

***PRELIMINARY. COMMENTS WELCOMED. DO NOT QUOTE OR REPRODUCE
WITHOUT AUTHORS' CONSENT.***

What Japanese Workers Want:
Evidence from the Japanese Worker Representation and Participation Survey*

By

Hiroyuki Chuma, Takao Kato and Isao Ohashi**

July 2004

(Revised version of RIETI Working Paper)

Correspondence: Takao Kato, Professor and Presidential Scholar
Department of Economics, Colgate University, 13 Oak Drive,
Hamilton, NY 13346, USA
Phone: 315-228-7562 Fax: 315-228-7033
Internet: tkato@mail.colgate.edu

*This research was assisted by grants from RIETI (Research Institute of Economy, Trade and Industry; the Abe Fellowship Program of the Social Sciences Research Council and the American Council of Learned Societies with funds provided by the Japan Foundation Center for Global Partnership; and the Nihon Keizai Kenkyu Shorei Zaidan. We are grateful to Denki Rengo (Japanese Electrical, Electronic, Information Union) and Nikkei Research for their full cooperation and collaboration in conducting our Japanese Worker Representation and Participation Survey (JWRPS). We are also thankful to Richard Freeman for his continued encouragement and advice.

**Hiroyuki Chuma is Professor at the Institute of Innovation Research, Hitotsubashi University, 2-1, Naka Kunitachi, Tokyo 186-8603, Japan (email: ce00005@srv.cc.hit-u.ac.jp); and Faculty Fellow at RIETI (Research Institute of Economy, Trade and Industry). Takao Kato is Professor of Economics and Presidential Scholar at Colgate University, Hamilton, NY13346, USA (email: tkato@mail.colgate.edu); and Research Associate, Center on Japanese Economy and Business at Columbia University; and Research Associate, Tokyo Center for Economic Research. Isao Ohashi is Professor of Economics, Department of Economics, Hitotsubashi University, 2-1, Naka Kunitachi, Tokyo 186-8603, Japan (email: ohashi@econ.hit-u.ac.jp).

What Japanese Workers Want:
Evidence from the Japanese Worker Representation and Participation Survey
Hiroyuki Chuma, Takao Kato and Isao Ohashi
May 30, 2004
JEL: J53, M54, M52

Abstract

Using a unique new survey, the Japanese Worker Representation and Participation Survey (JWRPS), this paper presents the first evidence on the representation/participation gaps among Japanese workers and its links to the degree of their discontent with work and the efficacy of celebrated participatory employment practices. We find that: (i) contrary to the popular rhetoric of the end of “participatory Japanese management”, Japanese workers still desire more involvement and greater voice in firm decisions; and (ii) in spite of their strong desire to have more influence, many Japanese workers consider their current level of say at work less than adequate, resulting in significant representation/participation gaps which are comparable to what has been found for U.S. workers. Furthermore, we find an alarming degree of discontent with work among Japanese workers, measured by diverse variables, and weak employee involvement and influence are found to be significantly linked to the degree of such discontent. Finally, our analysis of the survey data yields evidence in support of the hypotheses that: (i) working in firms with strong participatory programs will significantly enhance employee voice; (ii) among those working in participatory firms, actually participating in these programs will yield an additional boost for employee voice; and (iii) financial participation schemes will align the interest of employees with the interest of the firm and thus make employees wanting to have more influence in firm decisions. Our findings suggest that weakening participatory employment practices (as the popular rhetoric at times suggests) may result in exacerbating the already alarming degree of employee dissatisfaction in Japan.

I. Introduction

Much of the literature on workplace institutions, especially on “new work practices” or “participatory employment practices” (such as self-directed work teams, offline project teams, QC, more performance-based compensation, financial participation, extensive training, job rotation) focus on two questions: (i) what they do to the firm (e.g., their effects on firm performance);¹ and (ii) what kinds of firms are more likely to introduce them (e.g., technologically advanced firms with skilled labor force vs. other more traditional firms).² As a result, researchers tend to interview and survey the firms (typically, HR directors) and sometimes union officials. An important question that has been neglected is what these “new work practices” do to workers?³

This is an important omission. First, for many workers in industrialized nations such as Japan and the U.S., people spend much time at work and what happens at work will have a profound effect on their life. Second, as the literature on skilled-biased technological change demonstrates, the quality of labor force has become an increasingly important source of firm’s competitive edge.⁴ It is of prime importance to examine what these “new work practices” do to workers.

¹ We are currently witnessing an impressive accumulation of systematic evidence on the effects on firm performance of such practices in the U.S. See, for example, in the economics literature, Ichniowski, Shaw and Prennushi (1997), Helper (1998), Batt (1999), Cappelli and Neumark (1999), Freeman, Kleiner, and Ostroff (2000), Bartel (2000), Appelbaum (2000), Black and Lynch (2001), Hamilton, Nickerson, Owan (2003) and articles featured in a special issue of *Industrial Relations* Vol. 35, July 1996. However, such evidence is still relatively limited elsewhere. See, for example, Jones and Kato (1995), Kato and Morishima (2002) for Japan; Leoni, et. al (2001) for Italy; Addison and Belfield (2000) for the U.K.; Eriksson (2003) for Denmark; Bayo-Moriones, Galilea-Salvatierra, and Merino-Diaz de Cerio (2003) for Spain.

² The adoption literature is smaller than the outcome effect literature. See, for example, Pil and MacDuffie (1996) and Ichniowski and Shaw (1995). For Japan, see Jones and Kato (1993), Kato and Morishima (2002).

³ The most recent special issue in *Industrial Relations* (January 2004) is an attempt to fill this important gap in the literature.

⁴ See, for example, Bartel and Sicherman (1999) and Berman, Bound, and Griliches (1994).

To fill this important gap in the literature, Freeman and Rogers (1999) conducted the Worker Representation and Participation Survey (WRPS) and presented the first evidence on what workers tell us about their experiences with the degree of their involvement and influence on firm decisions affecting their worklife in general and the impact of new work practices in particular.

As part of a global network of labor economists who share the same sense of urgent need to conduct a survey similar to WRPS and provide the perspectives of workers, we decided to conduct the Japanese Worker Representation and Participation Survey (JWRPS). On our reading of the literature, this is the first survey of this kind in Japan.

We believe it is particularly timely to conduct the JWRPS and analyze the data. Japan was traditionally often viewed as a nirvana for employee participation and involvement, and attracted much attention and often envy from around the world in the 1980s. In recent years, however, with Japan's prolonged economic slowdown, the popular rhetoric within Japan as well as outside of Japan has been shifting and has become less positive about traditional Japanese management with particular emphasis on employee participation and involvement (some even suggest the replacement of the participatory system with the Anglo-American model of active external labor market). While the rhetoric of "the end of Japanese management" is presently rampant, concrete data on changes in traditional employment practices are relatively scarce (Dore, 1996). Particularly data on workers' views and assessment of their voice at workplace and participatory employment practices are limited.

With full collaboration with Denki Rengo (Japanese Electrical, Electronic, Information Union) and Nikkei Research, we conducted the JWRPS in December 2004. Among 659,729 workers who belong to Denki Rengo, we randomly selected 3,000

workers. We received usable responses from 2,611 workers (a response rate of 87 percent). The impressive 87 percent response rate makes our unionized worker sample unusually reliable.

To construct a matching sample of workers in firms without union, we randomly selected 2,275 workers who work in non-unionized firms in the same electrical, electronic and information industries. We received usable responses from 445 workers (a response rate of 19.6 percent). The response rate of 19.6 percent is comparable to most surveys of similar nature in Japan.

The survey itself was preceded by a pilot phase in which an earlier version of the instrument was tested on a select group of Denki Rengo members. On the basis of what we learned from this, the questionnaire was revised.

