
Understanding Restricted Regular Employment: Differences by Company Size with a Focus on Wages and Satisfaction Levels

Akihito Toda

Recruit Works Institute

As the Japanese government seeks to encourage greater implementation of restricted regular employment systems, it is important to ascertain the current developments regarding such forms of employment. Focusing particularly on the differences that arise depending on company size, this paper investigates the attributes of restricted regular employees and factors determining wages and satisfaction levels. The analysis results show that restricted regular employment is helping companies to provide more flexible ways of working, as reflected by the fact that women who are caring for and raising children tend to work as regular employees with restrictions on their working hours. The results also suggest that as many large companies have multiple places of business and need employees to be prepared for the possibility of personnel transfers—particularly those that involve moving to a new place of work—their approach to forms of employment that restrict such transfers may involve lowering wages. The findings also indicate that in small and medium-sized companies, which may need to operate with a comparatively limited number of staff and may therefore assign a wide scope of work duties to each employee, placing restrictions on scope of work duties allows employees to concentrate on certain types of work and in turn increases their levels of job satisfaction.

I. Introduction

It has been recognized for a number of years that forms of employment in Japan are polarized between two types: “regular” and “non-regular” employment. “Regular” employment offers advantages such as job security, opportunities for vocational skills development, and relatively high wages according to the number of years an employee has been working for the same employer, while also potentially involving significant changes in work duties and place of work, and being expected to work overtime and therefore potentially long hours. On the other hand, “non-regular” workers tend to engage in specific work duties that are changed very little, remain at the same place of work, and rarely be expected to work overtime. At the same time, as they work on fixed-term employment contracts that are periodically renewed as necessary, their position is insecure as their employer may at some point refuse to renew their employment contract. Non-regular employees also have little opportunities to develop their vocational skills, and receive relatively lower wages and fewer opportunities for pay rises.

* This paper is a revision of Toda (2015) for readers outside of Japan. The opinions expressed in this paper are those of the author and are not attributable to Recruit Works Institute. Any errors in this paper are the responsibility of the author.

Since Japan's period of high economic growth, many companies—large corporations in particular—have established personnel and labor management practices that involve a foundation of regular employees who are employed on a long-term basis, while also maintaining flexibility and increasing productivity by engaging non-regular workers as a means of adjusting their work forces and personnel costs along with changes in the business environment. While continuing to maintain long-term employment practices, companies have responded to the subsequent trend of decline in Japan's economic growth rate by adopting new approaches to regular employment, such as increasingly narrowing down the amount of new recruits and introducing ever stricter personnel evaluations. On the other hand, the percentage of workers in non-regular employment rose between the late 1990s and the early 2000s and has continued to increase gradually since. These growing percentages of non-regular workers include a number of people—young people in particular—who enter non-regular employment due to the lack of availability of regular employment. As other factors such as the increasing presence of women in employment and the subsequent rise in families in which both partners work have also led workers in Japan to develop more diverse approaches to work in seeking to ensure greater work-life balance, it has become necessary to readdress the divide between regular and non-regular employment. Moreover, with Japan's labor force set to decrease even further in the years to come, it is necessary to ensure that certain groups of people who tend to wish to limit their working hours and places of work—such as women who have commitments caring for children or older relatives, or older people who are constrained by their own physical health conditions—are able to maintain and develop a professional career that allows them to make use of their abilities, and in turn to contribute to maintaining Japan's economic vitality. A growing number of companies are ensuring that their personnel and labor management divisions review their employment portfolios—that is, the ways in which they combine different employment types—and the stark divides between regular and non-regular employment. Many have also introduced a new type of employment that offers an open-ended employment contract while also allowing employees to limit to what extent their work duties and places of work may be changed, and established systems to allow employees to switch from one type of employment to another. The number of workers who have open-ended employment contracts but also have restrictions on aspects such as work duties or place of work is also anticipated to increase due to the 2012 amendments to the Labor Contract Act (Act No. 128 of 2007), which guarantee workers who have been employed on fixed-term contracts for a sum of more than five years the opportunity to switch to open-ended employment contracts. At the same time, as the business environment is ever more uncertain due to growing economic globalization generating ever more intense competition among companies, and the increasingly rapid shifts in technological innovation and consumer needs, companies are also recruiting mid-career workers who possess the specialist knowledge required to carry out projects and other such initiatives to generate the added value sought by the market.

