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Employment of Older Persons

Contents

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Japan Labor Review

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NEXT ISSUE (Summer 2008)

The Summer 2008 issue of the Review will be a special edition devoted to **Treatment of Professional Workers**.

Introduction

Employment of Older Persons

Japan now has the largest proportion of elderly in the world. The present issue of the *Japan Labour Review* focuses on the employment situation and challenges of elderly people, which Japan is currently facing.

The declining birthrate and the growing elderly population are advancing faster than estimated. Today, the number of 65 year-olds and older exceeds 20% of the total Japanese population. The total population has shown a decrease since 2005. Demographic changes have resulted in shifts in the labor force—the bearers of economy. The aging of the labor population is in progress, and a decrease in the labor force is expected unfortunately.

These social changes have resulted in a major shift in social and employment systems. Companies and workers are required to respond to this new environment. Four studies found in this issue provide research analysis of the current situation and challenges. Before introducing each study, let us briefly explain the recent system changes and social movements which are in the context of the research analysis.

(1) Changing public pension eligibility

Partly due to financial issues along with the declining birthrate and growing elderly population, the eligible age for public pension has been raised one year at a time in every 3 years from 60 to 65 years old. For men, the basic pension component began to change from 2001, and the earnings-related component of pension will begin to change in 2013. Changes for women follow 5 years later. As of 2008, men receive the basic pension component from age 63; women from age 61. Since the mandatory retirement age for most companies is 60, there is a gap between the retirement age and the eligible age for a pension, thus employment issues for elderly people have become serious challenges. While elderly Japanese have a stronger will to work compared to other advanced countries, the active job opening ratio is low and employment environment is difficult, but securing employment at least until 65 years old has become essential. To deal with this issue, Act Concerning Stabilization of Employment of Older Persons was revised in 2004.

(2) Act Concerning Stabilization of Employment of Older Persons

The revision of Act Concerning Stabilization of Employment of Older Persons, implemented in April 2006, stipulates that companies must ensure employment for those 65 years and younger by any of which: (i) to increase the mandatory retirement age to 65 or older, (ii) to introduce a continuous employment system, and (iii) to abolish mandatory retirement. How companies responded to this act is analyzed in detail in Fujimoto's paper. Many companies still maintain a mandatory retirement age of 60, but have introduced a continuous employment system, where they set the standards and then only re-employ those who meet the standards. This means that those who do not meet the standards might not be re-employed in spite of their wish to work.

(3) Mandatory retirement of the *dankai no sedai* or Japanese baby-boom generation (hereinafter referred to as JBB generation).

In addition to the insufficient employment environment for those in the early 60s as described above, the first baby-boom generation reached the age of mandatory retirement in 2007. Large number of retirees have not only caused challenges regarding their employment, but also largely affected Japanese companies and society, which was named as the *Issue of 2007*. For example, due to the retirement of a large number of skilled workers, there was the concern that companies would lose technology and skills and the transfer of such skills would thereby be inhibited. On the other hand, the retirement of a large number of workers would have a positive effect on the employment of the younger generation to complement the lost labor force, but this trend as a whole is expected to result in a decrease in the labor force in the mid- and long-term.

The studies in the current issue identify the status of companies and workers in the midst of this change of social environment, based on the authors' analysis. Let us briefly introduce each study.

Mitani focuses his analysis on the status of companies, particularly their responses to changes in the work environment. He analyzes companies' human resource strategies and management from the viewpoint of economics in response to the retirement of the JBB generation, and to the low birthrate and longevity trends which are expected to advance further. The effect of issues

regarding transferring skills due to the JBB generation's retirement was relatively small for companies, while the reduction of labor costs and the increase of lump-sum retirement payments were substantial. It was identified that companies with issues regarding transferring of skills limit their employment to highly-skilled elderly technical experts. As for employment of the younger population, since some companies have strict employment policies such as regarding *freeters* (Young part-time workers who have been engaged in temporary works since leaving or graduating from schools), the retirement of a large number of workers does not necessarily result in an expansion of employment for the younger population at large. Generally, companies are planning human resource strategies including utilizing elderly workers in the face of an even greater dwindling birth rate and expanding elderly population, from long-term point of view.

On the other hand, Sato focuses on active middle and older workers and elderly workers including the JBB generation. One of the characteristics of his research is that it identifies differences among work styles, public and private sectors, and male and female, in regards to the prospect for employment after retirement and life plan at the elderly stage. Generally, employment needs later in life are high; approximately half of the respondents would like full-time employment up until 65 years old on average. In case of employed workers, though, the number of those who wish to be involved in volunteer activities after age 66 shows a significant increase, and the turning point of employment to retirement is between ages 65 and 66. This shows a remarkable difference from self-employed workers; many of them continue to work even beyond age 70. Furthermore, it was identified that the respondents basically intended to support themselves by their own income into their early 60s, but half of them responded that they did not know if there would be a prospect of employment for them at their current workplace, although the responses varied depending on if they had a particular expertise or if they were in management positions. The author indicates that therein lies a major issue.

Fujimoto analyses the response of companies to the revision of Act Concerning Stabilization of Employment of Older Persons and the status of elderly employment. Within a year of execution of the Act, most companies took measures to ensure employment of workers in their early 60s. The

majority of them introduced a continuous employment system by re-employment, and established standards on elderly employment. Elderly workers who are reemployed continue to work as full-time employees engaging in similar work as before, but retirees tend to be employed as temporary or contract workers. In many cases, their wages are set to approximately 40% to 50% of their wages at retirement age and their annual income, including a pension, to about 50% to 70% of their annual income at retirement age. Companies find major advantages in continuous employment, since they can expect the same output with lower labor costs. This system, though, does not necessarily match the elderly employees' needs. The author points out that employment which match the work style of the elderly workers and their needs should be examined.

Kajitani presents highly indicative analysis to see how elderly people who cannot find jobs or are not employed can be employed. Generally, there are various arguments regarding the effectiveness of skill development for the elderly people, and the author proves its effectiveness in this paper. First, he reveals that the unemployment period of 55 to 64 year-old-males in and after the 1990s has become longer, the ratio of long-term unemployed among the mandatory retirees is high, and the employment environment for elderly people continues to be bleak. The author then proves that one of the effective measures to promote elderly employment is skill development, such as job training and self-development. In order for elderly people to work after retirement, it is important that they look back their career and develop skills that are required in the labor market. He also points out that older workers need to be prepared as early as possible considering how they would like to work after their retirement.

We hope that the current issue of the *Japan Labour Review* will contribute to readers' better understanding of the status and challenges of elderly employment in Japan faced the declining birth rate and aging population.

Sumiko Ebisuno
Kaetsu University

Mandatory Retirement of Baby Boomers and Human Resource Strategies of Business Firms

Naoki Mitani
Kobe University

I. Introduction

The purpose of this paper is to analyze from an economics viewpoint how changes in the age structure of the labor force, especially the mandatory retirement of the so-called *Dankai No Sedai*, or the Japanese baby boomers,[1] starting in 2007, affect business firms' human resource strategies and personnel management.

Looking at the age structure of the Japanese labor force, we find that there are two large groups, namely the baby boomers and their children. Further, the Japanese labor force as a whole is aging gradually, while the number of young workers is decreasing due to the falling birthrate. The change in the labor supply structure starting in 2007, when the large group of the baby boomers began reaching the turning point in the employment system, namely the mandatory retirement age of 60, may have a considerable impact on the labor market and firms' human resource strategies.

The mandatory retirement of the baby boomers is associated not only with negative aspects, such as the issue of transfer of skills to the next generations and an increase in the payment of retirement lump-sum benefits, but also with positive aspects, such as labor cost reduction, solution of the problem of shortage in the availability of posts, and rejuvenation of the labor force, which all result from the retirement of older workers requiring a high labor cost.[2] Naturally, firms are considered to be developing strategies for securing factors of production for optimizing the components of their factors of production in a given condition. As regards the labor force, it is considered that there is the optimum generational structure. The reality, however, is that the generational structure is not always optimum because of changes in the labor supply structure and economic fluctuations. The retirement of the baby boomers

[1] The generation born during three years from 1947 through 1949.
[2] From the vantage point of macroeconomics, retirement of a large number of older people from declining industries will promote change in the labor-force structure.

should prompt firms to work towards developing human resource strategies for the optimum generational structure. The human resource strategies that firms are trying to implement as the baby boomers begin to retire at the mandatory retirement age are extremely important when we consider the future status of the labor market and policy issues.

In this paper, we will, in the next section, survey earlier studies in respect of the various factors that affect the optimum generational structure of firms and conduct a brief analysis. In Section III, we will discuss the characteristics of the baby boomers and the effects that their mandatory retirement have on firms. In Section IV, we will analyze the relationship between wage structure and generational structure of firms. In Section V, we will analyze, based on a questionnaire survey, the human resource strategies that firms are planning to adopt in the face of aging and the declining birthrate. In the last section, we will summarize the results.

II. Firms' Optimum Generational Structure

It is believed that firms consider the most efficient generational structure, taking the characteristics of each generation and organizational efficiency into account. There is the possibility, however, for firms to fail to realize the optimum generational structure because of demographic factors and economic fluctuations. For example, during the bubble economy, firms activated their production activities to meet increased demand, and employed many new graduates. On the other hand, during the long economic recession after the burst of the bubble economy, the recruitment of regular employees was severely curbed for labor cost reduction. As a result, young workers were put into a position where they had to perform the jobs normally given to new recruits, increasing the ratio of those who work long hours in spite of the economic recession (Genda 2005). Nonetheless, it is evident from firms' plans for recruitment of new graduates that firms are always thinking about how they could optimize the age structure of their employees. About a half of the firms that increased the number of new high-school graduates in their recruitment plans from the previous year's said they did so for the "optimization of personnel structure in terms of age, etc."[3] The mandatory retirement of the

[3] Ministry of Health, Labour and Welfare, Survey on Labour Economy Trend (May

baby boomers will provide opportunities for firms to correct the irregular generational structure created by the decrease in the number of young workers that resulted from the curb on recruitment and by the increase in the number of older workers that resulted from the aging of the baby boomers.

In the following subsections, we will discuss some of the factors closely related to the optimum generational structure of firms:

1. Generational Effect

If we examine the age structure of the labor force in terms of the generations, we find that each generation has the unique know-how, skills and expertise that reflect the economic conditions, technology, and skills development prevailing at and after the time they entered their firms. The characteristics unique to each generation in the labor market are sometimes called the generational effect.[4] In particular, the quality and quantity of human capital accumulated in a certain generation is considered to be dependent upon the industrial and occupational structure, the state of technology, and economic conditions prevailing at a time that generation, in its youth, undergo skills development. In fact, if we examine the changes in the occupational structure of each generation (cohort), we see that each generation has unique occupational structure. Over the long term, there is no significant change in the occupational structure of each generation. Together with changes that aging brings to workers' abilities, the generational effect must be closely related to firms' optimum generational structure.

2. Population Size

Generally, if there is an increase, with other conditions remaining the same, in the quantity of the production factor that cannot be completely replaced with another production factor, the productivity of the former factor, namely the value of marginal products, gradually decreases. In other words, if there is no change in capital or other production factors, the productivity of a generation with a large population size declines because of the congestion phenomenon. As for the congestion phenomenon resulting from the large population size of a certain generation, studies were made in the U.S. and Europe on the baby

2005).

[4] In the sense that generational effect refers to unique generational characteristics, a generation's population size may also be included in the generational effect.

boomers in relation to the unemployment of young workers (Welch 1979; Korenman and Neumark 2000, etc.). Researches conducted in Japan have also demonstrated the existence of the congestion phenomena, mainly among the baby boomers. For example, Inoki and Otake (1997) showed, using the individual data of the Basic Survey on Wage Structure, that a generation's population size has a significantly negative effect on the generation's wages. Similar researches were conducted by Genda (1997) and Okamura (2000). All of these researches confirm the existence of the congestion phenomena. Moreover, the congestion phenomena have been observed in business firms. For example, a decrease in the wages of the baby boomers resulted from the fact that their promotion was delayed because of shortage of posts when they became old enough to become managers. This can also be regarded as a decrease in productivity resulting from the large population size.

3. Displacement Effect

In the production activities of firms, each generation is in a substitutional or complementary relation to other generations as a production factor. In other words, the employment and wage of a generation is affected by other generations. Genda (2004) and Mitani (2001, 2005) examined whether there was any possibility that continuing the employment of older employees when the labor demand declined due to the long economic recession after the bubble burst had a negative impact on the employment of young workers through the control of new worker recruitment, and obtained results that were consistent with the fact that there was actually such an effect. This effect is called the "displacement effect."[5] If older workers and young workers are in such a relation, the retirement of a large number of baby boomers in and after 2007 will create a contrary effect and have a positive impact on the employment of young workers. Such a substitutional or complementary relationship among generations is closely related to firms' optimum generational structure.

4. Quasi-fixed Labor Cost

The labor cost not related to the length of working time, for example, that incurred from the recruitment of workers and internal training (including some

[5] A concise summary of research on the generational effect and displacement effect can be found in Ota (2003).

of the firm-specific training for developing skills that are often useful only within that firm), is called quasi-fixed labor cost (Oi 1962). The larger the quasi-fixed labor cost of a firm, the greater the demand for young workers in that firm. This is mainly because these firms require a substantial period of employment in order to make up for the quasi-fixed labor cost invested at the initial time of employment and partly because it is more efficient to invest in the internal training of employees when they are still young and malleable. Firm-specific training is an investment jointly made by workers and their firm. This leads to long-term employment because both sides try to obtain the return that meets the investment. Firms having a large amount of such quasi-fixed labor cost are believed to be large companies and companies in which employees' length of service is long and wage profile inclination is sharp. In other words, it can be considered that large firms and firms with a sharp inclination of wage profile tend to recruit mostly young people. In fact, an empirical analysis has shown that young people as a percentage of all recruits are higher at these firms (Ota 2003). It can be considered that quasi-fixed labor cost (or the degree of preference on internal training) has an effect on firms' optimum generational structure and human resource strategies.

5. Motivation Cost

Motivation cost also plays an important role as regards firms' employment and wage. If the skills or performance of workers could not necessarily be grasped accurately, it would be difficult for firms to determine their treatment in response to their skills and performance. If workers felt that it made no difference whether they worked hard or not, their productivity would decrease. The cost incurred because accurate information on workers' skills and performance is not relayed to their firm is called the motivation cost.[6] Firms are making efforts to improve their wage systems and promotion programs in order to motivate their employees. For example, the decision of promotion based on the relative appraisal through a tournament promotion program will efficiently provide employees with work incentives. These programs, however,

[6] The motivation cost is one of the transaction costs. Other kinds of motivation cost include the cost resulting from less than optimum in investment in firm-specific training, when there is no trust between labor and management and there is a possibility that the firm will cut wages after the workers acquired the skills that are useful only in their firm through the training (Milgrom and Roberts 1992).

are closely related to the generational structure of firms.

It is considered that firms are taking into account various factors indicated above as they think about what would be the optimum generational structure and implement their human resource strategies. We will discuss the quasi-fixed labor cost and motivation cost again in the section on the internal wage structure.

Next, let us examine the characteristics of the baby boomers and the effects of their mandatory retirement.

III. Characteristics of the Baby Boomers and the Effects of Their Mandatory Retirement

1. Characteristics of the Baby Boomers

How do the baby boomers differ from other generations in the labor market? Here, we will discuss this by referring to Higuchi et al. (2004), which identified the characteristics of the baby boomers through cohort analysis. The cohort analysis is a method of breaking down age-specific indicators (such as labor participation ratio and employment rate) into the era effect, age effect and generational effect. We can see the characteristics of the baby boomers (generational effect) by using this method.

The results show the following:

(i) The labor participation ratio of the baby boomers is not much different from that of other generations. There is a large number of baby-boom workers simply because of the large population of the baby boomers.

(ii) By industry, the industries with a relatively high ratio of baby boomers are construction, manufacture of raw materials, transportation and communications, and wholesale and retail. Especially in the manufacturing and the transportation and communications industries, the effect of the baby boomers' retirement is great because the number of employees who are 60 or over is very small.

(iii) By occupation, the ratio of the baby boomers engaged in professional or technical occupations is smaller than that of younger generations. On the other hand, in the transportation and communications industries and among skilled engineers, mining, manufacturing and construction workers, field workers, and salespersons, the generational effect lowers in the generations coming after the baby boomers, and the ratio of the baby boomers is

relatively high in these occupations. In these occupations, the effect of the baby boomers is considered to be large.

(iv) By size of business firms, the ratio of large companies decreases among the baby boomers and the subsequent generations. Since the number of baby boomers is large, the competition for finding employment was more intense than for previous generations. However, as far as university graduates are concerned, such a decrease in the ratio of large companies cannot be observed.

(v) The retention rate of baby boomers is low in large companies, compared with other generations. The retention rate is particularly low among baby boomers who are university graduates. Relatively more baby boomers in large firms seem to have been transferred to subsidiaries or to have left firms in their mid-careers.

In light of these characteristics of the baby boomers, let us see how firms think about the effects of the retirement of the baby boomers.

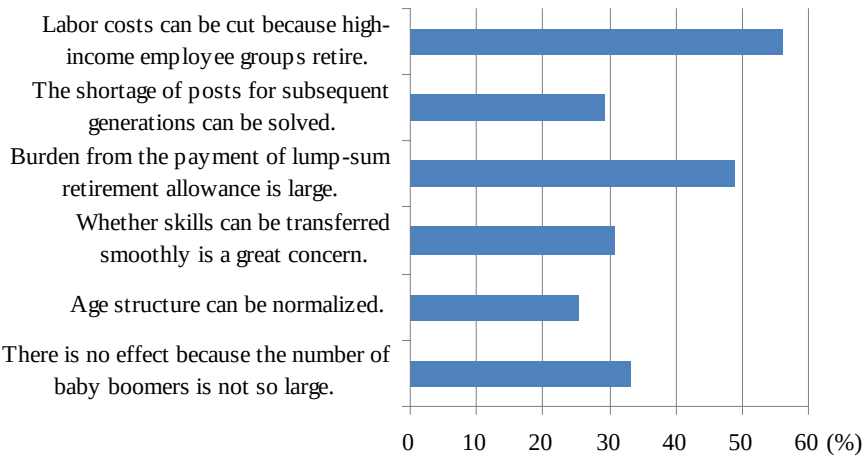
2. Effects of the Retirement of Baby Boomers

This section will examine the effects the mandatory retirement of the baby boomers, in and after 2007, will have on firms. The data used in this section are from the Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society (Businesses) conducted by The Japan Institute for Labour Policy and Training (hereafter referred to as the "Population Decreasing Society Survey").[7]

What effect do firms think the mandatory retirement of the baby boomers will have on the firms? A relatively small number of firms mentioned the "skills transfer issue," which is often referred to in connection with the mandatory retirement of the baby boomers. Instead, a large number of firms said, "labor cost reduction" and "increased payment of retirement allowance." A little less than 30% of the firms replied, "a solution to the problem of shortage of posts," while one-fourth of firms said, "normalization of the age structure." Further, approximately one-third said, "There is no effect because the number of baby boomers is not so large" (Figure 1). Thus, we can see that

[7] The survey was conducted between December 8, 2004 and January 12, 2005. It covered 10,000 companies with 100 employees or more in Japan. Questionnaires were distributed to these companies through postal mail, to which 1,237 companies responded (valid response ratio: 12.4%).

Figure 1. Effect of mandatory retirement of baby boomers
(Proportion of firms: "applicable" + "partly applicable," M.A.)



Source: The Japan Institute for Labour Policy and Training, *The Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society*.

the firms are aware that the effect of the mandatory retirement of the baby boomers is not only negative as in the skills transfer issue and increased payment of retirement allowance, but also positive as in labor cost reduction, solution of the problem of post shortage, and normalization of the age structure.

The various effects of the mandatory retirement of the baby boomers are considered to be related to the age structure of firms' employees, the industries that firms belong to, firms' organization, their human resources management systems, and especially their wage systems. Therefore, let us, through a probit analysis, see what factors determine the effects of mandatory retirement of the baby boomers. The explained variables are dummy variables where 1 is the case of the respondent replying "applicable" or "partly applicable," and 0 is all other cases. The explanatory variables are average age, average service years, ratio of employees who are 55 or over to all regular employees, ordinary profit growth rate, ratio of non-regular employees to all employees, ratio of regular female employees to all regular employees, and ratio of university graduates to all regular employees, company size dummy, and industry dummy. The results are as shown in Table1. The results show that the firms replying that the

Table 1. Probit analysis of effect of mandatory retirement of baby boomers

Explanatory variable	Explained variable="applicable" or "partly applicable" =1 and 0thers =0 (dummy variables)											
	Labor cost reduction		Solution to the problem of post shortage		Increased retirement allowance burden		Skill transfer issue		Normalization of age structure		No effect	
	Coefficient	z-value	Coefficient	z-value	Coefficient	z-value	Coefficient	z-value	Coefficient	z-value	Coefficient	z-value
Average age	0.0224	1.44	-0.0123	-0.71	0.0243	1.55	-0.0193	-1.19	0.0061	0.35	-0.0239	-1.51
Average tenure	0.0472	4.12 **	0.0597	4.84 **	0.0393	3.41 **	0.0321	2.63 **	0.0465	3.79 **	-0.0186	-1.54
Ratio of employees who are 55 or over	-0.5994	-1.11	0.1748	0.29	-0.3526	-0.66	1.0807	1.98 **	-0.4686	-0.75	-0.5901	-1.07
Ordinary profit growth rate	-0.0915	-1.43	-0.0801	-1.19	-0.1292	-2.00 **	0.0953	1.46	-0.1903	-2.69 **	0.0345	0.54
Non-regular employees ratio	-0.2352	-0.82	0.0632	0.20	-0.1466	-0.51	-0.0111	-0.04	0.4083	1.30	-0.3301	-1.15
Female ratio among regular employees	-0.2045	-0.48	-0.3902	-0.80	0.3314	0.76	0.3392	0.76	0.7045	1.47	-0.0975	-0.22
University graduate ratio	-0.0021	-0.07	0.0180	0.56	0.0053	0.17	-0.0549	-1.68 *	-0.0034	-0.10	0.0361	1.19
(Standard: Company size [less than 300 employees])												
Company size (300 to 999 employees)	0.1259	0.90	0.1833	1.21	-0.0311	-0.22	0.0524	0.35	0.1236	0.80	-0.0002	0.00
Company size (1000 employees or more)	0.3625	1.82 *	0.4339	2.19 **	0.3454	1.75 *	0.2832	1.42	0.0527	0.26	-0.1128	-0.57
Industry dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	-1.1727	-1.84 *	-0.904566	-1.3	-1.336045	-2.1 **	-0.08233	-0.12	-1.699462	-2.39 **	0.7885366	1.24
Sample size	465		463		459		454		465		463	
LR $chi^2(23)$	59.3		55.47		62.8		55.88		45.57		40.97	
Prob > chi^2	0.000		0.000		0.000		0.000		0.003		0.008	
Quasi-R^2	0.094		0.100		0.099		0.099		0.087		0.067	
Log likelihood	-285.9		-250.8		-286.7		-254.9		-238.4		-285.0	

Note: * and ** indicate statistical significance at the 10% level and 5% level, respectively.

mandatory retirement of the baby boomers has such effects as "labor cost reduction," "solution to the problem of post shortage," "increased payment of retirement allowance" and "normalization of age structure" are, in many cases, not the firms with a high average age or high ratio of employees who are 55 or over, but the firms with long average service years. Large firms have greater tendency to answer "labor cost reduction," "solution to the problem of post shortage," and "increased payment of retirement allowance." This suggests that at firms having the wage structure where wages increase according to the number of service years, the aging of the baby boomers increases the labor cost of such firms and is a heavy burden on the firms. In other words, it indicates that a firm's wage structure is closely related to the firm's optimum generational structure. As for "skills transfer issue," the average service years as well as the ratio of employees who are 55 or over have a positive and significant effect. The effect of the ratio of university graduates is negative and significant, which is consistent with the fact that this issue is relatively more serious in firms in which the work-site and technical divisions make up a large proportion. As for "increased payment of retirement allowance" and "normalization of age structure," the effect of the rate of increase of the ordinary profit is negative and significant, which indicates that at firms with good business performance, these issues are relatively insignificant.

Considering the above, we can see that company size, industry, business performance as well as firms' wage structure are major factors bringing about differences among firms as regards the effects of retirement of the baby boomers. Therefore, the following section will look at the relation between firms' personnel structure and wage structure.

IV. Generational Structure and Wage Structure of Firms

Since the end of the 1980s, the inclination of wage profile has become gentle. In recent years, firms have actively introduced the performance-based pay system. How are these trends related to changes in firms' generational structure, especially to the aging of employees?

The effect of the quasi-fixed labor cost, motivation cost and population size, mentioned in Section II, is the key to understanding the relationship between wage structure and generational structure within firms.

As mentioned earlier, it is economically rational for the firms with a large

quasi-fixed labor cost to recruit young workers. At the firms with a large quasi-fixed cost, including costs for recruitment and internal training, since workers' productivity gradually increases through training, the inclination of wage profile becomes sharp. Therefore, it is considered that the firms with a sharp wage profile inclination have greater demand for young workers. During the long economic recession after the bubble burst, the expenditures for internal training were cut (Ministry of Health, Labour and Welfare 2005). However, with the full recovery of the economy, more firms are beginning to give emphasis to competency development. This may become a factor for increasing labor demand for young people.

As regards the motivation cost, since it is not possible generally to accurately grasp the performance and capability of workers in large firms and in high-level professional and technical jobs and decision-making jobs, it may be difficult to ensure that those workers are making sufficient efforts. Because of this, firms have wage and personnel systems as a mechanism for motivating workers. For example, firms may introduce the deferred pay system where employees, while young, will receive a smaller amount of salary relative to their contribution to their company and when they become middle-aged and older, they will receive a larger amount of salary than that commensurate with their contribution to their company. At the same time, they would be dismissed if they are found to be making a substandard effort. Under such circumstances, workers will not lower the level of their effort, resulting in raising the company's productivity as a whole and increasing the company's profits and workers' wages. As such, this wage system becomes a favorable employment contract for both sides. Of course, in order for this kind of wage system to function, it has to be assured by a model wage table, etc. that employees will receive a higher amount of salary than that of their contribution to their company when they become middle-aged and older.[8]

Further, how does population size come into play? As mentioned earlier, if we suppose that a certain generation cannot completely be replaced with other generations, the generation with a large population size would have low productivity and low wages. Therefore, the wages of a generation with a large

[8] In addition to the theory of human capital and the hypothesis of deferred pay, there are many other hypotheses, including the information pool model, that explain the economic rationality of the seniority-based wage system. Refer to Ohashi (1990) as an example.

population size like the baby boom generation may be low.

Considering the above, how should we interpret the gentle inclination of wage profile since the end of the 1980s?

Firstly, there is the possibility that demand-side factors, such as the long recession and technical innovation, lowered the wages of middle-aged and older workers to a relatively great extent. The deterioration in corporate earnings resulting from the long economic recession after the burst of the bubble led to a decrease in the wages of workers. Moreover, the middle-aged and older workers, who had accumulated relatively more firm-specific skills, had no choice but to accept a larger wage cut than that of other age groups, because the cost for transferring these middle-aged and older workers to other companies was high. There is also the possibility that the technical innovation promoted mainly by ICT and economic globalization lowered the relative value (productivity) of the skills and knowledge that the middle-aged and older workers had.

The second factor is the effect of the population size of this generation. This is to do with a hypothesis stating that as the baby boomers, with a large population size, became middle-aged and older in great numbers, productivity declined due to congestion, and their wages were cut more than in other age groups (hypothesis of congestion). As mentioned in Section II, results consistent with this hypothesis have been found in some researches. This hypothesis also suggests that the wages of young workers may increase relatively if the birthrate further declines.

The third factor is the substantive extension of the mandatory retirement age.[9] If we assume the deferred pay system, the substantive extension of the mandatory retirement age would make the period in which the wages are higher than the actual contribution longer, which would inevitably make the inclination of the wage profile more gentle.[10]

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[9] Even if the mandatory retirement age is nominally set, if many workers retire before the mandatory retirement age, it would mean that they were effectively not employed until the mandatory retirement age. During the 1990s, at least around the financial recession of 1997, it can be said that there was substantive extension of the mandatory retirement age, as there was a real increase in the number of workers who reached the mandatory retirement age and some firms actually extended the mandatory retirement age.

[10] Mitani (2003) obtained results in an empirical analysis that were consistent with this hypothesis.

There is also another hypothesis that holds that the seniority-based wage system will collapse because the aging and the declining birthrate will make it difficult to transfer incomes within firms. According to this theory, it is assumed that, in the deferred pay system mentioned above, incomes are transferred within a company from the young workers, whose wages are lower than their productivity, to the middle-aged and older workers, whose wages are higher than their productivity, as if in a pay-as-you-go pension scheme. Therefore, the seniority-based wage system functions only when there is a population pyramid where there are many young workers and only a small number of middle-aged and older workers. If this population pyramid is turned upside down with the aging of workers, the seniority-based wage system will collapse.[11]

However, the deferred pay system works when a firm promises to pay workers higher wages than their productivity in the future so that the total amount of the wages paid throughout a lifetime will be commensurate with their lifetime contribution and when workers believe in the promise. This means that the deferred pay system is essentially neutral as regards a firm's age structure. If so, as long as there is the motivation cost, the deferred pay system and the mandatory retirement system should continue in existence as economically reasonable systems even after the retirement of the baby boomers.

In addition, there is another hypothesis that says that the introduction of the so-called performance-based pay system has caused the gentle inclination of the wage profile. However, the wage system is the way of determining wages and not necessarily the same as how the wages increase. It would be more appropriate to think that the revision of a wage system is not a cause of the gentle incline, but a means to changing a wage profile. In fact, there is a deviation between the initial time when the performance-based pay system was actively introduced (mid-1990s) and the time when the inclination of the wage profile started to become gentle (end of the 1980s); and in some firms, the inclination of wage profile conversely became greater after the introduction of the performance-based pay system (Nakajima, Matsushige and Umezaki 2004). These examples indicate that there are weaknesses in the hypothesis that holds that the performance-based pay system is the cause of the gentle incline.

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[11] Chuma (1994) called it the "pyramiding hypothesis."

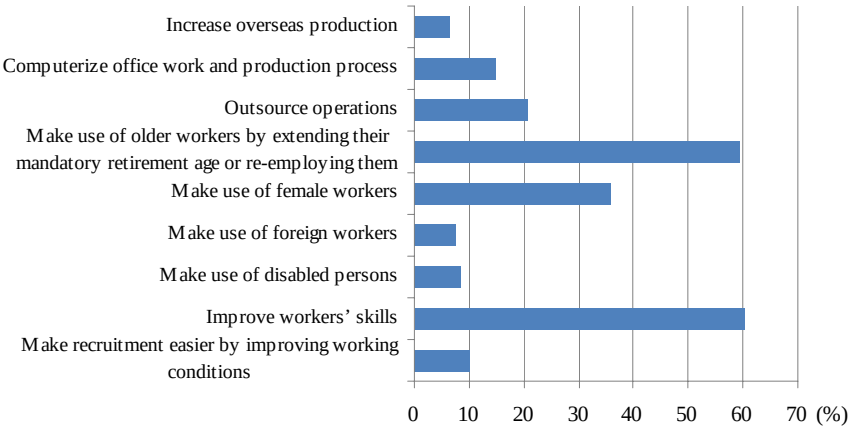
A typical example of recent revision of wage system is that each of the wage classification of non-managerial workers is widened (into a broadband) and their competency appraisal is reflected on the monthly pay. In the upper wage classifications, a new pay schedule is introduced so that wages may decrease depending on the worker's performance. In the lower wage classifications, there may be differences in pay raise depending on the worker's performance but wages never decrease. Moreover, short-term performance is more strongly reflected on bonuses, and the transparency and acceptability of performance ratings is increased by clarifying appraisal standards and increasing opportunities for interviews with superiors. It is considered that these moves are efforts made by firms in exploring new human resource strategies and wage systems at a time when the birthrate is declining and aging is progressing.[12]

V. Human Resource Strategies

If we look at the future human resource strategies of firms in light of the aging and declining birthrate, we find that many firms emphasize the employment of older workers and female workers as well as development of employees' competency (Figure 2). This is probably because, amid intensified competition, firms are, in anticipation of a decrease in the population, looking for workers with high productivity so that firms can produce high value-added products with less manpower. Let us investigate the characteristics of the firms adopting such human resource strategies with an emphasis on employment of older workers, employment of female workers, and competency development using a probit analysis. The explained variables are dummy variables where 1 is the firms replying that they will adopt these human resource strategies in the next three years and 0 is all other firms. The explanatory variables are firms' attributes, such as the effect of retirement of the baby boomers, average age, average service years, and the ratio of employees who are 55 or over to all regular employees. Table 2 shows the results of the analysis. According to this figure, the various effects of retirement of the baby boomers as mentioned above are not much related to the human resource strategies of the employment

[12] Regarding historical developments in the Japanese wage systems and recent trends, refer to Ohashi and Nakamura (2003).

Figure 2. Human resource strategies to be adopted in the next three years considering low birthrate and aging (Proportion of firms, M.A.)



Source: The Japan Institute for Labour Policy and Training, *The Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society*.

of older and female workers and competency development. The firms considering the strategy of employing older workers are the firms having a high ratio of employees who are 55 or over, large firms, and firms with a high ordinary profit growth rate. The firms with many young employees that do not have any effect from baby boomers and firms with a high ratio of female employees to all regular employees do not think much about employment of older workers. Further, the firms positive about employing female workers are the firms with a high ratio of non-regular employees, firms with a high ratio of female employees to all regular employees, and large firms. Meanwhile, the firms considering the strategy of improving employees' competency are notably the firms having a high ratio of university graduates.

In the following subsections, let us more specifically examine what human resource strategies firms are planning on adopting in relation to older workers, female workers, and young workers.

1. Older Workers

Amid the progress of the declining birthrate and aging, there is an increase in the number of the firms that adopt the human resource strategies of extending the mandatory retirement age and of expanding continued

Table 2. Probit analysis of human resource strategies to be adopted in the next three years considering low birthrate and aging

	Explained variable					
	Make use of older workers		Make use of female workers		Improve workers' skills	
	Coefficient	z-value	Coefficient	z-value	Coefficient	z-value
Labor cost reduction	0.0037	0.02	0.0428	0.28	0.0249	0.17
Solution to the problem of post shortage	-0.0816	-0.55	0.0284	0.19	0.0020	0.01
Increased retirement allowance	0.1820	1.29	-0.0082	-0.06	0.1089	0.77
Skill transfer issue	0.0237	0.16	0.2429	1.7 *	0.1214	0.85
Normalization of age structure	-0.0433	-0.28	0.0986	0.64	0.0105	0.07
No effect	-0.3200	-2.36 **	0.1401	1.01	-0.0309	-0.22
Ordinary profit growth rate	0.1096	1.69 *	0.0654	0.98	-0.0577	-0.88
Ratio of employees who are 55 or over	1.0320	2.28 **	-0.7252	-1.69 *	-0.5722	-1.37
Ratio of non-regular employees	0.3118	1.09	0.5827	2.08 **	0.1376	0.49
Female ratio among regular employees	-0.8929	-2.15 **	0.7888	1.91 *	0.2965	0.71
Ratio of university graduates	-0.0264	-0.89	-0.0286	-0.94	0.0623	2.03 **
(Standard: Company size [less than 300 employees])						
Company size (300 to 999 employees)	0.1203	0.87	0.1325	0.95	0.0049	0.04
Company size (1000 employees or more)	0.4312	2.19 **	0.4888	2.59 **	-0.1103	-0.58
Industry dummies	Yes		Yes		Yes	
Constant	0.3018	1.10	-0.9929	-3.46 **	0.2770	1.00
Sample size	484		482		482	
LR $chi^2(23)$	52.38		50.56		48.27	
Prob > chi^2	0.002		0.003		0.005	
Quasi-R^2	0.082		0.080		0.077	
Log likelihood	-292.7		-291.1		-291.1	

Note: * and ** indicate statistical significance at the 10% level and 5% level, respectively.

employment of older workers. Behind this, there is probably the effect of the step-by-step extension of the pensionable age and the amendment of the Act concerning Stabilization of Employment of Older Persons (effective as of 2006) following the extension of the pensionable age. Table 3 focuses on the firms that are either planning to revise or consider revising their mandatory retirement systems and continued employment systems in the next three years. The firms are divided into the firms replying that they will employ older workers and the firms replying that they will not, and the percentages of firms for each type of revision of the mandatory retirement system and continued employment system are indicated. The results show that the percentages are generally higher in the management, clerical and professional divisions than in the technical and work-site divisions, which suggests the difficulty in expanding the older worker employment system in the technical and work-site

Table 3. Proportion of firms extending mandatory retirement age or adopting continued employment in three years by whether to make use of older worker and department (Among the firms that are either planning to revise or consider revising mandatory retirement age and continued employment systems) (%)

	Management, office work and technical departments		Production and operating departments	
	Firms making use of older workers	Others	Firms making use of older workers	Others
Extend the mandatory retirement age	9.1	4.2	7.6	3.2
Raise the upper age limit of continued employment	9.8	3.4	8.7	3.0
Continue to employ all employees who wish to work, in principle	8.7	4.6	8.3	4.0
Continue to employ all employees who meet standards established by the company	20.2	9.8	18.5	8.4
Continue to employ only employees deemed necessary by the company	16.8	18.4	14.4	16.0

Source: The Japan Institute for Labour Policy and Training, *The Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society*.