This paper presents the first findings from our analysis of the data from the JWRPS. We begin with gauging the size of the representation/participation gaps (the gap between how much involvement and influence workers want to have and how much they actually have) among Japanese workers. We will then examine the proportion of discontented workers in Japan and its link to the amount of involvement and influence workers have on decisions affecting workplace. We will then investigate the relationships between employee voice and celebrated participatory employment practices of Japanese firms, including JLMCs (Joint Labor-Management Practices), SFCs (Shopfloor Committees), and SGAs (Small Group Activities), PSPs (Profit Sharing Plans), GSPs (Gainsharing Plans), and ESOPs (Employee Stock Ownership Plans).

II. Participation Gap

As shown in Table 1, 75 percent of all workers in the electrical, electronic and information industries agree that it is very important to have a lot of involvement and

influence (referred to as “wanting influence”) on deciding how to do their job and organize the work whereas only 44 percent of all workers actually have such involvement and influence (referred to as “having influence”). It turns out that a full 35 percent of all workers have a “specific participation gap,” i.e., considering it very important to have a lot of involvement and influence on deciding how to do their job and organize the work yet having no such involvement and influence. As explained in Freeman and Rogers (1999), the specific participation gap tends to understate the true participation/representation gap since to be considered to have a participation gap, a worker will need to agree first that it is very important to have a lot of involvement and influence and then reports that he/she does not have a lot of involvement and influence. However, some workers consider it only somewhat important to have a lot of involvement and influence yet report having no involvement and influence at all. The specific participation gap assumes that these workers do not have any participation/representation gap.

To remedy the problem, Freeman and Rogers (1999) propose to use a more general participation gap measure, i.e., the proportion of workers who have less involvement and influence than he/she wants to have. Table 1 also reports such “general participation gap”. As expected, a higher proportion of workers turn out to have the general participation gap (42 percent).

Table 1 also reports the same statistics for unionized and non-unionized workers separately as well as for workers with and without supervisory responsibilities separately. It turns out that we find no statistically significant difference in the proportion of workers who fall into each category between unionized and non-unionized workers.

On the other hand, we find statistically significant differences between workers with and without supervisory responsibilities. Specifically, workers without supervisory responsibilities turn out to be more likely to have the specific and general participation gap than workers with such responsibilities.

Finally, to see if the same conclusions can be drawn when we consider only unionized workers, we repeated the same analysis using a sample of unionized workers only. The last rows of Table 1 confirm that the differences between workers with and without supervisory responsibilities are not sensitive to whether we consider all workers or only unionized workers.

Despite that our study is not strictly comparable to Freeman and Rogers (1999) who conducted a similar survey of workers in the U.S., the proportion of Japanese workers “wanting influence” is remarkably similar to what they found for U.S. workers. Nevertheless, the proportion of Japanese workers “having influence” is considerably lower than the U.S. figure, resulting in a greater participation gap among Japanese workers than among U.S. workers. There appears to be no evidence suggesting that the participation gap is unusually small among Japanese workers although again, we should consider such cross-national comparisons with much caution.

Tables 2-4 report the same proportions for the three different areas of decisions on which workers may want to have influence: (i) setting goals for their work group or department; (ii) setting work schedules, including breaks, overtime and time off; and (iii) deciding what training is needed for people in their work group or department. Again, similar to what Freeman and Rogers (1999) found for U.S. workers, the proportion of workers “wanting influence” on setting goals for their work group or department is 48 percent (55 percent of U.S. workers in Freeman and Rogers, 1999), and is substantially

lower than the proportion of workers “wanting influence” on deciding how to do their job and organize the work.

The proportion of workers “having influence” on setting goals for their work group or department is extremely low (less than 8 percent), making both specific and general participation gaps very large. In particular, our general participation gap measure indicates that 7 in 10 Japanese workers want more influence on setting goals for their work group and department than what they currently have. These calculated participation gaps on setting goals for work group are about twice as large as what Freeman and Rogers (1999) report for U.S. workers.

Interestingly, according to Table 2, the proportion of workers with general participation gap is greater for unionized workers than for non-unionized workers (75 percent vs. 71 percent). The difference may be due to the fact that non-unionized workers are more likely to report having such influence than unionized workers (12 percent vs. 7 percent).

Workers with supervisory responsibilities are more likely to “have influence” and have a general participation gap on setting goals for their work group or department than workers without such responsibilities, and these differences are statistically significant at the 1 percent level. The results are for the most part preserved even when we consider unionized workers only.

As shown in Tables 3 and 4, the proportion of workers “wanting influence” on setting work schedules and deciding on training is considerably lower than on the first two areas of decisions. Thus, only a little over 30 percent of workers “want influence” on setting work schedules and deciding on training. That workers are less apt to “want influence” on setting work schedules than on the other areas of decisions was also found

for U.S. workers by Freeman and Rogers (1999). However, our finding of Japanese workers less likely to “want influence” on training than the other areas is at odd with what Freeman and Rogers (1999) found for U.S. workers.

Turning to the proportion of workers “having influence”, our results on setting work schedules and training diverge considerably. Specifically, only 7 percent of workers reported to “have influence” on deciding on training whereas 16 percent of workers reported to “have influence” on setting work schedules. This results in much wider participation gaps on training than on setting work schedules (28 percent vs. 21 percent for specific gap and 70 percent vs. 59 percent for general gap).⁵

The union/non-union differences are much more significant for training than for work schedules. Thus, unionized workers are less likely to “want influence”, “have influence”, and have a specific participation gap on deciding on training than non-unionized workers.

For both work schedules and training, we find that workers without supervisory responsibilities are less likely to “have influence” and are more likely to have a general participation gap than workers with supervisory responsibilities, and such supervisory/non-supervisory differences are statistically significant at the 1 percent level. Finally, the observed supervisory/non-supervisory differences are found to change little even when we consider only unionized workers.

In sum, the popular rhetoric seems to suggest that once-celebrated Japanese management with particular emphasis on employee participation and involvement is now less relevant and Japanese workers are no longer interested in the outmoded system. Contrary to such popular rhetoric, we find that Japanese workers are indeed interested in

⁵ Freeman and Rogers (1999) found a similar pattern for U.S. workers.

having influence in general (particularly on deciding how to do their job and organize the work). We also find that in spite of their strong desire to have say, many Japanese workers find their current level of voice at work less than adequate, resulting in significant representation/participation gaps which are comparable to what has been found for U.S. workers. The gaps are particularly pronounced for workers without supervisory responsibilities.

III. Weak Employee Involvement/Influence and Discontented Workers

We examine the extent to which the lack of employee involvement and influence leads to a higher proportion of discontented workers. Following Freeman and Rogers (1999), we consider the following five measures of the proportion of discontented workers: (i) the proportion of workers who agree or somewhat agree that they usually do not look forward to going to work (weak motivation); (ii) the proportion of workers who are overall dissatisfied with their current jobs (dissatisfaction); (iii) the proportion of workers who do not feel loyal to their firm (weak loyalty); (iv) the proportion of workers who trust information provided by their firm only a little or not at all (mistrust); and (v) the proportion of workers who rate labor management relations as only fair or poor (weak labor management relations).

