

# *Satei* (Personal Assessment) and Interworker Competition in Japanese Firms

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*Satei* (personal assessment) has an important influence on the rate of promotion and amount of monthly pay of Japanese workers, resulting in widespread interworker competition. The existence of *satei* is partially responsible for limited leisure time and high obedience to management among Japanese workers. Individual workers and enterprise unions, however, generally accept the *satei* system.

A JAPANESE WORKER'S rate of promotion and level of monthly pay are determined by an assessment made by his or her foreman and supervisor called *satei* or *koka* in Japanese. *Satei* in some ways resembles what is called personnel appraisal or merit rating in the United States, but differs in the following respects: (1) it influences remuneration by determining both the rate of promotion and the level of monthly pay, (2) it applies to both white-collar workers and blue-collar workers, and (3) it assesses not only factors such as (a) past performance that can be assessed objectively but also factors for which no clear objective standards can be established, such as (b) a worker's eagerness to perform his or her job, his or her attitude as a work group and team member, and (c) his or her potential ability to perform jobs more effectively. It should be noted that *satei* emphasizes factors (b) and (c). The importance of these factors is related to the unique work organization of the Japanese firm. It is impossible, however, to establish clear, objective standards upon which such factors as attitudes and potential ability can be evaluated. For this reason, perhaps *satei* is most appropriately translated as

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“personal assessment,” words that capture the highly subjective nature of *satei* and its difference from other types of rating or appraisal systems

Most Japanese firms use *satei*. *Satei* applies to all regular workers in a firm but not to temporary workers. Although it is one of the key elements that give Japanese internal labor markets their unique characteristics, the *satei* system receives little mention in references to Japanese internal labor markets by western scholars

For example, Kenny and Florida (1988) criticize Dohse, Jurgens, and Malsch (1985), suggesting instead that the labor process in post-Fordist Japan is favorable for workers. They seem to be unaware of the *satei* system, if they had realized that the *satei* system was a symbol of the prerogatives of management, they might have revised their assertion

Aoki (1988, ch. 3) was the first in English-language literature to bring serious attention to the *satei* system. According to Aoki, the broad autonomy given to work groups increases the likelihood that an individual work group might develop interests and objectives in conflict with those of the rest of the firm. The *satei* system aligns the goals of each work group with those of the rest of the firm, increasing the effectiveness of the Japanese firm. Aoki does not address the issue of whether the *satei* system is beneficial to the workers, his omission of this issue indicates the limits of a neoclassical approach to the theory of the firm in understanding the *satei* system.

Ishida (1990, ch. 2) asserts that the *satei* system and the resulting differentials in promotion and pay are consistent with Japanese workers' basic sense of fairness, but his assertion is only a hypothesis, as he himself admits that it is “impossible to provide the evidence” (p. 67). Furthermore, his view ignores the fact that some workers in the private sector and many workers in the public sector desire a more egalitarian system (Endo, 1981). Moreover, Japanese workers' basic sense of social relations is the result of conflict between labor, management, and government after World War II and a competition-oriented schooling system. What Ishida considers to be workers' basic sense of fairness is, in fact, the product of these factors.

In this paper, I will use a case study to detail the *satei* system and demonstrate the resulting degree of pay differentials among workers in one firm. I will also address the result of *satei*, interworker competition, and its unfavorable effect on individual workers. My interpretation of *satei* is very different from that of Aoki and that of Ishida.

## A Description of a *Satei* System

ZOFD is the subsidiary of a typical Japanese electronics manufacturer, which produces ICs and LSIs in four plants. Established in 1964, it presently

TABLE 1  
STATUS PAY (*SHOKUNOSHIKAKU-KYU*) AT ZOFD, 1990

Status ( <i>shokunoshikaku</i> )	Amount of Pay (¥)
7	55,400
6	47,100
5	41,800
4	38,000
3	35,800
2	33,600
1	N/A

SOURCE: ZOFD internal document

has about 3,100 employees. *Satei* applies to its 2,600 regular workers, including about 900 male production (i.e., blue-collar) workers and about 1,000 female production workers. The following is a description of ZOFD's *satei* system.