Note: Firms making use of older workers refers to the firms that replied, "we will make use of older workers by extending their mandatory retirement age or re-employing them," in the human resource strategies in the next three years considering low birthrate and aging.

divisions. With the exception of "Continue to employ only employees deemed necessary by the company," the percentages of the firms revising their systems are higher among the firms that will employ older workers compared with the other firms in all items. More specifically, there are 4 to 6% differences as for "Extend the mandatory retirement age," "Raise the upper age limit of continued employment," and "Continue to employ all employees who wish to work, in principle." This indicates that there is a tendency among the firms that will employ older workers to make these revisions to the systems. However, the revision item with the biggest difference and with the largest percentage in absolute figure is "Continue to employ all employees who meet standards established by the company," which is a policy of expanding continued employment by first screening employees based on a certain standard and then

continuing to employ all employees who pass the screening.

According to the Population Decreasing Society Survey, many firms reply, as regards their response to the skill transfer issue created by the mandatory retirement of the baby boomers, that "they will employ veteran skilled workers by extending their mandatory retirement age or through continued employment." However, the data show that the continued employment in this case is not applicable to all employees wishing to continue working but is applicable, in many cases, only to some of the indispensable veteran skilled workers. Actually, according to the Population Decreasing Society Survey, of the firms replying that there is the skill transfer issue created by the mandatory retirement of the baby boomers and that they will employ veteran skilled workers by extension of the mandatory retirement age, continued employment, etc., 11.8% say they will continue to employ all employees who wish to remain in employment or plan to introduce such a system in the next three years. This percentage is smaller compared with the percentage of the firms that said that they will not adopt such measures for employing all employees who wish to continue in employment (15.2%).

Thus, many firms are planning to adopt human resource strategies for promoting the employment of older workers in the future, but only a small number are planning to extend the mandatory retirement age or continue to employ all who wish to continue in employment. This indicates the cautious attitude of firms in expanding employment of older workers. One of the reasons for this may be that there are large differences in personal health conditions and skills among individual workers in their early 60s as well as differences in different occupations and industries in changes brought about by age in the workers' skills and motivation to work and in the motivation cost.[13]

2. Female Workers

Considering the decrease in the labor force, an increasing number of firms will probably try to employ competent, motivated female workers. As we have already seen, the firms that are presently enthusiastic about employing female workers are the firms that already have a high ratio of female workers to all

[13] Mitani (2005) analyzed the relation among aging-associated skill changes, wage profile, and older worker employment and found that less change in skills brought about by aging does not always lead to the expansion of older worker employment and that there were large differences in different occupations.

Table 4. Probit analysis of policies for employing female workers

	Increase in the ratios of female employees in managers and regular employees		Assign main jobs to female employees who return to workplace after child or family care	
	Coefficient	z-value	Coefficient	z-value
Development of regular employees' skills	0.2854	2.08 **	0.0444	0.28
Ordinary profit growth rate	0.1285	1.82 *	0.1563	1.82 *
Ratio of employees who are 55 or over	0.0512	0.12	0.5615	1.11
Non-regular employee ratio	0.4141	1.41	0.0075	0.02
Female ratio among regular employees	1.4235	3.33 **	0.8367	1.69 *
University graduate ratio	-0.0198	-0.62	0.0168	0.47
(Standard: Company size [less than 200 employees])				
Company size (200 to 999 employees)	0.2400	1.64	0.3170	1.76 *
Company size (1000 employees or more)	0.4965	2.50 **	0.8769	4.06 **
Industry dummies	Yes		Yes	
Constant	-1.5286	-5.25 **	-1.6976	-5.30 **
Sample size	484		478	
LR $chi^2(22)$	62.51		43.23	
Prob > chi^2	0.000		0.002	
Pseudo R^2	0.110		0.110	
Log likelihood	-253.3		-175.7	

Note: * and ** indicate statistical significance at the 10% level and 5% level, respectively.

regular employees and a high ratio of non-regular employees. The effect of the retirement of the baby boomers has not much significant effect on female worker employment.

Here, we will conduct a probit analysis on the firms planning to actively employ female workers, namely the firms replying that there are "efforts to increase the percentage of female workers among managers and regular employees" or there are "systems to allow female workers to return to core jobs after completing their child care or family care." Table 4 shows the results of the analysis. The results show that the firms replying that there are "efforts to increase the percentage of female workers among managers and regular employees" are, in most cases, the firms emphasizing competency development and willingly paying for the cost of such development, the better performing firms with an increasing ordinary profit, the firms having a high ratio of female workers to all regular employees, and large firms. Further, the firms that have "systems to allow female workers to return to core jobs after completing their child care or family care" are, in most cases, the better performing firms with

Table 5. Probit analysis of policies for employing part-time workers

	Assign part-time workers to jobs with responsibility, professional jobs or non-routine jobs			
	Coefficient	z-value	Coefficient	z-value
10% or less wage disparity between regular and non-regular employees	-0.1130335	-0.77	-0.5195	-1.96 **
Development of non-regular employee skills	0.2260703	1.95 *	0.1269	1.00
Development of non-regular employee skills and 10% or less wage disparity			0.6069	1.89 *
Non-regular employee ratio	1.054561	2.71 **	1.0520	2.70 **
Female ratio among regular employees	1.005621	2.67 **	0.9990	2.64 **
University graduate ratio	-0.0651816	-2.29 **	-0.0632	-2.22 **
Increase in regular employee ratio in the past 3 years	0.1128119	1.95 *	0.1251	2.15 **
Increase in non-regular employee ratio in the past 3 years	-0.0129773	-0.26	-0.0120	-0.24
Ordinary profit growth rate	-0.045161	-0.75	-0.0489	-0.81
(Standard: Company size [less than 200 employees])				
Company size (200 to 999 employees)	0.0514285	0.4	0.0498	0.39
Company size (1000 employees or more)	0.1408605	0.84	0.1477	0.88
Industry dummies	Yes		Yes	
Constant	-0.3913561	-1.42	-0.2940	-1.05
Sample size	570		570	
LR chi^2 (22)	75.28		78.95	
Prob > chi^2	0.000		0.000	
Pseudo R^2	0.098		0.102	
Log likelihood	-347.9		-346.1	

Note: * and ** indicate statistical significance at the 10% level and 5% level, respectively.

an increasing ordinary profit, the firms having a high ratio of female workers to all regular employees, and large firms. In this case, the effect of whether the firms are positive about developing regular employees' competency is not statistically significant.

Next, let us see which firms are planning to actively employ part-time workers as the mainstream work force. As explained variables, the dummy variable of 1 is the case of "assigning part-time workers in the future to jobs with responsibility, professional jobs or non-routine jobs," and dummy variable of 0 is all other cases. With these variables, we estimate a probit model. As a result, the firms planning to actively employ part-time workers as the mainstream work force are the firms that are positive about developing non-regular employees' competency, firms with a high ratio of non-regular

employees, firms with a high ratio of female workers, and firms with a low ratio of university graduates (Table 5). The wage disparity of 10% or less between regular and non-regular employees employed in the same job is not statistically significant. However, the coefficient of the cross term of the dummy variable indicating whether to emphasize non-regular employees' competency development and the dummy variable indicating 10% or less wage disparity is positive and significant. This suggests that the firms that are both positive about developing non-regular employees' competency and giving them equal treatment[14] have a strong tendency towards employing part-time workers as the mainstream work force.

As mentioned above, in many cases, the firms trying to increase the percentage of female workers among managers and regular employees are positive about competency development, while the firms planning to employ part-time workers as the mainstream work force are in many cases both positive about competency development and concerned about realizing equal treatment.

3. Young Workers

The "reverse displacement effect" of the economic recovery and mandatory retirement of the baby boomers is considered to have a positive impact on the employment of young workers. It is also a boost that there is an increase in the number of firms emphasizing competency development. In fact, the ratio of job offers to job seekers for recent school graduates has been increasing in all levels of school graduates since March 2005, indicating that demand for new graduates, which was controlled in the past, has certainly been expanding. Mid-career recruitment has also been increasing. It is expected that the economic recovery will accelerate moves by those workers, especially young workers, who were reluctantly engaged in their present jobs during the long economic recession to seek to transfer to other companies offering better conditions. On the other hand, since firms are giving greater emphasis to competency development, it is expected that they would be more severe in the selection of these workers for recruitment.

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[14] The small wage disparity between regular and non-regular employees does not necessarily mean equal treatment, but it is considered that at least the firms having a small wage disparity between regular and non-regular employees are more likely to be concerned about realizing equal treatment.

Table 6. Coefficient of correlation between the age limit (if any), which is applicable to the recruitment of *freeters*, and positive attitude for skill development and long-term employment practice

	Age limit	Positive for skill development	Long-term employment practice
Age limit	1		
Positive for skill development	-0.0953 *	1	
Long-term employment practice	-0.1404 *	0.0305	1

Source: The Japan Institute for Labour Policy and Training, *The Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society*.
Note: * indicates statistical significance at the 5% level.

Table 7. Coefficient of correlation between the educational attainment, which is applicable when selecting *freeters* as candidates for recruitment, and positive attitude for skill development and long-term employment practice

	Minimum educational attainment applicable to *freeters* recruitment	Positive for skill development	Long-term employment practice
Minimum educational attainment applicable to *freeters* recruitment	1		
Positive for skill development	0.0314 *	1	
Long-term employment practice	0.0493 *	0.0451 *	1

Source: The Japan Institute for Labour Policy and Training, *The Survey on Human Resource Strategies and Work Awareness in the Population Decreasing Society*.
Note: [1] * indicates statistical significance at the 5% level.
[2.] Regarding the minimum educational attainment for recrutment, integral numbers of 1 to 4 are applied to non-reference to educational attainment, high school or above, college or above, and university or above, respectively.

Are the young people who became part-timers (*freeters*) during the long economic recession able to be recruited as regular employees amid the recovery trend of young people's employment and be engaged in the job that provides them opportunities to develop their skills? According to the Population Decreasing Society Survey, only 1.3% of the firms reply, regarding the recruitment of *freeters* and NEETs, that they "will actively recruit and train them as regular employees." The percentage of the firms that will "recruit them as regular employees without discrimination" is 23.4 %, while the percentage of the firms that will "recruit them not as regular employees but as non-regular employees" is 23.3%, almost the same percentage. The largest number of the firms (41.8%), however, reply that they will "not recruit them either as regular or non-regular employees" (The Japan Institute for Labour Policy and Training 2005). This tendency is strong among the firms emphasizing regular employees' competency development and actively engaged in such development. Moreover, the firms that are more positive for skill development are more likely to set an upper limit on the age of *freeters*, etc. who can be recruited, and that age tends to be low (Table 6). Further, these firms set higher standards on educational attainment in selecting candidates among the *freeters* for recruitment (Table 7). In other words, with regard to recruitment of *freeters*, etc., the firms that are capable of providing them with careers rich in opportunities for competency development tend to be rigorous in their selection.

VI. Summary

In this paper, we have surveyed earlier studies and analyzed, on the basis of a questionnaire survey, what effect the change in the age structure of the labor force, especially the mandatory retirement of the baby boomers in and after 2007, has on firms' generational structure and human resource strategies.

As a result, we have revealed the following:

Firstly, as for the effect of the mandatory retirement of the baby boomers, a relatively small number of firms point out the "skills transfer issue," while many firms mention "labor cost reduction" and "increased payment of retirement allowance."

Secondly, if we look at the wage structure of firms, the quasi-fixed labor cost, motivation cost, and the size of a generation's population are considered

to have an effect on the wage structure. Especially, it is considered that at firms with high motivation cost, the need to motivate workers through systems like the deferred pay system will remain unchanged even after the change in the generational structure caused by the retirement of the baby boomers.

Thirdly, if we look at firms' future human resource strategies, many firms are considering employment of older workers, employment of female workers, and improvement in workers' competency. On the other hand, these human resource strategies are virtually uninfluenced by the effects of the mandatory retirement of the baby boomers.

Fourthly, a relatively large number of firms that plan to employ older workers reply that they will promote extension of the mandatory retirement age and continued employment. On the other hand, some firms say they will continue to employ only employees who meet the firms' standards, showing a rather cautious attitude toward employment of older workers. Even at the firms that have the "skills transfer issue," they are planning to address the issue by expanding on the continued employment of older workers that is limited to veteran skilled workers.

Fifthly, the firms planning on actively employing female workers have high ratios of female workers and non-regular employees, indicating that many female workers are already working in these firms. Many of the firms planning on increasing the ratio of female workers among managers and regular employees or to employ part-time workers as the mainstream work force tend to be positive about developing employees' competency and about realizing equal treatment.

Sixthly, the "reverse displacement effect" created by the economic recovery and the mandatory retirement of the baby boomers and the increase in the number of firms emphasizing competency development will probably have a positive effect on the employment of young people. However, as for recruitment of *freeters*, the firms able to provide them careers offering many opportunities for their competency development are likely to make the evaluation standards more severe when selecting such young people for recruitment.

From the above, it can be said that although the mandatory retirement of the baby boomers create various problems for firms, it appears on the whole that their retirement will not have such a great impact on firm's future human resource strategies. Instead, firms are, in anticipation of aging and the

declining birthrate in the long term and regardless of the effect of the mandatory retirement of the baby boomers, placing an emphasis on employment of older workers and female workers and competency development. It is necessary to develop policies in light of the characteristics of each demographic group. Especially for the young generation many of whom are *freeters* and NEETs due to the effect of the long economic recession, policy support is needed so that many opportunities for competency development can be offered to them in their careers. Such a necessity has become greater than before as a result of the accelerated progress of globalization and technical innovation.

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Prospects of Employment and Life Design of *Dankai No Sedai*, or the Japanese Baby-Boom Generation

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I. Introduction

There is a growing interest in the outlook of middle-aged and older workers, including *Dankai No Sedai*, or the Japanese baby-boom generation (hereafter called the "JBB generation"), regarding their prospect of employment after the mandatory retirement age and their life designs in old age.[1] Of course, the rapid aging of society in Japan and the strong motivation of older people in this country to work have long been pointed out. Against this background, the Amended Act on Stabilization of Employment of Older Persons came into effect as of April 2006, and firms that stipulated a mandatory retirement age of under 65 were obligated to implement measures for securing employment of older workers up until the pensionable age by either (i) raising the mandatory retirement age, (ii) introducing a continued employment program (a program whereby a firm will continue to employ older workers currently in the firm's employment beyond the mandatory retirement age if such workers wish to continue in employment), or (iii) abolishing the system of mandatory retirement age.[2]

What then is the outlook of the currently middle-aged and older workers, including the JBB generation, who will soon be reaching the mandatory

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[1] There are several definitions of the JBB generation, both broad and narrow. As it appears in a footnote below, we defined the JBB generation in this paper as those born between 1946 and 1950 in the JIL 2001 Survey and those born between 1947 and 1951 in the JIPLT 2006 Survey. Incidentally, middle-aged and older people refer to those people 45 years old and over, and older people refer to those 55 years and over.

[2] As the pensionable age of the specially provided old-age employees' pension will be raised in phases between fiscal 2006 and 2013, the age until which employment is to be extended will also be raised in phases. The firms, however, are not obligated to continue to employ all older workers who wish to continue in employment. Provided that a firm set criteria for older workers who can continue to be in employment in a labor-management agreement, it is possible for that firm to design a program that will not continue to employ all older workers who wish to continue in employment. For three years beginning in fiscal 2006 (five years for small- and medium-sized firms), firms can also set the criteria in the working rules.

retirement age, regarding their employment in old age (particularly in the first half of their 60s) and what vision do they have about their life designs in old age? And what are the challenges regarding employment management and employment policy that become apparent from the first question? One of the objectives of this paper is to answer these questions by using two surveys conducted by the JILPT (the surveys hereafter called the "2001 Survey" and "2006 Survey").[3] It has already been pointed out that older people in Japan have stronger employment needs than in other countries[4] and, at the same time, that there are individual differences in the degree of needs for employment and life designs.[5]

When we consider the degree of employment needs and life designs, what similarities or differences are there between employed workers and the self-employed, between employees of private firms and civil employees among employed workers, and between men and women among employees of private firms? The first challenge of this paper is to explore people's prospects for employment and life designs in old age, paying attention to similarities and differences between different working patterns, between public and private sectors, and between the sexes.

When we consider diversification of employment prospects, employers' employment management policies and older workers' professional careers are also important. As for the employment management policies related to old age, the mandatory retirement system, in which an employment relation is terminated once an employee reaches a certain age, is a representative example. On the other hand, with the progress of aging and the amendment of the

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[3] In JIL 2001 Survey, questionnaire sheets were sent to 2,940 households of men and women between the ages of 45 and 60 nationwide, to which 2,761 households replied. The so-called JBB generation is normally defined as those born between 1947 and 1949, but for this analysis the JBB generation was defined as those born between 1946 and 1950. For details, see Sato et al (2005). The JILPT 2007 Survey was conducted on 3,000 men and women of the JBB generation in the broad sense (i.e. those born between 1947 and 1951) who were working as of October 2006 (the effective response rate was 90.7%). For more details, see JILPT (2007a).

[4] Incidentally, the actual retirement age of men between 1999 and 2004 is 64.2 in the U.S., 63.0 in the U.K., 61.3 in Germany, and 59.3 in France (OECD Secretariat). The desirable retirement age of around 65 in Japan as we see later in the analysis comes slightly later.

[5] Detailed description of the literature will be omitted here. See Sato (2004).

Pension Act, which provided for phased raise of the pensionable age,[6] Japanese firms have implemented a variety of employment extension measures[7] to meet people's strong motivation to work in the early half of their 60s (60 to 65). The schemes of mandatory retirement age extension, work extension, reemployment, and abolishment of the mandatory retirement system are some of the examples.[8] Japanese firms, at the same time, are exposed to intense market competition. There may be certain conditions that have to be met in order to satisfy the needs of all older people. What are those conditions? To explore this question, we need to examine the employment management policies of firms for which the JBB generation, who will soon be retiring, work as well as the chances that their wishes for employment would be realized. Another factor that cannot be ignored in examining the chances for their wishes to be realized is the professional abilities and specialties[9] that they may have accumulated in their professional careers. Is there a difference in the chances for employment between those who see themselves as having a specialty and those who do not? The second challenge of this paper is to explore people's chances for employment and the conditions for employment, paying attention to firms' employment management policies and workers'

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6 By the amendment of the Pension Act of 1994, it was provided that the pensionable age for the basic pension of employees' pension would be raised to 61 in fiscal 2001, and thereafter it would be raised by one year every three years until it is raised to 65 in 2013. For the earnings-related component of the employees' pension, the pensionable age would also be raised by one year every three years between 2013 and 2025. The pensionable age for both the basic pension and the earnings-related component would be 65 for men in fiscal 2025 and for women in fiscal 2039.

7 For the purpose of this paper, the employment extension measures are a concept that includes extension of the retirement age and continued employment programs.

8 For the purpose of this paper, mandatory retirement age extension refers to "raising the mandatory retirement age." Work extension refers to "a scheme whereby the mandatory retirement age is maintained but an employee reaching that age is continually employed without retiring." Reemployment scheme refers to "a scheme whereby an employee reaching the mandatory retirement age first goes into retirement before being employed again by the same firm." The continued employment programs consist of the work extension scheme and reemployment scheme.

9 For the purpose of this paper, specialties refer to the answers given to the question, "In your career, do you have anything that you can call as your 'field of expertise' or 'specialty'?" in JILPT 2006 Survey. They can be broadly broken down into technical, science and engineering specialties, such as SE, R&D, and production management, and clerical and arts specialties, such as interpersonal relations, accounting and finance.

professional careers.

II. Prospects for Employment in the First Half of 60s and Conditions for Realizing Employment of Active Middle-aged and Older Workers

1. Prospects for Employment in the First Half of 60s: JIL 2001 Survey

(1) Differences by Working Style, Public/Private, and Sex

Firstly, we use the JIL 2001 Survey to examine middle-aged and older workers' prospects and wishes regarding employment in old age, in the order of full-time male employees of private firms, full-time female employees of private firms, civil servants, and self-employed people.

Table 1 looks at full-time male employees of private firms, including the JBB generation in the broad sense, full-time female employees of private firms, male civil servants, and self-employed male people, and analyzes and compares their motivation to work and availability of work until the pensionable age as of the time of the survey.

From the above results, there are a number of points that can be pointed out. The first is the difference between self-employed workers and employed workers. Employment management of older workers differs considerable between employed workers and the self-employed. For the self-employed, there are, for practical purposes, no mandatory retirement age system, reemployment scheme, or work extension scheme. Their motivation to work in old age is high: the age until which they "want to be employed in income-earning work" is 67.5, which is higher than that of employed workers. It has been pointed out that, as a characteristic of the employment pattern of older people in Japan, the percentage of full-time employed workers in all older workers tend to decrease with age, while the percentage of self-employed people and family workers tend to rise. A similar result has been obtained in this survey.[10]

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[10] According to the Ministry of Labour, Survey on Employment Conditions of Older Persons [*Konenreisha shugyo jittai chosa*] (1996), the percentage of self-employed male workers (the figures in parentheses are the percentage of regular employees) was 20.0% (61.1%) for the age group between 55 and 59, 28.9% (39.8%) for the age group between 60 and 64, and 36.7% (24.1%) for the age group between 65 and 69.

Table 1. Prospects for employment in old age: Comparison by working style

	Full-time male employees of private firms	(of which JBB generation)	Full-time female employees of private firms	Male civil servants	Self-employed male persons
N (people)	1,885	800	353	426	192
Until what age can you keep on working?[1]					
Reemployment	62.3	62.2	64.0	62.4	There is no mandatory retirement age system, in principle
Work extension	63.9	63.8	64.7	63.0	
Mandatory retirement age extension	63.8	63.8	67.5	64.4	
Availability of work until the pensionable age[2]	52.3	53.1	39.0	58.0	60.9
If work is not available, the time until receiving pension in full amount[3]	3.4	4.0	2.8	3.4	4.9
Desirable retirement age[4]	65.5	65.6	62.3	65.3	67.5
Percentage wishing for full-time mployment in old age[5]	49.4	50.0	30.5	25.8	—

Notes: [1] To those who answered, "Continue to work after the mandatory retirement age by way of reemployment" (reemployment), "Continue to work after the mandatory retirement age by prolonging the period of employment" (work extension), or "Continue to work by way of extension of the mandatory retirement age" (mandatory retirement age extension) to the question, "When you reach the age of 60, what kind of employment patt1erns do you think will be available at your firm?" (SA), a question was asked until what age they could actually keep on working in each case. The figures shown are the average age (unit: age).

[2] The percentage of respondents who said "Yes" to the question, "Do you think you will have an opportunity to be employed in income-earning work from the time you retire from income-earning work, because of mandatory retirement age, etc., to the time you receive pension in full amount?" (unit: %).

[3] To those who replied "No" to the question of footnote 11 above, a question was asked on the "period until which they could receive pension in full amount." The figures show the average length of time (unit: year).

[4] The average response to the question, "Until when do you want to be employed in income-earning work?" (unit: age).

[5] The percentage of respondents who replied, "Work as a full-time regular employee," to the question, "How would you like to work in the first half of your 60s?" (unit: %).

The second point is the difference in how men and women regard work in old age. Even though they may have the same working style of working full-time for private firms, male and female full-time employees of private firms answer differently as regards the question, "Until when do you want to be employed in income-earning work?" For men it is 65.5, whereas for women it is 62.3, about 3 years sooner for women. The percentage of women who wish to work full-time in old age is 30.5%, less compared with men. In sum, it can be said that full-time female employees have stronger orientation towards early retirement compared with men.

The third point is that the JBB generation shows no particular characteristics. Even when we extract the figures for the JBB generation from full-time male employees of private firms and compare those figures with the overall figures of full-time male employees of private firms, there are no marked differences as regards how they regard work in old age. The desirable retirement age for full-time male employees of private firms overall is 65.5. It is 65.6 for the JBB generation, roughly the same. The percentage of those wishing to work full-time in old age is 50.0% for the JBB generation, which is not considerably different from 49.4% for male employees overall. These results suggest that the JBB generation's views on work in old age are not as unique as it is made out to be.

The fourth point is the difference between the public and private sectors. If we compare civil servants with employees of private firms, there are no significant differences as regards the age until which various systems allow them to work (62 to 64) and as regards the desirable retirement age (65.3). The percentage of those civil employees who wish to work full-time in old age, however, is 25.8%, which is slightly lower compared to male employees of private firms.

In the next section, we will focus on the full-time male employees of private firms (including the JBB generation), who make up the biggest group among the above groups of different working styles, and examine their prospects for employment in old age.

(2) Case of Middle-aged and Older Full-time Male Employees of Private Firms

Table 2 summarizes the results of an analysis on the prospects for employment in old age of middle-aged and older full-time male employees of private firms.

Table 2. Prospects for employment in the first half of 60s: Middle-aged and older full-time active male employees of private firms[1]

	Reemploy -ment	Work extension	Mandatory retirement age extension	No mandatory retirement age	Company policy undecided	Don't know the company policy	Don't know
N (people)	423	257	104	104	345	113	442
Firms' employment management[2]	22.4	13.6	5.5	5.5	18.3	6.0	23.4
Age one can continue to work until[3]	62.3	63.9	63.8	—	—	—	—
Availability of work until the pensionable age[4]							
Yes	61.9	68.9	57.7	66.3	46.4	42.5	36.4
No	15.1	7.0	14.4	1.9	13.0	13.3	14.7
Don't know	22.2	23.0	26.9	28.8	44.2	44.2	48.0
Desirable working style[5]							
Full-time	46.8	61.1	53.8	73.1	45.8	44.2	45.5
Part-time	35.7	21.4	23.1	7.7	29.9	24.8	30.3
Desirable retirement age[6]	65.2	65.9	65.0	67.5	65.6	65.8	65.3
Knowledge of pensionable age[7]							
Precisely	63.6	57.6	57.7	39.4	47.2	44.2	45.7
Generally	31.2	34.6	35.6	48.1	44.3	46.9	42.5
Don't know	4.5	7.0	5.8	12.5	7.8	8.8	11.5

Notes: [1] The attributes of the middle-aged and older employees subject to the survey of Table 2 and of the firms they work for are: (i) size (50.8% with less than 300 employees), (ii) job type (41.2% are department managers and section heads), (iii) mandatory retirement age system (87.9% have the system), (iv) reemployment/work extension scheme (50.0% have a scheme), (v) percentage all those who wish can continue in employment (12.7%).

[2] The percentage of those who answered, "Continue to work after the mandatory retirement age by way of reemployment" (reemployment), "Continue to work after the mandatory retirement age by prolonging the period of employment" (work extension), "Continue to work by way of extension of the mandatory retirement age" (mandatory retirement age extension), "Can continue to work indefinitely because there is no mandatory retirement age" (abbreviated to "No mandatory retirement age"), "Don't know since the company has not made its stance clear" (abbreviated to "Company policy undecided"), "The company's policy is decided but I don't know what it is" (abbreviated to "Don't know the company policy"), and "Don't know" to the question, "When you reach the age of 60, what kind of employment patterns do you think will be available at your firm?" (SA) (unit:%).

[3] In relation to the question of footnote 17 above, respondents were asked, "Until when is it possible to work?" The figures are average age (unit: age).

[4] The percentage of respondents who said "Yes," who said "No," and who said "Don't know" to the question, "Do you think you will have an opportunity to be employed in income-earning work from the time you retire from income-earning work, because of mandatory retirement age, etc., to the time you receive pension in full amount?" (unit: %).

[5] The percentage of respondents who replied, "Want to work as a full-time employee" (abbreviated to "Full-time") and who replied "Want to work as a part-timer or by commission" (abbreviated to "Part-time") to the question, "How would you like to work in the first half of your 60s?" (SA) (unit: %).

[6] The average response to the question, "Until when do you want to be employed in income-earning work?" (unit: age).

[7] The percentage of respondents who replied, "I know when I will start receiving pension" (abbreviated to "Precisely"), "I generally know when but not precisely" (abbreviated to "Generally"), and "I don't know" (abbreviated to "Don't know") to a question on "the pensionable age of the old-age employees' pension (basic pension)."

About 50% of the subjects worked for a large firm at the time of the survey (the percentage of those working for small- and medium-sized firms of less than 300 employees was 50.8%), and 41.2% of the subjects were in managerial jobs of department manager, section head, etc. The mandatory retirement system was introduced in 87.9% of the firms the subjects worked for, and 50.0% of the firms had programs such as reemployment scheme and work extension scheme. On the possibility of employment in old age, 32.2% said, "All employees reaching a certain age must retire," 42.9% said, "Only those who fulfill certain conditions can continue in employment," 12.7% said, "Even after a certain age, all those who wish to continue working can remain in employment," and 2.1% said, "All workers continue in employment indefinitely."

The following points can be mentioned as regards their prospects for employment in old age. Firstly, on the question of "When you reach the age of 60, what kind of employment patterns do you think will be available at your firm?" the largest portion of the respondents predicted that they would be able to "continue to work after the mandatory retirement age by way of reemployment" (hereafter abbreviated to "reemployment") at 22.4%, followed by those who said they would be able to "continue to work after the mandatory retirement age by prolonging the period of employment" (hereafter abbreviated to "work extension") at 13.6%. These were two of the answers with most responses. The percentage for "Continue to work by way of extension of the mandatory retirement age" (hereafter abbreviated to "mandatory retirement age extension") and "Can continue to work indefinitely because there is no mandatory retirement age" (hereafter abbreviated to "no mandatory retirement age") each had only 5.5%, a very small percentage. There are views endorsing abolishment of the mandatory retirement age system (the so-called ageless theory), but only a very few predicted that the mandatory retirement age system would be abolished in their firms.

While the above results pertain to those who have good prospects for future employment, we should not overlook the fact that 23.4% answered, "Don't know," 18.3% answered, "Don't know since the company has not made its stance clear" (abbreviated to "company policy undecided"), and 6.0% answered, "The company's policy is decided but I don't know what it is" (abbreviated to "don't know the company policy"), who together account for 47.7% of all respondents. In sum, it can be said that the majority of these

people did not know then whether they had any prospects of employment in old age. We cannot ignore the fact that slightly less than half of full-time male employees of private firms are unable to, for one reason or another, predict whether they would be able to work in old age.

Secondly, if we look at the availability of work until the pensionable age, there is a kind of a gap between those with good prospects for employment in old age, on one hand, and those who replied, "Don't know," "Company policy undecided," and "Don't know the company policy," on the other. For the latter, in other words, those who did not know their prospects for employment in old age, the percentage replying they had work until the pensionable age was generally lower, while the percentage replying they did not know whether they had work was higher.

Thirdly, among those who "did not know" their prospects for employment in old age, the percentage of those hoping to be employed in full-time work was not low. Generally, about 45% of these people hope to be employed in full-time work. The "desirable age of retirement from income-earning work" for these people was 65 on average, which was not much different from others. In sum, this indicates that there is a considerably large group of people who do not know whether they would be able to fulfill their hope of being in employment in old age but who nonetheless want to be employed in full-time work in old age. We can read from this a part of the concerns that middle-aged and older workers have about their future life in old age.

2. Employment Prospects and Conditions for Realizing Wish for Employment: JILPT 2006 Survey

In Section 1, we attempted to analyze the data of JIL 2001 Survey. After the survey, the Act on Stabilization of Employment of Older Persons was amended, and continued employment of workers up to 65 years of age became an obligation as of April 2006. To understand the developments in the JBB generation's prospects for employment in old age after the amendment and to examine differences brought about by differences in professional careers, we analyze the data of JILPT 2006 Survey below.

(1) Prospects for Actualizing Wish and Chances for All Who Wish to be in Employment: Employment of All Who Wish until 65 is Conditional

Those who wish to continue to work at their current workplace after 60

were asked whether it was likely that their wish would be actualized, to which 33.7% answered, "Likely," 38.8% answered, "Possible if conditions can be met," 13.5% answered, "Unlikely," and 13.4% answered, "Cannot say."

Based on the data set obtained from this survey, we estimate below the percentage that all those who wish to be employed after 60 would actually be employed.

Firstly, since the desirable retirement age of employed workers of the JBB generation is around 65 on average, the possibility of employment of up to 65, for the time being, is a requirement. If we consider the mechanisms of employment management systems, we find that those who are capable of working until 65 are (i) those with no mandatory retirement age and no set term of employment, (ii) those with the mandatory retirement age of 65 or over, and (iii) those whose firms have a mandatory retirement age between 60 and 64 but virtually all employees who wish to work after the mandatory retirement age can do so. If we divide the number of these people by all the employed workers subjected to the survey, we obtain the figure of 41.7%.[11] Therefore, for about 60% of the people remaining, the realization of their wish to be employed until 65 was conditional.[12]

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[11] Incidentally, according to the Ministry of Health, Labour and Welfare, Survey on the Implementation of Measures for Securing Employment of Older Persons Based on the Amended Old Persons Act (October 2006) [*Kaisei koreiho ni motozuku konenreisha koyo kakuho sochi no jisshi jokyo*], 84% of firms with 51 or more employees had implemented measures for securing employment of older people, but only about 40% of those firms had measures for continually employing all those who wished to be employed. The remaining 60%, therefore, had set certain criteria on whom can continue to be employed. About 70% of such firms had set the criteria in a labor-management agreement, and about 30% in working rules.

[12] Although exact comparison is not possible, the survey results on large firms in JILPT (2007b) show that about 90% of the firms had introduced reemployment and work extension schemes, but the percentage of firms that employed about 70% of employees who had reached 60 was about 40%. The percentage of firms "reemploying all employees who wish to be reemployed" was 24.6% and of firms employing "those who fit the criteria to be part of a continued employment program" was 72.2%. For the majority of firms, continued employment after 60 is conditional (employees must have no health problems, must be motivated to work, have a good attitude towards work, and have certain accomplishments).

Table 3. Chances for realizing wish for employment in old age by position

(%)

	Chances for realizing wish for employment in old age						
	Likely to be realized	Possible if conditions can be met	Unlikely	Can't say	No response	Total	
Regular employees	30.0	38.0	14.2	17.5	0.3	100.0	613
Group leaders, chief clerks	37.4	35.2	15.4	8.8	3.3	100.0	91
Section heads	33.1	42.4	18.0	6.5	0.0	100.0	139
Department directors	33.3	42.1	13.5	11.1	0.0	100.0	126
Directors	50.3	38.5	5.6	4.9	0.7	100.0	143
No response	24.3	37.8	10.8	24.3	2.7	100.0	37
Total	33.7	38.8	13.5	13.4	0.6	100.0	1149

(2) Chances for Realizing Wish for Employment after 60: Differences by Attained Position and Specialty

We understood from (1) above that certain conditions must be met in order to satisfy the JBB generation's eager desire for employment in old age. Then what about the wishes of the employees? What chances are there for those wishes to be realized? And what are the conditions for realizing those wishes?

These questions are considered in Table 3 in relation to the positions of the employees. The percentage of those who thought their wishes would be realized tended to be high among directors.[13]

As for employees' chances for realizing their wish for employment in old age, the percentage of those answering, "Likely to be realized" and "Possible if conditions can be met" are also generally higher among those having a specialty than those without (Table 4).

[13] While many people in managerial positions, such as directors, department directors, and section heads, replied that "chances for realizing their wishes were high if conditions could be met," we also cannot overlook the fact that in JILPT Survey on Enterprises Regarding Continued Employment of Older People (2006) [*Koresha no keizoku koyo no jittai ni kansuru kigyo chosa (2006)*], firms consider "securing work for older workers within the company" (39.6%) as well as "difficulty in the handling of managerial people" (38.9%) as problems in securing employment or in continued employment of older workers (MA) (Arakawa 2007).

Table 4. Chances for realizing wish for employment in old age by specialty

(%)

	Chances for realizing wish for employment in old age						
	Likely	Possible if conditions can be met	Unlikely	Can't say	No response	Total	
Have a specialty	40.2	41.5	10.1	7.8	0.4	100.0	562
Do not have any specialty	33.8	35.5	14.5	15.7	0.5	100.0	662
Can't say	36.6	36.6	10.4	15.3	1.2	100.0	347
No response	33.3	26.7	16.7	16.7	6.7	100.0	30
Total	36.7	37.7	12.1	12.9	0.7	100.0	1601

(3) Firms' Employment Management Types and Chances for Realizing Wish for Employment

It is considered that chances for realizing one's wish for employment also differ depending on the system of employment management in one's firm. Whether or not to implement the mandatory retirement age system is an important consideration for Japanese firms in designing employment management for older people. In addition, older people's wish to be employed in old age and the question of whether the person is someone whom the firm would want to continue to employ are important. Therefore, we categorize the types of firms' employment management as follows:

"No mandatory retirement age + No term of employment" type

"No mandatory retirement age + Term of employment" type

"Mandatory retirement age + All those who wish to be employed" type

"Mandatory retirement age + Those who meet certain conditions" type

"Mandatory retirement age + Those wanted by the firm" type

"Mandatory retirement age + No continued employment system" type

Table 5 shows chances for the JBB generation to realize their wish for employment by employment management type. The type with the highest likelihood of realizing their wish is the "mandatory retirement age + all those who wish to be employed" type with 50.3%. The chances are high because even though there is a mandatory retirement age, employment is guaranteed to all those who wish. On the other hand, as for the "no mandatory retirement age + term of employment" type and the "mandatory retirement age + those who meet certain conditions" type, the percentage of those replying, "Likely to be

Table 5. Firms' employment management types and chances for realizing wish for employment

(%)

	Chances for realizing wish for employment in old age						
	Likely	Possible if conditions can be met	Unlikely	Can't say	No response	Total	
No mandatory retirement age + No term of employment	35.9	40.1	8.5	15.1	0.4	100.0	284
No mandatory retirement age + Term of employment	24.1	34.5	24.1	17.2	0.0	99.9	29
Mandatory retirement age + All those who wish to be employed	50.3	37.6	4.8	6.1	1.2	100.0	165
Mandatory retirement age + Those who meet certain conditions	26.5	49.5	17.2	6.9	0.0	100.1	204
Mandatory retirement age + Those wanted by the firm	33.5	38.6	14.6	12.7	0.6	100.0	158
Mandatory retirement age + No continued employment system	31.8	22.0	25.8	18.9	1.5	100.0	132
Total	35.1	38.8	13.5	12.0	0.6	100.0	972

realized," is low, at 24.1% and 26.5%, respectively. In particular, the "mandatory retirement age + those who meet certain conditions" type has the highest percentage, among the 6 types, of those answering, "Possible if conditions can be met," at 49.5%.