Tables 5-8 show the link between employee dissatisfaction and the lack of employee voice on each of the four areas of company decisions affecting workplace. First, the first row of Table 5 provides the proportion of discontented workers in Japan. The proportion of discontented workers in Japan is hardly negligible. Nearly one in two Japanese workers agree or somewhat agree that they usually do not look forward to going to work. About 30 percent of Japanese workers are overall dissatisfied with their current

jobs. The proportion of Japanese workers who do not feel loyal to their firm is 28 percent. Close to 20 percent of Japanese workers either do not at all trust information provided by their firm or trust such information only a little. Finally, 42 percent of Japanese workers rate labor management relations as only fair or poor.⁶

As shown in these tables, workers without a lot of involvement and influence are more likely to be discontented with their work, i.e., usually do not look forward to going to work; be overall dissatisfied with their current jobs; do not feel loyal to their firm; have less trust to information provided by their firm; and consider labor management relations as only fair or poor. The differences between workers with and without a lot of involvement and influence are statistically significant at the 1 percent level consistently for all measures of employee discontentment and for all four areas of firm decisions affecting workplace except for decisions on training in which the difference in the proportion of workers who either do not at all trust information provided by their firm or trust information only a little is statistically significant at the 5 percent level and the difference in the proportion of workers who rate labor management relations as only fair or poor is not statistically significant at the 10 percent level.

The remainder of each table provides an account of whether the statistically significant link between employee dissatisfaction and employee involvement will disappear when we consider only unionized workers and further split the sample of unionized workers into unionized workers with and without supervisory responsibilities.

⁶ Cross-national comparison of worker discontent is particularly difficult and it is nearly impossible to construct survey instruments that are strictly comparable between Japan and the U.S. With that caution in mind, the degree of employee discontent revealed in our survey appear to be comparable or greater than what Freeman and Rogers (1999) discovered for U.S. workers (especially the proportion of workers with weak motivation in Japan appears to be alarmingly high).

First, we find no discernable change in the results when we consider unionized workers only. This is true for all four areas of firm decisions and for all discontentment measures.

Second, the statistically significant discontentment-involvement link regarding decisions on how to do their jobs and organize the work is found not only for workers with supervisory responsibilities but also for workers without such responsibilities consistently for all discontentment measures. For the other three areas of decisions, however, the results are somewhat less consistent, i.e., we still find statistically significant discontentment-involvement links for workers with supervisory responsibilities consistently whereas such discontentment-involvement links are less regularly found for workers without supervisory responsibilities. Specifically, for workers without supervisory responsibilities, the statistically significant discontentment-involvement link is found only for dissatisfaction and mistrust when we consider decisions on goals (Table 6) and for weak labor management relations when we consider decisions on work schedules (Table 7).

IV. Participatory Employment Practices and Employee Influence

As Levine and Tyson (1990) suggest, relatively greater job security and strong group cohesiveness of Japanese workers in large manufacturing companies in the postwar era point to an industrial relations system favorable to successful employee participation. In addition, steady economic growth over the sample period, lower unemployment and stable financial corporate grouping point to an external environment favorable to successful employee participation.

Probably as a result of these favorable environments in the postwar Japanese economy, in particular in manufacturing, participatory employment practices diffused

widely and were established firmly (Kato and Morishima, 2002). Indeed these practices became the hallmark of “Japanese management,” which has been rousing (or requiring in some instances) many U.S. corporations to experiment with employee involvement and labor-management cooperation lately (see, for instance, Levine, 1995: 5). In short, the postwar Japanese economy (especially in manufacturing) clearly represents one of the most important examples of experimentation with participatory employment practices.⁷

The JWRPS enables us for the first time to investigate whether these celebrated participatory employment practices are indeed helping Japanese workers develop a strong sense of involvement and influence on company decisions affecting their workplace. It is particularly timely to study the link between participatory employment practices and employee sense of involvement and influence at this time in light of the popular rhetoric that once-celebrated Japanese participatory management is now less relevant and sometime even harmful in the rapidly changing globalized marketplace.

As shown in Table 9, we consider six employment practices which are often considered key work practices of participatory Japanese management in the literature.⁸ Table 9 confirms the prevalence of these practices among Japanese workers in the electrical, electronic, and information industries. As such, over 60 percent of workers work for firms with SFCs (Shopfloor Committees) in which supervisors and employees on shop floor regularly discuss issues such as shop-floor operations and shop-floor environments. Among those workers in firms with SFCs, about one in two workers

⁷ The economic slowdown in the 1990s and a rapidly aging workforce in Japan have allegedly been eroding the aforementioned participation-friendly environments. See Kato (2001, 2003a), Chuma (1998, 2002), and Ohashi and Tachibanaki (1998) for evolving employment practices in Japan.

⁸ See, for instance, Ohashi (1989) and Ohkusa and Ohtake (1997) for PSPs, Jones and Kato (1993, 1995) for ESOPs, Kato and Morishima (2002) for JLMCs and SFCs, and Kato (2003a) for SGAs.

always attend SFC meetings. Unionized workers are more likely to be in firms with SFCs than non-unionized workers and workers with supervisory responsibilities are more apt to be in firms with SFCs and always attend SFC meetings than workers without such responsibilities.

Somewhat surprisingly, only 44 percent of workers in the electrical, electronic and information industries work in firms with SGAs (Small Group Activities) such as quality control (QC) circles and Zero Defects in which small groups at the workplace level voluntarily set plans and goals concerning operations and work together toward accomplishing these plans and goals. This is in part due to the fact that a significant number of firms in the industries terminated SGAs in recent years.⁹ We fail to find any statistically significant differences in the proportion of workers in firms with SGAs between unionized and non-unionized workers as well as between unionized workers with and without supervisory responsibilities.

The participation rate of workers in firms with SGAs is remarkably high (85 percent), confirming that Japanese SGAs are indeed broad-based. The SGA participation rate is higher for unionized than for non-unionized workers and the difference is statistically significant at the 1 percent level. On the other hand, there is no statistically significant difference in the participation rate between workers with and without supervisory responsibilities.

One of the core mechanisms for labor-management relations within a large Japanese firm is joint labor-management committees (JLMCs). Established at the top

⁹ Chuma (2003) documents the rising importance of information sharing between production workers and design and development engineers as the complexity of production process rises in Japan. Traditional SGAs with heavy reliance on production workers' problem solving skills may be less effective in recent years with the rising complexity of manufacturing process. We will examine this important issue in more details in our forthcoming paper.

level (corporate and/or establishment level) and involving both management and union representatives, JLMCs serve as a mechanism for employee participation/involvement at the top level, covering a large variety of issues ranging from basic business policies to working conditions.¹⁰ As Kato (2003b) shows, the productivity effects of JLMCs vary significantly, depending on how widely information shared in JLMCs is disseminated to the rank and files. To this end, we calculate the proportion of workers who said that all information provided in JLMCs is shared with them. Approximately 13 percent of workers said that all information provided in JLMCs is indeed shared with them. Unionized workers are more likely to receive full information shared in JLMCs than non-unionized workers and the difference is statistically significant at the 1 percent level. This is consistent with Kato (2003a) who presents quantitative and qualitative evidence that Japanese unions play an important complementary role in employee participation and involvement.

Turning to financial participation schemes, as expected, PSPs (Profit Sharing Plans) which link at least a portion of employee pay to a measure of firm-wide performance, such as profit are extremely wide spread among workers in the electrical, electronic and information industries (over 80 percent of workers are currently under PSPs). PSPs are more popular among unionized workers than among non-unionized workers and the difference is statistically significant at the 1 percent level. Likewise, unionized workers with supervisory responsibilities are more likely to be paid under PSP than workers without such responsibilities and the difference is again statistically significant at the 1 percent level.

¹⁰ See, for example, Kato (2003a) for detailed institutional information on JLMCs.

The literature on Japanese financial participation schemes is relatively silent on GSPs (Gainsharing Plans) in which at least a portion of employee pay is linked to performance of work group or department, such as accomplishments of group-wide or departmental goals. The JWRPS provides the first reliable evidence on the prevalence of GSPs among Japanese workers. Among our electrical, electric and information workers, nearly 50 percent of workers are paid under GSPs. GSPs are considerably more popular among unionized workers than among non-unionized workers (51 percent vs. 27 percent) and the difference is statistically significant at the 1 percent level. There is no statistically significant difference between workers with and without supervisory responsibilities.

