a national (or, in some cases, local) basis, even though capital has become increasingly internationalized. In recent years, as transportation and communication costs have dropped and barriers to international trade and investment have collapsed in nation after nation, capital's increased mobility has dramatically weakened organized labor in virtually every country.

The US, which did so much to foster economic globalization, has become increasingly dependent on the reinvigorated economies of Western Europe and Japan. With relatively few barriers to foreign trade and even fewer to investment (the legacy of its former economic hegemony), the US has been flooded with imports and with both

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direct and indirect foreign investment in the last two decades.¹ Once the world's largest creditor, it is now justly famous for its enormous trade and budget deficits; and total foreign direct investment inside the US now exceeds US direct investment abroad.²

This paper explores a critical aspect of the changed position of the US in the age of economic globalization: the growth of Japanese direct investment (JDI) and its impact on American workers and organized labor. Although still considerably smaller than direct investment from Western Europe, JDI in the US has attracted disproportionate attention, both because of its high visibility, linked to persistent anti-Japanese racial prejudice, and because of its spectacular recent growth. From less than \$5 billion in 1980, or 6 percent of worldwide direct investment in the US, JDI skyrocketed to \$83.5 billion (21 percent of the total) in 1990, the most recent year for which figures are available. Japan is now second only to Britain as a foreign direct investor in the US; as recently as 1980 it ranked seventh among investing nations (US Department of Commerce, various issues). JDI is also of special interest from a labor perspective because of its association — which, as we shall see, may be more imaginary than real — with 'Japanese' industrial relations and human resource practices, such as quality circles and teamwork.

Against the background of an overview of the growth of JDI in the US, this paper explores the implications of JDI for American workers and unions in the manufacturing sector. It shows that while a few high-profile Japanese-owned plants have cooperated with established American unions and have introduced a wide range of 'Japanese' managerial practices, these cases are not representative of Japanese-owned plants in the US. On the contrary, most Japanese firms which have established factories in the US have resolutely opposed unionism, and have adopted human resource practices that more closely resemble those of traditional non-union American plants than those of their companies' plants in Japan.

The Growth of JDI in the US

Almost twenty years ago, Richard J. Barnet and Ronald E. Müller (1974: 213–53, 303–33) warned of the impending 'LatinAmericanization of the United States'. As industrial production (much of it controlled by US-based multinationals) moved to the Third World, they noted, the US was increasingly faced with the classical dilemma

of less-developed nations: it was becoming more and more dependent on exports of primary products to maintain its balance of payments while increasingly importing manufactured goods. Barnet and Müller also pointed to the growing polarization of income distribution and the expanding political power of corporations in the US as symptoms of 'LatinAmericanization'. They suggested, prophetically, that the accelerating international mobility of capital was undermining the power of organized labor in the US, creating a new imperative for transnational forms of unionism.

Barnet and Müller were primarily concerned with the consequences of outward investment. In the period since they wrote, however, international capital has increasingly flowed *into* the US. 'The tables have turned on foreign investment in America', the London *Economist* noted in 1988. 'For decades it was American firms that bought foreign rivals and set up factories around the world. Now it is the foreigners writing the cheques' (*The Economist*, 1988: 74). The bulk of foreign direct investment in the US still originates in Europe, but in the 1980s Japan emerged as an increasingly important source. In the 1970s, JDI in the US was modest, totaling only \$600 million in 1975 (compared to \$18.6 billion from Europe that year). However, by 1981 JDI had multiplied more than ten-fold, to \$7.7 billion; that was also the first year in which JDI in the US exceeded US direct investment in Japan. During the 1980s, JDI expanded even more rapidly. While the magnitude of the increase is difficult to measure precisely, due to the dramatic weakening of the dollar in relation to the yen during this period, by any standard JDI soared during the 1980s. By 1990 it stood at \$83.5 billion, according to US Department of Commerce figures. That was more than four times the level of US direct investment in Japan and over one-third the amount of direct investment in the US from all the nations of Western Europe combined (US Department of Commerce, August 1991: 54).

JDI is present in many different sectors of the US economy, from manufacturing, real estate and banking to wholesale and retail trade. Throughout the 1980s, manufacturing has accounted for about 20 percent of the total, increasing as rapidly as JDI in the US generally. Over 11 percent of all foreign direct investment in US manufacturing originated in Japan in 1989, compared to 5 percent as recently as 1987 (US Department of Commerce, various issues).

The success of export-oriented industrialization in Japan in the 1960s and 1970s generated enormous amounts of capital, which made extensive direct investment abroad possible. As the largest single

market for Japanese products, the US became an especially attractive site for JDI. The growing trade frictions between the US and Japan played a critical role here, for JDI was basically a preemptive strike against protectionism. When the US attempted to alleviate its trade deficit by manipulating the value of the dollar in the mid-1980s, the resulting cheapening of production costs further accelerated the growth of JDI. In addition, labor conditions in the US made it attractive to foreign investors. By the late 1980s, wages were only slightly higher than in Japan, unionization rates were low by any standard and labor was more tractable than in other nations with developed economies.

Nations with large internal markets have always been attractive sites for foreign direct investment, especially in the manufacturing sector. The US, with the world's largest domestic market, was therefore a natural magnet for the Japanese capital that accumulated so rapidly in the 1970s and 1980s. This pattern was reinforced by the longstanding prestige of the US as a market for Japanese goods, dating back to the days of the US's unquestioned economic supremacy in the immediate postwar period. In the 1960s, when Japanese exports to the US began their rapid growth, the mark of success and prestige for a Japanese firm was to be able to sell its products to consumers in the US. By the 1970s and 1980s, Japanese manufactured goods were already being sold in vast quantities in the US market, so that direct investment involved relatively low risks.

As early as 1975, the US accounted for over a fifth of all JDI worldwide, according to Japanese government data.³ The US share has increased steadily ever since, even as JDI worldwide has skyrocketed. World JDI grew over 800 percent between 1980 and 1990, while JDI in the US grew almost 1500 percent in that period. The US share of worldwide JDI expanded from 24 percent in 1980 to 42 percent in 1990. The North American share of world JDI in manufacturing rose even more sharply, from 19 percent in 1980 to 49 percent in 1990.⁴ In fact, by 1990, Japan had invested \$40.3 billion in North American manufacturing, more than twice the level of manufacturing JDI in all of Asia (\$18.7 billion, excluding Japan itself) and over three times the level (\$12.5 billion) in Europe (Japan Ministry of Finance, June 1991: 22 and various earlier issues).

As JDI in North American manufacturing grew, it underwent a radical change in composition. At the beginning of the 1970s, the vast bulk (78 percent) of manufacturing JDI in North America involved the wood products industry. A decade later, JDI in North American

manufacturing had become much more diversified, with wood products accounting for only 13 percent of the total and electrical products in the lead with 24 percent. By 1990, after a twenty-fold increase in JDI in North American manufacturing relative to 1979, transportation equipment was in second place with 12 percent of the total, but electrical products retained their lead with 28 percent. Other important sectors were chemicals, with 12 percent of the total, and metals and machinery, each with 10 percent (Sebestyen, 1972: 20; Japan Ministry of Finance, August 1980: 18; Japan Ministry of Finance, June 1991: 22).