(4) Types of Employment Management of Older People and Measures for Realizing Wish for Employment

We saw above that there are differences in the chances for realizing one's wish for employment in old age depending on the employment management types of one's firm. How then do the measures and challenges for realizing such a wish for employment differ depending on the employment management types? Table 6 analyzes the necessary measures for continued employment again by firms' employment management type. From the analysis, we can point out a number of points.

Firstly, among those working for firms without a mandatory retirement age, which correspond to the "no mandatory retirement age + no term of

Table 6. Types of employment management of older people and necessary measures for continued employment (multiple answers)

(%)

	No mandatory retirement age + No term of employment	No mandatory retirement age + Term of employment	Mandatory retirement age + All those who wish to be employed	Mandatory retirement age + Those who meet certain conditions	Mandatory retirement age + Those wanted by the firm	Mandatory retirement age + No continued employment system
Extension of mandatory retirement age	11.6	10.3	37.6	41.7	43.7	42.4
Introduction of system for continued employment beyond mandatory retirement age	19.7	31.0	45.5	60.3	60.8	43.2
Abolishment of mandatory retirement age	8.8	17.2	13.9	11.8	8.9	14.4
Review of job description	21.5	10.3	18.8	14.7	19.0	22.0
Reeducation and training of older people	4.9	10.3	5.5	10.8	8.9	6.8
Allow shorter working hours	26.1	37.9	27.3	29.9	34.8	25.8
Allow fewer workweek days	25.0	34.5	30.9	36.3	29.7	26.5
Review of wages and treatment	20.1	20.7	31.5	36.8	38.0	25.8
Utilization of older people as leaders in passing down skills and knowledge	14.4	10.3	23.0	20.1	23.4	13.6
Others	2.5	13.8	1.2	1.0	0.6	1.5
No measures required in particular	31.0	10.3	10.9	9.8	10.8	17.4
No response	2.5	6.9	1.2	0.0	0.6	3.0

employment" type and "no mandatory retirement age + term of employment" type, the percentage of those who gave responses to the necessary measures and challenges was generally lower compared with those working for firms with a mandatory retirement age.

Secondly, among those working for firms with a mandatory retirement age, the percentage of those who gave responses to the necessary measures and challenges was particularly high among those who correspond to the "mandatory retirement age + those who meet certain conditions" type and "mandatory retirement age + those wanted by the firm" type. In these groups, the percentage of those who thought such measures as "introduction of system for continued employment beyond mandatory retirement age," "extension of

mandatory retirement age," and "review of wages and treatment" as necessary was extremely high.

Thirdly, the measure of "introduction of system for continued employment beyond mandatory retirement age" was mentioned by a particularly high percentage of people in the "mandatory retirement age + those who meet certain conditions" type and "mandatory retirement age + those wanted by the firm" type, at above 60%. In these two groups, "extension of mandatory retirement age" was also mentioned by a high percentage of people at over 40%. Among those in the "mandatory retirement age + those who meet certain conditions" type, the percentage mentioning, "Allow fewer workweek days," was also slightly high at 36.3% (shaded parts on Table 6).

(5) Necessary Measures for Continued Employment in Respect to Specialty and Employment Management Type

As we have seen above, the JBB generation has a strong desire to continue working in their old age. The realization of such wish for employment in old age, however, was much dependant on certain conditions. Therefore, certain measures are needed in order to realize this hope. The above analysis has shown that chances for realizing this wish differed by each employee's attributes, such as attained specialty and position, and by the employment management types of the firms employees worked for. If we summarize the axes of analysis that emerged out of the above analysis anew, they would be as shown below.

The first axis, from the worker's viewpoint, is whether one has formed certain specialty during one's professional career. Those without a specialty generally tended to think that there should be more measures in order to realize their hope for continued employment in old age, compared with those with a specialty. It can be considered that there is a need to provide support for those without a specialty.

The second axis is the employment management systems of the firms that workers work for. These include the six employment management types we used above.

If we combine the two axes of "specialty/no specialty" and "mandatory retirement age/no mandatory retirement age," the latter from the employment management types, then we have four categories or types. We analyze these four to better understand the conditions for realizing workers' wish for

Table 7. Conditions for continued employment by specialization and mandatory retirement age (multiple answers)

(%)

	Has specialty + No mandatory retirement age	Has specialty + There is mandatory retirement age	Has no specialty + No mandatory retirement age	Has no specialty + There is mandatory retirement age
Extension of mandatory retirement age	11.4	35.3	16.7	46.5
Introduction of system for continued employment beyond mandatory retirement age	19.5	53.7	27.6	55.1
Abolishment of mandatory retirement age	6.5	12.5	11.5	12.9
Review of job description	24.4	19.2	16.0	15.8
Reeducation and training of older people	7.3	9.0	7.1	8.9
Allow shorter working hours	27.6	25.1	29.5	32.3
Allow fewer workweek days	23.6	33.7	26.9	32.3
Review of wages and treatment	16.3	34.9	21.2	31.0
Utilization of older people as leaders in passing down skills and knowledge	23.6	26.3	5.8	15.8
Others	6.5	2.0	1.3	0.3
No measures required in particular	32.5	13.7	26.3	10.6
No response	0.8	0.0	3.2	1.3

employment in old age.

The first type is those with a specialty who work for a company with “no” mandatory retirement age. The second is those with a specialty who work for a company with a mandatory retirement age. The third is those “without” a specialty who work for a company with “no” mandatory retirement age. And the fourth is those “without” a specialty who work for a company with a mandatory retirement age.

If we analyze the conditions for continued employment for the above four types, it will be as shown in Table 7.

Firstly, in the case of those “with” a specialty and “no” mandatory retirement age, “No measures required in particular” is given by the largest percentage of respondents. There are other conditions above 20%, such as “Review of job description,” “Allow shorter working hours,” and “Allow fewer workweek days.”

Secondly, in the case of those “with” a specialty and a mandatory retirement age, the percentage of those replying, “Introduction of system for

continued employment beyond mandatory retirement age," is high at over 50% (dark shaded part), followed by conditions above 30%, including "Extension of mandatory retirement age," "Review of wages and treatment," and "Allow fewer workweek days."

Thirdly, in the case of those with "no" specialty and "no" mandatory retirement age, the conditions of "Introduction of system for continued employment beyond mandatory retirement age," "Allow shorter working hours," "Allow fewer workweek days," and "Review of wages and treatment" are all between 20% and 30%.

Fourthly, in the case of those with "no" specialty and a mandatory retirement age, the percentage replying, "Introduction of system for continued employment beyond mandatory retirement age," is very high at over 50% (dark shaded part). Furthermore, "Extension of mandatory retirement age" is above 40% (dark shaded part), and "Allow shorter working hours," "Allow fewer workweek days," and "Review of wages and treatment" are also in the range of between 30% and 40% (slightly dark shaded parts). Among the four types, this group had the highest percentage of responses as regards necessary conditions and measures.

From the above, it can be said that for those who see themselves as having "no" specialty or field of expertise and there is a mandatory retirement age at their companies, there is a need to introduce continued employment system or mandatory retirement age extension, to promote shorter working hours and fewer workweek days, and further to review their wages and treatment.

III. Life Design and Lifestyles in Old Age

1. Making Ends Meet in Old Age: JIL 2001 Survey

We analyzed above the prospects of active middle-aged and older workers for employment in old age. How then do they plan to support themselves in old age? We need to consider this question as well as differences between different working styles, between public and private sectors, and between men and women. As we saw from the analysis on Table 2, about 50% of male employees of private firms, for example, wished to be employed full-time in the first half of their 60s, and their desirable retirement age was roughly around 65. But since the age until which they could actually work was 62 to 63, it was predicted that there would be a "lapse" of about 2 to 3 years. There were

Table 8. Ways of making ends meet in old age (MA)

	Full-time male employees of private firms	(of which JBB generation)	Full-time female employees of private firms	Male civil servants	Self-employed male persons
N (people)	1,872	791	351	425	188
Spouse' income	16.6	17.1	74.6	12.2	19.7
Own income	79.4	82.4	49.3	71.1	93.6
Child's income	3.2	2.8	2.8	0.9	11.2
Spouse's public pension	13.0	11.3	34.2	12.7	11.2
Own public pension	41.6	37.7	31.9	54.4	25.0
Spouse's corporate pension	2.8	2.5	19.9	2.1	2.7
Own corporate pension	32.3	30.3	16.5	13.4	8.0
Assets and incomes of family business	4.6	5.1	3.1	7.8	17.6
Support from parents	0.4	0.6	0.6	0.2	0.5
Own unemployment insurance	14.1	11.4	5.1	1.4	0.0
Spouse's unemployment insurance	1.4	1.9	5.4	0.5	0.0
Savings	33.4	33.4	31.6	43.3	20.7
Survivors' pension	0.2	0.1	0.0	0.0	0.5
Others	1.2	1.6	1.7	2.4	1.1
Total	244.2	238.2	276.9	222.4	204.8

also not a few people who had "no" work until the pensionable age or who "did not know" if they would be able to secure work until the pensionable age. With these points in mind, let us examine how they plan to support themselves in the early half of their 60s.

Using working styles we have been using, Table 8 summarizes how people in each category of working styles intend to support themselves in old age.

Firstly, as for full-time male employees of private firms, "Own income" (79.4%) came at the top of how they would support themselves in old age, followed by "Own public pension" (41.6%), "Savings" (33.4%), and "Own corporate pension" (32.3%).

The responses of the JBB generation were not too different from those of the full-time male employees of private firms. The percentage of "Own income" (82.3%) was higher than that of the male employees overall, while the percentage of "Own public pension" (37.7%) was slightly lower. The percentages for "Savings" (33.4%) and "Own corporate pension" (30.3%) were about the same.

The responses given by full-time female employees of private firms differed somewhat from those of their male counterparts. “Spouse’s income” (74.6%) came at the top of how they would support themselves, followed by “Own income” (49.3%), “spouse’s public pension” (34.2%), “Own public pension” (31.9%), and “Savings” (31.6%). Compared with the cases of men, women were more dependent on their spouses (i.e. their husbands).

In the case of male civil servants, “Own income” (71.1%) came at the top, but the percentage was somewhat smaller compared with that of male employees of private firms. On the other hand, the weight of “Own public pension” (54.4%) and “Savings” (43.3%) tended to be higher.

In the case of the self-employed (male), dependence on “Own income” (93.6%) was extremely large. On the other hand, the percentages for “Own public pension” (25.0%) and “Savings” (20.7%) were small.

As the above makes clear, it can be said that there are differences between men and women, between employees of private firms and civil servants, and between employed workers and self-employed workers as regards their ways of supporting themselves in old age. As for employees of private firms, while one’s own income and public and corporate pension are the mainstays in supporting themselves in old age, we cannot overlook the fact that in terms of the level of dependence, there are greater expectations on “income” than on pension. This suggests that dependence on income from work will continue to be large in the first half of their 60s. In this respect, we can say that securing employment opportunities in old age is extremely important.

2. Desired Lifestyles in Old Age: JILPT 2006 Survey

In Section 1, we examined, from JIL 2001 Survey, how people planned to make ends meet in old age. What we cannot overlook is the fact that old age is the time of retirement from work as well as the time of formation of a new lifestyle. Therefore, how they will live their life, in other words, their lifestyles, becomes important. In this section, we consider the desired plans of employed workers of the JBB generation as regards work and social activities in old age, in comparison of those of self-employed workers.

Figures 1 and Figure 2 show the outlines of people’s desired work styles and social activities (including retirement) between the ages of 61 and 70. Several points can be mentioned.

Figure 1. Outlines of desired work styles and lifestyles: Employed workers (MA)

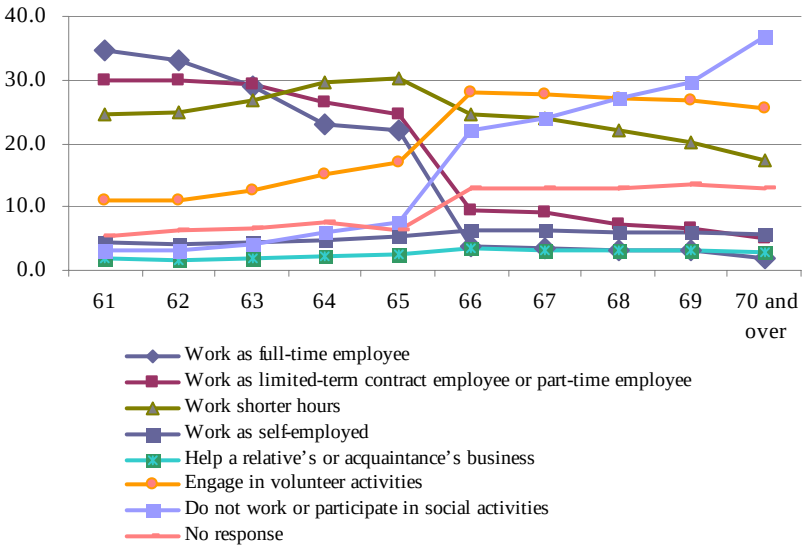
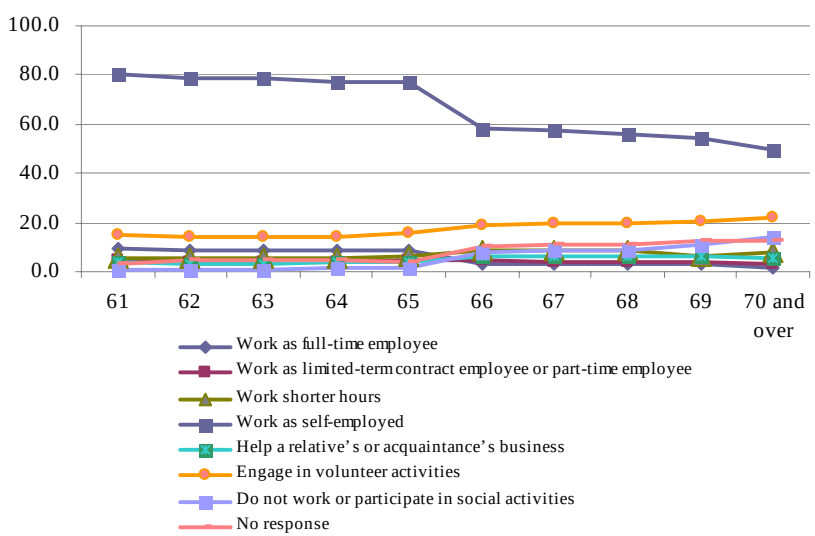


Figure 2. Outlines of desired work styles and lifestyles: Self-employed workers (MA)



Firstly, by working styles, employed workers wished to continue working as employed workers, and self-employed as self-employed.

Secondly, in the case of employed workers, "Work as a full-time employee" and "Work as a limited-term contract employee or part-time employee" declined with age in the first half of 60s, while "Work shorter hours" increased during the same period.

Thirdly, particularly in the case of employed workers, the percentage of those who plan to take up "volunteer activities" and those who plan "not to work or participate in social activities" increased with age.

Fourthly, therefore, in the case of employed workers, there is a kind of a fault line at a point between the ages of 65 and 66. For example, the percentage of "Work as a full-time employee" dropped off dramatically at this point, while the percentage of "Engage in volunteer activities" rose rapidly. This indicates that for employed workers, the age of 66 is a turning point at which they retire from work and begin to form a new lifestyle.

On the other hand, self-employed workers showed a marked contrast to employed workers. For self-employed workers, there was no fault line of work and retirement at the turning point of 66 like employed workers. While the percentage of those working as self-employed declined gradually, many continued to work as self-employed past 70.

From the above, it can be said that in the case of employed workers of the JBB generation, the percentage of those planning to work as a full-time employee was high in the first half of their 60s, after which many planned to retire from work in the latter half of their 60s and increase the weight of a new lifestyle outside work. And in that new lifestyle, there was a group who planned to include short-time work and volunteer activities and another group who planned not to work or participate in social activities.

IV. Conclusion

(1) If we analyze, from the data of the 2001 Survey, active middle-aged and older workers' (including the JBB generation) needs for employment in old age, their prospects for employment in old age in their current firms, and concerns they had about life in old age, the following may be pointed out: (i) although there were differences between those in the public sector and those in the private sector, between men and women, and between

employed and self-employed workers, there was generally a strong need for employment in old age, they hoped to continue working until 65 on average, and about a half hoped to be employed full-time; (ii) they planned to support themselves in old age basically from their "own income;" and (iii) however, about a half was not "certain" about their prospects for employment in their current firms, which meant there were many issues that need to be addressed in fulfilling their needs.

(2) The Act on Stabilization of Employment of Older Persons was subsequently amended in the wake of the amendment of the Pension Act, and firms were obligated to continue employing their employees until 65 years of age as of April 2006. The data of the JILPT 2006 Survey are noteworthy in that they illustrate the state and issues regarding employment management responses of firms roughly half a year after continued employment became an obligation. (i) The analysis of the data shows that in about 40% of the cases all employees who wish to be employed could be employed until 65, but for the remaining 60% employment was conditional. (ii) If we examine the chances for employees to realize their wish for employment in old age and the issues related to that, there were considerable differences depending on (a) the employment management systems of the firms the employees worked for and (b) employees' professional careers (attained position and specialty), which had an effect on the likelihood of employment by firms. (iii) If we look at the desired work styles and lifestyles of people between the ages of 60 and 70, there were differences depending on their working styles and attained positions. In particular, there were significant differences between employed and self-employed workers.

(3) In sum, not only does the JBB generation have a strong need for employment in old age, but also those needs are diverse and differ by individuals. It can be said that even though continued employment of employees until 65 is now an obligation, a future challenge for firms as regards their employment management and employment policy is to better accommodate the needs of individual workers.

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Employment of Older People after the Amendment of the Act Concerning Stabilization of Employment of Older Persons: Current State of Affairs and Challenges

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I. Introduction

With the progress of the declining birthrate and aging, there are rising concerns about maintenance of the social security system, transfer of skills and technique to the next generations, and decrease of the labor force[1] in Japan. Against this background, securing employment opportunities for older people is recognized as an important, urgent social issue in recent years. What will probably play a major role in securing employment opportunities for older people is the framework for continued employment in which workers will be employed for a longer period at a company that they have been working for. For many years in Japan, a law called the Act Concerning Stabilization of Employment of Older Persons has had a significant impact on firms' mechanisms for continued employment.[2]

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[1] According to estimates published by the Ministry of Health, Labour and Welfare in July 2005, the labor force would, even when various measures for work support increase labor force participation of women and older people, shrink from 66.42 million in 2004 to 65.35 million in 2015 and 61.09 million in 2030. Of this, the labor force of the ages between 15 and 29 is expected to decline from 13.89 million in 2004 to 11 million in 2030, down slightly less than 3 million in 25 years, and the labor force of the ages between 30 and 59 is expected to decrease from 42.92 million in 2004 to 39.33 million in 2025, a decline of some 3.6 million.

[2] The Act on Stabilization of Employment of Older Persons developed out of the Act for Promoting Employment of Middle-aged and Older Persons, Etc., which was enacted in 1971. At a time when the Act for Promoting Employment of Middle-aged and Older Persons, Etc. was enacted in 1971, it was provided for as a regulation for setting targets on the percentage of middle-aged and older employees of age 45 and over in each job category. Later, the system of setting targets in each job category was abolished in 1976, and, instead, employers were obligated to meet the uniform target of 6% or more as a percentage of older employees of ages between 60 and 65 among all employees.
In 1986 the Act for Promoting Employment of Middle-aged and Older Persons, Etc. was amended and became the Act on Stabilization of Employment of Older Persons. At this time, the act provided for an obligation of firms to make an effort to set the mandatory retirement age at 60, in addition to the target on the percentage of older

The Act Concerning Stabilization of Employment of Older Persons was reviewed in 2004. Before the review, Japanese firms were prohibited from having a mandatory retirement age system[3] that set the mandatory retirement age at under 60. After the review, firms were additionally obligated to introduce measures for continued employment of employees beyond the age of 60 as from April 2006. In this paper, we first touch on how the Act Concerning Stabilization of Employment of Older Persons was amended in relation to the framework for firms' employment of older people and see how much the new framework for employment of older people is established. Secondly, we examine the state of employment of older people after the amendment, based on the results of a large survey conducted by the Japan Institute for Labour Policy and Training (JILPT) on firms. In the last section, we examine, based on the findings of the survey, the future issues concerning employment of older people in Japan.

II. Amendment of the Act Concerning Stabilization of Employment of Older Persons: Obligation on Firms to Implement Employment Security Measures and the State of Implementation

1. Obligation on Firms to Implement Employment Security Measures

Implementation and expansion of a system that will allow workers to continue to be employed for as long as possible by the firm they have worked for will improve on the situation of middle-aged and older workers who find re-employment very difficult, as well as contribute significantly to securing employment opportunities until older age. The Basic Policy for Stabilization of Occupation for Older People, etc., which was drawn up by the Ministry of Labour (today's Ministry of Health, Labour and Welfare) in September 1998, set a policy goal of spreading, in the next 10 years or so, a system where everyone who wished to work, in principle, could do so up until the age of 65

employees. In the amendment of 1994, the mandatory retirement age of 60 became an obligation for employers, and as of April 1998, it became illegal to set the mandatory retirement age at below 60.

[3] The "mandatory retirement age system" is a system where a firm will terminate employment relation with a worker once that worker reaches a certain age. According to the Survey on Employment Conditions of Older Persons, conducted by the Ministry of Health, Labour and Welfare in 2004, the mandatory retirement age system was introduced in 74.4% of 7,787 firms that responded to the survey.

in accordance with their motivation and ability. In the same year, the Act Concerning Stabilization of Employment of Older Persons, which was designed to increase employment opportunities for older people, was amended, and firms were obligated to make "an effort" towards implementing measures for securing employment (hereafter called the "employment security measures") until the age of 65. According to the Survey on Employment Conditions of Older Persons of 2004, however, although 67.5% of the business establishments that employed the mandatory retirement age system had implemented a system of continued employment after the mandatory retirement age, only 15.7% of the business establishments with the mandatory retirement age system continued to employ, in principle, all those who wished to be employed beyond the mandatory retirement age. Therefore, with the purpose of promoting establishment of the employment security measures by firms up to the age of 65, the Act Concerning Stabilization of Employment of Older Persons was amended in June 2004, and firms were obligated, as of April 2006, to implement the employment security measures up until the pensionable age for the basic pension,[4] the pensionable age which was to be raised step by step (Table 1).[5]

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[4] Japan's public pension system is composed of three pension plans of the national pension scheme, to which all Japanese citizens who are 20 years old and over contribute, the employees' pension insurance scheme, to which employees of firms contribute, and the mutual aid pension scheme, to which public employees contribute. Upon reaching a certain age, self-employed people become eligible to receive pensions based on the national pension scheme, and employees of firms and civil employees become eligible to receive pensions based on the national pension scheme as well as the employees' pension scheme or the mutual aid pension scheme.
The pension paid based on the national pension scheme is called the "basic pension." To strike a balance between the contribution and pension, it was decided in the review of the public pension system of 1994 that the pensionable age would be raised in stages from 60 starting in 2001. In the review of the public pension system in 2000, it was also decided that the pensionable age for the employees' pension insurance scheme and the mutual aid pension scheme would be raised in stages from 60 starting in 2013.

[5] The amendment of 2004 provided, among others, for obligation of firms to implement employment security measures for older people as well as for firms to prepare and issue a document for assisting in the job search activities of older people who had been severed from their jobs because of dismissal, etc., which have to be issued to the older people who so wish as a measure to improve the situation of middle-aged and older workers for whom reemployment is difficult (Article 17, Paragraph 1), and for any firm that set the upper age limit of 65 or under in the firm's recruitment to clearly state the reasons for setting the age restriction (Article 18-2).

Table 1. Schedule for raising the pensionable age of public pension

Basic pension		Earnings-related component	
2001	61	2013	61
2004	62	2016	62
2007	63	2019	63
2010	64	2022	64
2013	65	2025	65

Note: Women's pensionable age will be raised five years behind the above schedule.

The "employment security measures" provided for in the act refer to one of (i) raising the mandatory retirement age, (ii) introducing a continued employment scheme, or (iii) abolishing the mandatory retirement age (Act Concerning Stabilization of Employment of Older Persons, Article 9). As for the continued employment scheme, although firms are required, in principle, to introduce a scheme whereby all those who wish to be continually employed are eligible, firms may, if they introduce a scheme in which they set, in a labor-management agreement, a certain standard on the eligibility of older people, not employ older people who do not meet the standard. If, despite the effort made by an employer to conclude a labor-management agreement, an agreement cannot be reached, firms may also set a standard on the eligibility of older people for a continued employment scheme in a work rule and introduce the scheme, as a special measure that will be applicable for large firms until March 31, 2009 and for small- and medium-sized firms until March 31, 2011. As for the standard, the Ministry of Health, Labour and Welfare has indicated that criteria such as "limited only to those deemed necessary by the firm" and "limited only to those with a recommendation by one's superior" are tantamount to having no standard at all and may be in contravention of the spirit of the amendment. It is desirable that the standard is set taking into consideration such requirements as that the standard measures motivation and abilities as specifically as possible (specification) and that it objectively sets the required abilities, etc. the applicability of which can be predicted (objectivity).

2. State of Implementation of Employment Security Measures

The Act Concerning Stabilization of Employment of Older Persons obligates firms with 51 or more employees to report on the state of implementation of

Figure 1. Percentage of firms implementing employment security measures for older people

Source: Ministry of Health, Labour and Welfare (2007).

employment security measures for older people as of June 1 of each year. A summary of the firms' reports, as of June 1, 2007, shows that out of 88,166 firms with 51 or more employees, 92.7% (81,762 firms) had implemented some form of employment security measures, an increase of about 9% from the survey taken on June 1, 2006. Among large firms with more than 300 employees, the rate of implementation is close to 100%. Among firms with 51 to 100 employees, the rate of implementation is more than 90%. By industry, the rate of implementation is slightly higher in mining, finance and insurance, and compound services, while it is slightly lower in information and communications, education and learning support, and eating and drinking places and accommodations (Figure 1).

Of the firms that had implemented employment security measures (81,762

firms), 85.8% introduced a continued employment scheme, 12.1% raised the mandatory retirement age, and only 2.1% abolished the mandatory retirement age. The age limit on the employment security measures was set at 65 or over at 77.5% of the firms, as many firms set the age limit ahead of the schedule set by law. Of 70,126 firms that had introduced a continued employment scheme, 38.8% employed all who wished to continue in employment, and the remaining 61.2% had set a standard on eligibility. Of those firms that had set a certain standard, about 70% did so through a labor-management agreement, and about 30% did so in the work rule.

III. State of Employment of Older People after the Amendment of the Law

1. Data

The Ministry of Health, Labour and Welfare's annual tabulation captures what kind of employment security measures firms have implemented after the amendment of the Act Concerning Stabilization of Employment of Older Persons. It does not, however, shed light on many aspects of employment of older people after the amendment of the act, such as how older people eligible for employment security measures are chosen and how eligible workers are treated. Therefore, in this and the following sections, we examine in greater detail Japanese firms' employment of older people and particularly of employment of older people past the mandatory retirement age, based on a large survey conducted by the JILPT in October 2006 (hereafter called the "JILPT 2006 Survey").

The JILPT 2006 Survey was conducted on 5,000 firms with 300 or more employees in industries other than agriculture, forestry, fisheries, and mining.[6] It asked the firms questions on (i) the mandatory retirement age system after the firms were obligated to implement the employment security measures, (ii) the continued employment scheme after the amendment of the Act Concerning Stabilization of Employment of Older Persons, (iii) the contents of programs implemented by firms in response to the obligation of implementing employment

[6] The 5,000 firms were selected by stratified sampling in accordance with the ratio of number of firms by industry and size obtained from the Ministry of Internal Affairs and Communications, 2004 Establishment and Enterprise Census.

Table 2. Industry and size of firms responding to the JILPT 2006 survey (n = 1,105, %)

Composition by industry	
Construction	6.0
Manufacture of general machinery	4.3
Manufacture of transportation equipment	3.3
Manufacture of precision instruments and machinery	1.7
Manufacture of electrical machinery, equipment and supplies	4.9
Miscellaneous manufacturing industries	12.8
Electricity, gas, heat supply and water	0.5
Information and communications	2.5
Transport	9.9
Wholesale and retail trade	21.7
Finance and insurance	2.4
Real estate	0.5
Eating and drinking places, accommodations	4.0
Services	17.8
Others	4.8
No response	3.0
Composition by size in terms of number of employees	
Less than 300 employees	6.7
300 to 499	33.8
500 to 999	29.5
1,000 or more	26.7
No response	3.3

security measures, (4) firms' programs on employment, career, and treatment of older employees (50 and over), among others.[7] The number of firms that responded to the survey was 1,105 (effective response rate: 22.1%). The composition of the respondents by industry and size in terms of the number of employees is as shown on Table 2.

Of the 1,105 firms responding to the survey, 1,098 firms had a mandatory retirement age system, and only 7 firms did not have such as system. As regards the employment security measures of firms that had a mandatory retirement age system (multiple answers), the large majority of the firms, at 91.3%, were "firms that had introduced a reemployment scheme for people reaching the mandatory retirement age," 7.7% were "firms that had introduced a work extension scheme for people reaching the mandatory retirement age,"

[7] For details of the results and analysis of the results, see the Japan Institute for Labour Policy and Training (2007).

and only 2.4% were "firms that raised the mandatory retirement age to above 60 across-the-board."

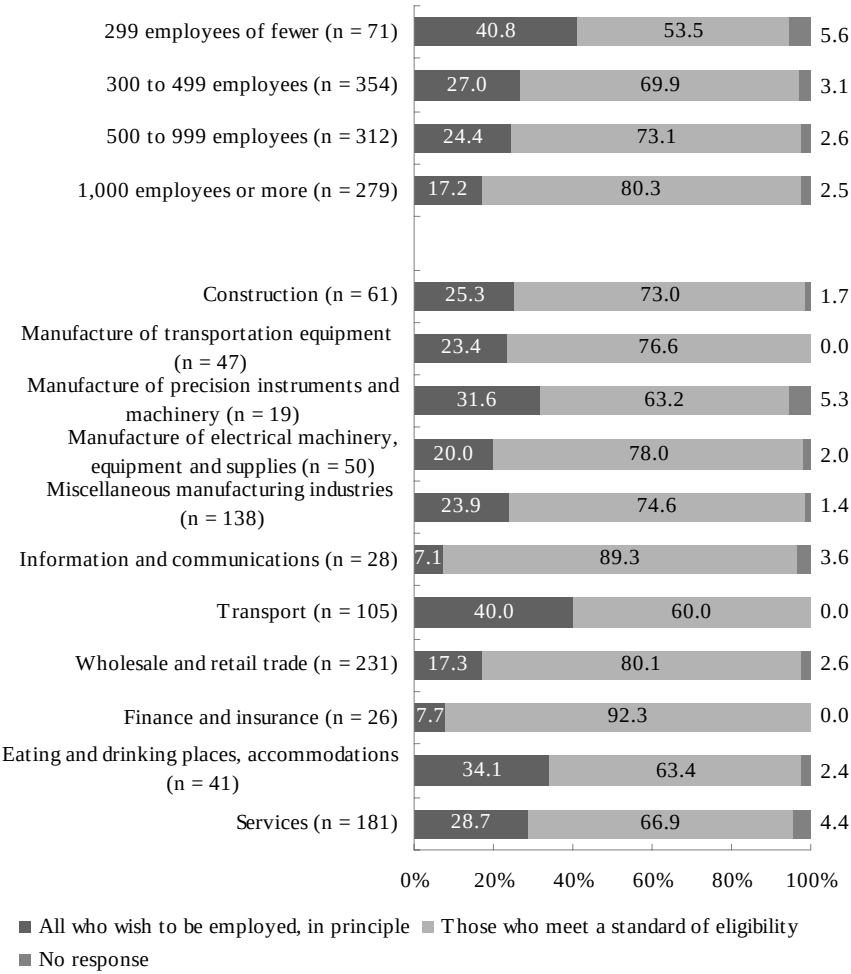
2. Basic Framework of the Continued Employment Scheme

As mentioned above, 1,051 firms, which were almost all firms out of 1,105 firms that responded to the JILPT 2006 Survey, had maintained the mandatory retirement age system while introducing a continued employment scheme (reemployment scheme or work extension scheme) for people reaching the mandatory retirement age. In this and the following sections, we examine the state of employment of older people by firms that had introduced the continued employment scheme.

When the firms that had introduced the continued employment scheme were asked who were covered by the scheme, only 24.6% said all who wished to continue in employment were covered, in principle, and 72.2% said they had a certain standard of eligibility for continued employment. The percentage of firms that had set a standard of eligibility tended to rise among firms with large number of employees. The percentage of such firms with a standard was also particularly high in finance and insurance and information and communications. On the contrary, the percentage of firms that covered all who wished to be employed, in principle, was high in transport, manufacture of precision instruments and machinery, and eating and drinking places and accommodations, compared with in other industries (Figure 2).

What were the standards that the firms with a standard of eligibility for the continued employment scheme set for continued employment of older people? The criteria mentioned by 759 firms with a standard were, in the order of most answers given, "No health problems" (88.7% of 759 firms with a standard), "Willingness and motivation to work" (83.5%), "Attendance, attitude towards work" (62.7%), "A certain level of performance" (57.4%), and "Acceptance of job description presented by the firm for continued employment" (45.3%). In the JILPT 2006 Survey, the respondents were asked to state in greater detail about the standards of eligibility for the continued employment scheme. As a result, "No health problems" more specifically meant that medical exams prior to reaching the mandatory retirement age did not reveal any particular health problems and that there was no long-term leave lasting more than a month during two to three years prior to reaching the mandatory retirement age. Other criteria that many firms adopted as a requirement for continued employment

Figure 2. Eligibility for continued employment scheme



Source: *JILPT 2006 Survey*.

were "Attendance, attitude towards work," which meant that there was no absenteeism during a certain period prior to reaching the mandatory retirement age, and "A certain level of performance," which was obtaining performance appraisal of mid-level or above also during a certain period before reaching the mandatory retirement age.

The similarities and differences in the main criteria mentioned for eligibility

Table 3. Criteria for eligibility for continued employment (By industry and size, multiple answers, %)

	n	No health problems	Willingness and motivation to work	Attendance, attitude towards work	A certain level of performance	Acceptance of job description presented by the firm	Specific skills and expertise backed by experience
Total	759	88.7	83.5	62.7	57.4	45.3	17.5
Industry							
Construction	45	97.8	93.3	64.4	57.8	46.7	20.0
Manufacture of general machinery	34	100.0	91.2	67.6	70.6	52.9	29.4
Manufacture of transportation equipment	20	100.0	90.0	75.0	65.0	35.0	20.0
Manufacture of electrical machinery, equipment and supplies	36	94.4	80.6	69.4	58.3	52.8	16.7
Information and communications	24	95.8	75.0	70.8	62.5	29.2	8.3
Transport	48	100.0	93.8	72.9	52.1	43.8	20.8
Wholesale and retail trade	165	97.0	94.5	64.2	67.9	58.8	13.9
Finance and insurance	23	100.0	95.7	52.2	60.9	43.5	8.7
Eating and drinking places, accommodations	25	96.0	96.0	52.0	60.0	32.0	28.0
Services	110	95.5	87.3	78.2	65.5	44.5	21.8
Size by number of employees							
299 employees or fewer	34	97.1	97.1	79.4	67.6	52.9	23.5
300 to 499 employees	232	95.7	91.8	73.7	63.4	51.7	19.4
500 to 999 employees	206	98.5	94.7	70.4	64.1	50.0	18.4
1,000 or more employees	205	97.1	86.3	59.0	61.5	46.8	18.5

Source: *JILPT 2006 Survey*.

Note: Industries in which less than 20 firms had a standard of eligibility for the continued employment scheme are excluded from the above.

by industry and company size in terms of number of employees are summarized in Table 3. The percentage of firms that mentioned, "Willingness and motivation to work," was higher in transport, wholesale and retail trade, finance and insurance, and eating and drinking places and accommodations compared with other industries. The percentage of firms that said, "Attendance, attitude towards work," was particularly high in the services and transport industries. As for the percentage of firms that replied, "Acceptance of job description presented by the firm," it was close to 60% in retail and wholesale trade. In terms of company size by number of employees, the percentage of firms that mentioned, "Attendance, attitude towards work," tended to decrease as the size of firms grew larger.

3. Types of Employment Contract and Working Time System Applied to Employees in Continued Employment

(1) Types of Employment Contract

What kind of employment or work contracts are firms using to employ older people beyond the mandatory retirement age? The firms responding to the survey were asked to list all types of employment contracts that they used. As a result, 83.4% of the firms said, "Limited-term contract employee," 19.8% said, "Part-time employee," and 12.0% said, "Full-time regular employee" (Table 4). The majority of older people who become eligible for continued employment after the mandatory retirement age are working, prior to the mandatory retirement age, as full-time regular employees, for whom there is no limit in the term of their employment contract and who are expected to work full-time. However, only a very small number of firms employ those employees who remain in employment after the mandatory retirement age as full-time regular employees. In employing older people who reached the mandatory retirement age, most firms used an employment contract for the "limited-term contract employee," which is often used to employ full-time workers for a limited term. As it is generally the case in Japan, it is assumed that the employment contract for the "part-time employee" is used in cases where the working hours of older people who continue to be employed are shorter than full time.