To understand the *satei* system, it is necessary to first understand *shokunoshikaku*, to which it is closely related. *Shokunoshikaku* is an employee's status within the firm, which in theory is determined by an employee's level of ability to perform various jobs. It does not refer to a specific position such as supervisor or foreman. The names and levels of *shokunoshikaku* differ by firm. There are seven levels of *shokunoshikaku* for production workers at ZOFD, ranging from SS1 to SS7 (see Table 1). Advancement from one *shokunoshikaku* level to the next is called *shokaku*, or "promotion."

*Hancho* (second foremen) are appointed from holders of SS5 or SS6 status, while *kakaricho* (first foremen) are appointed from among workers of SS6 or SS7 status. Consequently, there are workers who have SS5, SS6, or SS7 status but are neither *hancho* nor *kakaricho*. Because ZOFD's enterprise union includes SS1 to SS7 workers, both *hancho* and *kakaricho* are union members.

The *satei* that determines the rate of promotion and level of monthly pay is carried out every April.<sup>1</sup> A *kakaricho* (first foreman) assigns to each of his or her workers a score of A to F based mainly on his or her assessment of three factors: (a) performance in previous periods, (b) eagerness to perform the job and attitude as a member of a work group and team, and (c) potential ability to perform jobs more effectively. A score of A or B

<sup>1</sup> *Satei* that determines bonus is carried out in December. Consequently, ZOFD carries out *satei* twice a year.

represents a favorable rating, while a score of E or F represents an unfavorable one. The *kacho* (section manager) reviews the *kakaricho*'s assessment and makes his or her own assessment of the worker, and the *bucho* (department manager) adjusts the scores assigned by the *kakaricho* and *kacho* to determine the final score. The distribution of final scores assigned to workers in a single unit is specified in advance by management. For example, of level SS1 to SS4 workers in a single unit, 5 percent receive A, 10 percent receive B, 20 percent receive C, 57 percent receive D, 6 percent receive E, and 2 percent receive F, with D considered the standard score. The worker is not informed of the final score.

A worker's *satei* score directly determines the speed of *shokaku* (promotion). The effect of *satei* on a worker's monthly pay is more complex. ZOFD's monthly pay, for example, has three components: (a) *shokunoshikaku-kyu* (status pay), (b) *kihonkyu* (basic pay), and (c) miscellaneous allowances. The effect of *satei* on each of these components differs as shown below.

***Shokunoshikaku-kyu*** *Shokunoshikaku-kyu* (status pay) depends on *shokunoshikaku* (status) (see Table 1), and *satei* affects this component of pay by determining the speed of *shokaku* (promotion).

***Kihonkyu*** *Satei* affects *kihonkyu* by influencing the level of *teiki-shokyu* (regular pay increase) of *kihonkyu*. *Kihonkyu* increases each April by the amount of *teiki-shokyu*, and the amount of *teiki-shokyu* differs depending on *shokunoshikaku* (status), position, and *satei* score (see Table 2). The effect of *satei* on the amount of *teiki-shokyu* is significant. For example, a worker of SS4 with a *satei* score of D would receive an increase of ¥5,610 while a worker with a score of A would receive ¥6,630 (¥5,610 + ¥1,020) and one with a score of F would receive only ¥4,330 (¥5,610 - ¥1,280).

**Miscellaneous allowances:** *Satei* also influences indirectly certain allowances, such as the allowance for position. A *hanchō* receives ¥4,000 per month while a *kakaricho* receives ¥7,000, and a worker's *satei* scores also influence whether he or she is promoted to such a position. Other allowances, such as the shift premium, are influenced by *satei*, since they are determined by the amount of *shokunoshikaku-kyu* (status pay) and *kihonkyu* (basic pay). *Satei* does not, however, have an effect on the allowance paid to family dependents.<sup>2</sup>

<sup>2</sup> ZOFD does not pay the allowances for housing and commuting costs that are often paid in Japanese firms. Because housing costs near the four ZOFD plants are low and most workers live near the plants, such allowances are unnecessary.