As the US-Japan trade deficit widened in the 1970s and 1980s, the specter of protectionism posed an increasingly serious problem for which JDI quickly emerged as a solution. Much of the new JDI, especially in manufacturing, was essentially export substitution, whereby Japanese firms transferred production to the US of goods that were formerly made in Japan and exported to the US. In contrast to the import substitution industry that developed in the Third World in earlier decades, here it was the investing country rather than the host that took the initiative in making the switch from exports to direct investment. While there was ongoing American concern about the trade deficit and continuing pressure to restrict imports, there was no significant opposition to the growth of JDI; on the contrary, it was widely embraced by policymaking elites as a welcome solution to the nation's trade problems. Organized labor, too, while critical of outward investment by US-based multinationals because of the domestic job losses it usually produces, has generally welcomed inward investment. As Howard Samuel, president of the AFL-CIO's Industrial Union Department, recently stated, 'We support foreign investment. It can be extremely useful in maintaining jobs and improving company prospects' (Judis, 1991: 55-6).

In the mid-1980s, the Reagan administration deliberately depreciated the dollar, halving its value in relation to the yen and most other major currencies, in the hope that this would make imports more expensive and exports cheaper. As a strategy to resolve the trade problem, the depreciation was a dismal failure. Indeed, the dollar had already declined in value in relation to the Japanese yen and the German mark during the 1970s, yet the US's historical trade surplus had been replaced by a trade deficit in that very decade. By the time the government lowered the value of the dollar in the mid-1980s, many popular consumer products — such as videocassette recorders and other consumer electronics — were not even manufactured in the

TABLE 1
Wages, Hours, Unemployment, Work Stoppages and Unionization Levels, Selected Countries, 1960–88

	Year	USA	Japan	France	West Germany	UK	Italy	Sweden	Canada
Hourly compensation costs for production workers in manufacturing (in US \$) ^a	1960	2.66	.26	.82	.85	.84	.63	1.20	2.13
	1970	4.18	.99	1.72	2.33	1.49	1.76	2.93	3.46
	1980	9.84	5.61	8.94	12.33	7.43	8.00	12.51	8.37
	1988	13.90	13.14	12.99	18.07	10.56	12.87	16.85	13.58
Hours worked per worker per year in manufacturing	1960	1940	2509	1957	2079	2127	2046	1970	1881 ^b
	1970	1913	2269	1872	1889	1997	1905	1744	1918
	1980	1885	2158	1713	1701	1838	1742	1508	1852
	1989	1956	2159	1610	1603	1851	1858	1487	1895
Civilian unemployment rate (percent)	1960	5.5	1.7	1.5	1.1	2.2	3.7	1.7	6.5
	1970	4.9	1.2	2.5	.5	3.1	3.2	1.5	5.7
	1980	7.1	2.0	6.4	2.9	7.0	4.4	2.0	7.5
	1988	5.5	2.5	10.5	7.1	8.3	7.9	1.6	7.8
Union membership as a percentage of all non-farm wage and salary workers	1960	32	34	24	39	45	55–60	68	31
	1970	31	35	22	37	51	50–55	79	32
	1980	25	31	28	42	57	43	90	36
	1987	17	28	10–19 ^c	43 ^d	50 ^d	38 ^e	96 ^e	36
Days lost to work stoppages per 1000 non-farm employees	1960	248	216	89	2	138	127	6	156
	1970	759	120	113	4	499	1554	48	951
	1980	235	25	96	6	529	1002	1173	945
	1988	43	4	70	1 ^f	169	174	201 ^f	313

^a Includes pay for time worked; for vacations, holidays and leave; bonuses and special payments; and pay in kind, before payroll deductions. Also includes employer expenditures for legally required insurance programs and contractual and private benefit plans. For some countries, adjusted for payroll taxes and other factors that are regarded as labor costs.

^b 1961 figure (1960 not available).

^c 1988 estimate (1987 not available).

^d 1986 figures (1987 not available).

^e 1985 figures (1987 not available).

^f 1987 figures (1988 not available).

Sources: Hourly compensation for 1980, 1988; unemployment and work stoppages: US Department of Labor, Bureau of Labor Statistics (1989: 554, 572, 581); hourly compensation for 1960, 1970: US Department of Labor, Bureau of Labor Statistics (1985: 437); hours worked for all countries and unionization, except as noted below: unpublished data from the US Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, Division of Foreign Labor Statistics; other unionization data from: for France 1988 estimate, *The Economist*, (23 June 1990: 62) and for Italy in 1980 and 1985, computed from Romagnoli (1982; 1987).

US and thus continued to be imported regardless of price. Although the depreciation of the dollar did little to ameliorate the trade deficit, it did cut the cost of direct investment in the US in half, as the yen-dollar ratio fell from 251 in 1984 to 124 in 1987 (United Nations, 1990: 184). This accelerated the existing trend toward growth of JDI and inward investment more generally. Foreign investors moved in rapidly in the late 1980s, acquiring existing firms, purchasing real estate and setting up entirely new operations — all at bargain prices.

Indeed, as the *New York Times* put it in a front-page story in the spring of 1991, 'the United States, long derided as an industrial has-been, has become one of the world's low-cost manufacturers' (Nasar, 1991: 1). Labor compensation costs (wages and benefits) in the US, although still high by world standards, declined dramatically (i.e. rose less rapidly) relative to many other developed countries in the 1970s and 1980s. As Table 1 shows, in the 1960s, US workers were better compensated than those in virtually all other nations, but by 1988, workers in West Germany, Belgium, the Netherlands and all of Scandinavia had higher compensation rates than those in the US (US Department of Labor, 1989: 572). In Japan, as recently as 1980, compensation levels were only 57 percent of the US level, but they rose to 95 percent of the US level by 1988. Of course, this partly reflects the depreciation of the dollar, but the virtual disappearance of the wage gap is nonetheless a major spur to Japanese investment.

Foreign firms find other aspects of the US labor climate attractive as well. In their 1977 book *The New International Division of Labour*, Folker Fröbel and his colleagues identified several advantages the US offered European investors that they lacked at home:

skilled and often non-trade union organised workers, good sites for export-oriented production, indirect and direct government investment assistance, 'political stability', and, in addition, the great importance of the US domestic market . . . US companies have on average relocated their production to quite a considerable extent . . . to the new sites abroad. This has led to the creation of chronically high open and hidden unemployment and stagnating or falling real incomes for workers. The USA has therefore become a favourable location for technologically advanced production for West European countries . . . Alongside changes in the value of the dollar, lower social benefits and more hours worked per worker per year also play their part. The pace of work is somewhat higher and working hours per year longer (fewer holidays and days off), and it is easier to dismiss workers. The existence of different degrees of union organisation is also influential in the choice of site. The low level of union organisation is offered as an incentive to foreign companies. (Fröbel et al., 1980: 251–2)

Indeed, as Table 1 shows, hours worked per year in the US are much more extensive than in most of Western Europe (where vacations and other leaves are customarily far longer), and are exceeded only in Japan itself (see Landers, 1988: 314–22). Unemployment is low in the US compared to Western Europe as well, but it is twice the Japanese level. The actual supply of labor for manufacturing industry is even more ample than these figures suggest, due to surging immigration combined with the decline of domestic manufacturing.