Finally, 28 percent of workers in the electrical, electric and information industries participate in an ESOP (Employee Stock Ownership Plans). Unionized workers and workers with supervisory responsibilities are more apt to participate in an ESOP than non-unionized workers and workers without supervisory responsibilities and the differences are statistically significant at the 1 percent level.

We expect non-financial participation mechanisms such as SFCs, SGAs and JLMCs to enhance employee sense of involvement and influence (or “having influence”) since after all the main objective of these institutions is to foster employee voice.

On the other hand, we expect financial participation schemes (including PSPs, GSPs and ESOPs) to nurture employee interest and desire to have involvement and influence in firm decisions (or “wanting influence”), for a key function of financial participation schemes is to align the interest of workers with the interest of the firm. Such goal alignments will make employees more interested in firm performance and thus involvement and influence on firm decisions.

Tables 10-12 present the results on the link between non-financial participation and “having influence” while Tables 13 and 14 the results on the relationship between financial participation and “wanting influence”. Overall, Tables 10-12 confirm our expectation that there is a statistically significant link between non-financial participation and worker “having influence”. Specifically, workers in firms with SFCs, SGAs and full disclosure JLMCs are significantly more likely to have “influence” on decisions (regardless of which of the four areas of decision is considered) than other workers, and the differences are statistically significantly at least at the 10 percent (often at the 1 percent). The results do not depend on whether we consider unionized workers only except for the case of full disclosure JLMCs in which we get the statistically significant link only for decisions on how to do their job and organize the work. Finally, the link between non-financial participation and “having influence” appear to be more significant for workers with supervisory responsibilities than workers without such responsibilities.

For SFCs and SGAs, the JWRPS will allow us to further test if among workers in firms with each program, workers who actually participate in each program are more likely to “have influence”. Table 10 provides evidence that strong participation in SFCs is indeed overall beneficial for workers enhancing voice whereas Table 11 suggest that such beneficial effects are somewhat limited for SGAs (a statistically significant link of participation in SGAs to “having influence” is obtained only when we consider one of the four areas of decisions, or how to do their job and organize the work).

Turning to the relationship between financial participation and “wanting influence”, the strongest evidence is found for GSPs (Table 13). Consistently for all four areas of decisions and all different groups of workers except for the case of influence of

unionized workers with supervisory responsibilities on decisions on job, we find statistically significant relationships between GSPs and workers “wanting influence”.

For PSPs, we find that workers with PSPs are significantly more likely to “want influence” on decisions on jobs and goals whereas we find no statistically significant link between PSPs and “wanting influence” on decisions on work schedules and training. The results are found for all different groups of workers except for unionized workers with supervisory responsibilities (Table 13).

As shown in Table 14, ESOPs appear to have a weakest link to workers “wanting influence”. Most significant results are found for unionized workers without supervisory responsibilities for whom we find statistically significant relationships between ESOPs and “wanting influence” for decisions on job and goals.

That GSPs tend to be most strongly linked to “wanting influence” is consistent with the free-rider theory of financial participation. Weitzman and Kruse (1990: 100) argue that profit sharing works only when the free rider problem is effectively eased. By linking pay to group-level or departmental performance, GSPs is less subject to the free-rider problem as compared to PSPs and ESOPs in which compensation is linked to company-wide performance. The incentive effect of GSPs is thus less diluted than those of PSPs and ESOPs.

V. Concluding Remarks

Using a unique new survey of Japanese workers in the electrical, electronic and information industries (JWRPS), this paper has presented the first evidence on the size of the representation/participation gaps among Japanese workers and its links to the proportion of discontented workers. Furthermore, we have investigated the relationships

between employee voice and celebrated participatory employment practices of Japanese firms, including JLMCs (Joint Labor-Management Practices), SFCs (Shopfloor Committees), and SGAs (Small Group Activities), PSPs (Profit Sharing Plans), GSPs (Gainsharing Plans), and ESOPs (Employee Stock Ownership Plans).

We have found that contrary to the popular rhetoric of the end of “participatory Japanese management”, we find that Japanese workers still desire more involvement and greater voice in firm decisions (particularly decisions influencing how to do their job and organize the work). We also find that in spite of their strong desire to have more influence, many Japanese workers find their current level of say at work less than adequate, resulting in significant representation/participation gaps which are comparable to what has been found for U.S. workers. The gaps are particularly pronounced for workers without supervisory responsibilities. We also find consistent evidence that weak employee involvement and influence is significantly linked to employee dissatisfaction measured by diverse variables (weak motivation, overall dissatisfaction, weak loyalty, mistrust and poor labor management relations).

Regarding the impact of participatory employment practices, we have found evidence in support of our hypotheses: (i) working in participatory firms with participatory programs will significantly enhance employee voice; (ii) among those working in participatory firms, actually participating in these programs will yield an additional boost for employee voice; and (iii) financial participation schemes will align the interest of employees with the interest of the firm and thus make employees more wanting to have influence in firm decisions.

Our evidence suggests that Japanese workers are not saturated with participation and that they are still very much interested in enhancing their say at workplace. At the

same time, there appears to be an alarming degree of general worker dissatisfaction and the degree of such worker dissatisfaction is significantly related to the lack of employee involvement and influence.¹¹ Furthermore, we find evidence that employee voice is significantly linked to the presence of participatory employment programs and actual participation in such programs. It follows that weakening participatory employment practices as the popular rhetoric sometimes suggests may result in exacerbating the already alarming degree of discontent with work among Japanese workers.

Finally, though the electrical, electronic and information industries represent very important segments of the Japanese economy, to get a truly representative picture of all Japanese workers encompassing diverse industries, the JWRPS will need to be conducted in many other industries.

¹¹ Particularly noteworthy are the surprisingly high proportion of Japanese workers with weak motivation and the significantly weakening SGAs in recent years.

References

- Addison, John T. and Clive R. Belfield. 2000. "The Impact of Financial Participation and Employee Involvement on Financial Performance: A Re-estimation Using the 1998 WERS." *Scottish Journal of Political Economy*, Vol. 47, No. 5 (November), pp. 571-83.
- Appelbaum, Eileen. 2000. *Manufacturing advantage: Why high-performance work systems pay off*. Ithaca and London: Cornell University Press, ILR Press.
- Bartel, Ann P. 2000. "Human Resource Management and Performance in the Service Sector: The Case of Bank Branches." Working Paper No. 7467. Cambridge, MA: National Bureau of Economic Research.
- Bartel, Ann P. and Nachum Sicherman. 1999. "Technological Change and Wages: An Interindustry Analysis." *Journal of Political Economy*, Vol. 107, No. 2 285-325.
- Batt, Rosemary. 1999. "Work Organization, Technology, and Performance in Customer Service and Sales." *Industrial & Labor Relations Review*, Vol. 52, No. 4 539-64.
- Bayo-Moriones, José Alberto, Pedro Javier Galilea-Salvatierra, and Javier Merino-Díaz de Cerio. 2003. "Participation, Cooperatives and Performance: An Analysis of Spanish Manufacturing Firms.," in Takao Kato and Jeffrey Pliskin, eds, *Determinants of the Incidence and the Effects of Participatory Organizations: Advances in the Economic Analysis of Participatory and Labor-Managed Firms*. Amsterdam: Elsevier/JAI, pp. 31-56.
- Berman, Eli, John Bound, and Zvi Griliches. 1994. "Changes in the Demand for Skilled Labor within U.S. Manufacturing: Evidence from the Annual Survey of Manufactures." *Quarterly Journal of Economics*, Vol. 109, No. 2 367-97.
- Black, Sandra E. and Lisa M. Lynch. 2001. "How to Compete: The Impact of Workplace Practices and Information Technology on Productivity." *Review of Economics and Statistics*, Vol. 83, No. 3 434-45.
- Cappelli, Peter and David Neumark. 2001. "Do "High-Performance" Work Practices Improve Establishment-Level Outcomes?" *Industrial and Labor Relations Review*, Vol. 54, No. 4 737-75.
- Chuma, Hiroyuki. 1998. "Is Japan's Long-Term Employment System Changing?" in Toshiaki Tachibanaki and Isao Ohashi, eds, *Internal Labour markets, incentives and employment*. New York, London: St. Martin's Press/Macmillan Press, pp. 225-68.
- Chuma, Hiroyuki. 2002. "Employment Adjustments in Japanese Firms during the Current Crisis." *Industrial Relations*, Vol. 41, No. 4 653-82.
- Chuma, Hiroyuki. 2003. "Determinants of the Shadow Value of Simultaneous Information Sharing in the Japanese Machine-Tool Manufacturing Industry," in Seiritsu Ogura, Toshiaki Tachibanaki and David Wise, eds, *NBER Conference Report Labor Markets and Firm Benefit Policies in Japan and the United States*. Chicago: University of Chicago Press, pp. 81-102.
- Dore, Ronald. 1996. "The End of Jobs for Life? Corporate Employment Systems: Japan and Elsewhere." London School of Economics, Centre for Economic Performance Occasional Paper: 11.