TABLE 2  
REGULAR PAY INCREASE (*TEIKI-SHOKYU*) BY STATUS (*SHOKUNOSHIKAKU*), POSITION, AND  
*SATEI* SCORE AT ZOFD, APRIL 1990 (IN ¥)

Status ( <i>shokunoshikaku</i> ) and Position	<i>Satei</i> Score A	B	C	D	E	F
7 and First Foreman ( <i>kakaricho</i> )	13 520	12,630	11,230	9,950	8,420	7,650
7	12 220	10,710	9,950	9 180	7,900	7 140
6 and First Foreman ( <i>kakaricho</i> )	13,520	12,630	11,230	9 950	8,420	7,650
6 and Second Foreman ( <i>hancho</i> )	11,220	10,710	9,690	8 670	8,420	7 650
6	9,830	9,320	8 810	8,040	7 020	6,250
5 and Second Foreman ( <i>hancho</i> )	10 200	9 690	8,670	7,650	6,120	5,350
5	8,290	7 780	7,400	6,760	5,740	4,970
4	6,630	6,510	6 120	5,610	4,970	4 330
3	5,610	5 490	5,100	4,590	3,950	3,310
2	5,100	4,980	4 590	4,080	3 440	2,800

SOURCE ZOFD internal document

*Satei* affects monthly pay in a similar fashion in other large Japanese firms. According to the Rodosho, Seisakuchosabu (Ministry of Labor, Department of Policy and Labor) (1989), 80.9 percent of large Japanese firms (those with over 1,000 employees) have *shokunoshikaku-kyu* (status pay). In these firms, *shokunoshikaku-kyu* (status pay) depends on *shokunoshikaku* (status), and the speed of promotion in *shokunoshikaku* is determined by *satei*. In 78.3 percent of large Japanese firms, the amount of *teiki-shokyu* is determined by *satei* and 68.3 percent of Japanese firms use *satei* to determine bonuses (Rodosho, Seisakuchosabu, 1985).

### Differentials in Promotion and Monthly Pay

*Satei* influences the speed of *shokaku* (promotion) among workers at ZOFD (Figure 1). Workers are promoted at the same rate until they are about 22 years old and have 4 years of tenure. After this, differences begin to arise in the speed of *shokaku*, and each year the disparity in *shokunoshikaku* (status) level between the slow- and fast-track workers increases. After a number of years, it is likely that a fast-track worker will be promoted to SS8 and become a *kacho* (section manager), a white-collar position, while the slow-track worker will be stuck at SS5.