Another major attraction of the US, from the viewpoint of foreign investors, is the low, and rapidly declining, rate of union membership. For many decades, the US had lower union density than most other developed nations, but in the 1970s and 1980s its already low unionization rate declined dramatically. The aggregate figures shown in Table 1 conceal an even steeper decline in private sector unionization, which had fallen to 12 percent (for non-farm wage and salary workers) by 1990. In manufacturing, the rate remains higher than for US workers generally, with 21 percent unionized in 1989, but this is still a low figure by international standards.⁵ The US also compares favorably — from an investor's perspective — to many other countries in regard to time lost to work stoppages: of the countries shown in Table 1, only West Germany and Japan lost fewer hours per worker.

The Impact of JDI on US Workers: Promise and Reality

One reason for the lack of effective domestic opposition to increased foreign direct investment in the US was the expectation that it would generate job growth. However, foreign-controlled jobs from all countries account for only 4.8 percent of all US employment, and 8.9 percent of employment in US manufacturing. The number of US residents who are directly employed by Japanese-owned companies remains surprisingly small — just over 500,000 people in 1989, the last year for which data are available. Firms based in both the United Kingdom and in Canada employ more people in the US than do firms based in Japan. Still, Japanese-based firms' employment is growing twice as rapidly as employment in foreign-based companies generally, and as JDI continues to grow, it will become a more significant part of the US labor market.⁶

Another widespread expectation was that JDI would help the US and its workers by establishing internationally competitive factories

in the US, and institutionalizing the human resource techniques and labor relations policies that are widely presumed to have contributed to Japan's recent industrial success. In the popular imagination and in the management literature and media representations that feed it, Japanese management is associated with efficient, 'lean' production and with a variety of mechanisms designed to foster worker participation in decision-making. Raw materials and parts are delivered 'just in time' for their use in the production process; workers meet in quality circles or similar small groups to discuss problems that were traditionally in the managerial domain; manual jobs are rotated among teams of workers to encourage a flexible, multiskilled workforce; workers enjoy a high degree of job security, perhaps approximating 'lifetime employment', and so forth.

Until recently, most commentators presumed that such 'Japanese' management practices were culturally indigenous to Japan, or at least to Asia, and not readily transferable to the US (or Europe). However, that claim cannot be sustained today, in view of the striking success of the Japanese 'transplants' in the auto industry. It is now indisputable that the Japanese model is compatible with a US workforce, and even with a unionized one. The best known example of this is the New United Motor Manufacturing Inc (NUMMI) plant in Fremont, California, a joint venture of General Motors (GM) and Toyota, which has achieved levels of productivity and quality superior to that of any other US auto assembly plant and comparable to that of Toyota's plants in Japan (see Womack et al., 1990: 83). In 1984 NUMMI opened at a plant GM had closed two years earlier, with a workforce drawn from the ranks of former GM employees, who continue to be represented by the United Auto Workers' union (UAW).

Not only in its high productivity and quality, but also from the viewpoint of workers themselves, NUMMI compares favorably to the traditional American system of work organization that characterized the plant when it was run by GM. NUMMI's blue-collar workers are centrally involved in improving the production process. Production workers are organized into flexible teams that rotate jobs and meet regularly to discuss how the efficiency of the operations they perform could be enhanced. The Japanese word *kaizen* (continuous improvement) is part of every team member's vocabulary. In sharp contrast to the many markers of status at GM, managers and workers at NUMMI wear the same clothes and share the same parking and cafeteria facilities. At NUMMI management is defined not as supervision but as leadership: each team has a 'team leader' and at the next

level up there are 'group leaders' (roughly equivalent to foremen at GM). Although it does not offer 'lifetime employment', NUMMI's contract with the UAW includes a pledge that no workers will be laid off without first cutting management pay and taking other cost-cutting measures. To date, despite periods of slow sales, there have been no layoffs.⁷ The union includes a dissident faction, but even this group prefers the team concept to the old GM system.

Although often touted as a model of labor-management co-operation in an age of intensified global competition, the NUMMI system has also been the object of serious debate among labor scholars. Its most prominent critics are Mike Parker and Jane Slaughter (1988), who call the system 'management by stress' and emphasize the fact that it greatly intensifies the pace of work. They warn that the 'team concept' undermines unionism in the name of a dubious form of worker participation in management decisions. At NUMMI, they suggest, workers mainly 'participate' in the intensification of their own exploitation, mobilizing their detailed knowledge of the labor process to help management speed up production and eliminate wasteful work practices. But even Parker and Slaughter acknowledge that workers themselves prefer the current set-up to traditional 'American' managerial methods. 'Nobody says they want to return to the days when GM ran the plant', they report.⁸

Both critics and advocates of the team system often presume that NUMMI is representative of Japanese-owned plants in the US. But a closer look reveals that this is generally not the case. Instead, most Japanese-owned manufacturing plants are resolutely opposed to unionism, and outside the auto industry most use American-style labor policies, rather than replicating the 'Japanese' model. The Japanese-owned plants I studied in California bear little resemblance to their parent companies' operations in Japan. Instead, they are like the Japanese-owned firms Harley Shaiken and Harry Browne studied in Mexico, where managers 'seem to be satisfied with using traditional quality control and work organization methods to achieve internationally competitive quality and costs, passing over the techniques that are credited with bringing their parent companies stunning success in both categories' (Shaiken and Browne, 1991: 48-9). Few of the managers Shaiken and Browne interviewed at Japanese-owned plants in Mexico had ever heard of *kaizen*, and very few of these plants had anything resembling quality circles. Similarly, Japanese-owned firms in Southeast Asia seldom use the participatory

management practices their parent companies are known for (Maruyama, 1988).

Japanese-owned Factories in California

I conducted detailed research on Japanese-owned factories in California, where almost a fifth of the nation's Japanese-owned plants are located.⁹ In 1989, under the auspices of the UCLA Institute of Industrial Relations, I surveyed the sixty-six Japanese-owned manufacturing plants in the state with more than one hundred workers, obtaining a 76 percent response rate.¹⁰ Following the survey, in the spring of 1990, I arranged plant visits and interviews with managers at twenty of these plants. All of these were in southern California, where almost three-quarters of the sixty-six plants are located. In the fall of 1990 I also visited five factories in Japan and interviewed managers there.¹¹

California, and especially southern California, attracts a disproportionate share of JDI for several reasons. Its long history as the main receiving station for Japanese exports to the US is one important factor. In addition, like their domestic counterparts, many Japanese manufacturers find the state's ample supply of immigrant labor and the weakness of unionism highly attractive. 'To many foreign firms, saving money on wage costs is far less important than control of the labor force', Norman Glickman and Douglas Woodward (1989: 209) point out in their authoritative study of foreign investment in the US. 'Along with proximity to growing markets, numerous surveys show that an absence of unions and positive "worker attitudes" consistently rank at the top of foreign firms' state and regional preferences'. Unionism is particularly weak in the California electronics industry, which accounts for over half (56 percent) of the state's Japanese-owned plants with more than one hundred employees. Another 14 percent are in the metals and metal products industry and 11 percent are in food products, with the rest in an assortment of other industries (derived from data in Japan Economic Institute, 1988).

The managers I interviewed frequently cited labor considerations when asked why their plants were located in southern California. One American manager at a Japanese-owned electronics plant established in the mid-1970s, noting that 'the Japanese are famous for location studies', recalled that in-depth research was done to select the site for

the plant where he worked. 'Cost was one concern', he said, 'but other things were more important, especially the labor supply and a good working environment.' Similarly, a manager employed by a large Japanese-owned electronics plant in San Diego, also built in the 1970s, said that in addition to its proximity to the Pacific Rim, San Diego was an attractive location for this firm because 'the labor climate was good and availability of labor was ample'. Another manager at a plastics plant located just east of Los Angeles attributed its site selection in the mid-1980s to low land and labor costs relative to other parts of southern California, and to the perception that 'the union situation seemed better here'.