Given such changes in the business environment, it is necessary to establish more

varied forms of employment that ease the divide between regular and non-regular employment and benefit both labor and management by allowing each worker to achieve a suitable work-life balance while also allowing companies to employ talented workers and ensure that such workers are able to settle effectively in their workplaces. It has become important for companies to offer a greater number of employees “restricted regular employment”—regular employment with restrictions on work duties, place of work, and/or working hours—as one of these flexible forms of employment and ways of working. Restricted regular employment is similar to regular employment in the sense that employees have an open-ended employment contract, but differs with regard to ways of working and the ways in which companies may utilize the employees. On the other hand, it also has a number of points in common with non-regular employment, such as restrictions on place of work, job content, and working hours, while of course differing in the fact that non-regular employment involves fixed-term contracts. Restricted regular employment therefore serves as an intermediate form between regular and non-regular employment, and is anticipated to contribute not only to improving the job stability, wages, and other working conditions of non-regular employees, but also to establishing more diverse forms of employment, including ways of working that will allow regular employees to achieve work-life balance.

A significant number of companies already offer restricted regular employment at present. According to the Ministry of Health, Labour and Welfare’s “Report of the Study Group on ‘Diverse Forms of Regular Employment,’” regular employees account for 64.2% and restricted regular employees account for 32.9% of employed persons. It is possible to gain valuable insights for promoting further adoption of restricted regular employment by using existing data to shed light on what kinds of people are working as restricted regular employees, and how their wages, levels of satisfaction, and other conditions differ in comparison with people in other employment types.

At the same time, it undeniably seems that prior research on restricted regular employment—some examples of which will be introduced later in this section—has focused solely on large-scale companies and rarely addressed differences in company size. Certainly with regard to restrictions on place of work, there may be cases in small-scale companies where place of work is effectively limited as a result of the fact that the company only has one place of business. On the other hand, in the case of relatively large companies with places of business across the country, placing restrictions on place of work may allow for more varied forms of employment, whereas normally regular employees would all be subject to the possibility of transfers that involve relocating their place of residence. Table 1 suggests that as conditions regarding places of business differ according to company size, this theory is valid to some extent. Table 1 shows the percentages of companies with just one place of business and the percentages of companies with multiple places of business, according to company size (based on numbers of full-time employees), and for those companies with multiple places of business, the average number of places of business. These results demonstrate differences according to company size, as the larger the size of the

Table 1. Numbers of Places of Business by Company Size
(Based on Numbers of Full-Time Employees)

	Number of companies	Percentage of those companies that have one place of business	Percentage of those companies that have multiple places of business	Average number of places of business (for companies with multiple places of business)
Total number of employees for all company sizes	1,805,545	86.4%	13.6%	5.1
0–4 people	1,067,825	97.1%	2.9%	2.0
5–9 people	309,445	88.0%	12.0%	2.1
10–19 people	200,451	75.5%	24.5%	2.4
20–29 people	75,974	62.4%	37.6%	2.8
30–49 people	62,940	49.3%	50.7%	3.2
50–99 people	46,090	33.5%	66.5%	4.3
100–999 people	30,218	18.5%	81.5%	7.7
300–999 people	9,296	7.1%	92.9%	19.0
1,000–1,999 people	1,780	1.8%	98.2%	45.4
2,000–4,999 people	1,013	0.3%	99.7%	87.1
5,000 people or more	513	0.0%	100.0%	297.4

Source: Statistics Bureau, Ministry of Internal Affairs and Communications, *Economic Census* (2009).

company, the higher the percentage of companies that have multiple places of business and the higher the average number of places of business. This suggests that it is worthwhile to ascertain the conditions regarding restricted regular employment in smaller size companies, and develop discussions that reflect differences in company size.

This paper therefore addresses the above issues by adopting a particular awareness of differences in company size as it looks at (i) what kinds of people work as restricted regular employees, and (ii) in what ways their wages and levels of satisfaction differ from other types of employees.

While some studies have been conducted on restricted regular employees in Japan from the perspective of personnel management—such as Sato, Sano, and Hara (2003) and Nishimura and Morishima (2009)—the data used is mainly from medium-sized to large firms. Morishima (2011) suggests that in companies that are relatively large the introduction of restricted regular employment measures does not significantly affect regular employees, but may affect the attitudes of non-regular employees, either positively or negatively depending on the content of the measures. Takahashi (2013) conducts similar analysis to this study using the results of the Survey of Diverse Employment Types (conducted by the Japan Institute of Labour Policy and Training), a survey of personnel management supervisors and employees from places of business with ten full-time employees or more. Takahashi concludes with an overview of the utilization and employment situations of restricted regular employees, highlighting two challenges to be addressed by personnel management: the fact

that restricted regular employees with restrictions on their type of work have difficulty pursuing career development within their companies, and the fact that restricted regular employees with restrictions on their place of work tend to be dissatisfied with their wages. However, he does not particularly address differences in company size, perhaps due to the limitations of the data.