There were hardly any differences, by company size in terms of number of employees, as regards the types of employment contracts used for continued employment (Table 4), except that the percentage on part-time employees was

Table 4. Employment or work contracts used by firms for continued employment (Multiple answers, %)

	n	Full-time regular employee	Limited-term contract employee	Part-time employee	Employment-type temporary employee	Others
Total	1051	12.0	83.4	19.8	1.8	3.1
Industry						
Construction	61	14.8	90.2	3.3	0.0	1.6
Manufacture of general machinery	47	10.6	80.9	27.7	2.1	6.4
Manufacture of transportation equipment	35	11.4	80.0	5.7	8.6	5.7
Manufacture of precision instruments and machinery	19	10.5	84.2	15.8	5.3	0.0
Manufacture of electrical machinery, equipment and supplies	50	6.0	88.0	6.0	0.0	6.0
Miscellaneous manufacturing industries	138	9.4	81.9	13.8	1.4	5.1
Information and communications	28	3.6	85.7	3.6	3.6	0.0
Transport	105	15.2	81.9	24.8	1.9	3.8
Wholesale and retail trade	231	11.3	84.0	26.4	1.7	0.0
Finance and insurance	26	3.8	69.2	23.1	7.7	15.4
Eating and drinking places, accommodations	41	26.8	78.0	41.5	0.0	0.0
Services	181	10.5	91.2	17.7	0.6	2.2
Size by number of employees						
299 employees or fewer	71	15.5	80.3	19.7	0.0	5.6
300 to 499 employees	359	10.0	85.0	17.5	1.4	2.8
500 to 999 employees	312	12.8	84.6	16.0	1.6	1.9
1,000 or more employees	279	10.4	83.9	26.5	2.5	4.3
Eligibility for continued employment						
All those who wish to be employed, in principle	259	16.2	80.3	22.4	1.2	2.3
Those who meet a standard of eligibility	759	10.1	85.6	19.4	2.1	3.4

Source: *JILPT 2006 Survey.*

slightly higher among firms with 1,000 or more employees. On the other hand, by industry (Table 4), there were marked differences in the percentages of firms employing older people as full-time regular employees and part-time employees. The percentage of firms employing full-time regular employees was extremely low in information and communications and finance and insurance at less than 5%, but it was close to 30% in eating and drinking places and accommodations. The percentage of firms employing older people as part-time employees was 42.5% in eating and drinking places and accommodations, which was more than twice the average among all the firms that had introduced a continued employment scheme. The percentage was also high, in comparison with other industries, in manufacture of general machinery and wholesale and retail trade at slightly less than 30%. However, it was less than 10% in construction, information and communications, manufacture of transportation equipment, and manufacture of electrical machinery, equipment and supplies. If we summarize the similarities and differences among industries as regards the types of contracts used for continued employment, there are a number of patterns: (i) industries that mainly use the employment contract of limited-term contract employee for continued employment of older people past the mandatory retirement age with exceptional use of other types of contracts; (ii) industries that almost exclusively use the employment contract of limited-term contract employee (information and communications and manufacture of electrical machinery, equipment and supplies); (iii) industries that mainly use the employment contract of limited-term contract employee but that also employ older people as full-time regular employees and part-time employees in more than a small number of cases (eating and drinking places and retail trade); and (iv) industries that employ a relatively high percentage of those who are limited-term contract employees and part-time employees (finance and insurance).

We also tabulated the figures for firms that continued to employ all those who wished to be employed and firms that only employed those meeting a standard of eligibility (Table 4). The results showed that the percentages on full-time regular employees and part-time employees were slightly higher among firms that employed all who wished to continue in employment. On the other hand, the percentage on limited-term contract employees was slightly lower among these firms. It is possible to interpret this as the tendency of firms employing all who wish to continue in employment to promote the use of

various types of contracts in response to the diversity in the older people that the firms continue to employ. The differences between these two groups of firms, however, were smaller compared with the differences among different industries.

(2) Working Time Systems Applied to Older People in Continued Employment

As regards the working time system applied to employees who continue in employment past the mandatory retirement age, about 90% of the firms that had implemented a continued employment scheme adopted "full time." For other systems, about 20% to 30% of the firms had systems where the working hours per day were shorter than full time or the weekly work days were shorter than full time. The percentage of firms adopting a flextime system where the number of work days and working hours could be set freely and a telecommuting system was very small (Table 5).

If we examine the similarities and differences among industries, almost all firms in manufacture of transportation equipment and manufacture of general machinery adopted full time. In the manufacture of transportation equipment, in particular, it is assumed that because of the low rates of introduction of working time systems other than full time, employees who continue in employment in this industry mostly work full-time. On the other hand, only about 80% of the firms in finance and insurance, eating and drinking places and accommodations, and information and communications had implemented the full-time working time system. In particular, the percentage of firms in information and communications that had a system of fewer weekly work days with full-time working hours per day and the percentage of firms in finance and insurance that had a system of fewer weekly work days and shorter working hours per day compared with full time were noticeably high in comparison with other industries. By company size in terms of number of employees, there were differences in the percentage of firms introducing systems with shorter working hours than full time. In particular, there was a clear trend where the percentage of firms introducing the system of same work days as full time but shorter working hours per day than full time rose with larger firms (Table 5).

There was no correlation between differences in eligibility for the continued employment scheme and the working time systems applied to employees who continue in employment.

Table 5. Working time systems applied to older people in continued employment (Multiple answers, %)

	n	Full time	Same work days as full time but shorter working hours per day	Fewer work days as full time but same working hours per day as full time	Fewer work days and shorter working hours per day compared with full time	Flextime where work days and working hours can be set freely	Telecommut-ing	Others
Total	1051	89.1	22.2	26.3	18.7	3.2	0.5	4.0
Industry								
Construction	61	95.1	13.1	24.6	14.8	0.0	0.0	3.3
Manufacture of general machinery	47	97.9	27.7	23.4	14.9	2.1	0.0	0.0
Manufacture of transportation equipment	35	100.0	14.3	11.4	11.4	2.9	0.0	0.0
Manufacture of precision instruments and machinery	19	94.7	21.1	21.1	5.3	5.3	0.0	10.5
Manufacture of electrical machinery, equipment and supplies	50	88.0	24.0	18.0	14.0	2.0	0.0	6.0
Miscellaneous manufacturing industries	138	91.3	22.5	25.4	17.4	2.2	2.2	2.9
Information and communications	28	82.1	28.6	42.9	17.9	0.0	0.0	7.1
Transport	105	84.8	14.3	31.4	14.3	8.6	0.0	1.9
Wholesale and retail trade	231	90.9	26.8	29.0	21.6	2.2	0.4	4.3
Finance and insurance	26	80.8	26.9	30.8	38.5	3.8	0.0	0.0
Eating and drinking places, accommodations	41	80.5	29.3	14.6	26.8	4.9	0.0	9.8
Services	181	86.7	19.3	24.9	21.5	5.0	0.6	3.9
Size by number of employees								
299 employees or fewer	71	91.5	15.5	22.5	21.1	5.6	0.0	0.0
300 to 499 employees	359	91.1	16.2	21.7	14.2	2.8	0.6	3.9
500 to 999 employees	312	87.8	24.0	26.9	20.8	4.2	0.6	4.5
1,000 or more employees	279	87.8	29.4	33.0	22.6	2.5	0.0	4.7
Eligibility for continued employment								
All those who wish to be employed, in principle	259	87.3	22.8	24.3	18.1	3.1	0.4	2.7
Those who meet a standard of eligibility	759	90.4	22.3	27.5	19.4	3.2	0.5	4.6

Source: *JILPT 2006 Survey*.

4. Jobs Assigned to Employees in Continued Employment

What kind of jobs are firms assigning to employees who are in continued employment past the mandatory retirement age? The JILPT 2006 Survey asked the respondents to state the predominant patterns they adopted as regards the jobs of employees in continued employment. The largest percentage of firms, at around 70%, said that they assigned them the same job as the one they had at a point when they reached the mandatory retirement age. About 20% of the firms replied that the job assigned to employees in continued employment differed for each individual, and only 2% said that they were assigned a different job from the one they had at the mandatory retirement age (Table 6). The results show that as regards the continued employment scheme for older people in Japan, the majority of older people are continuing to do the same job as the one they had at the mandatory retirement age.

There were, however, large disparities among industries as regard the percentage of firms in which the predominant pattern was assignment of the same job as the one at the mandatory retirement age to employees in continued employment. Whereas the percentage was around 90% in manufacture of general machinery and manufacture of transportation equipment, it was around 60% in wholesale and retail trade and only around 40% in finance and insurance. In finance and insurance, the largest majority of firms replied that the situation differed by each individual. By company size in terms of number of employees, the percentage of firms assigning the same job as the one at the mandatory retirement age decreased with larger firms, while the percentage of firms that said that it differed by each individual rose with larger firms (Table 6).

The pattern of jobs assigned to older people in continued employment also differed somewhat between firms with different eligibility for continued employment. The percentage of firms in which the predominant pattern was assignment of the same job as the one at the mandatory retirement age was higher among firms that employed all who wished to continue in employment (Table 6).

5. Treatment of Older People in Continued Employment

How are Japanese firms addressing the question of treatment of older people in continued employment? The firms that had implemented the continued employment scheme were asked the annual income of people in

Table 6. Job description in continued employment: Predominant patterns (%)

	n	Normally the same job they had at a point when they reached the mandatory retirement age	Normally a job different from the one they had at a point when they reached the mandatory retirement age	It differs for each person	No response
Total	1051	71.9	2.0	23.3	2.8
Industry					
Construction	61	80.3	0.0	19.7	0.0
Manufacture of general machinery	47	87.2	0.0	12.8	0.0
Manufacture of transportation equipment	35	91.4	0.0	8.6	0.0
Manufacture of precision instruments and machinery	19	68.4	5.3	26.3	0.0
Manufacture of electrical machinery, equipment and supplies	50	66.0	2.0	30.0	2.0
Miscellaneous manufacturing industries	138	79.0	1.4	14.5	5.1
Information and communications	28	67.9	3.6	21.4	7.1
Transport	105	84.8	1.9	10.5	2.9
Wholesale and retail trade	231	60.2	3.5	33.8	2.6
Finance and insurance	26	42.3	7.7	50.0	0.0
Eating and drinking places, accommodations	41	70.7	2.4	22.0	4.9
Services	181	72.9	0.6	24.3	2.2
Size by number of employees					
299 employees or fewer	71	83.1	0.0	14.1	2.8
300 to 499 employees	359	74.7	1.4	21.4	2.5
500 to 999 employees	312	70.5	2.9	24.0	2.6
1,000 or more employees	279	68.5	2.5	26.9	2.2
Eligibility for continued employment					
All those who wish to be employed, in principle	259	80.3	2.7	14.7	2.3
Those who meet a standard of eligibility	759	69.8	1.6	26.4	2.2

Source: *JILPT 2006 Survey*.

Table 7. Level of annual income of employees in continued employment: comparison with that at the mandatory retirement age (%)

	n	More than the annual income paid at the mandatory retirement age	About the same as the annual income paid at the mandatory retirement age	About 80 to 90% of the annual income paid at the mandatory retirement age	About 60 to 70% of the annual income paid at the mandatory retirement age	About half of the annual income paid at the mandatory retirement age	About 30 to 40% of the annual income paid at the mandatory retirement age	Less than 30% of the annual income paid at the mandatory retirement age
Total	1051	0.1	6.5	14.8	44.4	20.4	8.2	0.9
Industry								
Construction	61	0.0	4.9	14.8	54.1	18.0	4.9	0.0
Manufacture of general machinery	47	0.0	2.1	21.3	44.7	17.0	8.5	0.0
Manufacture of transportation equipment	35	0.0	5.7	22.9	37.1	28.6	5.7	0.0
Manufacture of precision instruments and machinery	19	0.0	0.0	5.3	36.8	31.6	26.3	0.0
Manufacture of electrical machinery, equipment and supplies	50	0.0	2.0	12.0	56.0	16.0	14.0	0.0
Miscellaneous manufacturing industries	138	0.0	2.2	13.8	52.9	17.4	7.2	1.4
Information and communications	28	0.0	0.0	14.3	35.7	25.0	7.1	0.0
Transport	105	0.0	16.2	21.9	41.9	12.4	5.7	0.0
Wholesale and retail trade	231	0.4	3.0	11.7	40.7	31.2	10.4	0.4
Finance and insurance	26	0.0	7.7	3.8	26.9	11.5	30.8	11.5
Eating and drinking places, accommodations	41	0.0	19.5	12.2	53.7	9.8	0.0	0.0
Services	181	0.0	9.9	16.6	45.9	16.6	5.0	0.0
Size by number of employees								
299 employees or fewer	71	0.0	14.1	15.5	45.1	18.3	2.8	0.0
300 to 499 employees	359	0.3	6.7	15.9	49.6	18.1	6.4	0.3
500 to 999 employees	312	0.0	6.7	14.1	42.6	22.4	9.6	1.0
1,000 or more employees	279	0.0	4.7	13.3	42.3	21.9	10.0	1.4
Eligibility for continued employment								
All those who wish to be employed, in principle	259	0.4	10.8	16.2	45.6	16.6	5.8	0.0
Those who meet a standard of eligibility	759	0.0	4.7	14.5	44.5	21.9	8.8	1.2

Source: *JILPT 2006 Survey*.

continued employment, the income of which was composed of the wages paid by the firms as well as the corporate pension and public benefits (benefits for continued employment of older people[8]), as a percentage of the annual income paid at the mandatory retirement age (Table 7). The results show that the largest percentage of firms set the annual income at around 60% to 70% of the annual income paid at the mandatory retirement age (44.4%), followed by firms that set the annual income at about half of the annual income at the mandatory retirement age (20.4%). We can see from the results that many Japanese firms consider maintenance of about 50% to 70% of the annual income at the mandatory retirement age as a standard for treatment of older people when continuing to employ them.

By industry, close to 20% of firms in eating and drinking places and accommodations and transport replied that they set the annual income at around the same level as that paid at the mandatory retirement age, which was higher compared with other industries. On the other hand, the percentage of firms setting the annual income at around 30% to 40% of that at the mandatory retirement age, which was generally around 10% in most industries, was around 30% in manufacture of precision instruments and machinery and finance and insurance. In particular, the highest percentage of firms in finance and insurance set the annual income at around 30% to 40% of that at the mandatory retirement age. Although there were no large disparities among firms of different size, the percentage of firms that set the annual income at around the same level as that at the mandatory retirement age decreased with larger firms, while the percentage of firms setting the annual income at around half, at around 30% to 40%, and at less than 30% of that at the mandatory retirement age increased with larger firms. The disparities between firms with different eligibility for continued employment were also not very large. The percentage of firms setting the annual income at more than the 60% to 70% level was slightly higher among firms that employed, in principle, all who wished to continue in employment. On the other hand, the percentage of firms

[8] With the objective of subsidizing older employees' wages, the "benefits for continued employment of older people" are paid to older workers based on the employment insurance system. As of today, if an employee between the ages of 60 and 65 who had been covered by an employment insurance for five years or more is working at a wage that is less than 75% of the wage the employee was receiving at 60, the benefits will be paid to the employee for up to 15% of the employee's wages.

setting the annual income at around half or less in comparison with that at the mandatory retirement age was slightly higher among firms that had a standard of eligibility (Table 7).

As mentioned above, the annual income of employees in continued employment past the mandatory retirement age is composed of wages paid by their firm (monthly wages and bonuses), corporate pension paid after the mandatory retirement age, and public benefits. How then is the system designed with respect to the composition of wages, corporate pension, and public benefits in the annual income? Responses were obtained from 744 firms on standard cases of employees in continued employment. As for the average figures of 744 firms, wages made up 72.9% of the annual income, corporate pension made up 8.1%, and public benefits, 19.0%. If we compare the average figures in each industry, wages made up close to 80% of the annual income in construction. On the other hand, in finance and insurance, wages made up less than 60% but the share of corporate pension was more than 20%. As for the average figures by company size, there was a trend where the share of corporate pension increased with larger firms. There was hardly any disparity between firms with different eligibility for continued employment (Table 8).

As mentioned above, the level of annual income of employees in continued employment past the mandatory retirement age declines compared with that paid at the mandatory retirement age. The annual income during the continued employment also includes other components besides the wages paid by firms. On the other hand, since we can assume that the annual income paid at the mandatory retirement age is composed almost entirely of wages paid by firms, it follows then that there is a reduction in the wages paid during the continued employment when compared with wages at the mandatory retirement age. Then how large is the reduction in wages? Based on the assumption that the annual income paid at the mandatory retirement age is composed entirely of wages paid by firms, we attempt to grasp the reduction in wages by multiplying the level of annual income during the continued employment in comparison with that at the mandatory retirement age by wages as a percentage of the annual income during the continued employment. As we have seen above, responses on the level of annual income during continued employment have already been obtained in the JILPT 2006 Survey in the form of category variables. Therefore, we substitute the responses on the level of annual income

Table 8. Percentage of wages, corporate pension, and public benefits in annual income of employees in continued employment (Average values)

	n	Wages and bonuses paid by the firm (%)	Corporate pension (%)	Public benefits (%)
Total	744	72.9	8.1	19.0
Industry				
Construction	50	78.2	8.5	13.3
Manufacture of general machinery	34	72.6	9.4	18.0
Manufacture of transportation equipment	23	74.8	3.0	22.1
Manufacture of precision instruments and machinery	14	68.6	12.9	18.5
Manufacture of electrical machinery, equipment and supplies	35	70.2	9.9	19.9
Miscellaneous manufacturing industries	104	70.9	8.7	20.4
Information and communications	13	69.7	5.1	25.2
Transport	81	73.4	5.3	21.3
Wholesale and retail trade	166	73.5	8.5	18.1
Finance and insurance	16	59.7	20.8	19.6
Eating and drinking places, accommodations	27	74.7	6.3	19.0
Services	125	74.4	6.5	19.1
Size by number of employees				
299 employees or fewer	50	74.0	5.8	20.2
300 to 499 employees	264	75.9	6.3	17.8
500 to 999 employees	228	71.3	8.7	19.9
1,000 or more employees	190	70.7	10.2	19.1
Eligibility for continued employment				
All those who wish to be employed, in principle	190	74.6	6.6	18.8
Those who meet a standard of eligibility	537	72.0	8.7	19.3

Source: *JILPT 2006 Survey*.

Note: Tabulation based on responses obtained from 744 firms regarding the composition of wages, corporate pension, and public benefits in the annual income of employees in continued employment.

during continued employment with appropriate numbers[9] and estimate the wage level during continued employment as a percentage of that at the mandatory retirement age.

The average wage level of 737 firms for which it was possible to make the estimate was 48.0%. If we calculate the average wage level in each industry, it was around 50% in many industries and particularly low in manufacture of precision instruments and machinery (37.6%) and finance and insurance (30.0%). By company size in terms of number employees, there were no significant differences in the average wage levels, but the wage level tended to decline, in other words, the reduction in wages compared with those at the mandatory retirement age grew larger, with larger firms. Comparison of firms with different eligibility for continued employment shows that the reduction was less among firms that employed all who wished to continue in employment (Table 9).

6. Response to the Obligation of Implementing Employment Security Measures

We so far examined the details of the continued employment schemes adopted by Japanese firms after the amendment of the Act Concerning Stabilization of Employment of Older Persons. How did Japanese firms respond to the provision of the act that obligated them to implement employment security measures for older people so that it resulted in the implementation of the continued employment schemes we examined above?

The firms that had implemented the continued employment scheme were asked to state the measures they adopted after learning about the provisions of the amendment of the Act Concerning Stabilization of Employment of Older Persons of 2004. The results show that the responses were concentrated on the

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[9] The responses on the level of annual income during the continued employment in comparison with that at the mandatory retirement age were substituted with numbers as follows:
"More than the annual income paid at the mandatory retirement age" = 115, "About the same as the annual income paid at the mandatory retirement age" = 100, "About 80 to 90% of the annual income paid at the mandatory retirement age" = 85, "About 60 to 70% of the annual income paid at the mandatory retirement age" = 65, "About half of the annual income paid at the mandatory retirement age" = 50, "About 30 to 40% of the annual income paid at the mandatory retirement age" = 35, and "Less than 30% of the annual income paid at the mandatory retirement age" = 20.

Table 9. Wages during continued employment as a percentage of those at the mandatory retirement age (average)

	n	Wages during continued employment as a percentage of wages at the mandatory retirement age (%)
Total	737	48.0
Industry		
Construction	49	50.7
Manufacture of general machinery	33	47.3
Manufacture of transportation equipment	23	50.3
Manufacture of precision instruments and machinery	14	37.6
Manufacture of electrical machinery, equipment and supplies	35	44.5
Miscellaneous manufacturing industries	101	45.3
Information and communications	13	44.8
Transport	81	53.9
Wholesale and retail trade	166	45.8
Finance and insurance	16	30.0
Eating and drinking places, accommodations	27	54.8
Services	123	52.7
Size by number of employees		
299 employees or fewer	50	53.0
300 to 499 employees	262	51.5
500 to 999 employees	226	46.0
1,000 or more employees	187	44.8
Eligibility for continued employment		
All those who wish to be employed, in principle	188	52.3
Those who meet a standard of eligibility	532	46.3

Source: *JILPT 2006 Survey*.

Notes: [1] The level of annual income at the mandatory retirement age was assumed to be equal to the level of wages at the mandatory retirement age, and the level of wages during continued employment was calculated as a percentage of the level of wages at the mandatory retirement age (the level of wages at the mandatory retirement age = 100%).

[2] The responses to the question on the level of annual income set for employees in continued employment in comparison with the level of annual income at the mandatory retirement age (see Table 7) were substituted by numbers in making the calculation (see note 9).

Table 10. Response to the obligation of implementing employment security measures (Multiple answers, %)

	n	The requirement was already met prior to the amendment	Creation of a reemployment scheme	Adjustment of an already existing reemployment scheme	Creation of a work extension scheme	Adjustment of an already existing work extension scheme	Raising the mandatory retirement age	Others	Nothing in particular
Total	1051	18.5	44.9	33.7	2.1	3.0	1.0	0.5	1.1
Industry									
Construction	61	14.8	39.3	47.5	1.6	1.6	0.0	1.6	0.0
Manufacture of general machinery	47	4.3	34.0	57.4	0.0	10.6	4.3	0.0	0.0
Manufacture of transportation equipment	35	31.4	28.6	37.1	0.0	2.9	2.9	0.0	2.9
Manufacture of precision instruments and machinery	19	10.5	36.8	57.9	0.0	0.0	0.0	0.0	5.3
Manufacture of electrical machinery, equipment and supplies	50	12.0	36.0	50.0	4.0	0.0	0.0	0.0	0.0
Miscellaneous manufacturing industries	138	15.2	42.8	37.7	0.7	2.2	0.0	1.4	1.4
Information and communications	28	10.7	64.3	21.4	3.6	0.0	0.0	0.0	0.0
Transport	103	42.7	27.2	32.0	1.0	3.9	4.9	1.0	1.9
Wholesale and retail trade	229	12.7	55.5	31.9	2.2	2.2	0.0	0.4	0.9
Finance and insurance	26	19.2	61.5	26.9	0.0	0.0	0.0	0.0	0.0
Eating and drinking places, accommodations	41	12.2	46.3	29.3	7.3	12.2	0.0	0.0	0.0
Services	181	23.2	51.4	19.9	2.8	4.4	1.1	0.0	2.2
Size by number of employees									
299 employees or fewer	71	22.5	43.7	29.6	4.2	2.8	2.8	0.0	0.0
300 to 499 employees	359	18.1	46.5	34.0	1.4	2.8	1.4	0.6	1.7
500 to 999 employees	312	17.0	46.2	34.0	2.2	3.2	1.0	0.6	0.6
1,000 or more employees	279	18.3	43.4	35.5	2.5	3.6	0.4	0.4	1.4
Eligibility for continued employment									
All those who wish to be employed, in principle	259	32.0	34.0	27.8	3.1	3.5	1.5	0.0	1.9
Those who meet a standard of eligibility	759	13.8	48.5	36.2	1.8	3.0	0.9	0.7	0.8

Source: *JILPT 2006 Survey*.

three answers of "Creation of a reemployment scheme" (44.9%), "Adjustment of an already existing reemployment scheme" (33.7%), and "The requirement was already met prior to the amendment" (18.5%) and that only a very small number of firms chose other answers (Table 10). This means that among the Japanese firms with a relatively large number of employees that became the subject of the survey, a certain number of firms had adopted the contents of the amendment in their systems prior to the actual amendment and that most of the firms that did not take action prior to the amendment either created or adjusted a reemployment scheme in order to meet the requirement of the amendment.

While the above shows the general trend, the responses to the amendment differed significantly by industry. The percentage of firms that had met the requirement prior to the amendment was noticeably high in transport and manufacture of transportation equipment when compared with other industries, whereas the percentage of such firms was very small in manufacture of general machinery. The majority of firms in manufacture of general machinery, manufacture of precision instruments and machinery, and manufacture of electrical machinery, equipment and supplies made adjustments to their reemployment schemes to prepare for the amendment,[10] whereas more than a

[10] It is assumed that this result of the survey reflects the fact that active efforts were made, prior to the amendment of the Act on Stabilization of Employment of Older Persons, for employment extension of blue-collar workers working in manufacturing sites to the age of 65 in such industries as manufacture of general machinery, manufacture of precision instruments and machinery, and manufacture of electrical machinery, equipment and supplies. Denki Rengo (the Japanese Electrical Electronic and Information Union), to which many of the enterprise unions organized within the firms in the above industries belong, determined, at its convention in 1996, that systems for employment continuation should aim at "extension of the mandatory retirement age (full-time regular employees and union members)" and confirmed, at its 1997 convention, that "to allow older people to work as active employees up to the age of 65 in our society, the mandatory retirement age should be extended in stages in a direct link with the pensionable age of the employees' pension insurance scheme." At the 1999 convention, Denki Rengo determined to prepare, in the immediate future, the conditions for realizing "employment extension until the age of 65" with a goal of breaking the deadlock in labor-management talks and of "establishing an employment treatment system consistent with the building of an ageless society of the future, with an eye to extending the mandatory retirement age to 65." Moreover, during the organization reinforcement month in the fall of 1999, it set down the Three Principles of Employment Extension as industrial guidelines, which were (1) if an employee wishes to work, the firm will provide opportunities for work, (2) employment extension will be directly linked to the pensionable age of the employees' pension insurance scheme, at the least, and (3) their status will be as

half of the firms in information and communications, finance and insurance, wholesale and trade industry, and services newly created a reemployment scheme to meet the requirement (Table 10). By company size in terms of number of employees, there were hardly any differences in the firms' response to the amendment that obligated them to implement employment security measures.

If we compare firms with different eligibility for continued employment as regards their response to the obligation of implementing employment security measures, the percentage of firms that had met the requirement prior to the amendment was 32.0% among firms that employed all who wished to continue in employment, which was close to twice as many as among firms that employed those who met a standard of eligibility. There were, however, no differences between firms with different eligibility for continued employment in the respect that both types of firms responded to the amendment mainly by creating or adjusting a reemployment scheme (Table 10).

The response of 346 firms, which corresponded to a third of the firms that had implemented a continued employment scheme, to the obligation of implementing employment security measures was to make adjustment to an already existing reemployment scheme or work extension scheme. When the firms that made these adjustments were asked what those adjustments were, 39.8% said they opened the scheme to more employees by abolishing or relaxing the standard of employees who could take advantage of the scheme, and 50.6% replied that they raised the upper limit on the age of employees who could use the scheme. The response with a much higher implementation rate, however, was to newly set or change the standard of eligibility for the scheme, with the implementation rate of 80.3%.

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stable as that of regular employees (the employees must be a union member, in principle, but they may be treated as special union members with special rights and obligations).

In the spring labor offensive of 2000, Denki Rengo, based on the above industrial guidelines, set "employment extension to 65" as a unified goal. Of 183 labor unions participating in the labor-management bargaining offensive, about 90% of the unions worked on the issue of employment extension, including 106 unions submitting demands and 54 unions continuing with negotiations without submitting demands. As of the spring of 2004, 116 unions reached labor-management agreement. For more details on these developments, see Nakao (2005).

IV. Conclusion

The employment security measures for older people of 60 and over, which became an obligation for firms to implement by the amendment of the Act Concerning Stabilization of Employment of Older Persons of 2004, were actually implemented by most firms in about a year since the amendment took effect. As for the employment security measures, the amended act provided for one of the three measures of abolishment of the mandatory retirement age, extension of the mandatory retirement age, or continued employment scheme (reemployment scheme or work extension scheme). The majority of the firms implementing the measures adopted the continued employment scheme. Moreover, the majority of the firms adopting the continued employment scheme set a certain standard of eligibility for the scheme.

It appears that the obligation to implement the employment security measures has increased employment opportunities for older people. In the JILPT 2006 Survey, two thirds of the firms that had implemented a continued employment scheme replied that they employed almost all those who wished to continue in employment, and around 20% of the firms said they employed from 70% to 90% of all who wished to continue in employment. According to the Ministry of Health, Labour and Welfare's survey conducted as of June 1, 2007, the number of regular employees of ages between 60 and 64 and of 65 and over increased by 26.9% and 46.5%, respectively, compared with when implementation of the employment security measures was still not an obligation.

Turning our attention to the working conditions and treatment of older people who continue to be employed past the mandatory retirement age, we see that although there were some differences by industry, by company size in terms of number of employees, and by how firms set the eligibility for continued employment, the jobs given to older people were, in many cases, the same jobs as they had before reaching the mandatory retirement age, and their working hours were mostly full time, the same as before the mandatory retirement age. On the other hand, their employment contracts changed, at many firms, from being employed as a full-time regular employee to being employed as a limited-term contract employee. Their annual income, including wages as well as corporate pension and public benefits, was mostly set at about the level between 50% and 70% of the annual income at the mandatory

retirement age. If we consider wages only, the wages were generally reduced to about the level between 40% and 50% of the wages at the mandatory retirement age.

It can be said that the working conditions and treatment of older people in continued employment discussed above, in other words, the job and working hours remaining the same as before the mandatory retirement age, the employment contract changing from employment as a full-time regular employee to other types of contracts, and substantial reduction in the wage level, remained unchanged from before the amendment of the Act Concerning Stabilization of Employment of Older Persons of 2004. According to the Association of Employment Development for Senior Citizens (2002), which made a detailed survey on the state of continued employment beyond the mandatory retirement age prior to the amendment, about 80% of the firms responding to the survey said that the employees in continued employment were engaged in roughly the same jobs as before the mandatory retirement age, and about 90% of the firms said that the working hours for the employees were about the same as before the mandatory retirement age. Moreover, as for the employment contract of employees in continued employment, about 70% replied that they were employed as limited-term contract employees. As for salaries and wages, the largest number of firms, about a half of the firms surveyed, answered that they set the salaries and wages at about the level between 60% and 80% of those at the mandatory retirement age.

If continued employment past the mandatory retirement age can be realized in ways that will keep the employees in roughly the same job with the same working hours as before the mandatory retirement age but with a lower level of treatment, it would have significant merit for firms since firms would have no need to implement various measures that might be necessary for continued employment, such as development of suitable jobs for older people and introduction of new work methods, and firms could also expect the same level of output with less personnel cost. This form of personnel management of older people in continued employment is considered to have been kept intact before and after the amendment obligated firms to implement employment security measures. This kind of personnel management, however, is likely to cause dissatisfaction among older employees in the future. According to a survey conducted by JILPT in February 2007 on employees of ages between 57 and 59 working for the firms that were the subject of the JILPT 2006

Survey, only about 30% wished to work as a limited-term contract employee, and about 60% wished to work as full-time regular employees. However, only about 10% had prospects of working as a full-time regular employee in continued employment after the mandatory retirement age. On the annual income, whereas about 50% replied that they hoped to receive at least 80% or more of their present annual income, only about 15% had prospects of maintaining 80% or more of their present annual income in continued employment (Fujimoto 2007). In other words, if we examine the views of employees, we see that there is a substantial gap between the current practice of personnel management of older people in continued employment and the needs of employees who are subjected to such personnel management.

The gap between firms' personnel management of older people in continued employment and the needs of older employees is expected to become even more manifest than now as employment security measures become established and the number of older employees in continued employment increases. As it becomes more manifest, it is considered that the awareness that doing something about this gap is important in promoting employment of older people will spread among firms. Actually, a firm has begun on a project to set the wage levels in accordance with the performance appraisal of or duties assigned to employees in continued employment.[11] It is expected that more firms will begin to explore how they can employ or treat older people in ways that will better match older people's performance and needs, while considering the responsibility and roles played by individual older employees within the firm and changes of the social security system as regards pension and benefits for continued employment of older people.

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Does Skill-Development Make Elderly Japanese More Marketable?*

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I. Introduction

Work incentives for the elderly Japanese male are much higher relative to those for the elderly in the other developed countries. The 2005 International Comparison of Old-Age Persons' Attitude about Life Finance [*Kōreisha no seikatsu to ishiki ni kansuru kokusai hikaku chōsa*], conducted by the Cabinet Office, asks the elderly male about a desirable retirement age regardless of his current working status. The results show that 32.7% of the Japanese, 4.6% of the French, only 2.4% of the German, and 14.4% of the Americans responded "70 years old."

However, many elderly Japanese workers would be faced with unemployed because most Japanese firms have a mandatory retirement system. According to the 2004 Survey on Employment Management, conducted by the Ministry of Health, Labour and Welfare (hereafter referred to as the MHLW), 100% of firms with more than 5,000 employees, 99.3% of firms with 1,000-4,999 employees, and 99.6% of firms with 300-999 employees adopt the mandatory retirement system in Japan. This is very different from the case in many other countries, including the U.S., where it is prohibited by law that employers retire their workers only because they reach a certain age. The Japanese firms with mandatory retirement systems are perfectly willing to employ workers one day but force them to retire the next. That is, most Japanese employees are unemployable after mandatory retirement age.

If mandatory retirees want to continue working after mandatory retirement, they would have to seek a new job. The 2004 Annual Report on the Labour

* This paper is based on Kajitani (2006), with substantial additions and revisions. We used micro data sets; the 1997 Survey on Elderly Employment and Life-style [*Teinen taishoku-sha tō no shūgyō to seikatsu jittai ni kansuru chōsa*] which are provided by the Japan Organization for Employment of the Elderly and Persons with Disabilities and the Information Center for Social Science Research on Japan, Institute of Social Science, University of Tokyo. We are partially supported by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Grant-in-Aid for 21st Century COE Program "Interfaces for Advanced Economic Analysis."

Force Survey, conducted by the Statistics Bureau, shows that 170 thousand out of 210 thousand unemployed persons seek a job due to mandatory retirement or the expiration of job contracts. In 2004 the unemployment rate for elderly Japanese males aged 60 to 64 was 7.1% and was higher than the rate for males aged 30 to 59 (approximately 4%). This may result from job searching by mandatory retirees.

Moreover, the unemployment rate for Japanese males aged 60 to 64 increased from 5.1% in 1990 to 10.4% in 2000. This is mainly because the outflow from unemployment has decreased while the inflow into unemployment has increased. As for the former, Machin and Manning (1999) show the positive correlation between the unemployment rate and long-term unemployment in OECD countries. Kohara (2004) calculates the ratio of long-term unemployment by age group except for the elderly (aged 60 to 64) using the Labour Force Survey et al., and indicates that the incidence of long-term unemployment is increasingly higher in the 1990's in Japan. This raises the question of: Is the incidence of long-term unemployment for elderly Japanese also increasingly higher?

If the longer unemployment period itself (e.g. the occupational skills of those unemployed become obsolete because of long-term unemployment) makes job searching difficult; that is, if there is a negative duration dependence, long-term unemployment becomes a serious matter. Note that skill development such as self development or job training would improve this matter. Skill development for elderly Japanese could be one of the ways to prevent them from long-term unemployment, on the condition that there is negative duration dependence in elderly unemployed people.

A causal relationship between job training and unemployment is ambiguous; however, there are many previous studies which have focused on it. For example, Ham and Lalonde (1996) examine the impact of training on female participants in the National Support Work (NSW) demonstration in the U.S., and show that there is no significant relationship between training in NSW and their unemployment duration. Lee and Lee (2005) point out that training for white-collar female workers shortens the unemployment duration in Korea, while training for Korean women increases their unemployment duration. Alba-Ramírez (1999) shows that unemployed men attending training programs or schools are less likely to become employed using the Spanish Active Population Survey. Aakvik (2001) reveals that employment rates are

higher for individuals who participate in Norwegian vocational rehabilitation programs using propensity score matching methods. These studies shed light on the effects of training on unemployment for not the elderly but middle-aged and young people.

Seike and Yamada (2004) point out that it is not appropriate to regard all mandatory retirees who desire to work as unemployed because not every elderly person immediately seeks a job after their mandatory retirement. However, elderly Japanese are more likely to desire to work after mandatory retirement. Skill development such as self development or job training for elderly Japanese could promote their employment after mandatory retirement.

This paper examines whether unemployment duration for elderly Japanese tends to be longer using macro data. It also examines whether there is negative duration dependence for the elderly who are in a non-working status except for those in full retirement, whether skill development shortens the non-working duration, and whether unemployment insurance benefits affect the non-working duration, using cross-sectional micro data sets for elderly Japanese who have desired to work after their mandatory retirement.

There are three major contributions of this paper. First, we focus on the non-working durations of mandatory retirees who want to work. There are a few academic discussions about the process by which mandatory retirees have been reemployed, while many of them are likely to desire to work after mandatory retirement. In addition, we can control an unobserved heterogeneity which depends on the circumstances leading to being out of employment by focusing on an exogenous event; mandatory retirement. Second, we discuss the effects of skill development for elderly Japanese on their reemployment after mandatory retirement. There is no empirical study that sheds light on the effects of skill development on reemployment for Japanese mandatory retirees. Moreover, there is even less evidence on what kind of skill development elderly Japanese engage in. Finally, we consider an endogenous problem between the labor supply decision and unemployment benefits to reveal the impact of unemployment insurance benefits on the non-working duration for elderly Japanese.

As a preview of the main findings of this paper, we show that (i) there seems to be prolonged periods of unemployment among males aged 55 to 64 in the 90s which does not become shorter in the 2000s. In the case of mandatory retirees, the share of long-term unemployment is around 20% in the 90s and

the 2000s. Using micro data sets, we further show that (ii) there is negative duration dependence in elderly non-working people, but (iii) skill development such as job training or self development shortens the non-working duration for the elderly, and (iv) unemployment insurance benefits prolong the periods of non-working for the elderly.