- Eriksson, Tor. 2003. "The Effects of New Work Practices - Evidence from Employer-Employee Data.," in Takao Kato and Jeffrey Pliskin, eds, *Determinants of the Incidence and the Effects of Participatory Organizations: Advances in the Economic Analysis of Participatory and Labor-Managed Firms*. Amsterdam: Elsevier/JAI, pp. 3-30.
- Freeman, Richard B. and Joel Rogers. 1999. *What workers want*. Ithaca and London: Cornell University Press, ILR Press.
- Freeman, Richard B., Morris Kleiner, and Cheri Ostroff. 2000. "The Anatomy of Employee Involvement and its Effects on Firms and Workers." Working Paper No. 8050. Cambridge, MA: National Bureau of Economic Research.
- Hamilton, Barton H. , Jack A. Nickerson, and Hideo Owan. 2003. "Team Incentives and Worker Heterogeneity: An Empirical Analysis of the Impact of Teams on Productivity and Participation." *Journal of Political Economy*, Vol. 111, No. 3 465.
- Helper, Susan. 1998. "Complementarity and Cost Reduction: Evidence from the Auto Supply Industry." Working Paper No. 6033 (revised). Cambridge, MA: National Bureau of Economic Research.
- Ichniowski, Casey , Kathryn Shaw, and Giovanna Prennushi. 1997. "The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines." *American Economic Review*, Vol. 87, No. 3 291-313.
- Ichniowski, Casey and Kathryn Shaw. 1995. "Old Dogs and New Tricks: Determinants of the Adoption of Productivity-Enhancing Work Practices." *Brookings Papers on Economic Activity*, Vol. 0, No. 0 1-55.
- Jones, Derek C. and Takao Kato. 1993. "The Scope, Nature, and Effects of Employee Stock Ownership Plans in Japan." *Industrial and Labor Relations Review*, Vol. 46, No. 2 352-67.
- Jones, Derek C. and Takao Kato. 1995. "The Productivity Effects of Employee Stock-Ownership Plans and Bonuses: Evidence from Japanese Panel Data." *American Economic Review*, Vol. 85, No. 3 (June), pp. 391-414.
- Kato, Takao. 2001. "The End of Lifetime Employment in Japan? Evidence from National Surveys and Field Research." *Journal of the Japanese and International Economies*, Vol. 15, No. 4 (December), pp. 489-514.
- Kato, Takao. 2003a. "The Recent Transformation of Participatory Employment Practices," in Seiritsu Ogura, Toshiaki Tachibanaki and David Wise, eds, *NBER Conference Report Labor Markets and Firm Benefit Policies in Japan and the United States*. Chicago: University of Chicago Press, pp. 39-80.
- Kato, Takao. 2003b. "The Nature, Scope And Effects Of Joint Labor-Management Committees In Japan." Working Paper 103-09, Department of Economics, Colgate University.
- Kato, Takao and Motohiro Morishima. 2002. "The Productivity Effects of Participatory Employment Practices: Evidence from New Japanese Panel Data." *Industrial Relations*, Vol. 41, No. 4 487-520.
- Leoni, Riccardo, Annalisa Cristini, Sandrine Labory, and Alessandro Gaj. 2001. "New Work Practices in Italy - Adoption and Performance Effects." Paper presented at the International Conference on Organizational Design, Management Styles and Firm Performance, University of Bergamo, Bergamo, Italy.
- Levine, David I. 1995. *Reinventing the workplace: How business and employees can both win*. Washington, D.C.: Brookings Institution.

- Levine, David I. and Laura D'Andrea Tyson. 1990. "Participation, Productivity and the Firm's Environment," in Alan S. Blinder, ed *Paying For Productivity*. Washington, D.C.: Brookings Institution, pp. 183-236.
- Ohashi, Isao. 1989. "On the Determinants of Bonuses and Basic Wages in Large Japanese Firms." *Journal of the Japanese and International Economies*, Vol. 3, No. 4 451-79.
- Ohashi, Isao and Toshiaki Tachibanaki, eds. 1998. *Internal Labour markets, incentives and employment*. New York, London: St. Martin's Press/Macmillan Press.
- Ohkusa, Yasushi and Fumio Ohtake. 1997. "The Productivity Effects of Information Sharing, Profit Sharing, and ESOPs." *Journal of the Japanese and International Economies*, Vol. 11, No. 3 385-402.
- Pil, Frits K. and John Paul MacDuffie. 1996. "The Adoption of High-Involvement Work Practices." *Industrial Relations*, Vol. 35, No. 3 (July), pp. 423-55.
- Weitzman, Martin, L. and Douglas L. Kruse. 1990. "Profit Sharing and Productivity," in Alan S. Blinder, ed *Paying For Productivity*. Washington, D.C.: Brookings Institution., pp. 95-140.

Table 1 Participation Gap: Deciding how to do your job and organize the work

		Wanting Influence	Having Influence	Specific Participation Gap	General Participation Gap
		%worker for whom it is very important to have a lot of involvement and influence on deciding how to do their job and organize the work	%worker who have a lot of involvement and influence on deciding how to do their job and organize the work	%worker for whom it is very important to have a lot of involvement and influence on deciding how to do their job and organize the work yet who do not have a lot of involvement and influence	%worker with less involvement and influence on deciding how to do your job and organize the work than he/she wants
Total	N	3039	3045	3056	3056
	%	74.83%	43.94%	35.05%	41.59%
Unionized workers	N	2596	2602	2611	2611
	%	74.46%	43.47%	35.12%	41.71%
Non-unionized workers	N	443	443	445	445
	%	76.98%	46.73%	34.61%	40.90%
Workers without supervisory responsibilities	N	1830	1835	1842	1842
	%	73.06%	36.68%	39.31%	48.97%
Workers with supervisory responsibilities	N	1209	1210	1214	1214
	%	77.50%	54.96%	28.58%	30.40%
For unionized workers only					
Workers without supervisory responsibilities	N	1567	1572	1579	1579
	%	72.43%	36.90%	38.70%	48.45%
Workers with supervisory responsibilities	N	1029	1030	1032	1032
	%	77.55%	53.50%	29.65%	31.40%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

two sample difference in proportion is significant at the 1 percent level.

two sample difference in proportion is significant at the 5 percent level.

two sample difference in proportion is significant at the 10 percent level.