The following section introduces the data used in this research, and observes the approximate percentages of people actually in restricted regular employment and differences according to company size. Section III then describes the results of empirical analysis. The analysis covers the attributes of people who are in restricted regular employment, what kinds of differences restricted regular employees experience in wages and job satisfaction in comparison with people in other forms of employment, while also highlighting the differences depending on company size. Section IV concludes the paper with a summary of the results.

II. The Data

This section explains the data used in this paper and the methods of surveying restricted regular employees.

1. The 2012 Working Person Survey

This research uses data from the 2012 Working Person Survey conducted by Recruit Works Institute. The Working Person Survey has been carried out every two years since 2000. It collects repeated cross-section data to make a detailed survey of the current conditions of and individual attitudes to forms of employment. The 2012 survey was conducted by monitors from INTAGE Inc. between August and September 2012, on employed persons (male and female), including persons who engage in subcontracted work, from 18 to 59 years old, living in Tokyo, Chiba, Saitama, and Kanagawa. As this survey collects data mainly from persons who live in the Tokyo metropolitan area, it is important to note there are limitations on the extent to which it can represent Japan as a whole. 9,970 people responded to the 2012 survey. The following analysis excludes the data for persons who engage in subcontracted work, and looks at the responses from 9,723 employed persons.

This survey asks all employed persons—both regular employees and non-regular employees—whether the following systems are offered at their current places of work. Subjects respond by selecting either “applies” or “does not apply.”

- A system that restricts place of work, such that there are no transfers to branch offices or places of business that are considerably distant from the original place of work to the extent that the worker would be required to relocate their place of residence (“region-restricted regular employment”)
- A system that restricts the employee’s work duties in comparison with a normal regular employee, such that there are no transfers to other fields of work

- A system that allows employees to work fewer days or fewer hours per week than a normal regular employee (“short-time regular employment”)

The subjects were classed as regular employees or non-regular employees depending on the terms used by their place of employment to define their type of employment. Those regular employees for whom one of the above systems applied were defined as “restricted regular employees.” Those regular employees for whom none of the above systems applied—in other words, “normal” regular employees—are hereafter referred to as “non-restricted regular employees.”¹

2. Distribution of Restricted Regular Employees

Table 2 (a) shows the percentages of non-restricted regular employees and restricted regular employees by sex and age bracket. Looking at the percentages for males and females combined, non-restricted regular employees account for 45.4%, restricted regular employees account for 24.4%, and non-regular employees account for 30.2%. The percentages of non-restricted regular employees and restricted regular employees are lower than those in the survey results in the Ministry of Health, Labour and Welfare’s “Report of the Study Group on ‘Diverse Forms of Regular Employment,’” but the differences are not particularly significant. For males, the percentage of non-regular employees is higher in the young age bracket (age 18–29) than in the other age brackets, but the percentage of restricted regular employees is around 25% regardless of the age bracket. For females, the percentage of restricted regular employees is slightly higher the younger the age bracket, and is 28.1% for the 18–29 age bracket.

Table 2 (b) shows the percentage of restricted regular employees according to which aspect of employment is restricted. Looking at the totals for males and females combined, of the regular employees who responded that there is some form of restriction on their employment, 77.0% have restrictions on their place of work, 52.4% have restrictions on the scope of their work duties, and 20.1% have restrictions on their working hours. The percentage of restricted regular employees with restrictions on their place of work is notably high. The percentages of restricted regular employees with restrictions on place of work are particularly high in the case of males in the 18–29 age bracket, at 84.2%; females in the 18–29 bracket, at 82.1%, and females in the 50–59 age bracket, at 82.5%. In the case of the percentages of regular employees with restrictions on the scope of their work duties, while for males the percentages change very little across the different age brackets, for females the

¹ The Working Person Survey surveys whether subjects have an open-ended or fixed-term employment contract, but as the questions ascertaining the aspects of employment that are restricted are worded as comparisons with regular employees, it is thought that the compatibility of the data can be more effectively maintained in analysis by limiting the subjects to those known as regular employees according to the terms used at their workplace, and investigating the limitations within such regular employment. As this research relies on the respondents’ perceptions when ascertaining the restricted aspects, it has not been possible to prevent errors in perception.