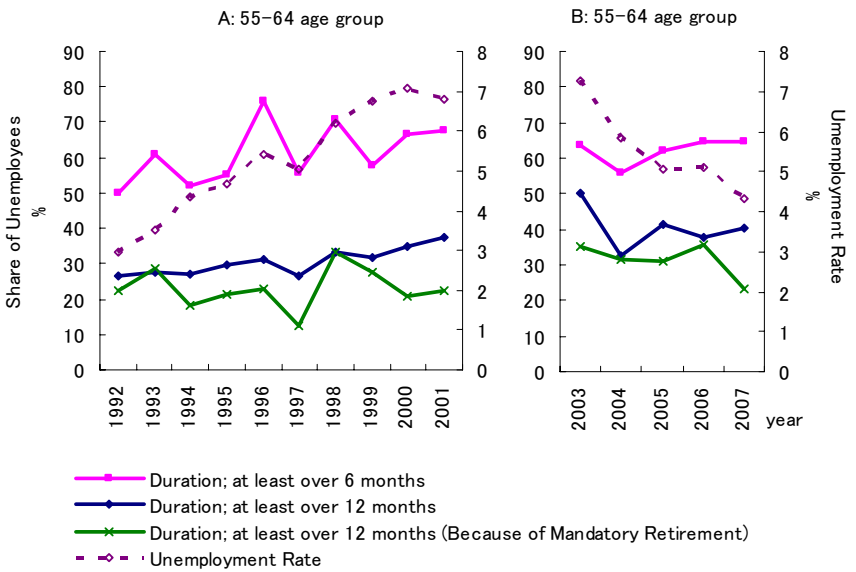
The organization of this paper is as follows: In the next section, we clarify the proportion of long-term unemployment in the total unemployment for the elderly. In Section III we explain the micro data sets and definitions of the variables; in Section IV we present the empirical framework; in Section V we present the estimation results; in Section VI we discuss the effects of skill development on employment for elderly Japanese; the last section concludes this paper.

II. Unemployment Duration for Elderly Japanese

The Report on the Special Survey of the Labour Force Survey (hereafter referred to as the RSLFS) and the Monthly Report on the Labour Force Survey (Detailed Tabulation) (hereafter referred to as the MRLFS), both are conducted by the Statistics Bureau, report the number of unemployed at the time by sex, age-group and duration of unemployment. Using these statistics, we calculate the ratio of long-term unemployment for elderly Japanese. As for details, we divide the number of unemployed, who have been out of work for more than 12 months in February of each year, by the total number of unemployed 12 months ago (that is, in February of the previous year). This ratio denotes "the share of people who have been unemployed for at least 12 months and over."

Figure 1-A illustrates the share of the long-term elderly unemployed (12 months and over, and 6 months and over, respectively) calculated in the above way, and the unemployment rate for the 55-64 age groups of males from 1992 to 2001. The share of long-term unemployment tends to increase during the 1992-2001 period. For example, the ratio of unemployment "at least 6 months and over" rises from 50% in 1992 to 67.4% in 2001 though it varies widely, and the ratio of unemployment "at least 12 months and over" increases from 26.3% in 1992 to 37.5% in 2001. In addition, we show the share of long-term elderly unemployed during the 2003-2007 periods in Figure 1-B. The percentage of long-term unemployment does not become shorter in the 2000s, although the unemployment rate becomes increasingly lower. The share of

Figure 1. Share of the elderly unemployed in Japan



Sources: *The Report on the Special Survey of Labour Force* and *The Monthly Report on the Labour Force Survey (Detailed Tabulation)*, conducted by the Statistics Bureau.

Note: Figure1-B shows the quarterly (January to March) average of the unemployment duration and unemployment rates, which are an arithmetic mean for three months. This is because *The Labour Force Special Survey* was merged into *The Labour Force Survey; a special questionnaire* in January 2002 and the results of the special questionnaire are released quarterly.

unemployment “at least 6 months and over” and “at least 12 months and over” in 2007 are 64.5% and 40.5% respectively.

The above share of long-term unemployment involves not only involuntary unemployment (e.g. mandatory retirees) but also voluntary unemployment. Is the ratio of long-term unemployed among the mandatory retirees higher during the 1991-2007 periods? Both the RSLFS and the MRLFS report the number of unemployed by duration of unemployment and reasons of seeking a job. We illustrate the number of long-term unemployed over the number of age-mandatory retired unemployed in Figure1-A and 1-B. In the case of mandatory retirees, the share of long-term unemployment is far from low, while the periods of unemployment do not become longer. The share of long-term unemployment (at least 12 months and over) in 1991 is 22.2%, and

is also 22.2% in 2001. Also, the share during the 2003-2006 periods is around 30% and 23.1% in 2007. Therefore, the probability that mandatory retirees are unemployed for long periods is not low, even though they desire to work after mandatory retirement.

III. Data Description: The 1997 Survey on Elderly Employment and Life-Style

In order to examine whether job training or self development shortens the non-working duration for Japanese mandatory retirees, we use cross-sectional micro data sets for elderly Japanese, the 1997 Survey on Elderly Employment and Life-Style [*Teinen taishoku-sha tō no shūgyō to seikatsu jittai ni kansuru chōsa*] (hereafter referred to as the SEEL) which are provided by the Japan Organization for Employment of the Elderly and Persons with Disabilities and the Information Center for Social Science Research on Japan, Institute of Social Science, University of Tokyo. The SEEL asks elderly Japanese about their employment/retirement decisions, career and life-style.

There are very few surveys that have asked about career jobs for elderly Japanese people and the duration of non-work from their mandatory retirement to their retirement.[1] The respondents mainly consist of: Group 1, people who reached mandatory retirement age in 1992 (40.7% of the respondents); Group 2, people aged 50 and over who left their job due to the reason except mandatory retirement in 1992 (17.2% of the respondents); Group 3 , people over the age of 50 who were on temporary transfer to another company (*shukkō*) in 1992 (11.6% of the respondents), and; Group 4, mandatory retirees who were reemployed by their *previous* companies as soon as they were retired at the mandatory age (*keizoku koyō*) in 1992 (16.2% of the respondents). We use the sample Group 1 excluded the people who were fully retired from labor markets in 1992 or who were rehired by other new companies as soon as they were retired at the mandatory age in 1992. This is because we focus on the probability of exit from non-working status for the elderly who want to work. Furthermore, there are few possibilities that the difference of time trends in macro-economic status (i.e. unemployment rate) affects the labor demand for the elderly as all of the respondents in the SEEL were retired in 1992. By

[1] The SEEL had 5,998 respondents (male; 5018, female; 835).

further restricting the sample size to 633, which is enough to answer the questions we need for estimation, we find that 403 people find a new job during the observable periods.

We compare the difference in distributions between the SEEL and large macro data to check if the sample we use has a distinct distribution. The ratio of large size firms to firms in which the elderly had been employed until mandatory retirement (we define these firms as "Company A") in the SEEL is higher than that in the 2002 Employment Status Survey (the ESS), which is conducted by the Statistics Bureau. However, the distribution of educational attainment in the SEEL sample is similar to that in the 2000 Population Census, which is conducted by the Statistics Bureau, and the average amount of income in the SEEL is also similar to that in the ESS.

Table 1 summarizes the details of the variables used in empirical analysis and shows the descriptive statistics. The SEEL asks the elderly respondents "How long did it take for you to find a new job after mandatory retirement?" We regard answers of the above question as "non-working duration." The SEEL is conducted 60 months after mandatory retirement. In case of the elderly who have been seeking a new job but have not completed their non-working period within 60 months, we stop following them in the sample beyond the 60th month; that is, when right-censoring occurs. Note that we assume that right-censoring occurs at the 36th month in the sample. It seems possible that the SEEL includes elderly people who have taken a break for a long time (i.e. 3 years and over) from job searching.[2] The average non-working duration is 21.8 months, but varies greatly (standard deviation is 12.24).

Table 1 shows that elderly Japanese are less likely to work on skill development. The percentage of elderly people who have attended job training or skill development training, or who have studied for themselves in order to

[2] We assume right-censoring occurs at the 36th month, even if there are elderly people who have been seeking a new job for a long time (i.e. 3 years and over). The White Paper on the Labour Economy 2002, conducted by the MHLW, regards the average unemployment duration for people whose length of unemployment is greater than 2 years as 36 months. There are few differences between the estimation result using the full sample and that using the sample excluding the elderly who find a new job during the 37th-60th periods. We are unable to separate the non-working duration correctly into the periods of *not seeking* a job and the periods of *seeking* a job in the sample.

Table 1. Definition of the variables and descriptive statistics

Variable	Definition	Mean	Std. Dev.	Min	Max
Non-working duration	Months between mandatory retirement day from Company A and rehirement day.	21.80	12.24	1	36
Skill development	Attending job training or skill development training, or studying for oneself before mandatory retirement in order to continue to work after Mandatory Retirement=1, Elsewhere=0	0.09	0.28	0	1
S.D. opportunities	Company A provided opportunities before mandatory retirement for study or training which would be useful for work in other companies after Mandatory Retirement=1, Elsewhere=0	0.21	0.41	0	1
Unemployment insurance[2]	We regard the length of service with Company A as the computation periods for unemployment benefits (*Santei Kiso Kikan*) and calculate the predetermined receivable periods of unemployment insurance benefits. We make a dummy variable which is a time-varying covariate: Within the Qualification Period=1, Beyond=0	0.43	0.49	0	1
Public pension[3]	The estimated full amount of public pension benefits (*Kōsei Nenkin*), which are based on the methods developed in Ogawa (1998) and Higuchi and Yamamoto (2002). (ten thousand yen)	21.37	6.93	0	30
Corporate pension	The amount of corporate pension benefits from Company A excluding the employees' pension fund. (ten thousand yen)	3.82	5.32	0	18
Private pension	The amount of private pension benefits. (ten thousand yen)	0.41	1.28	0	5
Male	Male=1, Female=0	0.94	0.24	0	1
Health status	Present health status: Good=1, Bad=0	0.85	0.35	0	1
Univ. graduate	Educational background: University graduate=1, Elsewhere=0	0.15	0.36	0	1
Three major metropolitan areas	Tokyo, Kanagawa, Chiba, Saitama, Aichi, Mie, Gifu, Osaka, Hyogo, Kyoto, Nara and Wakayama=1, Elsewhere=0	0.61	0.49	0	1
Spouse	With spouse=1, Without=0.	0.95	0.21	0	1
Dependents (children)	With dependent kids=1, Without=0	0.41	0.49	0	1
Householder before M. R.	Upon retirement from Company A, Owned a house=1, Elsewhere=0	0.92	0.27	0	1
Housing loan	Housing loan condition: With=1, Without=0	0.09	0.28	0	1
Retirement allowances	The amount of severance pay from Company A: 1) 0 yen, 2) less than 1 million yen, 3) 1 million-2.5 million yen, 4) 2.5 million-5 million yen, 5) 5 million-10 million yen, 6) 10 million-15 million yen, 7) 15 million-20 million yen, 8) 20 million-30 million yen, 9) 30 million-40 million yen, 10) 40 million-50 million yen. We take the middle point for each category except for the top.	1422.91	826.36	0	4500
Nonlabor income	Without income except labor income or pension income=1, Elsewhere=0.	0.36	0.48	0	1
Expected minimum income	Minimum income per month which the elderly people are willing to receive to live on. (ten thousand yen)	37.14	10.45	15	95
Primary industry	Category of industry for the Company A: Primary sector (Agricultural, Forestry, Fisheries or Metal mining)=1, Elsewhere=0	0.00	0.07	0	1

Table 1 (*Continued*)

Variable	Definition	Mean	Std. Dev.	Min	Max
Secondary industry	Category of industry for the Company A: Secondary sector (Construction or Manufacture)=1, Elsewhere=0	0.71	0.45	0	1
Firm size below 300 employees	Firm size for the Company A: Below 300 employees=1, Elsewhere=0	0.21	0.41	0	1
Firm size 300-999 employees	Firm size for the Company A: 300-999 employees=1, Elsewhere=0	0.72	0.45	0	1
Officer	Had an admin or executive position at Company A=1, Elsewhere=0	0.14	0.35	0	1
Professions	Main job in 50s: Professions=1, Elsewhere=0	0.14	0.35	0	1
Manager	Main job in 50s: Managerial work=1, Elsewhere=0	0.21	0.40	0	1
Clerical job	Main job in 50s: Clerical job=1, Elsewhere=0	0.10	0.30	0	1
Intended to work immediately after M.R.	The following answers to the question: "What did you think about your post-retirement plans?" 1) I intend to work immediately, 2) I intend not to work immediately, 3) I would retire completely, and 4) Elsewhere. We make a dummy variable (Yes=1, No=0) for each of the categories (bench mark=Elsewhere).	0.19	0.39	0	1
Intended not to work immediately after M.R.		0.68	0.47	0	1
Intended to retire completely		0.06	0.24	0	1

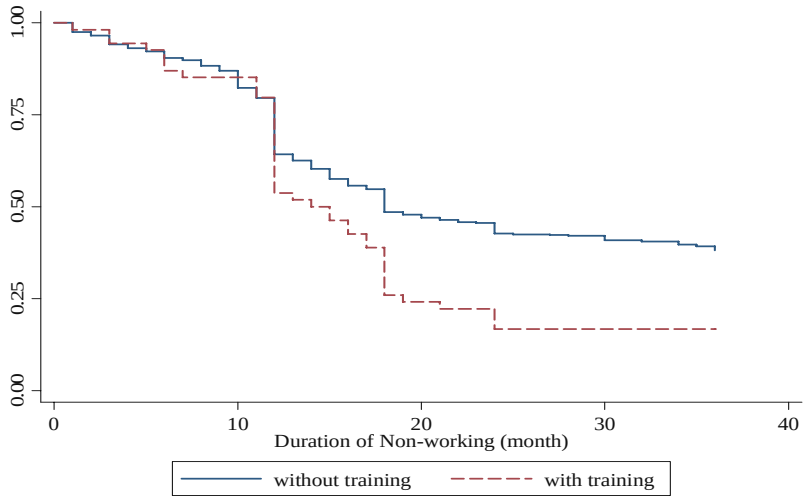
Notes: [1] "Company A" denotes a company which the elderly are retired from at the mandatory age.
[2] Mean and standard deviation of "predetermined qualification period for U.I. benefits" is 9.99 and 0.14 respectively.
[3] 1 US dollar ≒ 120 yen in 1997. (Research and Statistics Department, Bank of Japan)

work after mandatory retirement, is approximately 9% of the total. The Survey on Employment Conditions of Older Persons (2000) (the SECOP), conducted by the MHLW, also reports that 2.2% of the older males attend training programs provided by employers, while 4.8% of them do skill development using public vocational programs.[3] Not only elderly Japanese, but also the elderly in other countries are less likely to attend training. Ho et al. (2000) points out that older workers in Hong Kong are less likely to be promoted or selected for training.

Figure 2 shows the Kaplan-Meier estimates of the hazards from the non-working status by two groups; the persons with and without skill development. The hazard ratio for those with skill development is higher than that for those without skill development after 12th months, while there are few

[3] The percentage of elderly people with training shown by the SECOP is lower than that by the SEEL, because there are elderly people who are employed as soon as they have retired at the mandatory age in the SECOP sample.

Figure 2. Kaplan-Meier survival estimates



Source: *The SEEL*.

differences between the hazard ratio with skill development and the ratio without it before the 11th month. Mayer (1990) and Kohara (2004) show that the probability of leaving unemployment rises dramatically just prior to when unemployment insurance benefits lapse. It seems that elderly Japanese tend to find a new job after fully receiving the benefits, as the maximum predetermined receivable period of unemployment insurance benefits for the insured elderly in 1997 is 300 days (10 months).

Note that we have to interpret the causal relationship between skill development and employment with some caution. Previous studies that investigate the impact of training on the probability of leaving unemployment point out that if people who have higher motivation are more likely to be selected for training, an observed positive correlation between training and employment status would not represent a causal effect of training. That is, there may be a self-selection problem. However, the self-selection problem would not be serious in the case of examining a causal relationship between skill development and employment for the elderly.[4] The elderly with low

[4] There may be a motivation gap among elderly Japanese workers even if the elderly with less motivation are more likely to be retired from the labor market. We discuss

Table 2. Differences between with and without skill development; test for group mean-comparison

Variables	Mean of group: Skill development With	Mean of group: Skill development Without	t-value	Sample size: Skill development With	Sample size: Skill development Without
Same type of job	0.344	0.481	1.507	32	258
	(0.483)	(0.501)	[1.464]		
Univ. graduate	0.167	0.150	-0.308	54	579
	(0.358)	(0.358)	[-0.321]		
Officer	0.130	0.140	0.212	54	579
	(0.339)	(0.347)	[0.208]		
Retirement allowances	1547.22	1411.31	-1.428	54	579
	(650.85)	(840.38)	[-1.156]		
Health status	0.852	0.853	0.026	54	579
	(0.359)	(0.354)	[0.027]		
Degree of motivation for work					
It is natural for me to continue working	0.558	0.483	-1.022	52	575
	(0.502)	(0.500)	[-1.024]		
It is unfair to give the elderly no job regardless of their skill or spirit.	0.490	0.472	-0.246	51	572
	(0.505)		[-0.249]		

Note: Standard deviations are in parentheses and Welch t-values (Welch 1947) are in brackets respectively.

motivation will be retired from the labor market fully. Moreover, elderly people aged 60 and over can receive public pension benefits.

We check whether the mean of the "with skill development" sample is equal to the mean of the "without skill development" sample using the proxy variables for "motivation" or "ability." We make two dummy variables that represent motivation using the following questions in the SEEL; "Do you think it is natural for you to continue working?" and "Do you think it is unfair to give the elderly no job regardless of their skill or spirit?" Furthermore, we use the following variables; educational attainment, career status, the amount of retirement allowances and health status as the proxy index representing ability. We report the results of test for group mean-comparison in Table 2. We cannot reject a null hypothesis "the mean of the sample with skill development is equal to that of the sample without it" at the 10% significance level in these six variables. In the SEEL sample at least, we are unable to observe statistically

this issue in Section V.

any differences in motivation or ability between the elderly with skill development and those without skill development.

IV. Estimation Model

We examine how Japanese mandatory retirees are able to leave the non-working status by the Accelerated Failure Time (AFT) model, following Petersen (1986) and Lancaster (1990). The elderly person has been in a non-working status for T periods since he/she was retired at the mandatory age. T has some distribution in the population and t denotes a particular value of T. The cumulative distribution function of T is defined as $F(t)=\int_0^{\infty} f(s)ds = \Pr(T \le t)$, where $f(t)$ denotes probability density function. $\Pr(t \le T < t+\Delta t \mid T \ge t, \mathbf{X}(t+\Delta t))$, where $\mathbf{X}(t)$ represents observable vectors of the explanatory variables, is the probability of leaving the non-working status in the interval $[t, t+\Delta t)$ given survival up until time t.

The hazard function for T is defined as

$$\lambda(t \mid \mathbf{X}(t)) = \lim_{\Delta t \to 0} \frac{\Pr(t \le T < t+\Delta t \mid T \ge t, \mathbf{X}(t+\Delta t))}{\Delta t} \qquad (1)$$

Let $t_0 = 0$ and $t_0 < t_1 < \cdots < t_j < \cdots < t_k$. t_0 and t_k denote the time when the elderly person has been retired and the duration in the non-working status at the time when either he/she finds a new job or when right-censoring occurs, respectively. Assuming that $\mathbf{X}(t_j)$ is constant within an interval between t_{j-1} and t_j, the conditional probability of non-working beyond t_j given survival at t_{j-1} is $\Pr[T \ge t_j \mid T \ge t_{j-1}, \mathbf{X}(t_j)] = \exp\left[-\int_{t_{j-1}}^{t_j} \lambda(s \mid \mathbf{X}(t_j))ds\right]$. The density of T at $t = t_k$ is $f(t_k \mid \mathbf{X}(t_k)) = \lambda(t_k \mid \mathbf{X}(t_k))S(t_k \mid \mathbf{X}(t_k))$ and the survival

function is $S(t_k \mid \mathbf{X}(t_k)) = \exp\left[-\sum_{j=1}^{k}\int_{t_{j-1}}^{t_j}\lambda(s \mid \mathbf{X}(t_j))ds\right]$. In this way we can obtain the log likelihood function as follows:

$$\ln L = \sum_{i=1}^{n}\left\{d_i \ln\lambda(t_k \mid \mathbf{X}_i(t_k)) - \sum_{j=1}^{k}\int_{t_{j-1}}^{t_j}\lambda(s \mid \mathbf{X}_i(t_j))\right\} \qquad (2)$$

where $d_i = 1$ if the elderly i finds a job and $d_i = 0$ if right-censoring occurs.

It is important that we specify the type of distribution of T when using the parametric hazard model. Therefore, we estimate the Weibull, exponential, log-normal and log-logistic hazard functions respectively. Comparing the results from the Akaike information criterion (Akaike 1974) and figures on which we plot predicted cumulative hazard estimates against the Cox-Snell residuals, we select the log-normal hazard function model.

Assuming that T has a log-normal distribution, we have $\lambda(t \mid \mathbf{X}(t)) = \{\phi((\ln(t) - \mathbf{X}(t)\boldsymbol{\beta})/\sigma)/[1 - \Phi((\ln(t) - \mathbf{X}(t)\boldsymbol{\beta})/\sigma)]\}/\sigma t$, where $\boldsymbol{\beta}$ and σ denote a vector of coefficient and a scale parameter of duration dependence, respectively. We find a set of parameter estimates, say $\hat{\boldsymbol{\beta}}$ and $\hat{\sigma}$, such that equation (2) is maximized.

We include the dummy variable which represents whether he/she attended job training or skill development programs *before mandatory retirement from Company A* in $\mathbf{X}$. If training or self development impacts positively on the probability of finding a new job, skill development would encourage the elderly to be employed; that is, the expected sign of this variable is negative.

Moreover, we examine the effects of unemployment insurance (U.I.) benefits against the non-working duration. We make the variable which represents an exogenous predetermined receivable period of the U.I. benefits, in order to avoid an endogenous problem between the U.I. benefits and the labor supply decision for the elderly. This is a time-varying dummy variable; equal to 1 when the elderly is within the receivable periods, and equal to 0 when he/she is beyond the receivable periods. It satisfies a strictly exogenous condition Lancaster (1990) points out.

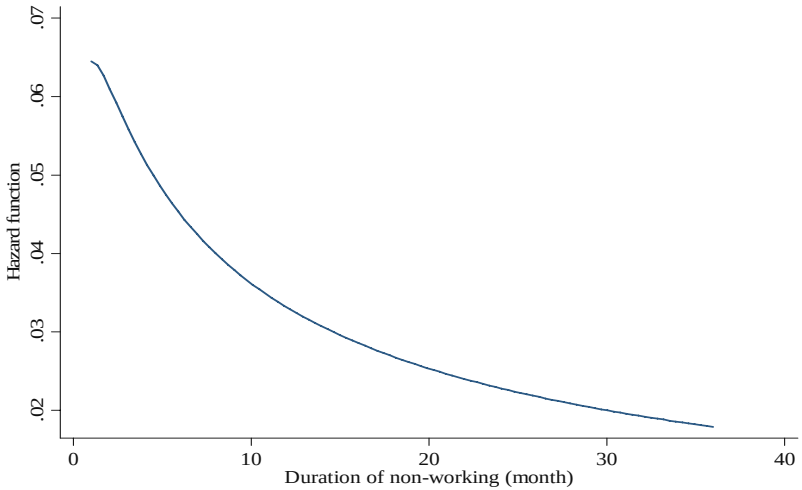
Note that we will have to control the effects of pension benefits on the probability of employment. When pension benefits reduce the elderly peoples' efforts in job searching, it would be hard for the elderly to seek new jobs and therefore the periods of non-working would increase. We control the full amount of public pension benefits, the amount of corporate pension benefits and private pension benefits and check whether pension benefits reduce the probability of employment.[5]

We use the variables related to household characteristics, such as whether the elderly person owned a house when he/she was retired at the mandatory age, whether or not there are any dependents (children), housing loan, and income other than from labor income and pension benefits, and personal characteristics in the estimation model. In addition, the SEEL asks the elderly "How much is the minimum income per month which you are willing to receive to live on?" We can regard the answer of this question as the reservation wage, as this answer includes labor income. If the elderly person's reservation wage is higher, he/she would continue to look for jobs paying higher wages and therefore the duration of non-working might be longer.

Yamada and Seike (2001) indicate the possibility that heterogeneity, such as differences in elderly peoples' working-style post mandatory retirement, would influence the degree of the effects of social security on the probability of employment. The estimation results could be changed by controlling this heterogeneity. We divide the SEEL sample into four subsamples using the following answers to the question "What did you think about your post-retirement plans?"; "I intend to work immediately" (Cluster A), "I intend not to work immediately" (Cluster B), "I would retire completely" (Cluster C), and "Elsewhere" (Cluster D). Then, we make three dummy variables to identify the four subsamples and estimate the model (i) using these dummy variables as additional explanatory variables, (ii) using the empirical model with unobservable heterogeneity (frailty), and (iii) using from the subsamples

[5] The SEEL asks the elderly respondents the *current* amount of public pension benefits. Therefore, we can observe not the full amount of public pension benefits but the reduced amount of pension benefits (*zaishoku rōrei nenkin*) for the elderly who have found a job and are working full-time, as the pension benefit is reduced if the pensioner is working full-time. We calculate the full amount of the pension benefit based on the method developed in Ogawa (1998) and Higuchi and Yamamoto (2002) using the reduced amount of pension benefits available from the SEEL.

Figure 3. Log-normal hazard distribution at mean value of all covariates



Source: *The SEEL.*

only Cluster A and Cluster B separately. When estimating the model using only subsamples; Cluster A, we may be able to regard the non-working duration as an unemployment duration, as the elderly who answer that they intend to work immediately are likely to maintain high motivation for seeking a job. The probability of leaving the non-working status is defined as $\lambda_l(t \mid \alpha_l, \mathbf{X}(t)) = \alpha_l \lambda_l(t \mid \mathbf{X}(t))$ in the estimation model with unobservable heterogeneity, where l and α_l correspond to each groups and the (unobserved) heterogeneity for the elderly varies by group, respectively. We assume α_l has gamma distribution within each groups.

V. Estimation Results

We discuss the distributional form of T before reporting the details of the estimation results. We choose log-normal distribution as the most appropriate distribution of T, as mentioned in Section IV. The parameter $\hat{\sigma}$ is statistically significant at the 1% significance level (Table 3), and the probability of leaving the non-working status is increasingly lower over time. This is shown by Figure 3, which implies that the longer the duration of non-working is, the lower the hazard ratio is, evaluating at the mean value of

characteristics of the elderly. That is, there is a negative duration dependence in elderly non-working people. Moreover, the parameter $\hat{\sigma}$, which is estimated using only the elderly who intend to work immediately after mandatory retirement (Cluster A), is also statistically significant at the 1% significance level; therefore, there is negative unemployment duration dependence.

Table 3 reports the estimation results for the log-normal hazard model. Column (1) shows the results without controlling for heterogeneity. The duration for the elderly with skill development is approximately 40 percent (1-exp(-0.50)) shorter than those without skill development at the 5% significance level, even controlling for the characteristics of Company A (e.g. firm size). In addition, there are few differences between the results in Column (1) and the results obtained by the estimation which we add the variable representing the motivation of the elderly, as mentioned in Table 2, to the explanatory variables in Column (1). Note, however, that the (unobserved) ability excluding the observable ability ("Univ. graduate," "Officer," "Retirement allowances," and "Health status"), which we have controlled, could be positively correlated with skill development. Supposing that the elderly with higher ability are likely to work more on skill development, the coefficient of the variable; "skill development" would be over-estimated as the disturbance includes the unobserved ability. Therefore, the impact of skill development on the non-working duration might be less than that shown in Column (1). On the other hand, if elderly people with lower ability are likely to try to further develop their skills, the impact of skill development on the non-working duration would be greater than the impact shown in Column (1); this is because the coefficient of that variable would be under-estimated.

There is also a large positive effect of U. I. benefits. The receivable periods of U. I. benefits significantly increase the non-working duration at the 1% significance level in Column (1). The sign of the public pension benefits variable, however, is positive but insignificant in Column (1). The elderly with less motivation for work would be retired completely from the labor market, while elderly Japanese who are looking for jobs would not reduce their job search efforts even if the amount of public pension benefits increase.

As for the other variables in Column (1), the non-working duration for the elderly without non-labor income is 36% (1-exp(-0.45)) less than that for the elderly with non-labor income at the 1% significance level. In addition, there is

Table 3. The effects on transitions out of the non-working status; estimation results

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
Skill development	-0.5008 **	-0.4254 *	-0.4563 †			
	(0.2231)	(0.2237)	(0.2993)			
S.D. opportunities				-0.3709 *	-0.4001 *	-0.3939 *
				(0.2072)	(0.2060)	(0.2363)
Unemployment insurance	2.3063 ***	2.3473 ***	2.3189 ***	2.4359 ***	2.4583 ***	4.1403 ***
	(0.4481)	(0.4450)	(0.5030)	(0.4622)	(0.4556)	(1.5037)
Public pension	0.0020	0.0033	0.0025	0.0010	0.0027	0.0080
	(0.0140)	(0.0136)	(0.0138)	(0.0143)	(0.0139)	(0.0149)
Corporate pension	-0.0037	-0.0043	-0.0038	-0.0002	-0.0004	-0.0019
	(0.0183)	(0.0180)	(0.0174)	(0.0192)	(0.0189)	(0.0189)
Private pension	0.0798	0.0856	0.0786	0.0800	0.0885	0.0916
	(0.0680)	(0.0661)	(0.0718)	(0.0710)	(0.0690)	(0.0795)
Male	-0.3420	-0.1398	-0.1976	-0.3317	-0.1148	-0.0019
	(0.4717)	(0.4714)	(0.4474)	(0.4850)	(0.4835)	(0.5024)
Health status	-0.2614	-0.2021	-0.2177	-0.2557	-0.1909	-0.1376
	(0.2677)	(0.2639)	(0.2565)	(0.2728)	(0.2678)	(0.2893)
Univ. graduate	-0.2837	-0.2766	-0.3080	-0.2782	-0.2722	-0.2399
	(0.2890)	(0.2838)	(0.2745)	(0.2951)	(0.2891)	(0.3001)
Three major metropolitan areas	-0.3437 *	-0.2540	-0.2801	-0.3583 *	-0.2672	-0.4248 **
	(0.1804)	(0.1795)	(0.1844)	(0.1837)	(0.1823)	(0.2134)
Spouse	0.0021	-0.0344	0.0568	-0.0450	-0.0893	-0.1899
	(0.4490)	(0.4345)	(0.4458)	(0.4589)	(0.4433)	(0.5088)
Dependents (children)	-0.0242	-0.0093	-0.0108	-0.0063	0.0108	-0.0029
	(0.1709)	(0.1696)	(0.1738)	(0.1740)	(0.1726)	(0.1966)
Householder before M. R.	0.1953	0.3176	0.3053	0.2412	0.3673	0.4623
	(0.3313)	(0.3210)	(0.3271)	(0.3387)	(0.3276)	(0.3783)
Housing loan	-0.1771	-0.0853	-0.0968	-0.1696	-0.0791	0.2493
	(0.2614)	(0.2583)	(0.3174)	(0.2679)	(0.2625)	(0.4097)
Retirement allowances	0.0002	0.0001	0.0002	0.0002	0.0001	0.0002
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Nonlabor income	-0.4515 ***	-0.4966 ***	-0.4875 ***	-0.4420 ***	-0.4900 ***	-0.3005
	(0.1677)	(0.1667)	(0.1825)	(0.1705)	(0.1689)	(0.2242)
Expected minimum wage	0.0019	0.0032	0.0026	0.0023	0.0039	0.0034
	(0.0087)	(0.0086)	(0.0091)	(0.0089)	(0.0088)	(0.0104)
Primary industry	0.8649	0.0797	0.5271	0.8414	0.0060	1.1261
	(1.6549)	(1.6797)	(1.6678)	(1.6868)	(1.6931)	(2.7513)
Secondary industry	-0.4995 **	-0.5453 **	-0.5362 **	-0.4690 **	-0.5136 **	-0.4840 **
	(0.2225)	(0.2187)	(0.2156)	(0.2264)	(0.2219)	(0.2383)
Firm size below 300 employees	-0.4387	-0.4339	-0.4230	-0.5102	-0.4997	-0.5780
	(0.4543)	(0.4491)	(0.4231)	(0.4644)	(0.4571)	(0.4759)
Firm size 300-999 employees	-0.5625	-0.5890	-0.5344	-0.6312	-0.6501	-0.5694
	(0.4284)	(0.4270)	(0.4112)	(0.4350)	(0.4314)	(0.4737)
Officer	-0.4582	-0.4319	-0.4650	-0.4982	-0.4704	-0.7532 **
	(0.3536)	(0.3419)	(0.3157)	(0.3598)	(0.3458)	(0.3366)

Table 3 (*Continued*)

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
Professions	-0.5565 **	-0.5587 **	-0.5252 *	-0.6012 **	-0.5958 **	-0.8255 **
	(0.2772)	(0.2796)	(0.2766)	(0.2835)	(0.2854)	(0.3212)
Manager	-0.1435	-0.2022	-0.1689	-0.1556	-0.2130	-0.3323
	(0.2871)	(0.2791)	(0.2795)	(0.2907)	(0.2814)	(0.3156)
Clerical job	-0.1296	-0.1659	-0.1303	-0.1241	-0.1582	-0.2330
	(0.3002)	(0.3021)	(0.3014)	(0.3052)	(0.3065)	(0.3339)
Intend to work immediately after M.R.		-1.0759 **			-1.1031 ***	
		(0.4219)			(0.4274)	
Intend not to work immediately after M.R.		-0.9089 **			-0.9264 **	
		(0.3579)			(0.3638)	
Intended to retire completely		1.1993 **			1.2809 **	
		(0.5847)			(0.6061)	
Constant	3.2438 ***	3.7200 ***	2.9382 ***	3.2114 ***	3.6917 ***	-1.5351
	(0.7515)	(0.7812)	(0.9292)	(0.7715)	(0.7990)	(2.5995)
$\hat{\sigma}$	1.7171 ***	1.6868 ***	1.7246 ***	1.7458 ***	1.7090 ***	0.9201 ***
	(0.1142)	(0.1099)	(0.1805)	(0.1158)	(0.1111)	(0.3571)
Likelihood-ratio test of β (except Consant)=0	52.41 ***	62.58 ***		50.37 ***	60.54 ***	
Log likelihood	-774.03	-759.17		-773.91	-758.40	
θ			0.17			2.48
Likelihood-ratio test of θ=0			13.90 ***			16.98 ***

Notes: [1] Standard errors, adjusted for clustering at individual level, are in parentheses.
[2] †, *, ** and *** indicate statistical significance at the 15%, 10%, 5% and 1% levels respectively.
[3] Number of times at risk is 13,798, Number of persons is 633.

no significant causal relationship that impacts the expected minimum income of the non-working duration. Even if the reservation wage of the elderly is higher, it seems that the probability of leaving the non-working status does not change.

Column (2) in Table 3 shows the estimation results with three additional dummy variables, in order to consider the heterogeneity such as differences in work-style of the elderly post mandatory retirement. The non-working duration for people who intend "not to work immediately after mandatory retirement" is greater than the non-working duration for the elderly who intend "to work immediately after mandatory retirement. However, even when we control this heterogeneity, we can observe that statistically the non-working duration for the elderly with skill development is less than that for the elderly without skill development. Moreover, in Column (2) the receivable periods of U.I. benefits

also significantly extend the non-working duration at the 1% significance level.

Column (3) shows the estimation results with controlling other unobserved heterogeneity. Skill development significantly reduces the non-working duration by 37% (1-exp(-0.46)) at the 15% significance level. The Null hypothesis "there is not the heterogeneity (the variability of the frailty across group; $\theta = 0$)" is rejected at the 1% significance level. Skill development of the elderly for employment after mandatory retirement could shorten their non-working duration even if this heterogeneity includes their unobserved motivation or ability.

Furthermore, the SEEL asks the elderly whether the Company A had provided opportunities before mandatory retirement for skill development which would be useful for work in other firms. Using this information, we can make an exogenous variable in order to check the effect of skill development regardless of the self selection problem. Columns (4)-(6) in Table 3 report the estimation results using the "skill development (S.D.) opportunities" variable as the explanatory variable. The non-working duration for the elderly with S.D.opportunities is shorter than that for the elderly without S.D.opportunities. Controlling the unobserved heterogeneity, we can observe that skill development opportunities reduce the non-working duration by approximately 30% (1-exp(-0.39)) at the 10 % significance level (Column [6]).

Finally, we estimate the effects of skill development using the sample group Cluster A (intend to work immediately) and Cluster B (intend *not* to work immediately) separately. In the case of using only Cluster A, both the coefficients of "skill development" and that of "S.D. opportunities" are significantly negative at the 1% significance level. When we use only the samples whose non-work durations are longer relative to that of Cluster A, that is, Cluster B, both "skill development" and "S.D.opportunities" are negative but insignificant. It is possible that the obsolescence of skills, which results in a prolonged non-working duration, would weaken the effects of skill development in the probability of leaving the non-working status.

Thus, there is a negative duration dependence for the non-working elderly in Japan. However, skill development lessens the probability of leaving the non-working status for the elderly when controlling heterogeneity. Moreover, public unemployment insurance benefits prolong the non-working duration. In particular, the wages of the elderly who are reemployed after mandatory

retirement tend to be lower than the amount of U.I. benefits in Japan. Therefore, the elderly may have more incentives to receive these benefits for as long as possible.

VI. Discussion

If only the prolonged non-work duration *per se* causes difficulties in being reemployed after mandatory retirement, the mandatory retiree who desires to work should be able to leave the non-working status as soon as possible. The estimation results point out that there is a negative duration dependence, but skill development such as job training or self development shortens the periods of non-working for the elderly when controlling personal characteristics and heterogeneity.