Just what is it about the labor situation in southern California that is so attractive to these firms? The evidence suggests that they are looking for tractable, non-union labor that is available at low wages. Their skill requirements are generally low, thanks to the routinized nature of most of the production processes carried out in these branch plants. In practice, this means that, like many of their domestically-owned counterparts, Japanese-owned factories in southern California rely heavily on the state's abundant supply of immigrant labor in recruiting production workers. Thus they combine foreign capital with foreign labor to produce goods 'made in the USA'. The middle managers and clerical workers are typically the only native presence.

Depending on the composition of the population in the vicinity of their particular location, California's Japanese-owned plants employ Mexican, Salvadoran, Vietnamese, Thai, Filipino and/or other immigrant workers from Asia and Latin America. In one plant located near the US-Mexico border, a manager claimed that some workers actually lived in Tijuana, Mexico, and walked across the border to come to work each day. Among the twenty plants I visited, none had a production workforce that was more than 50 percent native-born Caucasian. This upper limit was reported for only three plants; at the other seventeen at least two-thirds of the workforce were comprised of immigrants, and, in many cases the figure was 90 percent or more. African-Americans, on the other hand, were conspicuously underrepresented in the workforce at most of these factories, and in many cases they were entirely absent.¹²

When asked what kind of criteria they used in selecting workers for employment, the managers I interviewed were careful to emphasize that they did not discriminate on the basis of race or ethnicity, and many cited the high proportion of 'minorities' in their workforce in support of this contention. One manager volunteered that he thought

the reason the plant had a largely immigrant workforce was because unlike native-born whites 'like my kids, who think they should start at \$10 or \$15 an hour', immigrants 'are willing to work their way up from the bottom'.

None of the twenty plants had specific educational requirements for their production workers. While some managers reported that they gave preference to applicants with a high-school diploma, almost all acknowledged that a substantial portion of their workforce had less than a high-school education. While many said that they preferred workers with basic English language skills, this too was an ideal rarely realized in actual practice. The standard solution to the communication problem seemed to be to hire first-line supervisors from the same ethnic group as the workers they supervised, and these individuals were bilingual. In addition, on the factory tours I observed many bilingual signs.

The hiring process for production workers typically involved filling out an application form and a brief interview with either the personnel manager or the first-line supervisor. Few firms bothered to check workers' references. Only one of the twenty conducted any pre-employment aptitude testing (in this case for vision and manual dexterity). Five of the firms did pre-employment drug testing, usually as part of a general physical exam. Two firms relied on temporary employment agencies to recruit new workers, but most simply hired workers 'off the street'. While waiting in the plant's front office prior to interviewing a manager, I frequently noticed piles of blank application forms, and in a few cases I saw workers completing them. These plants rarely found it necessary to advertise job openings for production jobs; most could be easily filled by 'walk-ins' and applications on file. Many firms relied on immigrant workers' networks to spread the word of any job openings. 'Word spreads immediately if there's an opening,' one manager told us. 'We have never advertised for workers.' Presumably this is what is meant by 'labor force availability', that vague term so often mentioned by managers as a site selection criterion.

When pressed to specify the criteria they used in hiring, managers reported that they look for workers with 'stable job histories', 'reliability', 'commitment', 'willingness to work', 'a manufacturing mentality' and 'people who are not looking to set the world on fire'. Some admitted straightforwardly that 'we have no special criteria'. One manager laughed outright at the question. 'With what we pay', he said, 'if they wear shoes, we'll hire 'em'. In fact the Japanese-owned

plants I surveyed paid wages significantly below the state average. In electronics, the Japanese plants averaged \$7.19 an hour, compared to \$11.18 statewide; for all manufacturing, the figures were \$9.22 and \$11.20, respectively.¹³

These Japanese-owned firms bear little resemblance to the Japanese management model. Relatively few have quality circles or other forms of worker participation; flexible teams (as at NUMMI) are even more exceptional; and many managers chuckled when asked about 'just-in-time' delivery and the like. Moreover, while their parent firms in Japan are normally unionized, almost all of the Japanese-owned firms in California are non-union and are deeply committed to 'union avoidance'. Only one 'Japanese' practice is widespread among these plants: most are devoted, in principle, to avoiding layoffs. However, even this is tempered by the fact that the plants typically have very high turnover rates, so that workforce reductions can often be accomplished without layoffs. In short, these plants conform to the human resource patterns of conventional American manufacturing and especially non-union manufacturing, rather than to the Japanese model.¹⁴

Quality Circles and Participation

A widely discussed feature of the Japanese model is its emphasis on worker participation, and especially the use of quality circles (QCs) or similar small group activities, to improve efficiency and to promote harmony between labor and management. The QC concept originated in the US, but the practice became far more widely institutionalized in Japan, starting in the early 1960s. By 1984, 60 percent of all business establishments in Japan with over 100 employees had QCs or the equivalent, and the proportion rose to 84 percent for establishments with over 5000 employees. Small group programs are especially pervasive in Japan's manufacturing sector. Regardless of sector, where such programs exist, typically more than 90 percent of employees participate (Cole, 1989: 30, 94–9).

In the US, QCs and similar small groups were institutionalized to a much lesser extent, and later, than in Japan — and largely in response to the success of Japanese industry. The best recent data on the use of QCs and small groups in the US come from a 1987 survey of large firms in the US conducted for the General Accounting Office (GAO). Seventy percent of the companies surveyed reported using either QCs or some

other type of small group participation, but in most cases the programs included a relatively small portion of the workforce (Lawler et al., 1989: 26, 62). This survey found that, as in Japan, the use of QCs and other small groups is more common in manufacturing than in service industry firms. At 32 percent of the manufacturing firms surveyed, 20 percent or more of employees participated in QCs, but only 13 percent of the manufacturing firms reported that more than 40 percent of their employees were in QCs. The figures were slightly higher for employee participation groups other than QCs: 37 percent of the manufacturing firms reported that 20 percent or more of their workers were in such groups, and at 17 percent of the manufacturing firms, more than 40 percent of employees participated.¹⁵

My survey of Japanese-owned manufacturing firms in California with over 100 employees (with a median size of 275 employees) found that about 35 percent had QCs for at least some of their hourly workers.¹⁶ Only two of the twenty plants I visited had QCs, but seven others had some other type of small group participation for at least some of their blue-collar employees. These programs were typically quite limited, however. For example, in one plant a few department managers (but not others) hold occasional meetings with workers to discuss production problems and quality issues. At another plant, all blue-collar workers are required to attend quarterly meetings, for about an hour, where issues are identified for subsequent management attention. A third plant forms problem-solving project teams on an ad hoc basis; each such team includes two hourly workers, but is made up mainly of engineers and managers. Another plant holds short (ten- to fifteen-minute) morning meetings in each department to discuss problems from the previous day and plans for the day, with all meetings led by the supervisor.