Table 2 Participation Gap: Setting goals for your work group or department

		Wanting Influence	Having Influence	Specific Participation Gap	General Participation Gap
		%worker for whom it is very important to have a lot of involvement and influence on setting goals for your work group or department	%worker who have a lot of involvement and influence on setting goals for your work group or department	%worker for whom it is very important to have a lot of involvement and influence on setting goals for your work group or department yet who do not have a lot of involvement and influence	%worker with less involvement and influence on setting goals for your work group or department than he/she wants
Total	N	3032	3036	3056	3056
	%	47.63%	7.84%	40.51%	74.41%
Unionized workers	N	2591	2595	2611	2611
	%	47.20%	7.13%	40.67%	74.95%
Non-unionized workers	N	441	441	445	445
	%	50.11%	12.02%	39.55%	71.24%
Workers without supervisory responsibilities	N	1823	1827	1842	1842
	%	43.77%	4.16%	39.58%	79.91%
Workers with supervisory responsibilities	N	1209	1209	1214	1214
	%	53.43%	13.40%	41.93%	66.06%
For unionized workers only					
Workers without supervisory responsibilities	N	1562	1566	1579	1579
	%	42.96%	3.70%	39.20%	79.86%
Workers with supervisory responsibilities	N	1029	1029	1032	1032
	%	53.64%	12.34%	42.93%	67.44%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

two sample difference in proportion is significant at the 1 percent level.


two sample difference in proportion is significant at the 5 percent level.


two sample difference in proportion is significant at the 10 percent level.

Table 3 Participation Gap: Setting work schedules, including breaks, overtime and time off

		Wanting Influence	Having Influence	Specific Participation Gap	General Participation Gap
		%worker for whom it is very important to have a lot of involvement and influence on setting work schedules, including breaks, overtime and time off	%worker who have a lot of involvement and influence on setting work schedules, including breaks, overtime and time off	%worker for whom it is very important to have a lot of involvement and influence on setting work schedules, including breaks, overtime and time off yet who do not have a lot of involvement and influence	%worker with less involvement and influence on setting work schedules, including breaks, overtime and time off than he/she wants
Total	N	3031	3038	3056	3056
	%	31.24%	15.50%	20.71%	59.39%
Unionized workers	N	2590	2597	2611	2611
	%	31.31%	15.90%	20.38%	58.64%
Non-unionized workers	N	441	441	445	445
	%	30.84%	13.15%	22.70%	63.82%
Workers without supervisory responsibilities	N	1823	1829	1842	1842
	%	30.66%	12.96%	21.66%	64.88%
Workers with supervisory responsibilities	N	1208	1209	1214	1214
	%	32.12%	19.35%	19.28%	51.07%
For unionized workers only					
Workers without supervisory responsibilities	N	1562	1568	1579	1579
	%	30.73%	13.58%	21.28%	63.65%
Workers with supervisory responsibilities	N	1028	1029	1032	1032
	%	32.20%	19.44%	18.99%	50.97%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

 two sample difference in proportion is significant at the 1 percent level.

 two sample difference in proportion is significant at the 5 percent level.


 two sample difference in proportion is significant at the 10 percent level.

Table 4 Participation Gap: Deciding what training is needed for people in your work group or department

		Wanting Influence	Having Influence	Specific Participation Gap	General Participation Gap
		%worker for whom it is very important to have a lot of involvement and influence on deciding what training is needed for people in your work group or department	%worker who have a lot of involvement and influence on deciding what training is needed for people in your work group or department	%worker for whom it is very important to have a lot of involvement and influence on deciding what training is needed for people in your work group or department yet who do not have a lot of involvement and influence	%worker with less involvement and influence on deciding what training is needed for people in your work group or department than he/she wants
Total	N %	3029 33.44%	3040 6.97%	3056 28.08%	3056 69.73%
Unionized workers	N %	2589 32.37%	2598 6.58%	2611 27.38%	2611 69.51%
Non-unionized workers	N %	440 39.77%	442 9.28%	445 32.13%	445 71.01%
Workers without supervisory responsibilities	N %	1822 31.83%	1830 3.50%	1842 28.94%	1842 78.94%
Workers with supervisory responsibilities	N %	1207 35.87%	1210 12.23%	1214 26.77%	1214 55.77%
For unionized workers only					
Workers without supervisory responsibilities	N %	1561 31.07%	1568 3.57%	1579 27.99%	1579 78.15%
Workers with supervisory responsibilities	N %	1028 34.34%	1030 11.17%	1032 26.45%	1032 56.30%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

two sample difference in proportion is significant at the 1 percent level.

two sample difference in proportion is significant at the 5 percent level.

two sample difference in proportion is significant at the 10 percent level.

Table 5 Discontent and Employee Involvement and Influence: Deciding how to do your job and organize the work

		%workers who agree or somewhat agree that they usually do not look forward to going to work	%workers who are overall dissatisfied with their current jobs	%workers who do not feel loyal to their firm	%workers who trust information provided by their firm only a little or not at all	%workers who rate labor management relations as only fair or poor
Total	N	3038	3043	3039	3037	3021
	%	45.49%	30.04%	28.07%	18.70%	41.77%
workers with a lot of involvement and influence	N	1335	1334	1333	1332	1324
	%	41.20%	23.09%	23.03%	16.22%	34.82%
workers without a lot of involvement and influence	N	1692	1698	1696	1695	1687
	%	48.94%	35.51%	32.02%	20.65%	47.18%
Unionized workers						
Total	N	2593	2598	2596	2595	2598
	%	46.66%	29.87%	27.47%	18.07%	36.76%
workers with a lot of involvement and influence	N	1128	1127	1127	1127	1128
	%	42.29%	23.07%	22.36%	16.06%	28.81%
workers without a lot of involvement and influence	N	1456	1462	1461	1460	1461
	%	50.21%	35.16%	31.49%	19.59%	42.85%
Unionized workers with supervisory responsibilities						
Total	N	1021	1024	1023	1023	1024
	%	40.35%	25.00%	21.31%	14.37%	29.20%
workers with a lot of involvement and influence	N	549	549	549	549	549
	%	36.79%	20.22%	17.85%	14.03%	21.49%
workers without a lot of involvement and influence	N	470	473	472	472	473
	%	44.47%	30.66%	25.42%	14.83%	38.27%
Unionized workers without supervisory responsibilities						
Total	N	1572	1574	1573	1572	1574
	%	50.76%	33.04%	31.47%	20.48%	41.68%
workers with a lot of involvement and influence	N	579	578	578	578	579
	%	47.50%	25.78%	26.64%	17.99%	35.75%
workers without a lot of involvement and influence	N	986	989	989	988	988
	%	52.94%	37.31%	34.38%	21.86%	45.04%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 6 Discontent and Employee Involvement and Influence: Setting goals for your work group or department