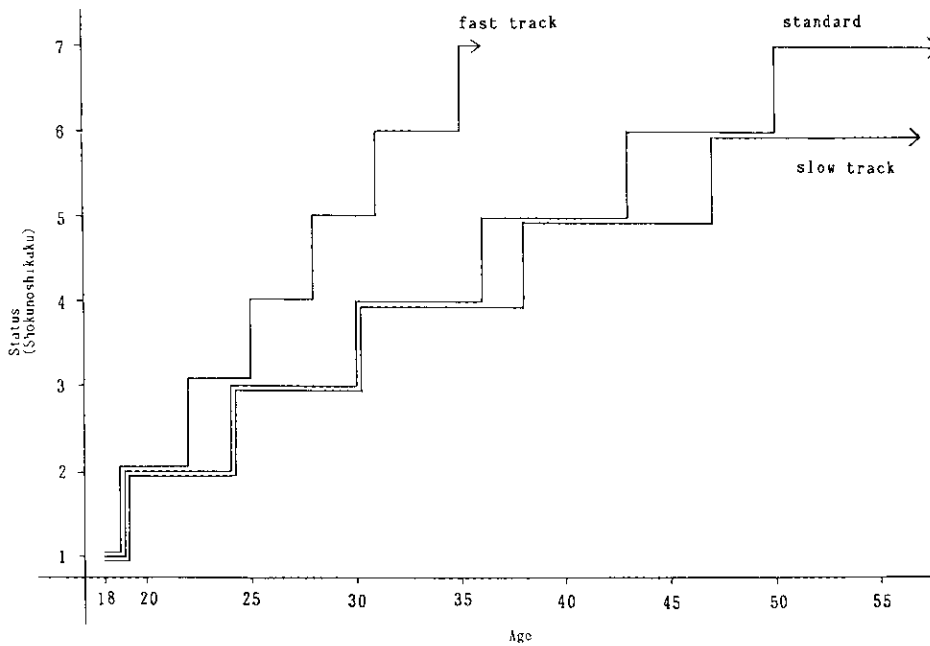


FIGURE 1 Promotion patterns for production workers who entered ZOFG directly from high school. Patterns of slow and standard track workers are according to work rules, fast-track worker is an actual case, as of 1990 (Source: ZOFG internal documents and interview with ZOFG managers.)

Different rates of *shokaku* (promotion) result in differentials in monthly pay that grow as job tenure increases. Figure 2 shows the distribution of *shokunoshikaku-kyu* (status pay) and *kihonkyu* (basic pay) for male production workers who entered ZOFG directly from senior high school. There are a total of 278 production process workers who fulfill these conditions, 250 of whom are under 32 years of age.<sup>3</sup>

As age and years of tenure increase, the pay gap between workers widens, corresponding to the difference in the rate of *shokaku* (promotion) between workers. Although Figure 2 shows a cross-section, the *satei* system has not changed significantly in 20 years, and it can be assumed that a time series would be similar, making comparison with Figure 1 possible. The starting pay of the 26 male production workers who entered ZOFG directly after graduation from senior high school at 18 years of age is

<sup>3</sup> In June 1990, ZOFG's union assembled pay slips of all workers of SS7 and below to assess the effect of *satei* on the distribution of pay. As far as the author knows, Figure 2 is the first example in both the English and Japanese literature of data on the distribution of pay as a result of *satei*.