I observed a QC meeting in progress at one plant at the time of my visit. Like most Japanese-owned plants in southern California, the workforce here was made up almost entirely of immigrants. The plant cafeteria, where the QC meeting I attended took place, was decorated with some twenty flags — one for each of the countries represented in the workforce. Although the national diversity of the workforce was celebrated in the wall decorations, it presented serious problems in the QC meeting, since many workers had a limited command of English and no single language was shared by the entire group. The meeting I witnessed was facilitated by a woman manager who frequently prompted the workers who spoke, and there was almost no

unsolicited participation in the discussion. Furthermore, supervisors at the plant, according to another manager there, view the immigrant workers in their charge as 'simple people — even though the QC process reveals how smart they really are'. Despite the existence of QCs at this plant, then, it is a far cry from the participatory model that strives to maximize the involvement of blue-collar workers in streamlining the production process.

The second plant that had QCs also had many other trappings of the Japanese model. This was the only plant visited where workers actually participated in organized calisthenic programs (a standard practice in Japan), although the program has recently been scaled back from a daily to a biweekly ritual. Currently, the calisthenics are part of a shift-wide meeting where managers give informational speeches to the assembled workforce. In the past, this plant had also held informal gatherings of employees at the end of the workday to discuss production problems; these meetings have now been supplanted by the QCs. This plant also organizes all its production employees into 'profit and loss' centers, or mini-enterprise units, with regular meetings to keep everyone informed about each unit's progress.

This plant is exceptional, however. While the sample size is too small to draw any definitive conclusions, the Japanese-owned manufacturing firms generally appear to resemble American-owned manufacturing firms more than their parent companies in Japan as far as the extent to which QCs and similar participatory small group programs are used. There is some employee involvement or participation in these firms, but the typical goal is to promote communication and harmonious relations between workers and management (often as part of a union avoidance strategy) rather than to engage workers intellectually in the micromanagement of production, as in NUMMI's *kaizen* process.

The Team Concept and Labor Flexibility

Another characteristic feature of the Japanese management model, closely related to QC and small group participation, is the organization of workers into self-managed, flexible teams, sometimes labeled the 'team concept'. At NUMMI, for example, production workers are organized into teams of six to eight people, each with a team leader. Team members rotate jobs and make collective decisions

about how to manage the parts of the production process for which they are responsible (for details, see Brown and Reich, 1989; Holden, 1986; Parker and Slaughter, 1988). Even where team organization is absent, under the Japanese system workers are cross-trained to perform a variety of tasks, and job classifications are vague and few in number. This maximizes management's flexibility in deploying workers as needed and also reduces the boredom and monotony inherent in traditional manufacturing production jobs.

The team system is more characteristic of the Japanese auto transplants (both union and non-union) than of Japanese-owned plants in other industries. In fact, most of the managers I interviewed were unfamiliar with the team concept as used at NUMMI. (Some had never even heard of NUMMI itself.) When asked if any production work in their plant was organized in teams, these managers frequently answered affirmatively at first, but further probing revealed that they were referring to a general emphasis on cooperation or the use of rhetoric about the importance of teamwork, rather than flexible, self-managed work teams like those at NUMMI. One plant actually had 'team leader' and 'group leader' among its regular job titles, but these turned out to be ordinary lead workers and supervisors. Another plant had a program whose title included the word 'team' and the manager I interviewed said that the plant eventually hoped to move toward the team concept, but it had not yet done so. Self-managing work teams are quite rare in US manufacturing as a whole; according to the GAO survey only 9 percent of large manufacturing firms have such teams for more than 20 percent of their workforce, and none of those surveyed have them for more than 40 percent of their workforce.¹⁷ The Japanese-owned plants I visited conformed to this pattern; in fact not one had work teams of the NUMMI type for their hourly workers.

The one that came closest was an electronics plant that organizes its workers into mini-enterprise units. These range from small units of three to four workers to large ones of eighty to one-hundred-and-twenty. Each unit operates as an autonomous 'profit and loss center', buying and selling from other units within the firm (or from outside in some cases) and trying to minimize costs and maximize prices. For production work, the units coincide with the departments of the plant, and department managers keep track of the accounting details, informing workers (90 percent of whom are female) on a monthly basis of the unit's profits and losses. While this reportedly promotes cost-consciousness among workers, it is a more top-down system

than the self-managed teams that exist at NUMMI. In addition, this plant has no regular system of job rotation, although it is the most 'Japanese' of the plants I visited in other respects (it is the one mentioned earlier with a calisthenics program and QCs).

Most of the plants I visited in Japan did not have a full-fledged team system either — it seems to be more common in the auto industry there as well as in the US. But all but one of the Japanese plants did have some sort of job rotation system. In contrast, only three plants among the twenty I visited in California had regular job rotation for production workers. In all three, managers reported that the intent was to offer relief from especially heavy or fatiguing jobs. In one case the plant had experienced high rates of repetitive motion injuries, according to a union organizer who had tried (unsuccessfully) to recruit its workers. In another plant, where assemblers rotate jobs every two hours, a manager reported that this system had been introduced some ten years ago in response to a union organizing drive, not as part of an effort to use Japanese management methods.

Closely related to flexibility is the question of job classifications. Whereas US manufacturing, especially in unionized plants, traditionally involved relatively large numbers of job classifications with clear boundaries between them, the Japanese model is generally associated with a minimal number of broad classifications. Among the forty-nine plants that answered our survey question about this matter, the number of job classifications for production workers ranged from two to one-hundred-and-twenty, with a median of eight classifications. In interviews several managers indicated that they hoped to merge classifications in the future, however. At NUMMI, there are only three classifications, and all the semi-skilled production workers are in a single classification.

The team concept, job rotation and cross-training function much more smoothly if wage rates are determined on a predictable basis. At NUMMI, where virtually all production workers earn the same pay (except team leaders, who get a small premium), cooperation among team members is never undercut by resentments over differential pay rates. The same is true under the *nenkō* wage payment system that prevails at large manufacturing plants in Japan (but rarely at small firms in this dual economy), where wages are based mainly on age and seniority in the context of a lifetime employment system. Here too pay differences do not impede teamwork or flexibility, since all workers are treated similarly over the course of their life cycle (Cole, 1971: 75–88). Even the Japanese auto transplants in the US have not

tried to emulate the *nenkō* wage system; instead they conform to the pattern set long ago by the unionized Big Three domestic auto firms, where wages are tied to job classifications and where pay differentials among production workers are minimal.

The Japanese-owned plants in southern California that I visited are all owned by large firms in Japan, but their wage and promotion systems bear no resemblance to either the *nenkō* system or the domestic auto industry pattern. Instead, at these plants, starting pay rates are directly linked to job classifications, and within classifications individual wages are shaped by some combination of seniority and ability, with ability usually playing the dominant role. Most plants have substantial wage spread among their hourly workforce, with the best paid individuals typically earning two or three times as much as the worst paid. Except in the few unionized plants, each worker is evaluated biannually, and promotions and raises are awarded on this basis. In some of these plants, seniority has an influence on wages, but in most ability or 'merit' is more important — at least officially.¹⁸

In the case of the low-wage, low-skill production workers who make up the bulk of the hourly workforce at most of these plants, however, merit is defined in narrow terms: attendance (the most frequently mentioned item), punctuality, quality and quantity of work and 'attitude' are the usual criteria, not creativity or initiative. As one manager at a plastics plant put it, 'we're not looking for the MBA type'. An employee handbook summarized the typical notion of merit: 'Your job has been awarded to you based upon your previous experience, education, training, ability, attendance, safety record, and attitude. Future job assignments and promotions will be made in the same manner.' Many plants had instituted additional incentives for good attendance, tying it not only to raises and promotions but also to special rewards (cash bonuses, gifts and/or public commendation) for perfect or near-perfect attendance or for not using sick days. Most plants also had progressive discipline systems to punish excessive absenteeism.