We can classify the types of skill development for the elderly into (i) complementary skills to the existing job of the elderly, and (ii) alternative skills. The decision as to whether or not the elderly develop their occupational skills may depend on whether they want to develop complementary skills or alternative skills to their existing job. For example, the elderly who desire to find a similar-type job as their existing one are unlikely to attend a job training program or skill development program, because they don't think that they need to further develop their occupational skills. Therefore, we examine the relationship between skill development and a change in the type of occupation before and after mandatory retirement, using the information about the type of jobs before and after mandatory retirement for the elderly who have been employed after mandatory retirement in the SEEL sample. We make a dummy variable; equal to 1 if the elderly have found a similar job to their existing one, and equal to 0 if they have found a dissimilar job to their existing one. Row (1) in Table 2 shows the results of the group mean-comparison test for this dummy variable. The sample mean of "without skill development" is 0.481, while the sample mean of "with skill development" is 0.344. However, we cannot reject the null hypothesis, "the mean of sample with skill development is equal to that of sample without it," at the 10% significance level.

So, what kind of skills should elderly Japanese develop in order to find a new job after mandatory retirement? The 2006 Survey of Skill Development and Reemployment for Elderly Japanese [*Kōnenreisha no shokugyō kunren to sai-shūshoku ni kansuru ankēto chōsa*] (the SSDR), conducted by Associate

Professor Miki Kohara of Osaka University, asks public offices across the country (e.g. the Public Employment Security Office) the details of training and self development programs for elderly Japanese.[6]

The SSDR reports that the elderly tend to not only study for themselves by using textbooks or broadcasting, but also participate in workshops on writing curriculum vitae that can be utilized for job searching or on counseling on planning for their work life post mandatory retirement. Moreover, some people attend job training programs provided by public vocational training facilities in order to obtain certification such as a boiler operator and so on. In addition, approximately 60% of the SSDR respondents reply that the probability of being employed with these skill development programs is higher than that without these skill development programs.

Note that, however, it is important that the elderly look at their own previous career and develop skills which satisfy the needs of the labor market. The elderly with skill development which improves their previous expertise or with training related to jobs which are in relatively high demand can find a new job in a short time. For example, in Osaka prefecture 85 % of the elderly attending public job training courses in building management, which are relatively much in demand, have found employment each year. The elderly Japanese who desire to work after mandatory retirement should make plans as soon as possible for their work style post mandatory retirement.

VII. Conclusion

This paper examined (i) whether the unemployment duration for elderly Japanese was longer or not using macro data, (ii) whether there was a negative (unemployment) duration dependence for the elderly, (iii) whether skill development, such as job training or self-development programs, increased the probability of leaving the non-working status, and (iv) whether unemployment insurance affected the non-working duration, using cross-sectional micro data sets for elderly Japanese.

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[6] A questionnaire was sent out to 731 establishments which contained the Prefectural Vocational Ability Development Association, and the Employment and Human Resources Development Organization Prefectural Center, in addition to the Public Employment Security Office across the country. The number of responses obtained was 367.

Using the RSLFS and the MRLFS, we clarified that (i) there was a prolonged duration of unemployment among males aged 55-64 in the 90s and does not become shorter in the 2000s. The ratio of long-term unemployment for the mandatory retirees was around 20% in the 90s and the 2000s.

In addition, we used the SEEL's large micro data sets and focused on the exogenous event of mandatory retirement, which enabled us to control an unobserved heterogeneity that depends on the reason for leaving an existing job. We further revealed that (ii) skill development shortened the non-working duration for the elderly, although (iii) there was a negative duration dependence in the non-working elderly. Furthermore, we clarified that (iv) unemployment insurance benefits prolonged the periods of non-working for the elderly.

The labor force participation rate among elderly Japanese is very high. Many older people, however, are still out of work. The mechanisms of how to develop occupational skills and the system of unemployment insurance play a key role in whether elderly Japanese are reemployed as early as possible.

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Labor-Management Communication and Labor Condition Determination in Small-and-Medium-Sized Enterprises*

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I. Purpose and Method of Study

We conducted a questionnaire survey to provide basic facts for recent discussion on the system for determining labor conditions by identifying how labor-management communication and labor conditions are developed in small-and-medium-sized/leading medium-sized enterprises (hereinafter referred to as SMEs). The survey titled, "A Survey on Dialog on Labor Conditions between Labor and Management at SMEs" was mailed to companies with less than 1,000 regular employees. The survey was conducted from July 12, 2006 to September 11, 2006, and was sent to 12,000 companies. The number of valid response was 2,440, and the response rate was 20.3%. We asked company presidents to respond, but in certain companies responses were given by board members and/or supervisors. The ratio of responses given by presidents was 45.4%.

II. Reality of Labor-Management Communication and Labor Condition Determination—In Different Sized Enterprises

First, we will look at some basic facts identified by the survey with simple tabulation and for different sized enterprises (1-9, 10-29, 30-49, 50-99, 100-299, and 300 or more employees). We chose this method in order to include firms with less than 30 employees, as they had rarely been included in this type of survey in the past, and to identify characteristics between different sized SMEs.

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* This paper is a summary of JILPT Research Report No. 90, Labor-Management Communication and Labor Condition Determination in Small-and-Medium-Sized Enterprises. Therefore, it includes the research results of a number of authors, but the author is responsible for any errors in the current paper. Please refer to the report for details, http://www.jil.go.jp/institute/reports/2007/090.htm.

1. Presidents' Responses

In regards to employment and labor conditions, 65.9% of presidents responded that "it is irrelevant whether a candidate is a new graduate or mid-career worker" when asked about their recruiting strategies. Larger companies showed a higher ratio of preference toward hiring new graduates. As for lifetime employment,[1] 37.0% indicated that they "prefer to continue to maintain lifetime employment in principle," 34.8% responded that "partial modification of lifetime employment is inevitable," 11.0% responded that "lifetime employment should undergo fundamental revision," and 15.0% said "we do not have a lifetime employment system and intend to maintain the status quo" (see Figure 1). The ratio of firms essentially supporting lifetime employment, including those supporting partial modification was upwards of 71.8%. The larger the size of the company was, the higher the ratio was.

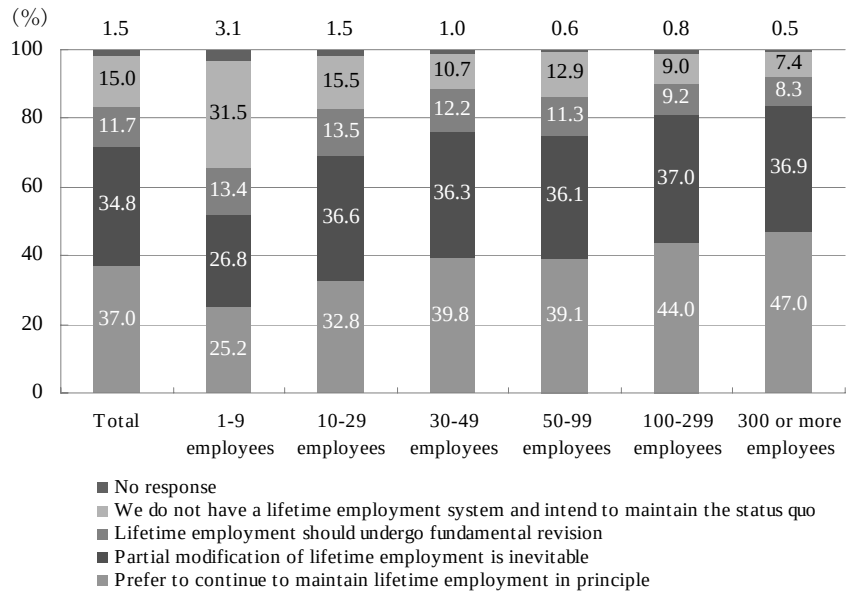
On the other hand, when it came to an age-based remuneration system, more than half of the companies (58.4%) answered that they "would like to make slight modifications based on an employee's performance and capabilities." This response was followed by "do not and will never have an age-based remuneration system" (24.1%), "the current system does not reflect the employee's performance and capabilities and thus needs to undergo fundamental revision" (14.1%), and "would like to continue to maintain an age-based remuneration system in principle" (2.7%).

2. Base Salary Revisions

Let us look at revisions to base salary and lump-sum payments. In 2006, 46% of the companies indicated that they had "increased base salaries," and 44.5% responded that base salaries were "similar to the previous year." Only 2.3% answered that they had "decreased base salaries." When asked if they had considered the results of Toyota Motors' labor and management negotiations

[1] Recently, other than "lifetime employment" (meaning a lifetime commitment or permanent employment), terminology including "long-term employment system," "long-term security employment," "long-term employment practice," and "long-term employment" is also used. Since "lifetime employment" is the oldest term of the above and it is the best description of Japanese employment practices, and since we would like to draw comparisons to the survey on large companies with 1,000 or more employees conducted in 1999, we decided to use this term in the current survey. For details, please refer to the footnotes for Section 1, Chapter 2, Part II in The Japan Institute for Labour Policy and Training (2007b).

Figure 1. Attitude towards lifetime employment



at the time of their revision, 63.7% said they "did not consider it at all," 24.3% said they "did not consider it much," indicating that altogether 88.1% of the SMEs did not specifically refer to the Toyota case when adjusting base salaries. Only 7.8% indicated they had considered the Toyota example. As for the factors considered in the determination of base salary revisions, "the company's business performance" had the highest ratio at 74.7%, followed by "securement and stabilization of the labor force" (36.11%), "maintaining employment" (30.3%), "the going rate" (27.6%), and "employees' wishes" (10.4%). The larger the company, the more often they cited "securement and stabilization of the labor force," "maintaining employment," and "employees' wishes." As for the revision of lump-sum payments, 27.0% indicated "increased lump-sum payments (bonuses)," 44.5% said it was "similar to the previous year," and 11.7% said it "decreased." Larger companies had higher response ratios for "increased the payment." What is remarkable here is that the ratio of companies that increased base salaries (46%) was almost double the ratio of those that increased lump-sum payments (27.0%).

As for the method of asking employees' opinions on adjusting base salaries, the ratio of "meetings with managers" was 24.7%, "business and performance

Figure 2. Method of asking employees' opinions on base salary revisions

review meetings with employees" was 12.3%, "meeting with labor unions" was 10.5%, "meeting with supervisors" was 4.9%, "meeting with labor management consultation organizations" was 4.1%, "meeting with employee groups such as employee social groups" was 3.9%, and "non-business related meetings with employees" was 3.1% (see Figure 2). The ratio of companies that "do not specifically ask employees' opinions" on revisions was 35.9%. This response had higher ratios among smaller companies.

3. Working Regulations

In the Japanese Labor Standards Act, if companies with 10 or more employees create or modify their working regulations, it is stipulated that they must submit the regulations to the Labor Standards Inspection Office. In doing so, they must include employee feedback. When asked about changes in working regulations since 1990, 73.6% of the companies responded that they had "changed the regulations," 20.0% responded that they "did not change the regulations" and 5.0% answered "there are no working regulations." While getting feedback from employees is stipulated in the law when changing working regulations, 41.4% answered that "management created the

regulations based on employees' day-to-day opinions," followed by they were "created by employees who are supposedly employee representatives" (17.3%), "we do not have written feedback from employees" (15.9%), the regulations were "created by employee representatives who were selected via election or with the confidence of employees" (10.8%), and they were "created by a labor union organized by a majority of employees (majority union)" (7.6%).

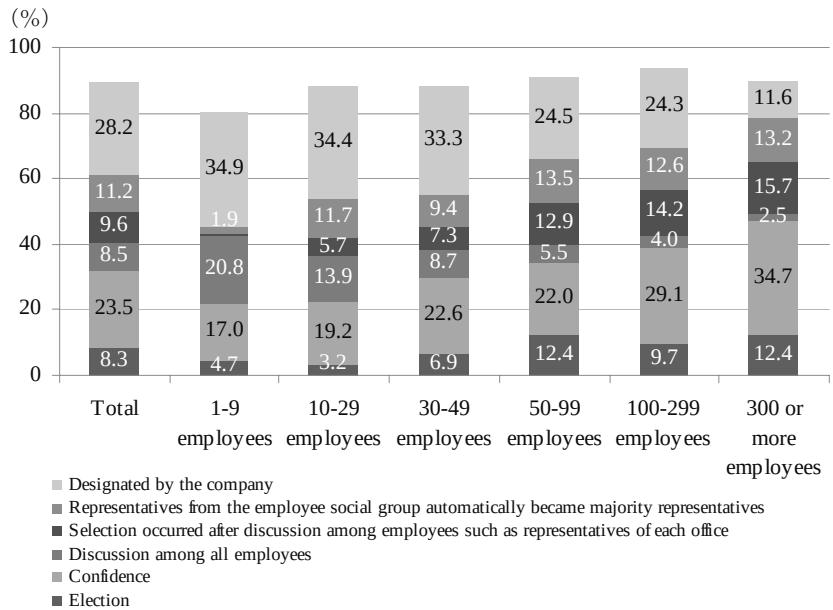
4. 36 Agreement

When companies have their employees work overtime or on holidays, they need to conclude a written agreement (36 Agreement) with a majority union or with representatives of a majority of employees, and submit the agreement to the Labor Standards Inspection Office. In asking who the employee representatives are in the conclusion of a 36 Agreement, 60.1% responded "representatives of a majority of employees (majority representative)," and 11.4% responded "a labor union organaized by a majority of employees (majority union)," while 22.4% answered that "they don't have a 36 Agreement." On the selection method of majority representatives in concluding a 36 Agreement, the ratio of those indicating it was "designated by the company" was 28.2%, followed by "confidence" (23.5%), "representatives from the employee social group automatically became majority representatives" (11.2%), and "selection occurred after discussion among employees such as representatives of each office" (9.6%). Smaller companies showed a higher ratio of the response, "designated by management" (see Figure 3).

5. Dealing with Management Crises

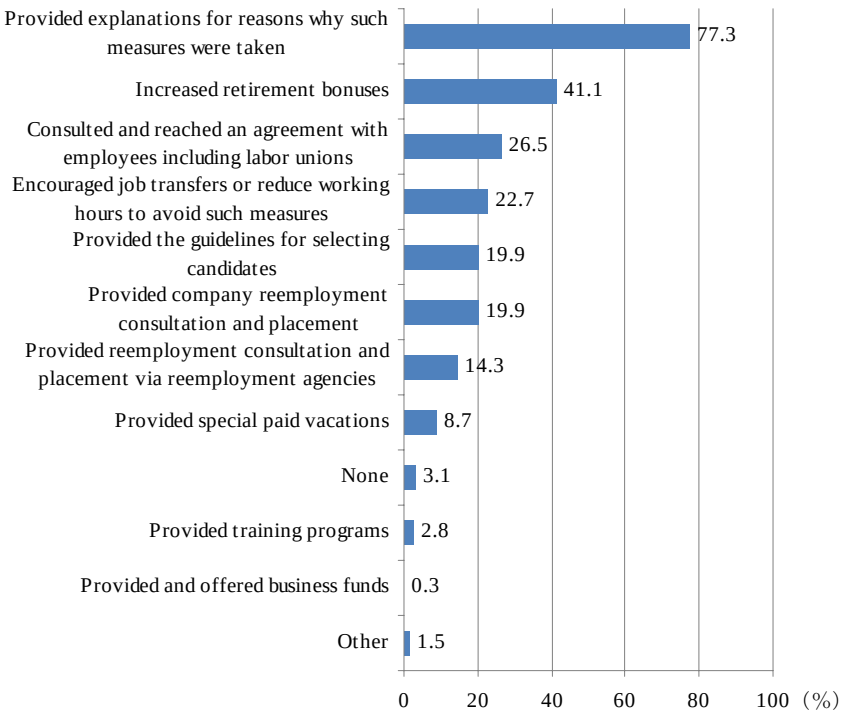
Among the responding companies, 53.1% indicated that since 1990 they had "experienced a management crisis" caused by waning business performance, and 45.6% answered they "have not experienced a management crisis." Although more than half of the companies faced management crises, larger companies had fewer such experiences. The most common employment adjustment policy taken in the face of a management crisis was "limiting new recruitment" (34.9%), followed by "limiting wage increases" (34.4%), "reducing lump-sum payments" (32.4%), "lowering salaries" (27.1%), "reducing/closing unprofitable divisions or closing offices" (24.9%), and "limiting overtime" (20.5%).

Figure 3. Selection method of majority representatives when concluding a 36 Agreement



As for employment adjustment policies that reduce the workforce directly, 15.3% of companies indicated they carried out "dismissal," followed by those who "solicited voluntary retirement" (13.4%) and "encouraged retirement through a voluntary early retirement program" (6.4%). The ratio for the response, "dismissal" was lower among larger companies, whereas the ratios for the responses, "solicited voluntary retirement" and "encouraged retirement through a voluntary early retirement program" tended to be high among these firms. As for measures taken at the time of such personnel reductions, 77.3% of respondents indicated that they "provided explanations for reasons why such measures were taken," followed by those who "increased retirement bonuses" (41.1%), "consulted and reached an agreement with employees including labor unions" (26.5%), "encouraged job transfers or reduced working hours to avoid such measures" (22.7%), "provided the guidelines for selecting candidates" (19.9%), and "provided company reemployment consultation and placement" (19.9%) (See Figure 4). The ratio of regular employees who left their companies due to personnel reduction totaled 18.6%

Figure 4. Measures taken in conjunction with dismissal, voluntary retirement, and early retirement



of all regular employees, with the ratio of regular employees leaving their companies tending to be higher among smaller companies.

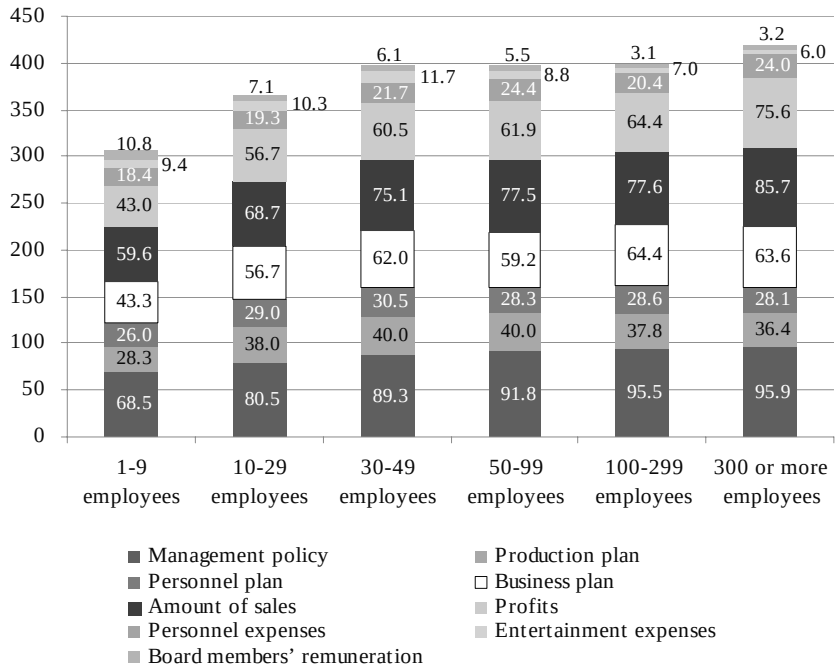
6. Labor-Management Communication

Regarding management information provided by companies to their general employees, as an indicator of labor-management communication, “management policy” enjoyed the highest ratio at 85.7%, followed by “amount of sales” (72.6%), “profits” (58.8%), “business plan” (57.5%), “production plan” (36.7%), “personnel plan” (28.2%), “personnel expenses” (21.2%), “entertainment expenses” (9.1%), and “remuneration of board members such as presidents” (6.2%). Larger firms tended to have higher ratios regarding the provision of such information. More specifically, there are generally no significant differences in the degrees of disclosing management information

among companies with 30-49, 50-99, and 100-299 employees. The total number of ratios of companies indicating that they disclosed each item of management information were 396.9, 397.4, and 398.8, respectively, with the ratios rising by roughly one point as the company size grew larger. There were no other significant differences. Companies with 300-999 employees had the highest ratio of disclosing management information; the total for all of their items was 418.5, which was approximately 20 points higher than companies with 30-299 employees. This discrepancy is caused by the fact that companies with 300-999 employees show a 10 point lead in the disclosure of both sales and profits. On the other hand, companies with 1-9 and 10-29 employees differ significantly from larger companies. In companies with 10-29 employees, the total ratio for all the items was 366.3, which was approximately 30 points lower than that of companies with 30-49 employees. In companies with 1-9 employees, the total ratio for all the items was 307.3, which was approximately 60 points lower than that of companies with 10-29 employees. Overall, small companies with 29 or less employees have a lower ratio of providing of management information to general employees, which raises the concern about whether or not such companies could obtain sufficient cooperation from their general employees regarding business management. On the other hand, compared to larger firms, companies with 29 or less and 30-49 employees have a higher ratio of disclosing management information regarding board members' remuneration or entertainment expenses, both of which have the lowest disclosure ratio (see Figure 5). This may indicate that the discrepancy in the ratio of management information disclosure between different sized firms may be due to an insufficient communication system or lack of awareness of such a need, and not due to a preference for withholding management information from general employees.

Employee groups such as "employee social groups" are one of employees' leaders in labor-management communication. Approximately half of the respondents (49.1%) indicated they "have such groups." As regards the content of their activities, "social activities such as recreation" totaled 83.0%, followed by "mutual aid activities including congratulatory or condolence payments or loans" (61.2%), "discussing labor conditions such as wage revision, working hours, and benefit packages with management" (22.8%), "handling employees' complaints" (16.0%), and "discussing production plans and management policies with management" (10.2%). Larger companies had a higher response

Figure 5. Ratio of disclosing management information by company size



ratio for "discussing labor condition such as wage revision, working hours, and benefit packages with management."

We asked the respondents their opinions on labor unions. As for "labor unions are useful for understanding general employees' wishes and requests," 50.9% gave positive responses ("I agree" and "I somewhat agree"), exceeding negative responses ("I do not agree" and "I somewhat disagree"), which totaled 37.5%. With regard to "labor unions are useful for communicating management's wishes to general employees," 46.3% responded positively and 41.7% responded negatively, both of which were very similar ratios. On the "necessity of unions," however, 62.0% responded negatively, largely exceeding the ratio of positive responses (27.7%). This may be partially due to a company's opinion that "we can understand general employees' wishes and requests without a labor union" (positive responses: 75.8%). On the other hand, larger firms had higher ratios of recognizing a labor union's active role.

As for the number of the responding companies with labor unions, 13.2%

indicated having "one union," 1.6% had "two or more unions," and 0.5% had "no union, but some employees are members of amalgamated unions," totaling only 15.3%; 80.6% of companies responded that they "do not currently have unions and have not had them in the past." The average "ratio of labor union members within the company," including part time employees was 65.5%.

7. Personnel and Labor Management Systems and Difficulties in Management

With respect to personnel and labor management systems introduced by SMEs, a "retirement bonus system" had the highest ratio (80.3%), followed by a "bonus system" (73.3%), "wage table" (67.4%), "employment extension/ reemployment system" (58.2%), "regular salary increase system" (49.2%), "qualification system" (42.6%), "performance review system" (37.6%), "disclosing the performance review outcome to the reviewed employee" (25.8%), "training for performance reviewers"(18.7%), and "complaint handling" (14.6%). Larger firms tended to have higher ratios of introducing such systems, regardless of the type of system. As for wage gaps due to performance review systems in companies that introduced such systems, with the standard annual salary of mid-career employees set as 100, the average highest salary was 123.1, and the average lowest was 81.4, a discrepancy of approximately 20% both above and below the standard salary of mid-career employees.

8. Management of Nonpermanent Employees

Only 17.2% of companies indicated that they "increased" the initial hourly wages of part time employees in 2006, while an insignificant 1.4% "decreased" it. Meanwhile, 56.1% indicated that their wages were kept "similar to the previous year." As regards the method of revising the initial hourly wages, "only the management decided" had the highest ratio (66.9%), followed by "decided after discussing it with the employees"(19.1%).

III. Types of Employee Groups and their Function in SMEs

In Japan, there are various employee groups in companies besides labor unions. We will examine their functions and differences from labor unions.

First, we divided employee initiative groups into four based on the

existence/non-existence of a labor union and employee group, and their characteristics: (i) "labor union type" (14.9%) with established labor union, (ii) "social group type" (32.3%), in which they exclusively carry out social activities such as recreation, mutual assistance activities including congratulatory or condolence payments or loans, and handling employees' complaints, (iii) "discussion group type" (8.8%), in which they discuss labor conditions with management, i.e., wage revision, work hours, holidays, vacations, benefit package, production plan, and management policies, and (iv) "non-organization type" (44.1%), without a union or employee group. The results of the analysis based on the four groups are as follows:

First, as for the function of information communication, especially in terms of quantity (i.e. the amount of information), every indicator showed the highest score in discussion group *type*, followed by labor union type, social group type, and non-organization type in that order. The discussion group type conveyed more information to general employees than the labor union type.

Second, regarding the function of collecting opinions, we could see the same characteristics both in basic salary revisions and lump-sum payment revisions. Quantitatively, the discussion group type had the highest score, followed by the labor union type and social group type. The non-organization type had the lowest score.

Third, when looking at the performance of these employee initiative groups in terms of (i) communication, (ii) employment, and (iii) business performance, the discussion group type characteristically had a higher score than other types in total and individual evaluation in communication. As for performance on employment, based on the indicator for introduction of a human resource management system, the labor union type had the highest score, followed by the discussion group type, social group type, and non-organization type which had the lowest score. It indicated that the labor union type and discussion group type had introduced various systems. This superior performance of the labor union type can also be observed in the employment indicator, and the performances showed by indicators for the ratio of voluntary retirement, average years of service of regular employees, and wage increases were also better than those of other types. This illustrates that companies with labor unions have a higher impact on employment.

In terms of the effect of employee initiative groups' negotiations, firstly, having a labor union did lead to wage increases, whereas neither the discussion

group type nor social group type showed any remarkable influence. Labor unions had a greater influence on wage negotiations than employee groups. Secondly, both labor unions and employee groups proved effective in reducing the turnover ratio. Thirdly, it was confirmed that the longer it took for a new graduate to become a full-fledged employee, the lower the turnover ratio. Therefore, promoting internalization by developing skills over the long term could result in a lower turnover ratio.

IV. Human Resource Management and Labor Condition Determination in SMEs

1. Lifetime Employment and Human Resource Management in SMEs

Lifetime employment is thought to have the closest bearing on human resource management and labor condition determination in Japan. We divided companies' opinions on lifetime employment into four key types and conducted basic cross tabulation. The four types are: (i) prefer to continue to maintain lifetime employment in principle ("maintaining type," 37%), (ii) partial modification of lifetime employment is inevitable ("modification type," 32.8%), (iii) lifetime employment should undergo fundamental revision ("revision type," 11.7%), and (iv) we do not have a lifetime employment system and intend to maintain the status quo ("negative type," 15%).

As a result of the cross tabulation, firstly, we found out that companies that thought highly of lifetime employment essentially had higher ratios of supporting an age-based remuneration system, and thus had higher ratios of increasing basic wages in 2006.

Secondly, as for labor-management communication, companies that thought highly of lifetime employment seemed to have higher ratios of creating management policies that incorporated the wishes and requests of general employees. Degrees of labor-management communication and employees' cooperation in business management tended to be greater in companies that were more in favor of lifetime employment. Similarly, those companies had a more positive opinion on labor unions and on the need to have labor unions.

Thirdly, when business performance of SMEs declined, the lifetime-employment-oriented companies made more efforts to avoid dismissal of their employees. Those companies generally have experienced fewer

management crises due to declining performance since 1990, but they were more willing to conduct various employment adjustments. They seemed to try to alleviate any effect on their employees. The lifetime-employment-oriented companies had lower ratios of employees who had retired due to downsizing by using measures that encouraged retirement, including dismissal, voluntary retirement, and preferential early retirement program, and eventually secured more jobs.

Fourthly, the more in favor of lifetime employment the companies were, the more positively they introduced the human resource management systems such as the regular wage increase system. There were significant differences between “maintaining type” and “negative type” on introduction of the regular wage increase system, bonus/retirement bonus system, and performance review system.

Fifthly, the lifetime-employment-oriented companies currently have more favorable business performance. As with the current profits in and after 1990, the business performance in the “revision type” companies was much worse than that in the “negative type” companies.

2. Introduction of Systems for Determining Labor Conditions and Their Roles and Functions in SMEs

We examined how systems and schemes that determine labor conditions are introduced, by company size, by case with/without employee groups, and by type of relations companies have with other companies regarding their capital. Next, in terms of existence/non-existence of systems and schemes and determination of labor conditions, we examined the relation between existence/non-existence of a regular wage increase system and actual state of wage revision as well as the relation between existence/non-existence of a bonus system and actual state of lump-sum payments. As a result, the companies with the regular wage increase system were more likely to raise the salary and likewise, the companies with the bonus system tended to provide lump-sum payment. Without these systems, many companies were not willing to offer pay rise or lump-sum payment even if their business performance was favorable. From these two examples above, we can see that existence of systems and schemes leads to improvement of the working environment enhancing transparency, fairness and stability in the determination of labor conditions.

We also saw the relationship between the introduction of systems and schemes and employees' morale because we assumed, as a result of the above, that they were probably related. Results showed that the companies that regarded their employees' morale to be high had more willingly introduced various systems including systems for performance review in particular, than those that regarded their employees' morale to be low. Similarly, looking at the relation with the turnover ratio, we found that the companies with a good retention rate of their employees had more positively introduced the various systems and schemes compared with the companies with low retention rate.

3. Factors in Wage Revisions at SMEs

In 2006, we divided the companies into 6 groups based on base salary and bonus revision data. The 6 groups are: (i) increased both base salaries and bonuses (24.5%), (ii) increased base salaries and maintained bonuses at about the same level as the previous year (24.1%), (iii) increased base salaries and decreased bonuses (5.1%), (iv) maintained base salaries at about the same level as the previous year and increased bonuses (8.8%), (v) maintained base salaries and bonuses at about the same level as in the previous year (28.8%), and (vi) maintained base salaries at about the same level as in the previous year and decreased bonuses (8.4%).

We examined what factors determined their respective decisions. Particularly, we focused our analysis on (ii) and (iv) to compare whether or not the firms had increased base salaries or bonuses. As a result, we discovered that these measures were conducted in order to secure the labor force in the former case, and to benefit employees with good performance in the latter case. Companies with positive policies towards age-based remuneration systems tended to allocate their profits to base salaries, and those with negative policies tended to do so to bonuses.

Furthermore, 40.5% of companies with failing business performance increased either base salaries or bonuses. What were the causes of the increase? They cited "hiring regular employees (new graduates)," "hiring regular employees (mid career recruitment)," and "low retention rate" as human resource management issues. Thus, it is assumed that they increased base salaries to resolve the issue of low retention rate, and to facilitate a smooth hiring of regular employees. The companies may also have considered employees' wishes or a labor union's requests for pay rise. Then, what made

some companies to increase bonuses in spite of bad business performance? In case (iv), a relatively large percentage of the companies, in which the presidents were more likely to be placed by parent companies, cited the parents companies' policy as the reason for the wage revision. That is to say, some companies increased the bonuses despite the poor performance considering their relationship with the parents companies.

V. Cutbacks and Labor-Management Relations in SMEs

We analyzed how labor unions and employee groups had influence on the selection and determination of employment adjustment policies and on the measures adopted for such selection and determination. The results clearly indicated that labor unions had superiority in this regard and employee groups' roles were limited. Employee groups and labor unions differ essentially in whether or not they can protect workers' interests in collective bargaining in the context of right of dispute. The analysis results indicate that they have essential differences in selecting dismissal, voluntary retirement, or early retirement in restructuring, and as regards the measures adopted at the time of restructuring. Therefore, it is not feasible to consider employee groups as de facto labor unions.

VI. Employee Participation in Determining Labor Conditions as Required by Law

In Japan, the ratio of labor unions has been steadily decreasing, and in 2007 fell to 18.1%. Under these circumstances, what is important is how to gather workers' opinions and have them reflected in management. We consider this question in this section. To state the conclusion first, it is necessary to legislate an employee representative system by evoking basic constitutional rules and paying attention to adjustments in labor union function. In doing so, it is also important to construct feasible systems in SMEs. If systems are not actually used, despite being stipulated, then the system will have hollowing effect. This has also happened in other countries, and it should not be ignored. It goes without saying that the system should not impaire labor conditions within SMEs. Depending on the content of rule, it is important to increase the effectiveness by considering system application and content design for each

company size.

In the survey, we investigated changes in working regulations, and the true picture of employee representatives and their role in concluding a 36 Agreement, and further examined them against the provisions of the Labor Standards Act. The results indicated that only 20% of the companies clearly complied with Paragraph 1, Article 90 of the Labor Standards Act[2] in their method of creating an employees' opinion statement when working regulations were modified. On the other hand, the most common response regarding the selection method of employee representative in a 36 Agreement was "designation by the company." This means that there are many SMEs that have not materialized the group agreement and participation stipulated in the Labor Standards Act. This tendency is stronger in companies with fewer regular employees.

In both cases illustrated above, companies with labor unions implemented the laws more appropriately than did those without unions. Of course, the existence of a labor union does not necessarily guarantee adherence to the laws. As for methods of creating the opinion statement when changing working regulations, for example, less than half of companies with labor unions clearly complied with Paragraph 1, Article 90 of the Labor Standards Act, and not a few companies failed to create such a statement at all.

Paragraph 1, Article 90 of the Labor Standards Act only obligates employers to ask the opinions of their employees, and does not require them to consult with workers in this regard. Regarding adjustments to any discrepancies in the opinions of labor and management, "there was no difference with employees' opinions" had the highest ratio of just under 40%. On the other hand, "did not make specific adjustments" came to 20%, which is a significant figure. As far as the initiative for adjustment of labor and management opinions was concerned, the management took the lead in many cases, which may cast some doubt on whether or not the management really satisfied the employees in changing working regulations. In fact, however, when the management was asked regarding how much degree the employees

[2] "In drawing up or changing the rules of employment, the employer shall ask the opinion of either a labor union organized by a majority of the workers at the workplace concerned (in the case that such labor union is organized), or a person representing a majority of the workers (in the case that such labor union is not organized)."

were assumed to be satisfied with changing working regulations, the respose showed a high self-evaluation of the management for the employees' satisfactions at 83.3% on average.

Companies, with lower averages of this satisfaction level, that "did not create a statement at all" did not necessarily tend to recognize the recruitment and stabilization of employees or labor-management communication as issues, despite high ratios of voluntary retirement of their employees. It is difficult to motivate this type of employer to voluntarily listen to employees' collective opinions and have them reflected on labor conditions. On the other hand, if companies with majority unions "created the statement based on their employees' day-to-day opinions" because they simply did not know about Paragraph 1, Article 90 of Labor Standards Act, the situation could be improved by educating them about the regulation.

VII. Conclusion: Exploring Labor-Management Communication and Employee Representative System in SMEs

In this section, we will discuss political implications concerning the issue based on above the chapters 1 through 6 and Chapter 3[3] in JILPT (2007a). An employee representative system ("labor and management committee system" in the original text) was included in a study group report for drafting a labor contract bill,[4] although it was omitted in the actual bill, which in the ordinary diet session in 2007 was carried over to the next session. Employee representative system is an important topic in considering future labor administration.

The current survey is to understand the true picture of labor-management communication and determination of labor condition in SMEs, and not to examine the introduction of an employee representative system. Therefore, full-fledged political implications for the employee representative system cannot be drawn from the current survey. We would like to present the reality of labor-management communication and determination of labor conditions as a future reference for the employee representative system, and aim to provide

[3] The chapter is a part written on the results of A Survey on Dialog on Labor Conditions between Labor and Management at SMEs, which was used in the previous sections of this paper.

[4] Ministry of Health, Labour and Welfare (2005).

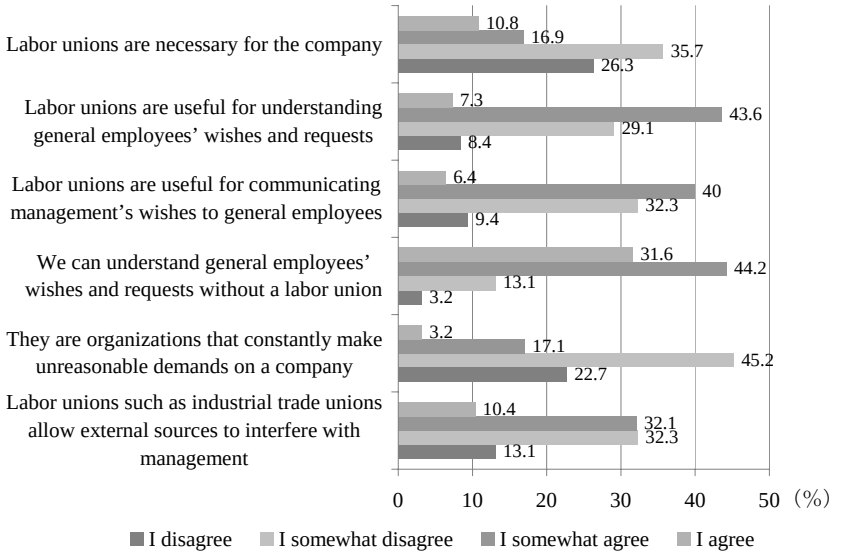
materials for examining such systems.

1. Reality and Challenges of Labor-Management Communication

Let us look at SMEs' opinions on labor-management communication. Approximately 70% responded positively that "general employees' opinions and voices are well communicated" (69.2%), and "management's policies are well communicated to general employees" (66.2%). Approximately 60% responded that "we are prepared for communication with employees" (61.1%). This means that SMEs' labor-management communication is generally good.