Table 2. Percentages of Restricted Regular Employees among Total Employees and for Each Restricted Aspect of Employment (by Sex and Age Bracket)

(a) Percentage of each employment type among total employees

	Regular employees (non-restricted)	Restricted regular employees	Non-regular employees	Sample size
Males				
Age 18–29	48.1%	24.5%	27.4%	1,007
Age 30–39	61.3%	27.5%	11.3%	1,830
Age 40–49	68.0%	24.6%	7.4%	1,506
Age 50–59	63.5%	25.1%	11.4%	1,268
Total for males	61.2%	25.6%	13.2%	5,611
Females				
Age 18–29	29.4%	28.1%	42.6%	973
Age 30–39	26.7%	25.8%	47.5%	1,160
Age 40–49	20.5%	18.9%	60.7%	1,055
Age 50–59	18.1%	18.0%	64.0%	924
Total for females	23.8%	22.8%	53.4%	4,112
Total for males and females	45.4%	24.4%	30.2%	9,723

(b) Percentage of restricted regular employees for each restricted aspect

	Restriction on place of work	Restriction on scope of work duties	Restriction on working hours	Sample size
Males				
Age 18–29	84.2%	50.2%	17.0%	247
Age 30–39	75.8%	52.9%	18.5%	503
Age 40–49	74.6%	50.3%	21.4%	370
Age 50–59	70.8%	55.7%	23.0%	318
Total for males	75.8%	52.4%	20.0%	1,438
Females				
Age 18–29	82.1%	46.5%	19.1%	273
Age 30–39	75.3%	50.5%	27.8%	299
Age 40–49	76.9%	53.3%	19.6%	199
Age 50–59	82.5%	65.1%	10.2%	166
Total for females	78.9%	52.5%	20.4%	937
Total for males and females	77.0%	52.4%	20.1%	2,375

Source: Tabulated by author on the basis of the Recruit Works Institute, *Working Person Survey* (2012).

percentages grow the higher the age bracket—the percentage for females in the 50–59 age bracket is 65.1% in contrast with 46.5% for females in the 18–29 age bracket. Turning to the percentages of regular employees with restrictions on working hours, it is notable that the percentage for females in the 30–39 age bracket, 27.8%, is relatively higher in comparison with other age brackets.

Table 3. Percentages of Restricted Regular Employees among Total Employees and for Each Restricted Aspect of Employment (by Company Size)

(a) Percentage of each employment type among total employees

	Regular employees (non-restricted)	Restricted regular employees	Non-regular employees	Sample size
Less than 100 people	37.3%	25.0%	37.7%	3,443
100–999 people	47.1%	23.5%	29.3%	2,723
1,000 people or more	53.0%	22.4%	24.6%	3,019
Government and municipal offices	46.1%	36.3%	17.7%	538
Total for all company sizes	45.4%	24.4%	30.2%	9,723

(b) Percentage of restricted regular employees for each restricted aspect

	Restriction on place of work	Restriction on scope of work duties	Restriction on working hours	Sample size
Less than 100 people	81.8%	59.3%	12.7%	862
100–999 people	75.0%	51.8%	19.2%	641
1,000 people or more	72.1%	45.4%	31.6%	677
Government and municipal offices	79.5%	48.7%	16.4%	195
Total for all company sizes	77.0%	52.5%	20.2%	2,375

Source: Tabulated by author on the basis of the Recruit Works Institute, *Working Person Survey* (2012).

Table 3 shows the percentages of restricted regular employees by company size. Apart from in the case of government and municipal office employees, the percentage of restricted regular employees is around 25%. As in the case of companies with less than 100 workers the percentage of non-regular employees is 37.7% and therefore higher than in the case of other sizes of companies, it can be suggested that the percentage that restricted regular employees account for among regular employees is higher than at large companies. It is not possible to tell if this result is a reflection of the fact that in small companies the place of work, etc. is limited regardless of the company's personnel management measures, or if it is limited in the perception of the respondents. Looking exclusively at restricted regular employees, in terms of the percentages for each restricted aspect, regular employees with restrictions on place of work account for 81.8% for companies with less than 100 employees, a relatively higher percentage than for companies with 1,000 employees or more, where they account for 72.1%. Similarly in the case of regular employees with restrictions on scope of work duties, the percentage is higher for companies with less than 100 employees than for companies with 1,000 employees or more, at 59.3% and 45.4% respectively. It can therefore be suggested to a certain extent that it is easier for small-sized companies to restrict place of work or scope of work duties. On the other hand, restrictions on working hours have been more widely introduced by large companies, with the percentage of regular

employees with restrictions on working hours at 31.6% for companies with 1,000 employees or more, in comparison with 12.7% for companies with less than 100 employees.