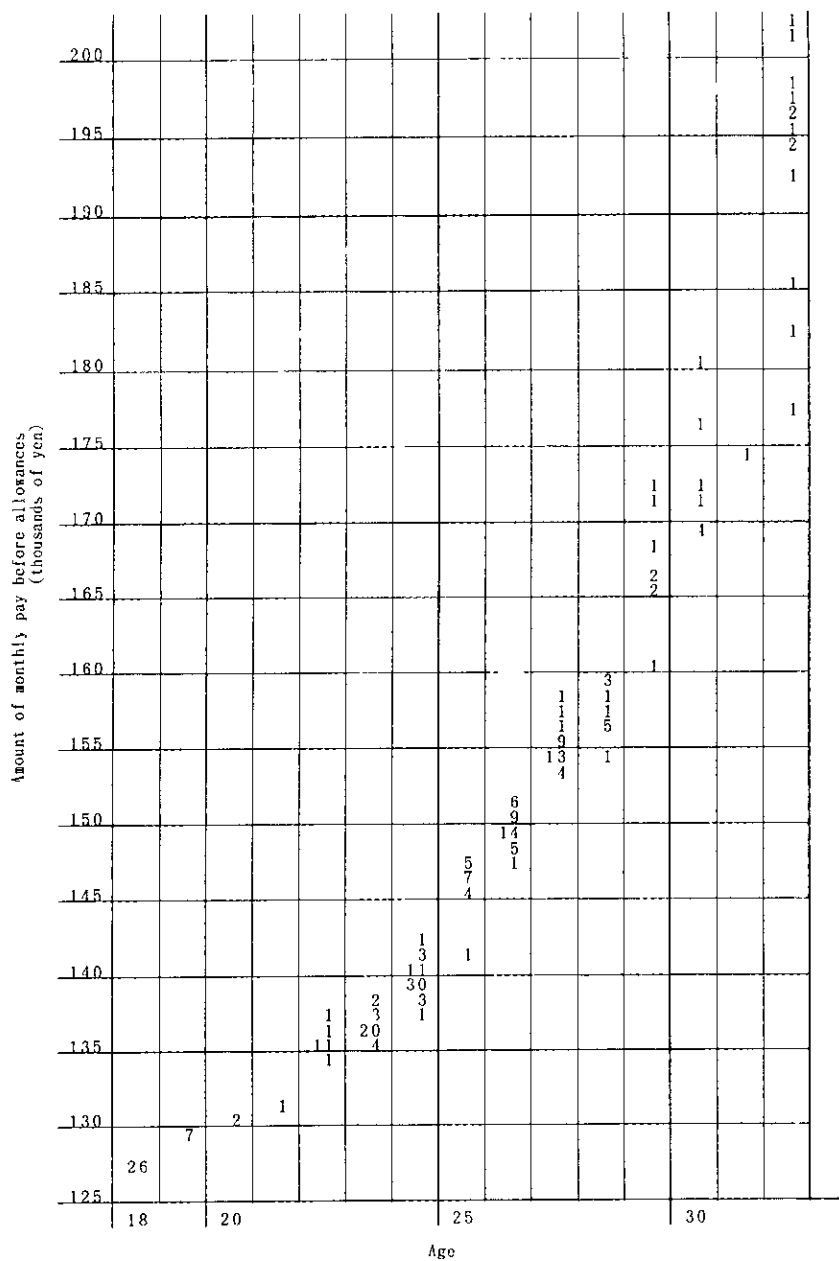


FIGURE 2 Pay differentials for male production workers, ages 18-32 who entered ZOFD directly from high school, June 1990. Figures represent number of workers of each age at each level of monthly pay (Source: ZOFD union internal document)

¥127,500 There is no difference in pay or *shokaku* (promotion) between such workers until ages 21 or 22 when pay differences begin to arise with the *shokaku* (promotion) of the fast-track workers to SS3 The difference in pay continues to increase as the fast-track workers are promoted to SS5 at age 29 or SS6 at ages 31 or 32

The maximum amount of pay for a worker 32 years of age is ¥202,000, while the minimum is ¥177,000, a difference of about ¥25,000 Of this ¥25,000, ¥9,100 is the difference between the *shokunoshikaku-kyu* (status pay) for SS6 of ¥47,100 and that for SS4 of ¥38,000 (Table 1) The remaining difference of about ¥15,900 is the difference in amount of *teiki-shokyu* (regular pay increase) accumulated between the ages of 19 and 32

Because *satei* results in a large variance in promotion and monthly pay between workers, it means intense competition among rank-and-file workers for *satei* scores The popular claim that industrial relations in Japan is marked by collectivism overlooks competition between workers I believe that interworker competition for *satei* scores is one of the most important characteristics of internal labor markets in Japan

### The Effect of *Satei* on the Lives of Workers

The *satei* system is either implicitly or explicitly accepted by many Japanese trade unions This does not mean that *satei* and its result of interworker competition have no unfavorable effects on individual workers In this section, I will consider two of these effects, decrease in leisure time and increase in obedience to management The following are general observations rather than those specific to ZOFD

The *satei* system decreases a worker's leisure time in three ways It not only increases working hours that are recorded in labor statistics, but it also increases "hidden" working hours that are not captured by labor statistics and increases quasi working hours that are considered leisure hours in labor statistics

**1 Increase in working hours** The *satei* system makes it very difficult for a worker to refuse overtime work or apply for paid holidays, as workers who do so are liable to receive low *satei* scores Groups and teams in a Japanese firm operate with the minimum number of workers necessary and other members must often work harder to compensate for the loss of labor by the absent worker Thus, a worker who refuses overtime and applies for a paid holiday is apt to be assessed as having a poor attitude as a group or team member This is one of the major reasons why overtime working hours have increased gradually over the last 15 years, and workers apply



for only half of the 15 paid holidays they are allowed annually. In addition, scheduled working hours are long. Production workers in manufacturing industries in Japan worked 2,189 actual hours per year in 1988, compared with 1,962 hours in the United States and 1,642 hours in West Germany (Rodoshko, 1990).