However, there are issues regarding specific methods and leaders of labor-management communication. Firstly, only 49.1% of respondents said their companies have employee groups such as "employee social groups." Employee groups whose activities include "negotiation on labor condition such as wage revisions, working hours, and benefit packages with management" (22.8%) or "discussion on production plans and management policies with management" (10.2%) totaled only 33.0%. Secondly, as for collecting employees' opinions at the time of revising base salary, which reflects well the state of labor-management communication, only 38.8% of companies ask employees' opinions via meetings with those in supervisory positions and below. The remaining 35.9% stated that they "do not specifically ask employees' opinions," and in cases when they did, 24.7% admitted to only having "meetings with managers and above." Thirdly, regarding preparation of an opinion statement when modifying working regulations, only 35.7% indicated that it was created by a majority union or employee representatives, and 41.4% responded that "management created the opinion statement based on employees' day-to-day opinions." Fourthly, when concluding a 36 Agreement, 23.8% of employee majority representatives were in positions above the manager/director level. On electing representatives, only 49.9% of the respondents indicated that they elect representatives via election, confidence, or discussion, and the remaining 39.4% responded that "representatives from the employee social group automatically became majority representatives" (11.2%), or "they were designated by the company" (28.2%). As these specific aspects of labor-management communication indicate, there are a few problems as regards employees' communication representatives and the way employees' opinions are reflected, in spite of companies' belief that labor-management communication is generally good.

Figure 6. Presidents' opinions on labor unions



Many presidents from the responding companies believe that "management should be conducted with sufficient understanding of general employees' wishes and requests" (72.6%). In order for this to materialize effectively, the above issues must be resolved.

2. Necessity of Employee Representative System

What can be done to address the labor-management communication issues mentioned above? One would expect labor unions, which are organized and acting under the three rights of labor, to play a role. We will first need to consider employers' opinions about labor unions. SMEs do not necessarily think labor unions as "organizations that constantly make unreasonable demands on a company" (67.9%) or "organizations that allow external sources to intervene in management" (45.4%). Rather, they see labor unions positively: "labor unions are useful for understanding general employees' wishes and requests" (50.9%) and "labor unions are useful for communicating management policies to general employees" (46.3%).[5]

[5] Percentages in parenthesis are a total of responses in Figure 6, "I somewhat disagree" and "I disagree," and "I agree" and "I somewhat agree" respectively.

Generally, one could say that approximately half of Japanese SMEs have a neutral opinion of labor unions; neither exceedingly positive nor negative.[6] On the other hand, only 27.7% think that "labor unions are necessary for the company" and the remaining 62.0% feel otherwise. Labor unions are basically voluntary groups of workers and thus, unionization should not be determined by what the companies think of labor unions. In reality, however, 63.4% of labor unions have concluded union-shop contracts with companies in Japan,[7] and therefore, unionization might not proceed smoothly without the understanding of companies on labor unions.

Judging from SMEs' opinions of labor unions, unionization under union-shop contracts, the steadily declining ratio of labor unions,[8] and the low ratio of labor unions in SMEs (14.8% in the current survey), we can say that it is not realistic to regard the labor union as the only organization to take the initiative in labor-management communication. While respecting labor unions organized under the Constitution and the basic labor rights provided in the Labor Union Act, there is a need to create organizations that will assist in labor-management communication. One of the options is the employee representative system.[9]

3. Employee Representative System

(1) Relationship with Labor Unions

Labor unions are voluntary organizations based on Article 28 of the

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and "I disagree," and "I agree" and "I somewhat agree" respectively.

6 According to a survey regarding new labor unions organized in the late 1990s, the actions of companies toward unionization included: "management was not involved" (non-involvement type, 35.0%), "management supported unionization" (supportive type, 27.2%), and "management persuaded the main union organizers not to form a union" (prevention type, approximately 26.7% = overlapping response total 53.4% × 1/2) (Oh 2000). Since "supportive type" and "prevention type" are approximately the same and the rest was "non-involvement type," one could conclude that Japanese firms have neutral opinions on the formation of labor unions.

7 Ministry of Health, Labour and Welfare (2003) Survey Report on the Actual Status of Labor Union.

8 The unionization rate has steadily declined: 55.8% in 1949, 35.6% in 1955, 34.8% in 1965, 34.4% in 1975, 28.9% in 1985, 23.8% in 1995 and18.2% in 2006. Ministry of Health, Labour and Welfare (2006), Basic Survey of Labor Unions.

9 See JILPT (2007b), Part III, Chapter 1 for necessity of the employee representative system and issues regarding the employee representative system.

Constitution[10] and Labor Union Act, and their legitimate activities are ensured by law. Therefore, the employee representative system should not daunt or inhibit labor unions' legitimate activities. Furthermore, as identified in JILPT (2007b), Part II, Chapter 3, labor unions, for all practical purposes, have superiority over employee groups when it comes to decision-making on corporate employment reductions and the measures taken at such times.[11] From the point of view of worker protection, the employee representative system should be considered in ways that it ensures the legitimacy and priority of labor unions.

(2) Significance of Employee Representative System and Its Relationship with Employee Groups

Because we did not ask respondents any direct questions on the necessity and significance of the employee representative system in the current survey, we cannot identify companies' views on how the employee representative system should be. We believe that the employee representative system will definitely have certain characteristics of employee groups. We will make an assumption regarding the significance of the employee representative system based on the current survey items on employee groups. According to the current survey, 49.1% of the responding companies have employee groups such as "employee social groups." Among employee groups, those with "social activities such as recreation" (social-type group) and "mutual assistance activities including congratulatory or condolence payments or loans" had high ratios of 83.0% and 61.2% respectively. Other groups were committed to "handling employees' complaints" (16.0%), "discussing production plans and management policies with management" (10.2%), and "negotiating labor conditions such as wage revisions, working hours, and benefit packages with management" ("discussion type employee group") (22.8%). As specifically analyzed in JILPT (2007b), Part II, Chapter 1, compared to the "social type group" and "non-organization type" without any employee groups or labor unions, those companies with "discussion type groups" performed better as regards information communication, introduction of human resource

[10] "The right of workers to organize and to bargain and act collectively is guaranteed."
[11] Refer to JILPT (2007b), Part II, Chapter 1 for companies with "discussion type" employee groups demonstrating higher performance than those with labor unions.

management systems, and reduction of the turnover ratio. In light of the effectiveness of "discussion type groups," it is important to capitalize on their advantages when introducing the employee representative system. There are a number of issues to be examined, such as the way of selecting employee representatives and the roles to be played by the employee representative system, but one option may be to regard existing "discussion type groups" as a type of the employee representative system.

(3) Organization and Role of Employee Representative System

In the employee representative system, if there is no majority union in labor-management agreements/consultations or hearing of opinions for concluding a 36 Agreement or changing working regulations, employee representatives are expected, more or less, to play an intermittent role in concluding agreements and responding hearings as the employee majority representatives. In the current survey, however, it was identified that many presidents of SMEs (72.6%) believe that "management should be conducted with sufficient understanding of general employees' wishes and requests," as mentioned earlier, and thus, it would be more desirable to introduce the employee representative system in ways that it fulfills such a notion. This is because companies that consider their employees' wishes and requests more seriously tend to disclose management information to general employees more positively, to communicate with them more effectively and to get more corporation in management from their employees. Furthermore, such companies have consistently improved their business performance since 1990 without experiencing a management crisis due to deterioration in performance.[12] There are various ways of uncovering wishes or requests of general employees, and if the company expects the effects stated above, it would be preferable that the main body to take charge of labor-management communications is set on a permanent basis.

If we are to consider the employee representative system as one of the labor-management communication systems, how should the employee representatives be selected? In the current survey, we asked about the way of selecting majority representatives for concluding a 36 Agreement and found out that only 49.9% of the majority representatives were selected in the

[12] Refer to the section written by the author in JILPT (2007a).

election by vote of confidence, through discussions among all employees or through discussions among representatives of each division, all of which are supposedly democratic processes stipulated by law. Among other 39.4% of the majority representatives, some were designated by companies, or in some cases the representatives of employees social groups were automatically posted to the positions. By company size, more than half of the companies with 50 or more employees selected the majority representatives through the democratic process. In introducing the employee representative system, it is necessary to discuss what the proper democratic process should be in representative selection, and so far, the results of the current survey show that the companies with 50 or more employees are likely to ensure the democratic process in representative selection.

There is another fact that was clarified in the course of examining the selection of representatives. With regards to the method of creating an employees' opinion statement when changing working regulations, in the companies that answered "the opinion statement were created by employee representatives who were selected in an election or by vote of confidence by employees," the degree of employees' satisfaction, which was supposed by their company, with the outcome of modification of working regulations was higher than in those responded that "the management created the regulations based on employees' day-to-day opinions" or "the majority union created the statements."[13] Therefore, even in the case where "a supplemental employee system" which prescribes that the employee representative system will not be introduced in the company with a majority union is chosen, selecting representatives of the majority union in the election or by vote of confident involving all employees is one of the options in order that the majority union assumes the role of employees representatives and enhance employees' sense of satisfaction.

In considering the role of employee representative system, on the premise of priority of Article 28 of Constitution and Labor Union Act as we previously mentioned, it should be as similar as that of "discussion type group" [14] of employees, and that will eventually facilitate the labor-management

[13] For details, refer to Chapter 2, Part III of JILPT (2007b).
[14] For superiority of "discussion-type employee group" compared to other types of employee groups, refer to Chapter 1, Part II of JILPT(2007b).

communications.

Lastly, we would like to mention effectiveness as the most important factor in thinking of the employee representative system. Without effectiveness, any outstanding employee representative system is insignificant. It is imperative that the ideas be made realistic and acceptable to labor and management, and it is also important to introduce employee representative system ahead in companies that are ready to do so. Judging from an example of the way of selecting employee representatives for a 36 Agreement as described earlier, it was in the companies with 50 or more employees that more than half of the companies implemented a democratic selection, and this is worth bearing in mind. Also, the implementation of an employee representative system does not necessarily guarantee that the expected objective will be achieved. This is obvious when you see the case of creating employee opinion statement for a 36 Agreement or modifications of working regulations, as described above. What is most important is to take a mid-long term and phased approach for more desirable employee representative system by referring to its objectives and implementation statuses and by improving the system and its current conditions.

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Current State of Career Education in Japan and Parents' Cognitions

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I. Introduction

Today, career education for students attending schools is showing a major expansion in Japan, and government ministries and agencies are promoting a variety of programs for this purpose.

For example, the Ministry of Health, Labour and Welfare is promoting the National Movement for Enhancing Young People's Ability to Live as Independent and Active Members of Society, and is appealing to the public at large about the need to promote career development of young people who have not yet started in life. In this movement, the ministry is carrying out activities to help students acquire, while still in school, the ability to think about their lives, to communicate, and to deepen their understanding about what it means to work. The Ministry of Education, Culture, Sports, Science and Technology is promoting "career education" in schools and is carrying out a national program called the "Career Start Week," which gives junior high school students five or more days of experience in a workplace. Furthermore, the Ministry of Economy, Trade and Industry is promoting the Career Education Project in various parts of the country by drawing on the resources of private organizations. The project utilizes non-profit organizations and other regional resources in providing novel career education.

An important characteristic of career education policies at the school level in Japan is an emphasis on cooperation with various related organizations outside schools, rather than limit the activities within schools. As symbolized by the opportunities given to junior high school students to learn from their experience in workplaces, career education in Japan is being carried out with the cooperation of various related organizations outside schools, such as firms and employers' associations in the regional community, public employment security offices and other public agencies, and non-profit organizations. The orientation towards promoting career education within society as a whole through the cooperation of schools and various organizations outside schools is a prominent feature of career education in Japan today.

One of the reasons that career education in Japan became oriented towards cooperation with various related organizations was the significant change in the environment surrounding young people's careers in and after the 1990s.

In the past, it was possible in Japan to provide career guidance services to the majority of students by providing intensive career guidance to help students make a career choice at the time of graduation. Therefore, resources for career guidance (staff, budgets, and energy) could be concentrated on a single point of career choice of students at the time of graduation, and it was sufficient to provide thorough guidance in a school to allow students nearing graduation to choose their careers. This was also a rational way in which to provide career guidance equitably and widely to students attending school.

Today, however, young people's careers in Japan have become much more unclear compared with the past. As a result, it is no longer sufficient to provide career guidance to help students make a career choice at the time of graduation. This is because even if they make a career choice and graduate from school, they would not necessarily continue to work at a single place of employment. For example, some young people transfer to another job soon after working for one firm or take up an unstable job working as a *freeter* or become a NEET. Others may decide to go back to school to study. The careers of young people in Japan after graduating from school have become extremely diversified. To begin with, as careers after graduation have become unclear, it is becoming difficult for students to make a career choice at the time of graduation. Subsequently, rather than simply provide "career guidance" in which the school intervened in helping students make a career choice at the time of graduation, the emphasis on career education for students in schools shifted to "career education," in which schools educated students to be able to develop their own careers even after graduation.

Within the change from "career guidance" to "career education," it was no longer sufficient to provide in-school career guidance for students. This is because students not only need to make a career choice at the time of graduation, but they also need to think broadly about their future careers and professional life in general. For this purpose, it was considered important in Japanese career education for students to have opportunities to see the actual workplaces and meet workers. A part of the reason for this was that it was considered generally in the Japanese society that the gap between study in schools and work outside schools had widened too much. Therefore, it was

considered in Japanese career education that by giving students opportunities to see the actual workplaces, the gap between study in schools and work in workplaces could be narrowed. This inevitably resulted in cooperation between schools and various other organizations, and career education that could not be carried out by a school alone was explored. The various undertakings by Japanese ministries and agencies, mentioned at the beginning of this paper, are some of the examples of this. Today, the idea that since career education is an issue that should be addressed by schools, it should be considered within the framework of school education is becoming outdated in Japan.

In this transition from "career guidance" to "career education" in Japan, we would like, in this paper, to focus particularly on the role of parents. In considering career education in Japan, why do parents hold the key? Why do we need to focus on parents? There are three reasons as shown below.

Firstly, today, parents are involved in school's career education in a variety of ways. For example, schools alone cannot realize workplace experience for junior high school students. It requires the involvement of many adults in the regional community. In these cases, parents are involved in a number of roles. Obviously, in the homes, they are involved with their children as fathers and mothers. In the workplace, they, as working people, accept students in their workplaces and play the role of giving students workplace experience. Parents who are not directly involved in giving workplace experience are, as members of the regional community, widely involved with other people's children and young people in general. As this example of workplace experience for junior high school students shows, parents are involved in a number of roles. In other words, parents today are an important player playing a number of roles in career education.

Secondly, as a result of the above, parents' views on career education are more likely to have a significant effect on the contents of career education. If, for instance, parents have a positive view on career education, they would participate actively in career education. If, on the other hand, they are not enthusiastic about career education, they would not involve themselves actively in it. In other words, parents' views about career education have a direct bearing on the contents of career education. In this paper, in particular, we presumed that career education is affected significantly by how parents see the future conditions of society. For example, we can expect parents who think

employment of young people will continue to be an issue in future society to be enthusiastic about career education for their children's future and occupation. On the other hand, parents who think the issue of employment of young people is an issue of society as a whole may see career education only as a stopgap measure and call for a more radical solution to the problem. Parents who see the social issue of the widening dispersion of incomes as a more serious problem may consider the issue of career education from a different angle. How parents think about the future of their children will probably determine the basic thinking that supports career education.

Thirdly, while it is possible to make the above argument, there have been few studies that consider parents' cognition of future social conditions within the context of career education. For example, how do parents generally perceive the future social conditions? How does that cognition differ between fathers and mothers, by age, and by educational background? What relation is there between that cognition and household income? In this chapter, we consider parents' cognitions about future social conditions from a number of angles in order to provide materials with which to think about future career education.

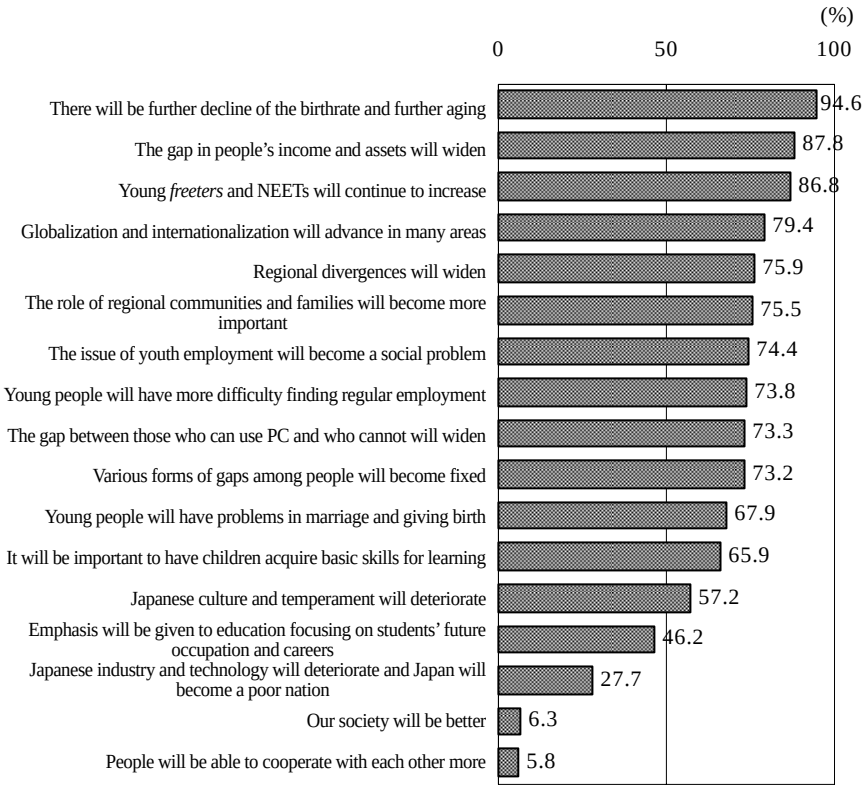
Based on the above understanding of the issues concerned, we examined the relation between parents' cognition about future social conditions and their views on career education. A survey was conducted between January and February 2007. We sampled the same number of people for each sex and age group from among a research firm's adult monitors who had children, and sent them a questionnaire sheet by mail. Specifically, we sampled 200 subjects in each of the 6 cells formed by sex (men and women) and age groups (30s, 40s and 50s) and conducted the survey. Finally, 1,500 questionnaire sheets were sent, against which the responses were 1,372, at the response rate of 91.5%.

II. Parents' Cognition about the Future Social Conditions

Figure 1 shows the results obtained by asking parents about their cognition of future social conditions. The table illustrates the percentage of parents who answered, "Agree" and "More or less agree."

We can see from the table that the answers that were shared by the largest percentage of parents as regards their cognition on future social conditions in general was "There will be further decline in the birthrate and further aging"

Figure 1. Parents' cognition about future social conditions in general (Percentage of those who said "Agree" or "More or less agree")



(94.6%), followed by "The gap in people's income and assets will widen" (87.8%). The large majority of parents shared in the cognition that there would be further decline in the birthrate and further aging and that there would be widening dispersion of income and assets.

More than 70% of parents also said, "Agree" or "More or less agree," to "Young *freeters* and NEETs will continue to increase" (86.8%), "Globalization and internationalization will advance in many areas" (79.4%), "Regional divergences will widen" (75.9%), "The role of regional communities and families will become more important" (75.5%), "The issue of youth employment will become a social problem" (74.4%), "Young people will have more difficulty finding regular employment" (73.8%), "The gap between those

who can use PC and who cannot will widen" (73.3%), and "Various forms of gaps among people will become fixed" (73.2%). This shows that the large majority of parents were (i) concerned about the future of youth employment, (ii) they saw the advancement of globalization and internationalization and the issue of regional divergences, digital divide, and various other forms of gaps as being behind the issue of youth employment, and (iii) they saw that the role of regional communities and families would become more important in the future.

On the other hand, the percentage of parents who shared in the view that "Our society will be better" (6.3%) or "People will be able to cooperate with each other more" (5.8%) was less than 10%, which indicates that parents had a very bleak view about future social conditions.

III. Differences in Parents' Cognition about Future Society by Parents' Attributes

1. Difference by Sex and Age

We examined the differences in parents' cognition about the future society in general by sex and age (Table 1). The results showed that there were statistically significant differences generally between the sexes. Specifically, the percentage of those who thought, "The gap in people's income and assets will widen," "Regional divergences will widen," "Globalization and internationalization will advance in many areas," and "People will be able to cooperate with each other more," was higher among men. On the other hand, the percentage of those who thought, "The gap between those who can use PC and who cannot will widen," "Young people will have more difficulty finding regular employment," and "Young people will have problems in marriage and giving birth," were higher among women. The differences between men and women, however, appeared to narrow with older age groups. The percentage of those who thought, "Young *freeters* and NEETs will continue to increase" was particularly high among women in their 40s. The percentage of those who thought, "Young people will have more difficulty finding regular employment" and "Young people will have problems in marriage and giving birth," were also generally higher among women.

In sum, it can be said that men, as fathers, were concerned about widening divergences in society, whereas women, as mothers, were concerned about the

Table 1. Difference in the cognition of the future society in general by sex and age (Percentage of those who said "Agree" or "More or less agree")

	30s Male (N=235)	30s Female (N=216)	40s Male (N=233)	40s Female (N=227)	50s Male (N=234)	50s Female (N=227)	sig.
The gap in people's income and assets will widen	89.7%	83.7%	88.8%	84.0%	91.8%	88.0%	*
Regional divergences will widen	79.6%	62.8%	81.5%	76.5%	85.7%	68.3%	**
The gap between those who can use PC and who cannot will widen	71.4%	79.5%	68.2%	66.1%	77.7%	77.3%	**
Japanese industry and technology will deteriorate and Japan will become a poor nation	27.7%	22.8%	28.8%	24.6%	30.9%	30.8%	
Japanese culture and temperament will deteriorate	58.5%	55.6%	56.2%	52.4%	59.9%	60.0%	
Globalization and internationalization will advance in many areas	80.0%	74.0%	83.3%	76.4%	81.5%	80.9%	**
Our society will be better	9.0%	6.5%	7.3%	5.4%	5.6%	3.6%	
There will be further decline of the birthrate and further aging	92.8%	95.8%	95.3%	94.2%	94.8%	95.1%	
Various forms of gaps among people will become fixed	71.1%	70.7%	73.8%	76.0%	75.1%	72.6%	
People will be able to cooperate with each other more	9.8%	4.7%	8.2%	5.3%	3.4%	3.6%	*
The role of regional communities and families will become more important	72.2%	78.6%	69.5%	78.2%	75.1%	80.0%	
Emphasis will be given to education focusing on students' future occupation and careers	48.9%	42.8%	44.2%	47.8%	43.5%	50.0%	
It will be important to have children acquire basic skills for learning	61.3%	59.3%	60.9%	63.3%	75.4%	74.7%	
Young *freeters* and NEETs will continue to increase	84.7%	85.1%	85.0%	92.0%	88.4%	85.8%	*
Young people will have more difficulty finding regular employment	64.3%	79.1%	71.7%	78.8%	73.3%	76.8%	**
The issue of youth employment will become a social problem	68.1%	75.3%	74.2%	73.9%	74.6%	80.9%	
Young people will have problems in marriage and giving birth	60.0%	67.4%	63.8%	69.9%	66.8%	80.0%	**

** p<.01 * p<.05

issue of youth employment and furthermore about the issue of marriage and birth. We can see that fathers and mothers see different aspects of the future society.

2. Difference by Educational Background

We examined the difference in parents' cognition about the future society in general by educational background (Table 2). The results showed that those with higher educational attainment generally shared in the view that disparities

Table 2. Difference in the cognition of the future society in general by educational background (Percentage of those who said "Agree" or "More or less agree")

	Graduate of university/graduate school (N=474)	Graduate of junior/ vocational college (N=353)	Graduate of junior/ senior high school (N=544)	sig.
The gap in people's income and assets will widen	91.1%	89.7%	83.5%	*
Regional divergences will widen	83.5%	72.5%	71.5%	**
The gap between those who can use PC and who cannot will widen	72.5%	74.9%	73.0%	
Japanese industry and technology will deteriorate and Japan will become a poor nation	25.6%	27.1%	29.6%	*
Japanese culture and temperament will deteriorate	56.1%	55.7%	58.9%	
Globalization and internationalization will advance in many areas	84.0%	78.2%	76.2%	**
Our society will be better	7.2%	4.9%	6.3%	
There will be further decline of the birthrate and further aging	96.2%	95.1%	93.0%	
Various forms of gaps among people will become fixed	77.2%	75.6%	68.2%	**
People will be able to cooperate with each other more	7.2%	4.9%	5.4%	
The role of regional communities and families will become more important	75.2%	78.9%	73.6%	
Emphasis will be given to education focusing on students' future occupation and careers	42.5%	46.3%	49.4%	*
It will be important to have children acquire basic skills for learning	66.6%	67.1%	64.3%	
Young *freeters* and NEETs will continue to increase	83.9%	88.9%	88.0%	
Young people will have more difficulty finding regular employment	65.3%	78.3%	78.4%	**
The issue of youth employment will become a social problem	70.2%	76.3%	76.9%	**
Young people will have problems in marriage and giving birth	66.4%	70.3%	67.7%	*

** p<.01 * p<.05

would further widen, as a large percentage of them thought, "The gap in people's income and assets will widen," "Regional divergences will widen," "Globalization and internationalization will advance in many areas," and "Various forms of gaps among people will become fixed." On the other hand, the percentage of those who thought, "Japanese industry and technology will deteriorate and Japan will become a poor nation," "Emphasis will be given to education focusing on students' future occupation and careers," "Young people

will have more difficulty finding regular employment," and "The issue of youth employment will become a social problem" was higher among parents whose educational attainment was graduation from junior or senior high school. From the above results, it can be surmised that parents who graduated from a university or graduate school were generally interested in issues related to society at large such as widening dispersion, whereas parents whose educational attainment was graduation from junior or senior high school was generally interested in the issue of employment.

3. Relation with Annual Household Income

To examine the relation between parents' cognition about the future society in general and annual household income, we obtained the rank correlation coefficient (Table 3). From the table, we can see that annual income was related closely to the views, "Regional divergences will widen," "Japanese industry and technology will deteriorate and Japan will become a poor nation," "Globalization and internationalization will advance in many areas," "Our society will be better," "There will be further decline of the birthrate and further aging," and "Young people will have more difficulty finding regular employment." The higher the parents' annual incomes, the stronger the cognition that divergences would widen as a result of globalization, internationalization, the declining birthrate, and aging. At the same time, parents with higher annual incomes were not pessimistic about the Japanese industry and technology and believed that future society would be better than today's. On the other hand, the lower the parents' annual income, the stronger the concern about the issue of youth employment.

IV. Principal Component Analysis of Parents' Cognition of Future Social Conditions

From parents' cognition of the future social conditions we examined above, we can surmise that there are a number of systematic associations of parents' cognition. Therefore, we conducted a principal component analysis and reduced parents' cognition of the future conditions into a number of components.

Table 4 shows the results of the principal component analysis. When we interpreted the data based around the large categories of questions of the

Table 3. Relation between the cognition of the future society in general and annual household income (rank correlation coefficient)

	Correlation coefficient with annual household income	sig.
The gap in people's income and assets will widen	.050	
Regional divergences will widen	.096	**
The gap between those who can use PC and who cannot will widen	-.003	
Japanese industry and technology will deteriorate and Japan will become a poor nation	-.068	*
Japanese culture and temperament will deteriorate	.018	
Globalization and internationalization will advance in many areas	.116	**
Our society will be better	.083	**
There will be further decline of the birthrate and further aging	.059	*
Various forms of gaps among people will become fixed	.049	
People will be able to cooperate with each other more	-.004	
The role of regional communities and families will become more important	.012	
Emphasis will be given to education focusing on students' future occupation and careers	-.028	
It will be important to have children acquire basic skills for learning	.045	
Young *freeters* and NEETs will continue to increase	.023	
Young people will have more difficulty finding regular employment	-.077	**
The issue of youth employment will become a social problem	-.029	
Young people will have problems in marriage and giving birth	.003	

** p<.01 * p<.05

values that represent each principal component (the values are shown in bold in shaded cells), it appeared that parents' cognition of the future social conditions could be reduced to four principal components of "Concern about youth employment," "Concern about widening disparities," "Concern about society in general," and "Expectations about school education."

In the following sections of this paper, we examine parents' cognition of the future social conditions in the survey from four angles of "concern about the future of youth," "concern about widening disparities," "concern about society in general," and "expectations on school education." Therefore, based on the principal component analysis of Table 4, we calculate the principal component scores and use them in the analysis below. The principal component scores are adjusted so that the average value is 0 and standard deviation is 1. They can easily show differences in sizes in relation to the

Table 4. Principal component analysis of parents' cognition of future social conditions

	Concern about youth employment	Concern about widening disparities	Concern about society in general	Expectations about school education
The gap in people's income and assets will widen	.073	**.692**	.263	.026
Regional divergences will widen	-.024	**.684**	.206	.139
The gap between those who can use PC and who cannot will widen	.059	**.418**	.027	.151
Japanese industry and technology will deteriorate and Japan will become a poor nation	.118	.008	**.667**	.221
Japanese culture and temperament will deteriorate	.132	.114	**.607**	.179
Globalization and internationalization will advance in many areas	.072	**.508**	-.179	.025
Our society will be better	-.104	-.060	**-.765**	.056
There will be further decline of the birthrate and further aging	.200	**.557**	.105	-.178
Various forms of gaps among people will become fixed	.136	**.625**	.308	.102
People will be able to cooperate with each other more	-.079	-.130	**-.676**	.126
The role of regional communities and families will become more important	.156	**.379**	-.236	.107
Emphasis will be given to education focusing on students' future occupation and careers	.133	.092	.039	**.804**
It will be important to have children acquire basic skills for learning	.103	.146	.080	**.777**
Young *freeters* and NEETs will continue to increase	**.752**	.180	.048	-.016
Young people will have more difficulty finding regular employment	**.856**	.033	.102	.073
The issue of youth employment will become a social problem	**.834**	.089	.136	.124
Young people will have problems in marriage and giving birth	**.585**	.180	.146	.144
Explained variance	14.8%	13.9%	13.1%	8.8%

average value.

V. Effect that the Cognition of the Future Social Conditions Has on Parents' Views about Career Education

We examine below how the four aspects of parents' cognition of future social conditions shown in Table 4 (concern about the future of youth, concern about widening disparities, concern about society in general, and expectations on school education) influence their views about career education.

We conduct regression analysis in which parents' attributes are adjusted. This is because it is considered that parents' attributes, such as whether they are a father or mother, their age, educational background, household income, and whether they are a regular employee or not also influence their views about career education. We also perform the regression analysis by adjusting for the differences in their children (i.e. they are in a primary school or not yet in school, they are in a junior/senior high school, they are in a university, or they are an adult), because it is considered that parents' view on career education differs depending on their children's attributes.

1. Effects on Parents' Views about "Career Education in Schools"

The results of the survey showed that the top three items on which parents placed emphasis on as regards career education in schools were "Instruction that will make children think about the meaning of study and work," "Instruction that will help children understand their individuality and aptitude," and "Education to help children acquire morals and manners necessary as members of society." "Tours of workplaces and learning through workplace experience" was also considered important by more than 70% of the respondents. We performed a logistic regression analysis with parents' expectations on these four types of education (have expectations on to have no expectations on) as explained variables and parents' cognition of the future social conditions, their attributes, and their children's attributes as explanatory variables.

Table 5 shows the results of the logistic regression analysis. We can see from the table that parents' cognition of the future social conditions did not have a strong influence on "Instruction that will make children think about the meaning of study and work" or "Instruction that will help children understand their individuality and aptitude." For these two types of instruction, the question of whether or not the "child was in junior/senior high school" had an effect. In other words, parents appeared to realize the importance of these two types of instruction when their children came to an age where they needed to think realistically about their future careers. As for "Instruction that will make children think about the meaning of study and work," parents who had "a child in a university" also had high expectations on this type of instruction for the same reason. Parents who had lower annual household income also had higher expectations on "Instruction that will make children think about the meaning

Table 5. Factors that influence parents' views about "career education in schools"

	Instruction that will make children think about the meaning of study and work			Instruction that will help children understand their individuality and aptitude			Education to help children acquire morals and manners necessary as members of society			Tours of workplaces and learning through workplace experience		
	B	Exp(B)	sig.	B	Exp(B)	sig.	B	Exp(B)	sig.	B	Exp(B)	sig.
Father (vs. mother)	0.33	1.38		0.05	1.05		0.07	1.07		0.14	1.15	
Age	0.05	1.06		0.00	1.00		-0.13	0.88	*	-0.19	0.83	**
Educational background (vs. university graduate)												
Junior/vocational college graduate	-0.04	0.96		0.05	1.05		0.38	1.47	*	0.29	1.33	
Junior/senior high school graduate	-0.12	0.88		0.02	1.02		0.27	1.31		0.12	1.13	
Annual income	-0.07	0.94	**	-0.03	0.97		-0.04	0.96		-0.05	0.95	*
Regular employee (vs. non-regular employee)	-0.09	0.92		0.29	1.34		0.37	1.44		-0.12	0.89	
Concern about youth employment	-0.01	0.99		0.09	1.09		0.00	1.00		0.14	1.15	*
Concern about widening disparities	0.01	1.01		0.00	1.00		-0.04	0.96		0.08	1.08	
Concern about society in general	-0.04	0.96		-0.08	0.92		0.02	1.02		-0.19	0.83	**
Expectations on school education	0.11	1.11		0.02	1.02		0.16	1.18	**	-0.07	0.93	
Child is a boy	0.07	1.08		-0.13	0.88		0.30	1.36	*	0.00	1.00	
Child is a girl	-0.13	0.88		0.00	1.00		-0.06	0.94		-0.05	0.95	
Child in primary school or not yet in school	-0.09	0.92		0.13	1.13		-0.07	0.94		-0.18	0.83	
Child in junior/senior high school	0.34	1.41	*	0.30	1.35	*	0.44	1.55	**	0.19	1.21	
Child in university	0.35	1.41	*	0.20	1.22		0.24	1.27		0.03	1.03	
Child is an adult	0.03	1.03		0.06	1.06		-0.61	0.54	**	-0.10	0.90	
Constant	-0.09	0.92		-0.32	0.73		-0.19	0.83		1.56	4.77	
	R^2=0.076 (p<.001)			R^2=0.021 (n.s)			R^2=0.076 (p<.001)			R^2=0.075 (p<.001)		

of study and work."

As for "Education to help children acquire morals and manners necessary as members of society," parents with higher "expectations on school education" considered such education to be important. Albeit partially, parents' cognition of the future social conditions had an effect on this kind of education. There were, however, other elements that had an effect on "Education to help children acquire morals and manners necessary as members of society." From the table, expectations on this type of education were high among parents who were junior/vocational college graduates as regards their educational background, parents whose child was a boy, and parents whose child was in a junior/senior high school. On the contrary, parents who were older and parents whose child was an adult had low expectations on this type of education. Generally speaking, it is assumed that parents with a mid-level educational

attainment and with a boy in a junior/senior high school expected school education to provide education to help their children acquire morals and manners for them to live as members of society.

As for "Tours of workplaces and learning through workplace experience," expectations on such education were high among parents who had strong "concern for young people" and low among parents who had strong "concern about society in general." It can be interpreted that parents who had concerns about the future of young people had expectations on tours of workplaces and learning through workplace experience, whereas parents who were concerned about society in general considered such education to be useless. In addition, parents who were older and parents who had higher annual income had low expectations of this type of education.

2. Effects on Parents' Views about "Abilities They Want Their Children to Acquire in Schools"

The survey also asked the respondents about abilities they wanted their children to acquire in schools. The results showed that the top three abilities were "Basic aptitude such as reading and writing" (27.3%), "Abilities to communicate" (33.4%), and "Abilities to be concerned about others" (33.0%). We conducted a logistic regression analysis with whether or not respondents considered each of these abilities as important as explained variables and parents' cognition of the future social conditions, their attributes, and their children's attributes as explanatory variables.

Table 6 shows the results of the logistic regression analysis. Whether parents wanted their children to acquire "basic aptitude such as reading and writing" in schools was influenced by "Concern about society in general" and "Expectations on school education." In each case, the greater the concern or expectations, the more parents wanted their children to acquire such basic aptitude in schools. Other factors, however, also had an effect on whether parents considered "basic aptitude such as reading and writing" as important. The results of the regression analysis show that generally older parents, parents with higher annual income, and parents who had a child in a junior/senior high school considered such basic aptitude as important. On the other hand, parents who were junior/vocational college graduates or junior/senior high school graduates and parents whose child was a girl did not see "basic aptitude such as reading and writing" as particularly important.

Table 6. Factors that influence parents' views about "abilities they want their children to acquire in schools"

	Basic aptitude such as reading and writing			Abilities to communicate			Abilities to be concerned about others		
	B	Exp(B)	sig.	B	Exp(B)	sig.	B	Exp(B)	sig.
Father (vs. mother)	0.03	1.03		-0.27	0.76		-0.09	0.91	
Age	0.15	1.17	*	-0.18	0.84	**	0.05	1.05	
Educational background (vs. university graduate)									
Junior/vocational college graduate	-0.45	0.64	**	-0.44	0.65	**	0.23	1.26	
Junior/senior high school graduate	-0.36	0.69	*	-0.37	0.69	*	0.30	1.35	
Annual income	0.05	1.05	*	0.04	1.04		-0.01	0.99	
Regular employee (vs. non-regular employee)	-0.19	0.83		0.54	1.72	*	-0.04	0.96	
Concern about youth employment	0.02	1.02		-0.01	0.99		0.03	1.03	
Concern about widening disparities	0.04	1.04		0.00	1.00		-0.14	0.87	*
Concern about society in general	0.15	1.16	*	-0.15	0.86	*	-0.05	0.95	
Expectations on school education	0.19	1.21	**	-0.06	0.95		0.00	1.00	
Child is a boy	-0.11	0.89		-0.11	0.89		0.04	1.04	
Child is a girl	-0.47	0.63	**	0.08	1.08		-0.23	0.79	
Child in primary school or not yet in school	0.02	1.02		-0.02	0.98		0.02	1.02	
Child in junior/senior high school	0.35	1.42	*	-0.09	0.91		0.25	1.29	
Child in university	0.03	1.03		-0.05	0.96		0.18	1.20	
Child is an adult	0.29	1.34		0.02	1.02		-0.13	0.88	
Constant	-1.93	0.14		-0.23	0.80		-1.11	0.33	
	R^2=0.057(p<.001)			R^2=0.071(p<.001)			R^2=0.008(p<.05)		

Whether parents wanted their children to acquire "abilities to communicate" in schools was influenced by "Concern about society in general." Parents with strong concern about society in general placed less emphasis on abilities to communicate. It can be assumed from this result that parents who are concerned about society in general think that having their children acquire abilities to communicate will not necessarily solve the problem. Regular employees gave emphasis to "abilities to communicate" more so than non-regular employees. Older parents and parents who were junior/vocational college graduates or junior/senior high school graduates, however, did not place particular emphasis on "abilities to communicate."