Table 3 suggests that the percentages that restricted regular employees account for among regular employees are higher the smaller the size of the company, but it is difficult to suggest that small and medium-sized companies are more likely to offer such restrictions, irrespective of their personnel management approaches. Naturally, as the data is based on the perception of the respondents, we can go no further than suggesting that there is a slight trend. In the analysis in the following section it is therefore important to focus on the differences in company sizes by dividing the sample according to company size.

III. Results of Empirical Analysis

We apply regression analysis to observe the attributes of people who are actually in restricted regular employment, and how their wages and satisfaction levels differ from people in other forms of employment. The following analysis focuses particularly on regular employees, comparing non-restricted regular employees and restricted regular employees. This is because, as noted in the aforementioned prior research, in many cases there are significant differences in the wages and other working conditions and utilization policies that company personnel management applies to restricted regular employees and non-regular employees, whereas in the case of restricted regular employees and non-restricted regular employees the differences are presumed not to be significant, and it is therefore expected that it will be easier to understand these differences if we focus on the differences between restricted regular employees and non-restricted regular employees. Table 4 shows the basic statistics for the variables used for analysis.²

1. Analysis regarding the Attributes of Restricted Regular Employees

Firstly, we analyze how the attributes of people who are restricted regular employees differ from those who are not. Table 5 shows the results of probit analysis, for which the explained variables are dummy variables that take the value 1 for restricted regular employees and 0 for other types of employees.³ The analysis in Table 5 includes not only

² While not shown in Table 5 or the subsequent tables, there are industry dummies and occupation dummies as other variables for control. With the “construction industry” as a base, the industry dummies are classified into the following categories: “manufacturing industry,” “electricity, gas, and heating supply,” “telecommunications industry,” “transportation industry,” “retail/wholesale industry,” “finance/insurance industry,” “real estate industry,” “restaurant, accommodation industry,” “medical care/welfare,” “education/learning support,” “service industry,” “public affairs,” “industries that cannot be categorized/other.” With “service” as a base, the occupation dummies are classified into the following categories: “transport/telecommunications-related,” “manufacturing process/labor,” “management,” “clerical,” “sales,” “specialist,” “occupations that cannot be categorized/other.”

³ The explained variables take into account when there is any one of the restrictions, and when there is restriction on place of work, scope of work duties, and working hours respectively.

Table 4. Basic Statistics for the Variables Used in Empirical Analysis

	Males		Females	
	Mean	Standard deviation	Mean	Standard deviation
Restricted-regular employees	0.295	0.456	0.489	0.500
Regular employees with restrictions on place of work	0.224	0.417	0.386	0.487
Regular employees with restrictions on scope of work duties	0.155	0.362	0.257	0.437
Regular employees with restrictions on working hours	0.059	0.235	0.100	0.300
Hourly wage rate (logarithmic values)	7.776	0.652	7.425	0.557
Level of job satisfaction	2.293	0.967	2.350	0.944
Age 30–39 dummy	0.333	0.471	0.318	0.466
Age 40–49 dummy	0.286	0.452	0.217	0.412
Age 50–59 dummy	0.231	0.421	0.174	0.379
Tenure (years)	8.283	2.788	7.180	2.850
Junior college/specialised training college dummy	0.128	0.334	0.289	0.453
University/graduate school dummy	0.717	0.450	0.545	0.498
Spouse dummy	0.656	0.475	0.386	0.487
Youngest child under 6 years old dummy	0.194	0.395	0.112	0.316
“High school performance” at age 15 dummy	0.591	0.492	0.647	0.478
First employment as non-regular employee dummy	0.052	0.221	0.088	0.283
Company size 100–999 people dummy	0.288	0.453	0.272	0.445
Company size 1,000 people or more dummy	0.365	0.481	0.261	0.439
Government and municipal offices dummy	0.071	0.258	0.050	0.217

Source: Tabulated by author on the basis of the Recruit Works Institute, *Working Person Survey* (2012).