**2 Increase in “hidden” working hours** The *satei* system also causes workers to report fewer than their actual overtime working hours, meaning that the 2,189 hours per year reported above do not capture all working hours. Underreporting of hours is more common among white-collar workers. Since the ability to do much work in few hours is seen as a sign of competence, a worker will try to impress his boss by not reporting extra hours. Also, management of Japanese firms often announces “efforts” to reduce working hours by limiting the number of overtime hours that can be worked (to 20 hours a month, for example). Workers are unable to report more than the limited number of hours, even if actual working hours are greater, since workers who report actual hours are liable to be regarded as “violators” and receive low *satei* scores. The result is a discrepancy in working hours reported by statistics and actual working hours. According to the statistics, for example, working hours for male workers in the banking business are relatively short, but it is common knowledge in Japan that bank workers have some of the longest hidden working hours.

**3 Increase in quasi working hours** Due to the *satei* system, it is very difficult for workers to refuse nominally voluntary activities outside of working hours such as meetings for QC activities and events to cultivate friendship among group and team members. Such workers are liable to be assessed as having poor attitudes as group and team members and will receive low *satei* scores since the formal or informal exchange of information among group and team members is seen as essential in enhancing the efficiency of the firm. As a result, many leisure hours of workers become quasi working hours.

Rengo, a national union confederation, is seeking to reduce actual working hours to 1,800 hours per year through negotiations with management for reductions in normal working hours, but it is believed that this goal will be difficult to achieve in 1993. Even if this goal is achieved, two problems remain. First, reduction of scheduled working hours will not make it easier for workers to refuse overtime work or apply for paid holidays. Second, it will not automatically result in a decrease in hidden and quasi working hours. If the *satei* system remains unchanged, reduction of actual working hours alone may not be enough.

The *satei* system also increases workers' obedience to management, since workers are under strong pressure to avoid at all costs any kind of behavior that might result in a poor assessment. Workers who are not considered by management to be sufficiently obedient are likely to receive low *satei* scores, and quit voluntarily before compulsory retirement age, while workers who are considered obedient are likely to continue working at the same firm. As a result, there is a tendency for the personalities and consciousness of workers in the same firm to become homogenized. The case of workers at Toyota is famous as one of the most extreme, Toyota workers are often disparaged in Japan for their lack of individual personality. Toyota is concerned about this image and has put together a plan to improve it (*Asahi Shimbun*, 1990).

The exercise of various legal rights regarding working conditions is considered an act of disobedience, and it goes without saying that it results in a very low *satei* score. Such acts of disobedience include complaining to the Labor Standards Inspection Offices about working conditions in violation of the Labor Standards Law, filing a complaint with the Labor Relations Commission claiming that *satei* is discriminatory and an unfair labor practice, or serving as a witness for a friend who files a complaint. Application to management for recognition of industrial injuries after management has announced "efforts" to reduce industrial injuries, official complaint through joint grievance procedures related to insufficient pay, or any open expression of criticism to the union of the policies of cooperation between union and management is assessed in a similar fashion. An explanation of the last example is perhaps necessary. In Japan, the foreman who assesses the rank-and-file workers is at the same time a member of the same union, and in many cases is a leader at the lower levels of the union organization. To such a foreman, criticism of the union's cooperation with management is tantamount to criticizing management itself. Due to fear of low *satei* scores, workers do not exercise rights legally or systematically guaranteed to them.

Despite the discouragement of such acts by the *satei* system, there have been a small number of cases in which workers have filed complaints with the Labor Relations Commission on the grounds that *satei* is discriminatory and an unfair labor practice. These cases are closely related to a situation found in trade unionism in Japan today. This situation, which may not be familiar to researchers abroad, is as follows: in approximately 15 percent of Japanese firms, smaller unions with an adversarial relationship with management coexist with the dominant union, which has a cooperative relationship with management (Kawanishi, 1991). This can be regarded as Japanese-style multiunionism. In other firms, a small number of

members of enterprise unions speak out in criticism of their union's policy of cooperation with management. It is well known that the *satei* scores for members of these adversarial unions and for workers who publicly criticize their union's policy of cooperating with management are low, and if such workers can provide evidence that they are victims of *satei* discrimination, they are likely to file complaints. The number of *satei* discrimination complaints is thought to comprise over 30 percent of the number of unfair labor practice complaints filed in Japan (Araki, 1980).<sup>4</sup> Consequently, complaints of *satei* discrimination are a major issue in labor law studies.