		%workers who agree or somewhat agree that they usually do not look forward to going to work	%workers who are overall dissatisfied with their current jobs	%workers who do not feel loyal to their firm	%workers who trust information provided by their firm only a little or not at all	%workers who rate labor management relations as only fair or poor
Total						
workers with a lot of involvement and influence	N	236	237	237	237	233
	%	30.93%	17.72%	18.14%	11.81%	33.48%
workers without a lot of involvement and influence	N	2782	2786	2784	2781	2769
	%	46.80%	31.08%	28.92%	19.31%	42.36%
Unionized workers						
workers with a lot of involvement and influence	N	183	184	184	184	184
	%	32.24%	17.39%	17.93%	9.78%	29.35%
workers without a lot of involvement and influence	N	2394	2398	2398	2396	2398
	%	47.95%	30.90%	28.27%	18.70%	37.24%
Unionized workers with supervisory responsibilities						
workers with a lot of involvement and influence	N	125	126	126	126	126
	%	27.20%	15.87%	14.29%	8.73%	22.22%
workers without a lot of involvement and influence	N	893	895	895	894	895
	%	42.33%	26.37%	22.35%	15.21%	30.17%
Unionized workers without supervisory responsibilities						
workers with a lot of involvement and influence	N	58	58	58	58	58
	%	43.10%	20.69%	25.86%	12.07%	44.83%
workers without a lot of involvement and influence	N	1501	1503	1503	1502	1503
	%	51.30%	33.60%	31.80%	20.77%	41.45%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 7 Discontent and Employee Involvement and Influence: Setting work schedules, including breaks, overtime and time off

		%workers who agree or somewhat agree that they usually do not look forward to going to work	%workers who are overall dissatisfied with their current jobs	%workers who do not feel loyal to their firm	%workers who trust information provided by their firm only a little or not at all	%workers who rate labor management relations as only fair or poor
Total						
workers with a lot of involvement and influence	N	469	469	468	468	467
	%	41.15%	23.88%	23.29%	14.32%	31.05%
workers without a lot of involvement and influence	N	2551	2556	2555	2552	2537
	%	46.30%	31.14%	28.92%	19.51%	43.67%
Unionized workers						
workers with a lot of involvement and influence	N	411	411	411	411	411
	%	41.36%	24.33%	22.87%	14.11%	27.25%
workers without a lot of involvement and influence	N	2168	2173	2173	2171	2173
	%	47.79%	30.97%	28.39%	18.79%	38.52%
Unionized workers with supervisory responsibilities						
workers with a lot of involvement and influence	N	198	198	198	198	198
	%	32.32%	19.70%	15.66%	10.61%	21.21%
workers without a lot of involvement and influence	N	820	823	823	822	823
	%	42.32%	26.37%	22.72%	15.33%	31.23%
Unionized workers without supervisory responsibilities						
workers with a lot of involvement and influence	N	213	213	213	213	213
	%	49.77%	28.64%	29.58%	17.37%	32.86%
workers without a lot of involvement and influence	N	1348	1350	1350	1349	1350
	%	51.11%	33.78%	31.85%	20.90%	42.96%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 8 Discontent and Employee Involvement and Influence: Deciding what training is needed for people in your work group or department

		%workers who agree or somewhat agree that they usually do not look forward to going to work	%workers who are overall dissatisfied with their current jobs	%workers who do not feel loyal to their firm	%workers who trust information provided by their firm only a little or not at all	%workers who rate labor management relations as only fair or poor
Total						
workers with a lot of involvement and influence	N	211	211	211	210	210
	%	35.55%	17.54%	16.59%	12.86%	36.67%
workers without a lot of involvement and influence	N	2811	2816	2814	2812	2796
	%	46.25%	30.97%	28.93%	19.13%	42.13%
Unionized workers						
workers with a lot of involvement and influence	N	170	170	170	169	170
	%	35.29%	19.41%	17.65%	13.02%	31.76%
workers without a lot of involvement and influence	N	2410	2415	2415	2414	2415
	%	47.55%	30.64%	28.20%	18.39%	37.10%
Unionized workers with supervisory responsibilities						
workers with a lot of involvement and influence	N	114	114	114	114	114
	%	29.82%	16.67%	10.53%	7.89%	25.44%
workers without a lot of involvement and influence	N	905	908	908	907	908
	%	41.66%	26.10%	22.69%	15.21%	29.74%
Unionized workers without supervisory responsibilities						
workers with a lot of involvement and influence	N	56	56	56	55	56
	%	46.43%	25.00%	32.14%	23.64%	44.64%
workers without a lot of involvement and influence	N	1505	1507	1507	1507	1507
	%	51.10%	33.38%	31.52%	20.31%	41.54%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 9 Participatory Employment Practices

		%workers in firms with SFCs	%workers in firms with SFCs who always participate in SFCs	%workers in firms with SGAs	%workers in firms with SGAs who participate in SGAs	%workers with full information via JLMCs	%workers with PSPs	%workers with GSPs	%workers with ESOPs
Total	N	3051	1796	3045	1324	3033	2997	2970	3026
	%	61.16%	51.67%	43.74%	84.89%	12.56%	81.01%	47.34%	28.52%
Unionized workers	N	2607	1558	2601	1144	2591	2553	2527	2583
	%	62.18%	51.86%	44.29%	86.54%	13.20%	85.15%	50.89%	30.78%
Non-Unionized workers	N	444	238	444	180	442	444	443	443
	%	55.18%	50.42%	40.54%	74.44%	8.82%	57.21%	27.09%	15.35%
Unionized workers with supervisory responsibilities	N	1030	683	1027	448	1023	1010	1002	1015
	%	68.45%	57.10%	43.82%	88.17%	14.37%	89.80%	52.79%	37.93%
Unionized workers without supervisory responsibilities	N	1577	875	1574	696	1568	1543	1525	1568
	%	58.08%	47.77%	44.60%	85.49%	12.44%	82.11%	49.64%	26.15%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

two sample difference in proportion is significant at the 1 percent level.

two sample difference in proportion is significant at the 5 percent level.

two sample difference in proportion is significant at the 10 percent level.

Table 10 Shopfloor Committees (SFCs) and Workers Having Influence

		%worker who have a lot of involvement and influence on			
		Deciding how to do your job and organize the work	Setting goals for your work group or department	Setting work schedules, including breaks, overtime and time off	Deciding what training is needed for people in your work group or department
Total					
Workers in firms with SFCs	N	1858	1854	1854	1855
	%	47.36%	8.68%	17.31%	8.09%
Workers in firms without SFCs	N	1182	1177	1179	1180
	%	38.58%	6.54%	12.72%	5.25%
Unionized workers					
Workers in firms with SFCs	N	1614	1611	1611	1612
	%	46.90%	8.07%	17.57%	7.51%
Workers in firms without SFCs	N	984	980	982	982
	%	37.91%	5.61%	13.24%	5.09%
Unionized workers with supervisory responsibilities					
Workers in firms with SFCs	N	703	703	702	703
	%	57.18%	13.80%	21.23%	12.23%
Workers in firms without SFCs	N	325	324	325	325
	%	45.54%	9.26%	15.69%	8.92%
Unionized workers without supervisory responsibilities					
Workers in firms with SFCs	N	911	908	909	909
	%	38.97%	3.63%	14.74%	3.85%
Workers in firms without SFCs	N	659	656	657	657
	%	34.14%	3.81%	12.02%	3.20%
For workers in firms with SFCs only					
Total					
Workers always participating in SFCs	N	924	921	920	920
	%	54.44%	10.31%	21.96%	10.98%
Workers not always participating in SFCs	N	864	863	864	865
	%	40.39%	6.84%	12.73%	4.62%
Unionized workers					
Workers always participating in SFCs	N	804	802	801	801
	%	53.23%	8.98%	22.10%	9.61%
Workers not always participating in SFCs	N	747	746	747	748
	%	40.83%	7.10%	13.12%	4.81%
Unionized workers with supervisory responsibilities					
Workers always participating in SFCs	N	389	390	389	389
	%	60.93%	14.10%	24.42%	14.91%
Workers not always participating in SFCs	N	292	291	291	292
	%	52.74%	12.71%	16.15%	8.22%
Unionized workers without supervisory responsibilities					
Workers always participating in SFCs	N	415	412	412	412
	%	46.02%	4.13%	19.90%	4.61%
Workers not always participating in SFCs	N	455	455	456	456
	%	33.19%	3.52%	11.18%	2.63%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 11 Small Group Activities (SGAs) and Workers Having Influence