Note: Sample includes regular employees only. Level of job satisfaction dummy variable: 4= “very satisfied”; 3= “satisfied”; 2=“can’t say either way”; 1=“dissatisfied”; 0= “very dissatisfied.” “High school performance” at age 15 (results in third year of junior high school) dummy variable: 1=“high” and “slightly high”; 0= “around middle,” “slightly low,” and “low.”

regular employees but also non-regular employees in the sample, and seeks to observe what kinds of people among employed people become restricted regular employees.⁴

Equation (1) of Table 5 limits the sample to males and analyzes regular employees with some form of restriction on their employment conditions. Looking at age, the probability of being a restricted regular employee is lower in the 40–49 age bracket than in the

⁴ As workers have the options “non-restricted regular employee,” “restricted regular employee,” and “non-regular employee,” it appears suitable to adopt the nested logit model or multinomial logit model, but in the background to such models is the assumption that workers are able to freely select their form of employment on the basis of utility maximization, and due to the fact that this may not be consistent with the current situation in Japan and the fact that here we are looking not at workers’ choices but simply at the differences between regular-restricted employees and other types of employees, the binary model was adopted. Investigation with the nested logit model is a potential topic for future study.

Table 5. Probit Analysis regarding Restricted Regular Employees (Marginal Effect)

Explained variables	Males				Females			
	Restricted regular employees (1)	Restriction on place of work (2)	Restriction on scope of work duties (3)	Restriction on working hours (4)	Restricted regular employees (5)	Restriction on place of work (6)	Restriction on scope of work duties (7)	Restriction on working hours (8)
Age (vs. age 18-29)								
Age 30-39 dummy	-0.0303 (0.0210)	-0.0439 ** (0.0180)	-0.0153 (0.0160)	0.00224 (0.0110)	-0.0138 (0.0317)	-0.0371 (0.0303)	0.00840 (0.0278)	0.0154 (0.0160)
Age 40-49 dummy	-0.0492 ** (0.0220)	-0.0581 *** (0.0188)	-0.0337 ** (0.0165)	0.00380 (0.0118)	-0.0238 (0.0356)	-0.0555 * (0.0337)	0.0197 (0.0320)	0.00121 (0.0179)
Age 50-59 dummy	-0.0250 (0.0250)	-0.0523 ** (0.0210)	-0.0102 (0.0191)	0.0153 (0.0141)	-0.00932 (0.0400)	-0.0231 (0.0383)	0.0836 ** (0.0374)	-0.0316 * (0.0166)
Educational attainment (vs. junior high/high school graduates)								
Junior college/specialised training college dummy	-0.00314 (0.0249)	0.0100 (0.0227)	0.00405 (0.0191)	0.00282 (0.0137)	0.00250 (0.0367)	0.0303 (0.0360)	0.0137 (0.0316)	-0.00306 (0.0186)
University/graduate school dummy	-0.0276 (0.0204)	-0.00762 (0.0180)	-0.0144 (0.0157)	0.0147 (0.00962)	-0.0327 (0.0366)	-0.0224 (0.0356)	-0.0225 (0.0317)	-0.00666 (0.0185)
Spouse dummy	0.00590 (0.0175)	-0.00359 (0.0158)	0.0171 (0.0132)	0.00131 (0.00856)	0.000486 (0.0284)	0.000953 (0.0276)	-0.0359 (0.0242)	0.0205 (0.0150)
Youngest child under 6 years old dummy	0.000121 (0.0198)	-0.00261 (0.0178)	-0.00876 (0.0150)	0.00152 (0.0101)	0.0462 (0.0445)	-0.0386 (0.0421)	-0.00418 (0.0378)	0.117 *** (0.0330)
"High school performance" at age 15 dummy	-0.0159 (0.0143)	-0.0234 * (0.0129)	-0.0141 (0.0111)	-0.00433 (0.00721)	-0.00792 (0.0262)	-0.0112 (0.0254)	-0.00840 (0.0224)	0.0180 (0.0122)
First employment as non-regular employee dummy	0.0862 *** (0.0322)	0.0521 * (0.0289)	0.0692 *** (0.0260)	-0.0159 (0.0131)	-0.000218 (0.0419)	-0.0474 (0.0398)	0.0818 ** (0.0383)	-0.0596 *** (0.0124)
Company size (vs. less than 100 people) 100-999 people dummy	-0.0614 *** (0.0167)	-0.0726 *** (0.0142)	-0.0303 ** (0.0123)	0.00714 (0.00948)	0.00922 (0.0296)	-0.00252 (0.0288)	-0.0640 *** (0.0237)	0.0236 (0.0170)
1,000 people or more dummy	-0.0985 *** (0.0169)	-0.103 *** (0.0146)	-0.0687 *** (0.0125)	0.0253 *** (0.00962)	0.0528 (0.0323)	-0.0203 (0.0315)	-0.0630 ** (0.0259)	0.0835 *** (0.0213)
Government and municipal offices dummy	-0.0596 (0.0748)	-0.0609 (0.0592)	-0.0178 (0.0525)	0.00575 (0.0450)	-0.0486 (0.125)	-0.0770 (0.114)	-0.0683 (0.0877)	-0.0208 (0.0571)
Pseudo R ²	0.036	0.0348	0.036	0.0273	0.0942	0.0624	0.0624	0.1342
Sample size	4,872	4,872	4,872	4,872	1,916	1,916	1,912	1,916