It cannot be denied, however, that at the very least, Japanese workers allow *satei* and interworker competition to exist. In order to understand why this can be, it is essential to consider the consequences of labor, management, and government conflict after World War II. For example, the incorporation of *satei* in the remuneration system from the late 1950s to the early 1960s must be understood in the context of the 1949 revision of the Trade Union Law (Endo, 1989, ch. 6), which deprived the unions of the power to regulate jobs, and the elimination of many active union leaders in what was called the Red Purge of 1950 (Shiota, 1984), both directed by U.S. occupation forces. In Cole's (1971) case study of blue-collar workers at a Japanese firm in the late 1960s, we can see that only several years had passed since the firm had introduced a rough *satei* system, which was accepted by some workers and opposed by others, and that interworker competition and worker subordination to management had increased. There is a brief discussion of this issue from a historical perspective in Tokunaga (1983).

The competition-oriented schooling system in today's Japan helps prepare students for *satei* and interworker competition in the work place (Kaneko, 1985). In their schooling, Japanese are trained to accept systems similar to *satei* from an early age. Schooling in Japan molds the Japanese people to the requirements of the Japanese firm just as schooling in the United States creates the type of workers desired by U.S. firms (Bowles and Gintis, 1976).

### Concluding Remarks

It is likely that the *satei* system makes Japanese firms more effective, as Aoki asserts. Because Japanese managers believe that the *satei* system

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<sup>4</sup> The number of unfair labor practice complaints in Japan totaled 402 in 1984, 405 in 1985, 401 in 1986, 555 in 1987, and 404 in 1988 (Chuo-rodo-unikai, 1989), and the number of *satei* discrimination complaints is a subset of this.

contributes to productivity improvement, Japanese firms outside Japan would like to introduce *satei*. Actually, many Japanese firms in Southeast Asia have introduced a *satei* system with a wide range from highest to lowest score (Kumazawa, 1989)

The *satei* system, however, can also have unfavorable effects on individual workers. In this paper, I suggested two examples: the decrease in workers' leisure time and increase in obedience to management at the expense of their legal rights. Regarding the former, it must be noted that even as workers welcome the *satei* system out of their sense of fairness, as Ishida asserts, *satei* has an unfavorable effect on workers and their families. The extreme case is death resulting from long working hours, which is called *karoshi* (death from overwork) in Japanese and is an important social problem in Japan today (National Defense Council for Victims of *Karoshi*, 1990, see also Green, 1991).

While some Japanese firms in the United Kingdom have introduced a *satei* system with a narrow range of scores (Ishida, 1990), no Japanese firm in the U.S. auto industry has introduced *satei* (Shimada and Macduffie, 1986). A major obstacle to the introduction of the *satei* system in the U.S. auto industry is the powerful presence of the United Auto Workers with its potential power to regulate jobs. Even though the UAW failed to organize Nissan's plant in Tennessee and the UAW local has adopted a policy of cooperation with management at NUMMI, Japanese managers are reluctant to introduce the *satei* system and risk angering the UAW or nonunionized workers in a way that might encourage unionization.

Many factors must be considered in predicting whether or not the *satei* system will spread internationally, and the prospects for its worldwide adoption are as yet unclear. If many firms over the world seek improvement in productivity through the *satei* system, I believe that it will open a new chapter in labor history, one in which improvement in productivity will not result in the improvement of workers' lives.