In short, both the absence of teams or regular job rotation in most of these plants and the highly individualized, merit-based wage systems used, like other aspects of their work organization, are generally typical of non-union manufacturing firms in the US, contrasting sharply with the practices of the parent companies in Japan.

No-layoff Policies and Worker Attachment to the Firm

The one area in which many of the Japanese-owned plants in California do appear to conform to Japanese management practices involves employment security. The majority of these plants are committed to avoiding layoffs of hourly workers whenever possible, and many have de facto 'no-layoff' policies that have yet to be violated. Among the forty-nine plants that responded to a survey question on this issue, about two-thirds (64 percent) reported that they had had no layoffs over the previous five years. Similarly, among the twenty plants I visited, eleven had never laid off hourly workers and a twelfth had not done so since 1974. The layoffs that did take place in the other eight plants usually affected small numbers of people and were often brief. It might be objected that many of these plants were opened or acquired since the last recession, so that their no-layoff policies have yet to be seriously tested. However, six of the eleven firms that reported no layoffs in their entire history had opened or been acquired before 1980.

Some of the American managers interviewed stated that they would prefer to be able to lay workers off, but that 'the Japanese are against this'. In one large metals plant, the manager reported disapprovingly that when parts of the plant are shut down due to lack of business, workers are not laid off but instead moved to other areas, and are still paid for the highest job they are qualified for. 'The Japanese fear layoffs, which they think invite unionism'. In another case, a manager in a health care products plant complained that the de facto no-layoff policy protected 'bad workers'. A third manager, at a Japanese-owned plastics plant which has never laid anyone off, reported with apparent amazement that when things are slow, people are put to work cleaning up the plant. He compared this to his previous experience in American industry, where 'people would be laid off at the drop of a hat'. Indeed, while some US-owned firms do have no-layoff policies (especially in the non-union sector), they have never been in the majority and their numbers have dwindled recently under competitive pressures (Foulkes, 1980: Ch. 6; *Business Week*, 1990: 86).

Among the plants with no history of layoffs was one that opened in 1972. When faced with a business downturn in the early 1980s, this plant introduced a work-sharing program to avoid layoffs, with all employees working three days a week instead of five. Another plant that opened in 1976 and that has had several layoffs in the past

recently introduced work-sharing as well, and at the time of my visit was operating with a four-day work week for all employees. The manager interviewed at this plant claimed that this schedule was popular with the immigrant workers employed there, since many of them did odd jobs 'off the books' on the fifth day of the week to supplement their incomes. The work-sharing policy was also highly effective for the company in retaining labor, he reported. Another manager who had tried to establish a QC program at his plant indicated that the one layoff that workers there had experienced undermined the program to such a degree that the firm was now determined to avoid future layoffs of the regular workforce, limiting any dismissals to temporary workers.

Indeed, this is standard practice in Japan, where the permanent workforce in large firms enjoys 'lifetime employment' at the expense of temporary or part-time workers (often women) working directly for the firm or for its subcontractors. The no-layoff policies at Japanese-owned plants in this country are not fully equivalent to 'lifetime employment', but both forms of employment security are often predicated on the existence of an expendable temporary workforce. Many non-union plants in the US with no-layoff policies also rely on temporaries as a cushion. All of the plants that reported no history of layoffs used temporary workers, as did most of the others. (The only exceptions were two unionized plants where the union contract prohibited or restricted the use of temporaries.) One manager was explicit about the link between the no-layoff policy and the use of temporary workers: 'We don't use the L-word here', he said. 'Instead we used leased employees'.

Most of these plants recruit temporary workers through outside agencies, though a few hire them directly 'off the street'. One plant reported that it interviews prospective workers directly but then sends those it plans to hire to an agency; another suggests to all workers who inquire about jobs that they apply via the agency. Temporary workers are typically paid less than other hourly workers and receive no fringe benefits (though some receive limited benefits from the agency). At one plant that makes extensive use of temporaries, the manager told me that they are excluded from the QC program and do not receive the uniforms issued to other hourly workers. In some plants, workers reportedly remain 'temporary' workers for years, but in other plants the pool of temporaries is used to recruit permanent workers, so that temporary status is equivalent to a probationary period.

While their no-layoff policies set the Japanese-owned firms apart from their US-owned counterparts, this is less true of the use of temporary workers. A recent survey of US firms conducted by the Bureau of National Affairs (BNA) (1986: 7–12) found that 74 percent of the manufacturing firms responding used agency temporaries, and 56 percent used ‘short-term hires’. However, the BNA survey found that in most cases temporaries accounted for less than 1 percent of the regular workforce and rarely more than 6 percent.¹⁹ At the Japanese firms I visited, however, temporaries often comprised a more substantial proportion of hourly workers — as many as a third in some cases, typically 5 percent or less.

The no-layoff policies of these firms rest on another cushion as well: high turnover, especially in the electronics plants and others where wages are relatively low. One electronics plant manager attributed the high turnover in entry-level jobs, which had climbed to 4.5 percent in the most recent *month* on record at the time of my visit, to the fact that ‘workers care about cents per hour and will leave for 50 cents more per hour down the street at K-Mart’. (There is in fact a K-Mart warehouse next door to this plant.) While this was the highest turnover figure reported in my interviews, at about half the plants turnover was characterized as ‘high’, with those managers who reported actual figures citing rates from 17 to 28 percent annually.²⁰ These rates compare to a national average for manufacturing of about 13 percent (although rates were slightly higher on the West Coast).²¹ Also contributing to high turnover rates were strict absenteeism policies; some managers indicated that poor attendance was a major cause of firings, though others were more lenient.

In many plants, both firings and resignations (the major components of turnover) were largely confined to the lowest-paying jobs; workers who rose into better-paid positions, in contrast, sometimes had turnover rates that were *lower* than management desired. ‘We would like to have more turnover in the assembly group’, one manager of a food products plant said, ‘because these are hustle-bustle jobs and it’s hard for the older workers to keep up’. Another manager in a large electronics plant that opened nearly twenty years ago was also concerned that turnover was not *higher*. ‘While many of our employees are young men who move on to other things after a few years, some of the people here have been around for a long time, and we’re having some problems of motivation with them’, he complained. A third manager suggested that the auto accessories plant he worked for ‘would actually be happier to have a bit more turnover, to

help keep the wage bill down'. It appears that the high turnover rates characteristic of these plants are not entirely unwelcome. For some firms, they even may be the functional equivalent of layoffs, in that as business slows the workforce can be reduced substantially by attrition.

The existence of de facto no-layoff policies at the majority of these plants (albeit mitigated by high turnover rates and made possible by extensive use of temporaries), and the infrequency with which layoffs occur at the rest, are their most 'Japanese' features. Even this is part of the human resources apparatus that has long been used in large domestic non-union firms, after which California's Japanese-owned firms seem to model their policies.