Source: Estimated by author on the basis of the Recruit Works Institute, *Working Person Survey* (2012).

Note: Sample includes regular employees only. Industry dummies and occupation dummies also used as other explanatory variables. Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

18–29 age bracket. No differences were observed according to educational background or marital status. The results also reveal that the probability of becoming a restricted regular employee increases significantly when the first job on entering employment is as a non-regular employee. Looking at company size, in contrast with companies with less than 100 employees, the coefficients for companies with 100–999 employees and companies with 1,000 employees or more are negative and significant, suggesting that the larger the size of company the lower the probability of becoming a restricted regular employee. It is necessary to apply caution in interpreting these results as it is unclear whether this is due to the fact that there are differences according to company size in the amounts of regular employees for whom company personnel management establishes restrictions, or whether it is due to the fact that in small companies restrictions apply as a result of the small scale of the company and respondents from small companies have therefore responded that they are restricted regular employees because they are aware of such restrictions.

Equations (2) through (4) of Table 5 are the results of analysis using as explained variables dummy variables that take the value 1 for regular employees with the restrictions at the top of the table and 0 for other types of employees, for males only. Looking at age, for males with restrictions on place of work, the coefficients for the 30–39 age brackets are negative in comparison with the coefficient for the 18–29 age bracket, and for males with restrictions on scope of work duties, the coefficient for the 40–49 age bracket is negative in comparison with the 18–29 age bracket. The “First employment as non-regular employee dummy” is also significant only for restrictions on place of work and scope of work duties. Moreover, looking at company size, the results for restrictions on place of work and restrictions on scope of work duties are the same as Equation (1), but for restrictions on working hours, the coefficient for companies with 1,000 employees or more is positive and significant, and is therefore consistent with the results of Table 2. The variables that are significant differ according to the content of the restrictions.

Table 5 Equations (5) onward are the results of the same analysis as conducted for males, applied to the data for females. The results differ from those for males in that in the analysis of all people with some kind of restriction (Equation [5]) significant differences according to age were not observed, and, while it is not significant for males, the probability of becoming a regular employee with restriction on working hours is higher for females whose youngest child is aged under 6 years old. In particular, from the results of Equation (8), for females whose youngest child is aged under 6 years old, the percentage of people with some form of restriction rises by 11.7%. As this magnitude is greater than other coefficients, the effect of the age of the youngest child is also great in terms of the magnitude of its impact. As mentioned at the beginning of this paper, there is a growing demand for diverse forms of employment as a means of maintaining work-life balance, and the fact that the percentage of females in restricted regular employment is higher among those who are raising children while working reflects the growing importance of promoting the use of restricted regular employment systems as part of initiatives to help employees to balance

work with private commitments.