#### REFERENCES

- Aoki, Masahiko. 1988. *Information, Incentives, and Bargaining in the Japanese Economy*. New York: Cambridge University Press.
- Araki, Kunikazu. 1980. "Shudantei-chingin-sabetsu-jiken to Rissyo-sekinin" (Mass Wage Discrimination Cases and Burden of Proof). In *Rodo Soshō* (Labor Litigation), edited by Keiei-hoso-kaigi, pp. 227-269. Tokyo: Nikkeiren Kohobu.
- Asahi Shimbun* (The Asahi Newspaper). 1990. 30 April, p. 9.
- Bowles, Samuel, and Herbert Gintis. 1976. *Schooling in Capitalist America*. New York: Basic Books.
- Chuo-rodo-unikai (Central Labor Relations Commission). 1989. *Rodo Inkaï Nempo* (Annals of the Labor Relations Commission). No. 43. Tokyo: Rei Kyokai.
- Cole, Robert E. 1971. *Japanese Blue Collar*. Berkeley: University of California Press.

- Dohse, Knuth Ulrich Jurgens, and Thomas Malsch 1985 "From 'Fordism' to 'Ioyotism'?" The Social Organization of the Labor Process in the Japanese Automobile Industry' *Politics and Society*, 14(2) 115-46
- Endo, Koshi 1981 "Maru-sei'go no Rodojoken-kisei' (Union Regulations after 'Maru-sei' or Campaign for the Improvement of Productivity in INR) In *Tenkanki niokeru Roshikankai no Jitai*, edited by Roshinkankai-chosakai, pp 420-71 Tokyo University of Tokyo Press
- Endo Koshi 1989 *Nippon-senryo to Roshikankai-seisaku no seiritsu* (The Occupation of Japan and the Making of the Labor Relations Policy) Tokyo University of Tokyo Press
- Green, Reg 1991 "Book Review of *Karoshi When the Corporate Warrior Dies* " *Free Labour World* [Journal of the International Confederation of Free Trade Unions (ICFTU)], 31 January, p 2
- Ishida Mitsuo 1990 *Chingin no Shakaikagaku* (Social Sciences of Wages) Tokyo Chuokeizai-sha
- Kaneko, Masaru 1985 " 'Kodoseicho' to Kokuminseikatsu" (Rapid Economic Growth and Quality of Life) In *Koza Nippon-Rekishi*, Vol 12, edited by Rekishigaku-kenkyukai and Nipponshikenkyukai, pp 45-86 Tokyo University of Tokyo Press
- Kawanishi, Hirotsuke 1991 *Enterprise Unionism in Japan* London Routledge Chapman and Hall
- Kenny, Martin, and Richard Florida 1988 "Beyond Mass Production Production and the Labor Process in Japan " *Politics and Society* 16(1) 121-58
- Kumazawa, Makoto 1989 *Nipponteki-keiei no Meian* (Happiness and Hardships of Japanese Management) Tokyo Chikuma-shobo
- National Defence Council for Victims of Karoshi 1990 *Karoshi When the Corporate Warrior Dies* Tokyo Mado-sha
- Rodosho (Ministry of Labor) 1990 *Rodo Hakusho* (White Paper on Labor) Tokyo Okurasho Insatsukyoku
- Rodosho, Seisakuchosabu (Ministry of Labor Department of Policy and Survey) 1985 *Chingin Rodojikan Seido tou Sogochosa* (General Survey of Wages and Working Hours), 1984 Survey Tokyo Rodo Horei Kyokai
- Rodosho, Seisakuchosabu 1989 *Chingin Rodojikan Seido tou Sogochosa, 1988 Survey* Tokyo Rodo Horei Kyokai
- Shimada, Haruo, and John P Macduffie 1986 "Industrial Relations and 'Humanware' Japanese Investment in Automobile Manufacturing in the United States " Working Paper No 1855 Sloan School of Management, MIT
- Shiota, Shobei 1984 *Reddo Paji* (Red Purge) Tokyo Shin-nippon shuppan
- Tokunaga, Shigeyoshi 1983 "A Marxist Interpretation of Japanese Industrial Relations with Special Reference to Large Private Enterprises " In *Contemporary Industrial Relations in Japan*, edited by Taishiro Shiraai, pp 313-29 Madison, WI University of Wisconsin Press