Management Attitudes towards Unionism

Only five of the sixty-six Japanese-owned plants in California with more than a hundred workers are unionized, and all but one was effectively unionized prior to being bought by the Japanese. Several managers emphasized the link between their firms' human resource practices and their desire to operate on a non-union basis. When asked if he was concerned about the prospect of unionization, one manager at an electronics plant replied, 'Everything I do and breathe is designed to prevent a union from coming in here!' He added that if workers were unhappy enough to turn to a union, it would mean he had failed as a human resources manager. 'I want to make unions superfluous', he said. This remark was echoed by many other managers. Several suggested that workers only turn to unions when management is abusive. 'We treat our workers fairly', a metal products plant manager said, 'so they don't need a union to speak for them'. Another manager at a steel plant expressed great concern about how his first-line supervisors treat workers, and reported that he had even suspended some supervisors temporarily for 'attitude adjustment'. 'If they're too hard [on workers]', he said, 'we may be buying a union. We keep track of this very closely'.

Several managers emphasized that their human resource policies were designed to forestall any interest in unionization. One electronics plant manager explained that union avoidance was a key reason for his efforts to promote frequent communications between workers and management. 'This helps keep our finger on the pulse', he told us. 'Without this you end up with an adversarial relationship,

with unions fighting companies'. Another manager at a metal products plant attributed a union drive that took place there the year before our visit to 'poor communications', adding that prior to the union election 'we established better communications, and so the union lost.' A manager at a plastics products plant said that the participatory programs he was setting up were important 'to avoid a union situation'. Others noted the role of no-layoff policies in union avoidance. 'The Japanese avoid unions by treating people right', one manager said regarding the no-layoff policy.

Virtually all the managers interviewed at the seventeen non-union plants I visited spoke frankly about their desire to avoid unionization. None pretended to have a neutral stance toward organized labor, and several stated that keeping unions out was among their highest priorities. 'I don't want a union here — ever!' one manager at an electronics plant exclaimed. A manager at a plastic products plant told me that workers 'realize that it's kind of anti-union around here', adding that 'the company would probably move away if a union came in'. Another manager, when I asked if there had ever been any efforts to unionize at his auto accessories plant, replied 'No, knock on wood'. He went on to mention rumors that after the UAW's defeat at the Nissan plant in Tennessee, the union might try organizing suppliers instead, adding, 'We're always alert — we don't want a union organization here'.

At nine of the seventeen non-union plants, management was aware of at least one effort to unionize, although in all but three cases the effort had been dropped before it reached the point of an election. At one electronics plant where there had been two separate unionization efforts, the manager told me that the Japanese are very fearful of American unions, and that they would probably shut down the plant if it were ever unionized. 'That's the first file folder in my desk drawer', he added, pulling out a red file folder labeled 'Union Activities' to show me. He recalled that the two previous efforts to unionize there had been 'nipped in the bud' thanks to his 'anti-union campaign' in the plant. 'Once it starts, we get all the supervisors together and tell them what they can and can't do. We tell the workers what to expect, what the union will do and what the consequences of unionization would be.' At another electronics plant, among the largest in the state, a union campaign was underway at the time of my visit, and the firm had engaged three different labor consultants (one local, one national and one in another city where the firm was setting up a new plant) to help them resist the effort. The manager I

interviewed mentioned that he saw Nissan's successful anti-union campaign at Smyrna as a good model, a comment echoed by several other managers.

At another electronics plant where a unionization drive had been defeated in a close election a few years before my visit, the company had hired a labor consultant to orchestrate such a campaign. 'We spent a lot of money educating people', a manager there recalled. 'The consultant told workers that it would be a mistake on their part to unionize, because they now have a voice in the plant and they would lose that.' At this plant, even though the union was ultimately defeated, the Japanese company president felt personally responsible for the fact that unionization was even attempted. 'He saw it as a sign of his own failure', the American manager recalled. 'He carried it to such an extreme that he didn't even go back to Japan for the funeral when his mother died in the middle of the campaign.'

I visited two steel plants which had been closed for a period prior to being acquired by the Japanese, both of which had been unionized before and had then made a 'transition to a non-union operation'. Both plants rehired some hourly workers they had employed before the closures, but on a highly selective basis. 'Many of the former workers were pro-union, and we don't hire them', a manager at one of these plants said. 'Remember, we're trying to run it non-union. We hire a lot of out-of-towners.' At this plant, there had been a union drive right after the plant reopened, and 'management brought out the big guns', he recalled. 'We had a meeting with all the employees in a big room. It was staged so that at one point a worker asked if the managers would mind leaving, and then they passed around a petition which almost everyone signed, saying they didn't want a union.'

These firms did not hesitate to express their anti-union views directly to their employees. One manager of a food products plant told me that his firm wants to be 'up front' about the issue. 'We tell our workers, "If you want a union, don't join us" '. Some firms published official statements to this effect in their employee handbooks. One such handbook included a section entitled, 'Company X — A Non-Union Company', which stated:

At Company X, employees have chosen not to have a union. . . . In today's uncertain world, with all the pressures of our modern society, we want to keep Company X free from the artificially created tensions which could be brought on by an outside party, such as a union. We feel that a union would be of no advantage to

any of us — *it could hurt the business which we all depend on for our bread and butter.* Furthermore, we have enthusiastically accepted our responsibility to provide you good working conditions, good wages, good benefits, fair treatment, and the personal respect which is rightfully yours. All this is part of your job with Company X and cannot be 'purchased' by anyone having you pay union dues. We know that you want and are able to express your problems, suggestions and comments to us so that we can understand each other better. This can be done without having a union jammed between you and your supervisor. We want you to speak up for yourself — directly to us. We will do our best to listen and respond. (Emphasis added.)

Another employee handbook's 'Statement on Unions' was more menacing:

Company Y does not have a union, and you are not required to be a member of a union to work here. *Further, we will do all in our power legally to see that no employee ever has to pay union dues to work here.* Our employees seem to be satisfied with this arrangement. . . . Unions have not provided any of the wages and benefits we enjoy, and we do not expect them to help us improve upon these benefits in the future. . . . If any person attempts to pressure you into joining or signing a card in support of a union you should consider the matter carefully, and if there are any questions, feel free to go to your supervisor. . . . *Company Y will resist any efforts to bring a union into this plant by all legal means at our disposal.* (Emphasis added.)

The fact that most of these plants have parent firms whose workers are represented by unions in Japan did not prevent them from resisting efforts to unionize their plants in the US. One manager I interviewed at a food products plant in Japan, a former union president himself, spoke at length about how good the union-management relationship was at the plant in Kawasaki that I visited. But he added that the firm had located one of its plants in North Carolina in part because, 'honestly speaking, they have no big, strong labor unions there'. I asked why, given how positively he characterized the union's role in Kawasaki, the firm was so eager to avoid unionization in the US. 'If we could find the same kind of labor union there, we would welcome it', he replied. 'But in the United States, the unions tend to make trouble, they have a class struggle concept. It's very harmful'. Other Japanese managers used a different logic to reconcile the contradiction between their acceptance of unionism at home and their resistance to it in the US. At a unionized electronics plant in Japan, a manager told me that the union was a useful vehicle for communication between managers and workers. But in the same firm's California plant, 'where there are American people working,

with cultural values that we don't fully understand, we'd rather not have a union'.

In the postwar period, and especially during the American occupation, Japanese unions were modeled directly after those in the US. However, Japan's more radical unions were crushed in the 1950s, and the nation's labor movement developed its own distinctive character. Organized on an enterprise basis, Japanese unions today are generally viewed as less militant and as more management oriented than their counterparts in the US (Gordon, 1985; Cook, 1966; Shirai, 1983; Cusumano, 1985: Ch. 3). While the differences are sometimes overstated, the Japanese managers who pointed out that unions in the US are unlike those in Japan are correct.