		%worker who have a lot of involvement and influence on			
		Deciding how to do your job and organize the work	Setting goals for your work group or department	Setting work schedules, including breaks, overtime and time off	Deciding what training is needed for people in your work group or department
Total					
Workers in firms with SGAs	N	1327	1325	1325	1326
	%	47.17%	9.74%	18.79%	9.05%
Workers in firms without SGAs	N	1708	1701	1703	1704
	%	41.45%	6.41%	12.92%	5.34%
Unionized workers					
Workers in firms with SGAs	N	1147	1146	1146	1147
	%	46.12%	8.90%	19.37%	8.72%
Workers in firms without SGAs	N	1446	1440	1442	1442
	%	41.42%	5.76%	13.11%	4.85%
Unionized workers with supervisory responsibilities					
Workers in firms with SGAs	N	448	449	448	449
	%	59.60%	16.04%	25.22%	14.70%
Workers in firms without SGAs	N	577	575	576	576
	%	48.87%	9.57%	14.93%	8.33%
Unionized workers without supervisory responsibilities					
Workers in firms with SGAs	N	699	697	698	698
	%	37.48%	4.30%	15.62%	4.87%
Workers in firms without SGAs	N	869	865	866	866
	%	36.48%	3.24%	11.89%	2.54%
For workers in firms with SGAs only					
Total					
Workers always participating in SGAs	N	1120	1118	1118	1118
	%	49.46%	9.84%	19.14%	9.39%
Workers not always participating in SGAs	N	199	199	199	200
	%	35.68%	9.55%	17.59%	7.50%
Unionized workers					
Workers always participating in SGAs	N	986	985	985	985
	%	48.17%	8.93%	19.59%	9.04%
Workers not always participating in SGAs	N	153	153	153	154
	%	34.64%	9.15%	18.95%	7.14%
Unionized workers with supervisory responsibilities					
Workers always participating in SGAs	N	394	395	394	394
	%	60.41%	15.70%	24.37%	14.72%
Workers not always participating in SGAs	N	52	52	52	53
	%	55.77%	19.23%	32.69%	15.09%
Unionized workers without supervisory responsibilities					
Workers always participating in SGAs	N	592	590	591	591
	%	40.03%	4.41%	16.41%	5.25%
Workers not always participating in SGAs	N	101	101	101	101
	%	23.76%	3.96%	11.88%	2.97%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 12 JLMCs and Workers Having Influence

		%worker who have a lot of involvement and influence on			
		Deciding how to do your job and organize the work	Setting goals for your work group or department	Setting work schedules, including breaks, overtime and time off	Deciding what training is needed for people in your work group or department
Total					
Workers receiving full information via JLMCs	N	381	381	381	381
	%	54.33%	10.24%	19.69%	9.45%
Workers not receiving full information via JLMCs	N	2643	2635	2635	2638
	%	42.53%	7.51%	14.91%	6.60%
Unionized workers					
Workers receiving full information via JLMCs	N	342	342	342	342
	%	53.80%	9.06%	18.71%	8.19%
Workers not receiving full information via JLMCs	N	2242	2236	2236	2238
	%	42.02%	6.89%	15.56%	6.34%
Unionized workers with supervisory responsibilities					
Workers receiving full information via JLMCs	N	147	147	147	147
	%	67.35%	16.33%	23.81%	14.97%
Workers not receiving full information via JLMCs	N	874	873	873	874
	%	51.49%	11.80%	18.79%	10.53%
Unionized workers without supervisory responsibilities					
Workers receiving full information via JLMCs	N	195	195	195	195
	%	43.59%	3.59%	14.87%	3.08%
Workers not receiving full information via JLMCs	N	1368	1363	1363	1364
	%	35.96%	3.74%	13.50%	3.67%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 13 Profit Sharing Plans (PSPs) and Gainsharing Plans (GSPs) and Workers Wanting Influence

		%worker for whom it is very important to have a lot of involvement and influence on			
		Deciding how to do your job and organize the work	Setting goals for your work group or department	Setting work schedules, including breaks, overtime and time off	Deciding what training is needed for people in your work group or department
Total					
Workers with PSPs	N	2416	2410	2409	2409
	%	76.12%	49.00%	31.71%	33.46%
Workers without PSPs	N	566	564	565	563
	%	70.49%	42.55%	30.27%	34.46%
Unionized workers					
Workers with PSPs	N	2163	2158	2157	2157
	%	75.82%	48.52%	31.62%	32.68%
Workers without PSPs	N	377	376	377	376
	%	68.44%	40.69%	31.03%	31.91%
Unionized workers with supervisory responsibilities					
Workers with PSPs	N	904	904	903	903
	%	78.10%	53.98%	32.89%	34.88%
Workers without PSPs	N	103	103	103	103
	%	77.67%	53.40%	27.18%	32.04%
Unionized workers without supervisory responsibilities					
Workers with PSPs	N	1259	1254	1254	1254
	%	74.19%	44.58%	30.70%	31.10%
Workers without PSPs	N	274	273	274	273
	%	64.96%	35.90%	32.48%	31.87%
Total					
Workers with GSPs	N	1397	1391	1391	1390
	%	77.74%	52.62%	35.30%	36.62%
Workers without GSPs	N	1558	1556	1556	1555
	%	72.91%	43.64%	27.96%	31.06%
Unionized workers					
Workers with GSPs	N	1278	1273	1273	1272
	%	77.70%	52.08%	35.35%	35.85%
Workers without GSPs	N	1236	1235	1235	1235
	%	72.01%	42.67%	27.53%	29.23%
Unionized workers with supervisory responsibilities					
Workers with GSPs	N	527	528	527	527
	%	79.32%	57.39%	36.24%	38.90%
Workers without GSPs	N	472	471	471	471
	%	77.12%	50.53%	28.03%	29.94%
Unionized workers without supervisory responsibilities					
Workers with GSPs	N	751	745	746	745
	%	76.56%	48.32%	34.72%	33.69%
Workers without GSPs	N	764	764	764	764
	%	68.85%	37.83%	27.23%	28.80%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.

Table 14 Employee Stock Ownership Plans (ESOPs) and Workers Wanting Influence

		%worker for whom it is very important to have a lot of involvement and influence on			
		Deciding how to do your job and organize the work	Setting goals for your work group or department	Setting work schedules, including breaks, overtime and time off	Deciding what training is needed for people in your work group or department
Total					
Workers with ESOPs	N	862	861	861	861
	%	75.41%	51.92%	31.13%	34.38%
Workers without ESOPs	N	2148	2142	2141	2139
	%	74.63%	45.80%	31.20%	32.96%
Unionized workers					
Workers with ESOPs	N	794	793	793	793
	%	75.06%	50.69%	31.15%	32.91%
Workers without ESOPs	N	1775	1771	1770	1769
	%	74.25%	45.57%	31.24%	32.00%
Unionized workers with supervisory responsibilities					
Workers with ESOPs	N	384	384	384	384
	%	74.22%	53.13%	33.59%	35.94%
Workers without ESOPs	N	628	628	627	627
	%	79.94%	53.82%	31.26%	33.01%
Unionized workers without supervisory responsibilities					
Workers with ESOPs	N	410	409	409	409
	%	75.85%	48.41%	28.85%	30.07%
Workers without ESOPs	N	1147	1143	1143	1142
	%	71.14%	41.03%	31.23%	31.44%

Source: Japanese Worker Representation and Participation Survey (JWRPS)

- two sample difference in proportion is significant at the 1 percent level.
- two sample difference in proportion is significant at the 5 percent level.
- two sample difference in proportion is significant at the 10 percent level.