Whether parents wanted their children to acquire "abilities to be concerned about others" in schools was influenced by "Concern about widening disparities." The effect, however, was negative: parents who had strong

concern about widening disparities did not want their children to acquire the "abilities to be concerned about others." It can be interpreted that parents who were interested in the issue of widening divergences think that having their children acquire the "abilities to be concerned about others" in schools will not directly lead to solving the problem and therefore they do not consider such abilities as particularly important.

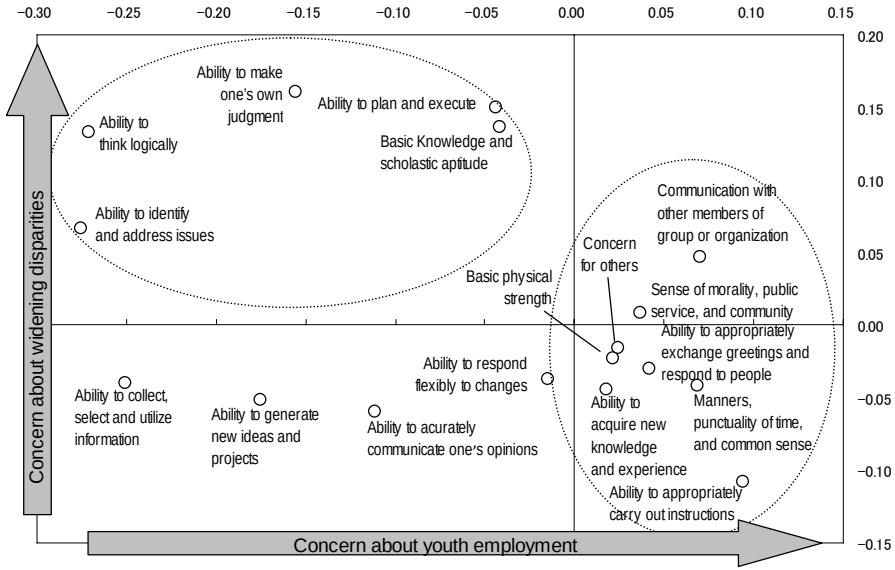
VI. Relation between Parents' Cognition of the Future Social Conditions and Abilities They Think Are Desirable in New Recruits

The survey also asked parents the abilities they thought were desirable in young new recruits. Therefore, we lastly conducted an analysis on the relation between the desired abilities of young people as members of society and parents' cognition about the future social conditions. The results are indicated in a diagram. In Figure 2, we used data on the abilities that parents thought were desirable in young new recruits to obtain the average values of the principal component scores of "Concern about youth employment" (x-axis) and "Concern about widening disparities" (y-axis), and plotted the average values on a two-dimensional plane. For example, in Figure 2, the principal component score of parents who replied that "ability to make one's own judgment" was a desired ability of young people as members of society was relatively low as concerns "Concern about youth employment" and relatively high as concerns "Concern about widening disparities."

From this figure, we can see that, as a general trend, there were a group of abilities that parents with strong "Concern about youth employment" thought were desirable and another group of abilities that parents with strong "Concern about widening disparities" thought were desirable.

Parents with strong "concern about youth employment" thought that abilities required within each place of work, such as "Communication with other members of group or organization," "Manners, punctuality of time, and common sense," "Ability to appropriately carry out instructions," and "Ability to appropriately exchange greetings and respond to people," as particularly important. In particular, they considered specific skills for getting along well with other members of group or organization, such as communication skills, common sense, and ability to take instructions and exchange greetings, as important. On the other hand, parents with strong "concern about widening

Figure 2. Relation between cognition of the future social conditions and desired abilities of young people as members of society



disparities" regarded more abstract abilities, such as "Ability to make one's own judgment," "Ability to plan and execute," "Ability to think logically," "Basic knowledge and scholastic aptitude," and "Ability to identify and address issues," as more important. In particular, they considered judgment, planning, logic, basic scholastic aptitude, and ability to solve problems, which could be applied to situations beyond an individual's place of work, as important.

The difference between these two groups of abilities is the difference between specific interpersonal skills within individual workplaces and abstract, conceptual skills transcending a particular workplace. The plotted diagram also shows that behind each of these skills is concern for youth employment or for widening disparities. It is assumed that behind the relation between parents' cognition of the future social conditions and abilities they see as desirable in young people as members of society is their view on where to place a focus on as regards the future social conditions and what kind of abilities are required if a particular focus was to be placed on those social conditions.

VII. Implications of This Paper

The finding of this paper can be summarized as below.

Firstly, as for future social conditions, parents had common views on the declining birthrate, aging, widening of divergences, globalization and internationalization, and had a bleak view on the future. There was also strong concern for the issue of youth employment that the problems of *freeters* and NEETs symbolized.

Secondly, cognition of the future social conditions differed by sex, age, educational background, and annual household income. Generally, male parents (fathers), parents who were graduates of a university or graduate school, and parents with high annual household income had strong concern for widening disparities, whereas female parents (mothers), parents who were graduates of a junior/senior high school, and parents with low annual household income had strong concern about the issue of youth employment.

Thirdly, it was indicated from the survey that parents' cognition of the future social conditions could be grouped into four aspects of "concern about youth employment," "concern about widening disparities," "concern about society in general," and "expectations on school education."

Fourthly, the results of the regression analysis, particularly results related to the future social conditions, can be summed as follows: (i) parents with strong "concern about youth employment" had high expectations on learning through workplace experience. (ii) Parents with strong "concern about widening disparities" also had high expectations on learning through workplace experience, but it was parents with little concern about widening divergences who were more inclined about having their children acquire abilities to be concerned about others. (iii) Parents with strong "concern about society in general" had low expectations on learning through workplace experience and were inclined about having their children acquire basic scholastic aptitude rather than abilities to communicate. (iv) Parents with strong "expectations on school education" were inclined towards having their children acquire morals and manners necessary as members of society as well as basic scholastic aptitude.

Fifthly, there was a general pattern as regards the relation between parents' cognition of the future social conditions and abilities they see as desirable in young people as members of society. Parents who had strong concern about

youth employment hoped that young people would, as members of society, acquire specific interpersonal skills in individual workplaces. On the other hand, parents who had strong concern about widening disparities expected young members of society to have abstract, conceptual skills transcending individual workplaces.

To sum up the above findings, fathers, parents who were graduates of a university or graduate school, and parents with high income had strong concern about widening disparities. Parents concerned about widening disparities also had high expectations on abstract abilities such as basic scholastic aptitude and ability to make one's own judgment, to plan and execute, to think logically, and to solve problems. On the other hand, mothers, parents who were graduates of a junior/senior high school, and parents with low income had strong concern about youth employment. Parents concerned about youth employment also had high expectations on more specific interpersonal skills such as communication skills, manners and common sense, and abilities to appropriately exchange greetings and execute instructions. There was a contrast between the two groups.

This contrast can be considered as a symbolic contrast between the father who works as a white-collar worker and the mother who works as a homemaker and part-timer. The differences between the stereotypical father and mother are also clearly linked with differences in their views about what kind of abilities young people should have as members of society. These differences in their views about young people's abilities broadly defined the context in which parents thought about career education. These differences also had an effect on acceptance of learning through workplace experience and on the details of various other career education projects. We believe that we were able to show how the differences in parents' views about vocational abilities influenced career education.

In this survey, however, it was observed that parents with a child about to take a school entrance exam and older parents generally gave emphasis to basic scholastic aptitude such as reading and writing and tended to think little of workplace experience, which is central to career education in Japan. We can see that parents' needs for basic scholastic aptitude such as reading and writing remain strong.

Parents' views about career education differ depending on which of the three abilities, namely, abstract abilities such as ability to make one's own

judgment, interpersonal skills symbolized by communication skills, and basic scholastic aptitude such as reading and writing, parents consider as important. The major finding of this survey is that there are potentially a number of ways in which parents think and feel about career education.

In its broadest meaning of the term, career education should encompass the different values that firms, schools, families, and regional communities have. In this light, it would be important for future career education policy in Japan to plan career education in ways that it would integrate various views that parents have. It is also important to approach career education not only as an educational issue, but also as a labor issue. We will need to continue to think about career education from the labor policy standpoint.

The Development of a System for Preparing and Analyzing Transcripts on Vocational Counseling and Job Introduction*

Jun Kayano
Labour College, the Japan Institute for Labour Policy and Training

I. Introduction

Dialogue between the job seeker and the employee who engages in vocational counseling and job introduction (hereinafter called "counselor") is fundamental at Japanese public employment agencies. Through dialogue, a job seeker's career path becomes clear. And as a job hunting process, the dialogue gets put into action in the form of job seekers searching for job offers or negotiating with recruiters.

So what kinds of dialogue actually take place between the job seeker and the counselor?

Kayano (2006), and Kayano and Matsumoto (2006) developed a software program called "System for Preparing and Analyzing Transcripts on Vocational Counseling and Job Introduction" to answer the above question. This software makes use of transcripts from a vocational counseling session and clarifies the characteristics and processes of vocational counseling by categorizing utterances based on expression.

This article explains the theory and the model of vocational counseling that the system is based on, the specs of the system and the protocol of the analysis of transcripts. We will also use this system to analyze 29 cases of vocational counseling to examine how the software can help counselors improve their counseling.

1. Theory of Vocational Counseling

According to Madsen (1986), vocational guidance targeting young people is affected by changes to the structure of society. This refers to the change from the selection of the labor force to occupational choice during the transitional period from school to work, the change from social ascriptions (such as gender, education, and race) to individual achievement when evaluating

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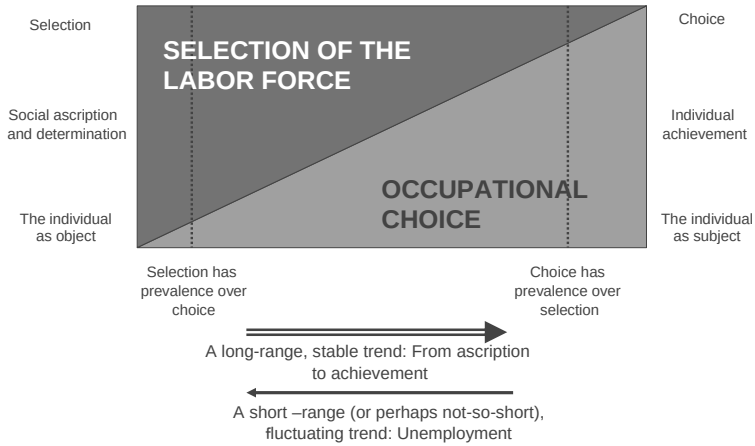
* This is a collaborative research with Junpei Matsumoto (Labour College, the Japan Institute for Labour Policy and Training).

Figure 1. Selection and choice (Madsen 1986)



one's ability, and the change from being a passive object of selection to an active subject making the choice (Figure 1).

We believe that vocational guidance from a public employment agency is also affected by similar changes. Thus, the support given to the job seeker will shift from being centered on job introductions to creating purpose and value in working, allowing the job seekers to autonomously choose their own work.

This also means that there will be a shift in the doctrine within public employment agencies, which is currently centered on vocational counseling[1]. We hypothesize that there will be a shift from a trait and factor theory—which places importance on the compatibility of a job seeker to a job—to a constructionist approach. This approach, by way of vocational development theory that places importance on the job seeker to understand oneself and the job that one is pursuing, states that the concept of a career will become a reality through the sharing of this understanding with others.

2. Constructionist Approach and Vocational Counseling

The constructionist approach places emphasis on the narrative; that is to say, the client telling the story of their own career. Specifically, a career story

[1] Vocational counseling precedes job introduction. Its significance enhances the chances of constructing employment relationship (Health, Labour and Welfare Ministry 2004).

outlining what that person has done up to the current point, what they are doing now, and what they will do in the future.

McAdams (1995) states that the present direction can be plotted from the past through the client's narrative, and like observing the future from the present, the client creates their own direction and consistency; that is, their own identity.

The narrative also serves as a means for sharing one's reality with others. According to Collin (2000), many people are losing the concept of sharing time and space in modern society. Thus, relating one's career to another person is an effective means of sharing the concept of time and space with another person.

When these ideas are applied to vocational counseling at public employment agencies, the following three benefits apply when a job seeker relates the story of their own career: (i) The job seeker can share their image of reality with the counselor. (ii) Through an integrated story, the job seeker can find meaning from a chain of events and can be conscious of their consolidated being. (iii) Through (ii), the job seeker can talk about (express) their career to recruiters, thereby sharing their image of reality.

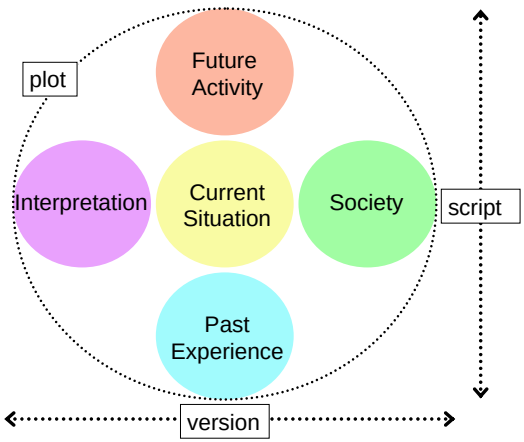
How can the job seeker and the counselor share their images of reality in the context of vocational counseling at a public employment agency? Also, how can a job seeker construct their story? And, in response to the construction of the job seeker's story, what support can the counselor offer and when?

In order to answer these questions, we have developed a prototype system (v1.6) for preparing and analyzing transcripts on vocational counseling and job introduction. This article explains this system, as well as reporting on the results of an analysis of an actual example of this system applied to vocational counseling at a public employment agency.

II. Development of System

In order to understand how we developed the system, we define the following three terms. They are Story Construction, Topics and Expressional Techniques.

Figure 2. Construction of story and topic



1. Story Construction

Story construction is a cooperation between the job seeker and the counselor to create a relationship among topics from a perspective of plot, version, and script. (Figure 2) (i) Plot: expresses the main topic and theme of the story. (ii) Script: expresses the events on a time axis (past, present, future). (iii) Version: expresses the perspective of the story being told.

2. Topics of Vocational Counseling

A topic is an image of reality shared between a job seeker and a counselor through language. There are five types of topics in vocational counseling. These are: the past experience, current situation, future activities of the job seeker, the interpretation (understanding and inspiration) of those events, and society as the social framework (employment system, labor market, etc).

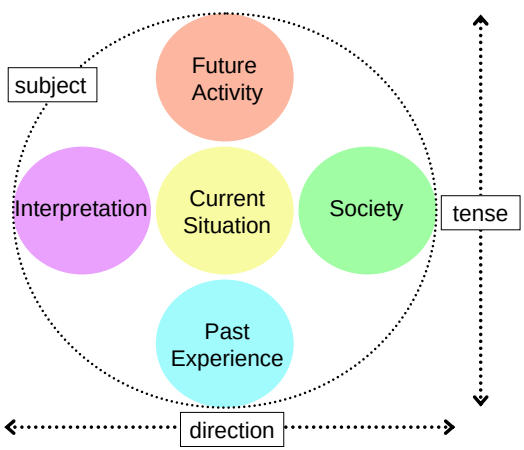
3. Expressional Techniques

To create a relationship among topics requires certain skills in linguistic expression. We have termed these skills the “expressional techniques.” They are defined as “techniques constructed from multiple linguistic expressional methods used to express one’s career, or the vocational counseling processes that enable one to select and carry out an appropriate method of expression in response to the status and flow of the counseling between the job seeker and

Table 1. Expressional techniques

Expressional Technique		Definition
Process	Processing	The technique of expression on the influence from a speaker to a listener
	Tools	The sub technique of processing
Career	Direction	The technique of expression on the direction and distance from a speaker
	Subject	The technique of expression on the subject such as sentiment , matter
	Tense	The technique of expression on tense such as past, present and future.

Figure 3. Construction of story and expressional techniques



the counselor."

There are two types of Expressional Techniques: Process and Career (Table 1). The Process Technique consists of Processing, with Tool as its sub-technique. The Career Technique consists of Direction, Subject, and Tense.

The Expressional Techniques of Subject, Direction, and Tense are closely related with the construction of a story, and directly correspond to plot, version, and script (Figure 3).

III. System Specs

This system is a software by which transcripts on vocational counseling and job introduction may be easily prepared and analyzed. We assume that the main users are those employees in Japan public employment agencies who engage in vocational counseling and job introduction. The four objectives of the development of this system are as indicated below:

(i) Users can prepare transcripts on vocational counseling and job introduction efficiently using some fixed format.

(ii) Users can efficiently code each utterance in transcripts according to the Standards of Classification.

(iii) Users can quantify transcripts by using codes according to the Standards of Classification and display numerical values on screen that can be easily understood.

(iv) This system supports the following activities on vocational counseling and job introduction:

- externalization of experiences
- case studies
- examination of model

IV. Procedure

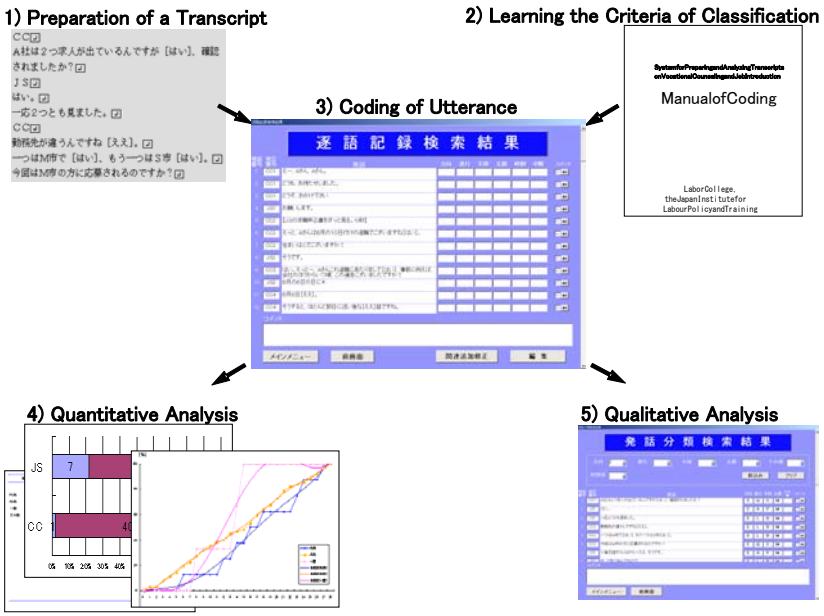
In applying the system, the exchange between the job seekers and counselors was classified by utterance units, and a code associated with each and every utterance.

1. Protocol of Transcript Analysis

Protocol is as follows (Figure 4):

1) prepare transcripts from audio recording of vocational counseling,
2) learn the criteria of classification of utterance,
3) enter the transcript into the system and to code utterances,
4) analyze the transcripts by quantity, and
5) analyze the transcripts by quality, for example, searching the specific code of utterance and interpreting their tendencies.

Figure 4. Protocol of utterance classification



2. Definition of an Utterance

An utterance is a string of words that expresses a certain organized meaning. The following are considered to be utterances: (i) Anything leading up to a period [.] or a question mark [?]. (ii) Anything up to the point where one person ceases speaking and the other person begins. (iii) A period of silence or a pause that continues over a certain length of time.

3. Classification of Utterances

Each Expressional Technique is divided into three Expressional Categories (Table 2).

The correlations between each Expressional Category are exclusive in nature, and, in principle, each utterance falls under one of these three Expressional Categories.

For example, Subject of Utterance has three Expressional Categories—Reasoning, Sentiment and Matter. Check to see if the utterance expresses emotion or desire. If it does not, then categorize it as “Matter”. If it does, then check if there is an element of cause of emotion or desire. If it does, then

Table 2. Criteria of classification

Expressional Category / Expressional Technique	Low ← Priority → High		
Processing	Explanation	Answer	Question
Tool	Non-directive / Repeated / Directive	neUtral / Negative / Positive	Open-ended / Why / Closed
Direction	Outer	General	Inner
Subject	Matter	Sentiment	Reasoning
Tense	Now	Past	Future

* The underlined letters are the code for each type of utterance.

categorize it as “Reasoning”. If it does not, then categorize it as “Sentiment”.

Here is an example. Take the utterance “I am happy”. Because this utterance includes “happy”, which expresses emotion, it is classified as “Sentiment”. Take another utterance such as “I am happy because my father came home”. This utterance is classified as “Reasoning”, because the “Sentiment” includes an element of cause. Take a further utterance such as “Today it is cloudy”. This is “Matter”, because it has no element of emotion or desire.

V. Results

This research was aligned with the training course given at the Labour College of the Japan Institute for Labour Policy and Training for counselors at public employment agencies. We requested recordings and transcripts from actual examples of vocational counseling performed by the counselors. We acquired 33 recordings and 35 transcripts from the 36 trainees that participated in the 2005 course. Of the 33 recordings, four were excluded because of bad sound quality that rendered them inaudible, while the remaining 29 case examples were used in this research.

The counseling session is divided into three sets of turns. The sets will be divided as First, Middle and Last. A turn is defined as a pair of a set of utterances by the job seeker (or the counselor) and a set of utterances as a response by the

Table 3. Average percentage of expressional category

N=29 (%)

Expressional technique of process				Expressional technique of career							
Processing		Tool		Direction		Subject		Tense			
Question	15.6 (5.6)	Closed	13.3 (5.0)	Inner	12.5 (6.1)	Reasoning	0.5 (0.6)	Future	3.3 (2.1)		
		Why	0.2 (0.8)	General	3.5 (2.8)	Sentiment	7.1 (4.6)	Past	10.0 (5.5)		
		Open ended	2.1 (1.5)	Outer	84.0 (6.8)	Matter	92.4 (4.9)	Now	86.7 (6.5)		
Answer	12.8 (5.2)	Positive	7.8 (3.7)								
		Negative	1.6 (1.2)								
		Neutral	3.4 (2.3)								
Explanation	71.6 (10.7)	Directive	7.1 (4.4)								
		Repeated	3.8 (2.1)								
		Non directive	60.6 (11.7)								
								Supportive Response	88.1 (41.9)		
								Interruption	29.9 (24.3)		
								Break	8.9 (8.1)		
										Silence	2.6 (3.4)
										Leaving Seat	0.9 (1.2)
										Inquiry	4.9 (4.9)
										Others	0.6 (1.5)

*( )=standard deviation Ave. of total number of turns = 51.3(27.4) Ave. of total number of utterances = 174.8(87.1)

Table 4. Average percentage of expressional category for job seekers

N=29 (%)

Expressional technique of process				Expressional technique of career							
Processing		Tool		Direction		Subject		Tense			
Question	8.7 (6.2)	Closed	7.2 (5.5)	Inner	15.0 (9.2)	Reasoning	0.7 (1.3)	Future	1.8 (2.5)		
		Why	0.0 0.0	General	0.7 (1.4)	Sentiment	5.1 (5.3)	Past	12.2 (8.0)		
		Open ended	1.4 (1.8)	Outer	84.3 (9.2)	Matter	94.2 (6.1)	Now	86.0 (9.3)		
Answer	29.6 (15.9)	Positive	18.2 (10.4)								
		Negative	4.0 (3.1)								
		Neutral	7.4 (6.4)								
Explanation	61.7 (16.7)	Directive	1.9 (2.9)								
		Repeated	3.8 (2.8)								
		Non directive	56.1 (17.6)								
								Supportive Response	62.1 (32.2)		
								Interruption	15.2 (13.6)		
								Break	1.9 (3.6)		
										Silence	1.3 (2.4)
										Leaving Seat	0.3 (0.2)
										Inquiry	0.4 (1.5)
										Others	0.2 (0.6)

*( )=standard deviation Ave. of total number of turns = 50.6(27.4) Ave. of total number of utterances = 64.5(36.1)

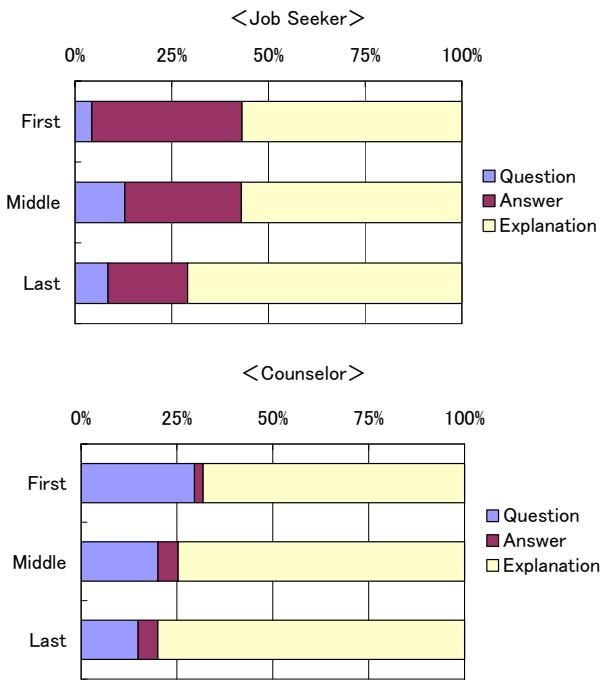
Table 5. Average percentage of expressional category for counselors

N=29 (%)

Expressional technique of process				Expressional technique of career							
Processing		Tool		Direction		Subject		Tense			
Question	19.8 (8.5)	Closed	16.9 (7.4)	Inner	10.3 (6.9)	Reasoning	0.4 (0.7)	Future	4.2 (2.9)		
		Why	0.3 (1.2)	General	5.0 (4.0)	Sentiment	7.9 (5.7)	Past	8.6 (5.0)		
		Open ended	2.6 (2.0)	Outer	84.8 (8.2)	Matter	91.8 (6.0)	Now	87.2 (6.2)		
Answer	4.3 (3.4)	Positive	2.6 (2.7)								
		Negative	0.4 (0.9)								
		Neutral	1.3 (1.7)								
Explanation	75.9 (9.3)	Directive	10.0 (5.5)								
		Repeated	3.9 (3.0)								
		Non directive	62.0 (11.0)								
								Supportive Response	25.9 (17.4)		
								Interruption	14.7 (11.7)		
								Break	7.0 (5.8)		
										Silence	1.3 (1.5)
										Leaving Seat	0.9 (1.1)
										Inquiry	4.5 (4.2)
										Others	0.4 (1.0)

*( )=standard deviation Ave. of total number of turns = 51.3(27.4) Ave. of total number of utterances = 110.3(56.4)

Figure 5. Results of utterance processing



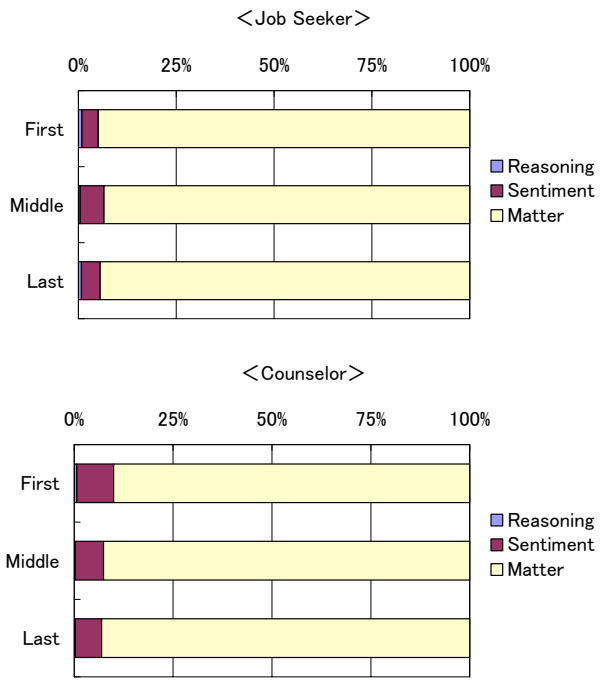
counselor (or the job seeker). The total number of turns differs for each counseling session, but averages approximately 51.3 turns. Each set of turns is one third of the total number of turns.

In applying the system, we calculated the percentage of the methods of expression among all utterances for every Expressional Technique (Table 3, 4, 5). Additionally, we performed a similar analysis on the roles of the job seeker and the counselors and on each time axis, First, Middle and Last in the counseling (Figure 5, 6, 7, 8). The results suggested the following trends in the exchanges between the job seekers and the counselors:

1. Processing

Among the utterances by the job seekers, Answer constituted an average of close to 30% versus Question with less than 10%. Among the utterances by the counselors, Answer constituted an average of close to 4% (an almost negligible number) versus Question with less than 20%.

Figure 6. Results of utterance subject



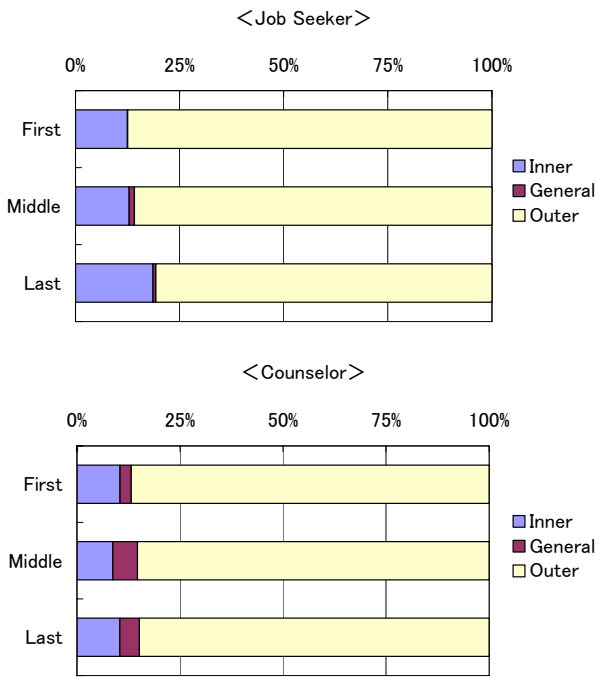
Question demonstrates a tendency to control the statements made by the other person and to lead the counseling. This is especially true of Closed Question, which, in comparison with Open-ended Question, requests the other party's approval or dismissal with the answers "yes" or "no."

In essence, there is a strong tendency for the counselor to control the job seeker's statements and actively move the counseling session along, staying in control. However, in terms of the timeline, with the progression of the counseling session, the average percentage of Question by the counselor and Answer by the job seeker decreases. The tendency for the counselor to control the job seeker's statements and lead the counseling starts off very strongly during the first half of the counseling session and grows weaker as the session enters the second half.

2. Subject

The average percentage of utterances combining Reasoning and Sentiment

Figure 7. Results of utterance direction



fell short of 10%, a very low number, for both the job seekers and counselors. There were no major changes in this tendency even when it was examined in terms of the timeline.

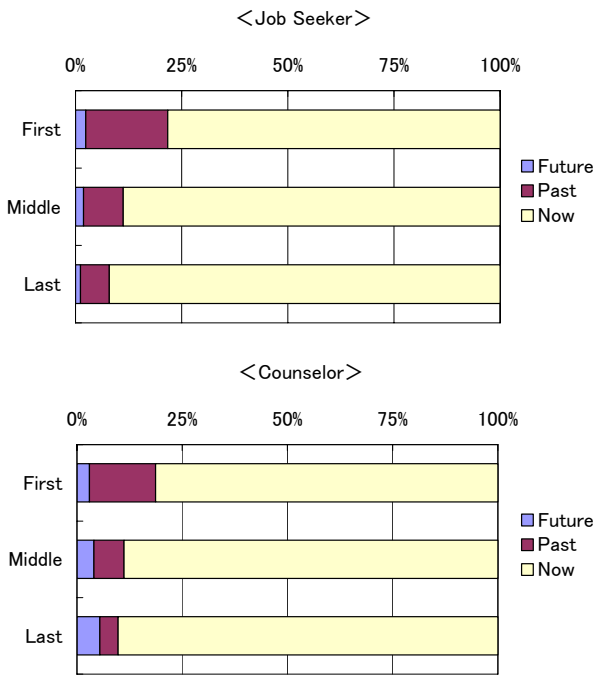
Generally in psychological treatment and counseling, priority is given to the emotional expressions of the client. Comparatively, the emotional expressions in the vocational counseling examined by this research were not given as much priority.

3. Direction

We define Inner as an utterance that expresses speaker's thought, understanding, feeling, and desiring.

The average percentage of Inner was more than 10% for job seekers and 10% for counselors. There is a tendency for the focus to be on the explanation of events and the current situation rather than the speaking of one's own thoughts, ideas, and emotions.

Figure 8. Results of utterance tense



Examining this by timeline reveals that there is no change with counselors, but for job seekers the average percentage increases in the last half of the counseling session. This may be due to the amount of time required to speak one's thoughts, ideas, and emotions.

4. Tense

The average percentage of the Now accounts for 90%. There was almost no conversation expressing Future or Past. However, in examining the timeline, the average percentage of Past shows a characteristic change. It is higher for both job seekers and counselors in the first half of the session and decreases in the last half.

Since there were many first-time counseling sessions during the research period, the sessions involved confirming that the job-hunting applications were correctly filled in, and this may account for the increased percentage of references to the past in the first half of the counseling session.

VI. Discussion

Because of the limited number of samples (29 cases), we were not able to apply statistical analysis on the results. But if we could understand the relationship among the expressional categories between the job seeker and the counselor, then we may be able to assume the following if the counselors were able to control the flow of vocational counseling and the construction of the story:

Processing: If the counselor wants the job seeker to be an active participant, the counselor can lessen the job seeker's passive attitude by making less Question utterances which in turn leads to a reduction in Answer utterances.

Direction: Since it is important to allow ample time for the job seeker to start to talk about themselves, the counselor must patiently wait for that time to come.

Tense: By controlling their Tense, the counselor can also control the job seeker's Tense.

From the standpoint of the constructionist approach, the control of the flow of the vocational counseling and the construction of the story isn't applied only to the career counselor, but also to the job seeker. The job seeker can also control the expressional technique, and can change the flow of the vocational counseling and the construction of the story.

Results suggest that (i) the vocational counselor has a tendency to talk more than the job seeker, (ii) the Expressional categories Outer, Matter, and Now constituted the majority, suggesting that in these vocational counseling cases, not much time was devoted into the construction of the job seeker's story.

We believe that the results may have been affected by the fact that (i) it was the first session for the job seeker in approximately 80% of the cases, and (ii) some time was spent by the counselors providing information, e.g. their employment agency's service and confirming basic details about the job seeker's activity.

Finally, by knowing how the vocational counseling process affects the job seeker's activity and performance after the counseling, we will be able to show the effectiveness of Expressional Technique.

VII. Future Research

There are three issues that arose regarding system development:

The first issue concerns the usability of the system. Currently, the interface needs to be simplified so that a first-time counselor can run the software without any assistance. In the future, we would like to improve its usability.

The second issue involves further classification of trends in vocational counseling sessions after increasing the number of example cases of counseling sessions, examining the trends associated with the frequency of sessions, the gender and age of the job seekers and counselors, and the combination of all of these factors. The vocational sessions are diverse, but by understanding the overall trend, a counselor will be able to understand the uniqueness of one's own counseling as compared to the average counseling.

The third issue involves the simplification of the classification standards of utterances. Two directions are possible: The first is the automatic classification of utterances by matching appropriate words, if any. The other step is the reduction of the classification standards.

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JILPT Research Activities

International Workshop

On February 19, 2008, the Japan Institute for Labour Policy and Training hosted "The 9th JILPT Comparative Labor Law Seminar" in Tokyo. The event addressed the theme of "New Developments in Employment Discrimination Law." In order to have cross-national discussions and comparative analyses on the above theme, we invited researchers from eight countries, Australia, France, Germany, Korea, Taiwan, U.K. and U.S. as well as from Japan. We discussed the issue of employment discrimination, focusing on the newer types of discrimination and the recent developments in employment discrimination laws. The submitted papers will be published and are scheduled to be posted on the JILPT website.

The list of Speakers and presented papers is as follows:

Risa Lieberwitz, Cornell University (USA), *Employment Discrimination Law in the United States: On the Road to Equality?*

Catherine Barnard, University of Cambridge (UK), *New Developments in Employment Discrimination Law - The UK Report.*

Bernd Waas, University of Hagen (Germany), *New Developments in Employment Discrimination Law - Country Report: Germany.*

Belinda May Smith, University of Sydney (Australia), *Australian Anti-Discrimination Laws - Framework, Developments and Issues.*

Pascal Lokiec, University Paris XIII (France), *Discrimination Law in France.*

Cing-Kae Chiao, Academia Sinica (Taiwan), *Employment Discrimination in Taiwan.*

Sung-wook Lee, Ewha Womans University (Korea), *New Development in Employment Discrimination in Korea.*

Ryoko Sakuraba, Kobe University (Japan), *Employment Equality Law in Japan: Human Rights or Employment Policy?*

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Application deadline:

Applications are accepted from March 16 to May 31, 2008. If you would like to apply for the program, please submit your application documents by May 31, 2008.

For more details, please visit our website, or contact us at:

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