These plants, then, do not conform to the 'Japanese' human resource practices that characterize both NUMMI and other Japanese auto transplants in the US as well as many large manufacturing facilities in Japan itself. The reasons for this are complex, but include the fact that most of these plants perform highly routinized production tasks in their role as export-substitution branches of their parent firms, which continue to carry out the more complex phases of the production process in Japan. Another reason California's Japanese-owned plants are not very 'Japanese' is that most of them rely on a highly 'localized' management staff. Although my survey is too crude and the number of cases too small to be definitive on this point, the data do suggest a positive relationship between the extent to which Japanese nationals are represented in management and the use of QCs and teams.

NUMMI shows that Japanese firms *could* replicate a high-trust, unionized model of industrial relations in their US plants, incorporating many of the elements that brought them success at home. But it appears that most are bypassing that option and instead conforming to American management ideology and practice, choosing to avoid unions wherever possible and relying on the human resource practices developed by US-owned non-union firms rather than on those used by their parent firms' plants in Japan. Those who look to JDI as a source of improvement in the US labor relations system are likely to be deeply disappointed.

Notes

A fuller report on the research summarized in this article may be found in Ruth

Milkman, *Japan's California Factories: Labor Relations and Economic Globalization* (UCLA Institute of Industrial Relations, Monograph and Research Series, No. 55, 1991).

1. Direct investment involves foreign ownership of a controlling interest in a domestically based firm or in a parcel of real estate. In contrast, indirect or portfolio investment (not considered in detail here), involves foreign ownership of bank accounts, securities, or bonds of firms or governments.

2. The most recent figures available are for 1990, when the total value of US direct investment abroad was reported at \$422 billion, compared to a total of \$404 billion in foreign direct investment in the US (US Department of Commerce, August 1991: 54).

3. These data differ in some respects from those published by the US Department of Commerce that are the basis of the previous discussion, because of different reporting requirements and data collection methods. The Japanese data are based on investment levels notified to and approved by the government (which are often higher than actual JDI), and they do not include disinvestment or reinvested earnings. Both countries count investments of more than 10 percent equity as FDI (see Fujita, 1990: 32). The US data offer more detail about the composition of JDI inside the US; however only the Japanese data allow a comparison of patterns of JDI in the US with JDI elsewhere in the world. The Japanese data cited in this paragraph are cumulative figures from fiscal year (FY) 1951 to the FY cited. Each FY runs from 1 April to 31 March; for example FY 1988 is from 1 April 1988 to 31 March 1989.

4. This includes the US and Canada; data are not published at this level of detail for the US separately. However, for all years shown the vast bulk of JDI in North America was in the US.

5. The 1990 figure is from US Department of Labor (1991: 229). For discussion of recent trends in unionization, see Freeman (1988).

6. See US Department of Commerce (July 1991: 77, 85); Glickman and Woodward (1989: 34). All these data exclude employment by foreign-affiliated banks.

7. There is now a large literature on NUMMI. A good overview comparing it to a GM plant which has unsuccessfully sought to imitate the team system is Brown and Reich (1989). See also Holden (1986) and Parker and Slaughter (1988).

8. See Parker and Slaughter (1988: 111). An analysis of the Ford-Mazda joint venture in Michigan from a similar point of view is Fucini and Fucini (1990). This point of view is also common in literature on Japan. See, for example, Ichiyō (1986) and Dohse et al. (1985).

9. This figure includes only plants where Japanese companies held a majority ownership share. There were 245 such factories in California at the end of 1989, 18 percent of the national total. See Japan Economic Institute (1991: 4).

10. Questionnaires were sent to the seventy-two Japanese-owned firms in the state listed as having more than 100 employees in the Japan Economic Institute's national listing of US manufacturing affiliates of Japanese companies published in late 1988 (Japan Economic Institute, 1988). Six of these firms were found to have been sold (and thus were no longer Japanese owned) or not to be engaged in manufacturing activity. Of the other sixty-six, twenty-six responded to the survey by mail and responses were obtained from an additional twenty-four by telephone. Sixteen plants refused or failed to respond, for a total response rate of 76 percent. The firms were promised that they would not be identified directly or indirectly in published reports of the research results.

11. No attempt was made to select a random sample for the factory visits in California or in Japan, but plants in a wide variety of industries, acquired and new, unionized and non-union, were included. The fact that only one firm in California turned down a request for an interview suggests that the twenty cases are reasonably representative. The firms themselves designated the management interviewees, usually human resource managers. The interviews lasted between forty-five minutes and three hours; most were between sixty and ninety minutes. They were not tape-recorded (to encourage frankness); instead I and my research assistant took notes and wrote them up later the same day, together with our impressions from the factory tours that most visits included. The firms were promised that they would not be identified directly or indirectly in published reports of the research results, as in the survey.

No attempt at representativeness was made in the Japanese factory visits, due to difficulties of access and time and language constraints, but I did attempt to visit plants in the same range of industries I had seen in California. Two of these visits were arranged through my contacts with managers I had previously interviewed in California; the other three were arranged by the Japan Institute of Labor.

12. For discussion of the tendency of Japanese-owned auto firms to avoid locating in areas where blacks make up a large proportion of the labor supply, see Cole and Deskins (1988).

13. For Japanese-owned plants, these averages are weighted and are average wages for *employees* in the plants (not the average of each plant's average wage). The state-wide data are for June 1989 and are computed from California Employment Development Department (1990: 42-3).

14. Most conform to the pattern described in the classic account by Foulkes (1980). See also the discussion in Chapter 4 of Kochan et al. (1986).

15. The response rate on this survey was 51 percent, with 476 responding firms. The data for manufacturing firms specifically are not included in this publication, but were kindly provided in unpublished form from the Center for Effective Organizations at the University of Southern California.

16. The questions were formulated differently; my survey did not ask about the proportion of employees involved in QCs; and the average firm size in the two samples is quite different. The firms surveyed by the GAO had a median size of 9000 employees, compared to a median of 275 for the firms I surveyed. Although one can only speculate about the effects of these differences, they might cancel each other out. On the one hand, the larger average firm size in the GAO study should make the frequencies of QCs higher than they would be otherwise, since large firms are more likely to have QCs than small ones. On the other hand, the fact that some firms have QCs and other small groups for only a small portion of their employees may lead to an exaggeration of the frequency of QCs in the results of our survey of California's Japanese-owned large manufacturing firms. The GAO survey found that 70 percent of the manufacturing firms surveyed had QCs for 1 percent or more of their employees, and 75 percent had employee participation groups other than QCs for 1 percent or more of their employees. These levels are far higher than those found in my survey, which did not enquire about the proportion of employees involved in QCs but simply asked, 'Are there quality circles for hourly workers?'

17. Unpublished data supplied by the Center for Effective Organization at USC (see note 15).

18. See Foulkes (1980: Ch. 9) for discussion of the 'mythical' aspect of the merit principle.

19. The response rate on the BNA survey was 55 percent. The figures on the proportion of regular employees made up by temporaries are for all respondents, not only for manufacturing.

20. This conflicts with the claim made many years ago by Johnson and Ouchi that Japanese plants in San Diego and elsewhere had lower than average turnover rates. See Johnson and Ouchi (1974: 63).

21. These figures are from a 1986 survey conducted by the Administrative Management Society. For details, see Norback (1988: 13.23–13.24).

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