2. Analysis regarding Wages

Let us now look at to what extent there are differences in wages between restricted regular employees and other types of employees. As this study looks at annual income (excluding incidental income and income from side jobs), these differences will be investigated by estimating annual income functions.⁵

Table 6 shows results of estimation using Ordinary Least Squares (OLS) with logarithmic values of hourly wage rates as the explained variables. Equation (1) looks at the differences for restricted regular employees in all company sizes, for males only. The coefficients for restricted regular employees are the variables “with restrictions on place of work,” “with restrictions on scope of work duties,” and “with restrictions on working hours,” showing to what extent annual income differs on average in comparison with non-restricted regular employees due to each of the respective restrictions. As far as Equation (1) suggests, there is no statistical difference in any case. Equations (2) to (4) show the sample divided according to company size. Looking at the variables regarding restricted regular employees, for companies with less than 100 employees and 100–999 employees all of the coefficients are not significant, and for companies with 1,000 employees or more at -0.0996 the coefficient for restriction on place of work is negative and significant. Moreover, restriction on scope of work duties is positive and significant—although with a significance level of 10%. It can be suggested that transfers involving moving residence are important in large companies, to the extent that having restrictions on place of work when employed by a large company may lead to a subsequent penalty of 10% on annual income.

Looking at the results for women in Equations (5) through (8), Equation (5) for the total for all company sizes shows the coefficient for employees with restricted working hours is negative and significant in comparison with non-restricted regular employees. Looking at working hours, there is a penalty in Equation (5) for the total for all company sizes, but looking at Equation (6) onward, while it is significant with a 10% significance level for companies with 100–999 employees, for other company sizes it is not significant. Moreover, for companies with 1,000 employees, the coefficient for restriction on place of work is negative and significant.

3. Analysis regarding Job Satisfaction Level

Finally, let us look at the results of analysis of job satisfaction level in Table 7. The total for all company sizes for males shows that job satisfaction level is higher for regular employees with restrictions on scope of work duties than for non-restricted regular employees. Looking at the figures for each different company size, the coefficient for restriction on

⁵ Although it also depends on the formulation, the model estimated in this research can also be interpreted as estimating compensating wage differentials. Usui (2013) addresses compensating wage differentials. Related analysis includes Kuroda and Yamamoto (2013) and Morikawa (2010).

Table 6. Regression Analysis (OLS) regarding Hourly Wage Rates (Logarithmic Values)

VARIABLES	Males				Females			
	Total for all company sizes (1)	Less than 100 people (2)	100-999 people (3)	1,000 people or more (4)	Total for all company sizes (5)	Less than 100 people (6)	100-999 people (7)	1,000 people or more (8)
With restrictions on place of work	-0.0346 (0.0220)	0.00165 (0.0442)	-0.0370 (0.0345)	-0.0996 ** (0.0466)	-0.0285 (0.0272)	0.0137 (0.0392)	-0.00166 (0.0560)	-0.0908 ** (-0.0507)
With restrictions on scope of work duties	0.0107 (0.0275)	-0.0168 (0.0580)	-0.0300 (0.0375)	0.0990 * (0.0572)	0.0492 (0.0380)	0.0736 * (0.0380)	-0.00816 (0.0707)	0.0539 (0.0690)
With restrictions on working hours	0.0428 (0.0369)	0.00395 (0.0988)	0.0429 (0.0555)	0.0385 (0.0556)	-0.0810 ** (0.0404)	-0.0559 (0.0770)	-0.127 * (0.0675)	-0.0489 (0.0766)
Tenure (years)	0.0701 *** (0.0176)	0.0977 *** (0.0287)	0.0680 * (0.0364)	0.0574 * (0.0315)	0.0605 ** (0.0235)	0.0606 * (0.0330)	0.0658 (0.0469)	0.0505 (0.0584)
Square of tenure (/100)	0.000755 (0.00112)	-0.00252 (0.00200)	0.000808 (0.00230)	0.00211 (0.00193)	0.00184 (0.00158)	0.00163 (0.00238)	0.00151 (0.00312)	0.00320 (0.00371)
Educational attainment (vs. junior high/high school graduates)								
Junior college/specialised training college dummy	0.0114 (0.0312)	-0.0676 (0.0553)	0.0434 (0.0573)	0.0420 (0.0539)	0.0675 * (0.0367)	0.0525 (0.0509)	0.0211 (0.0779)	0.221 *** (0.0807)
University/graduate school dummy	0.0916 *** (0.0259)	0.0411 (0.0458)	0.118 *** (0.0439)	0.144 *** (0.0534)	0.115 *** (0.0354)	0.0866 (0.0538)	0.110 * (0.0665)	0.305 *** (0.0675)
“High school performance” at age 15 dummy	0.0660 *** (0.0167)	0.0592 * (0.0357)	0.0331 (0.0275)	0.101 *** (0.0294)	0.0845 *** (0.0243)	0.0296 (0.0364)	0.169 *** (0.0465)	0.0818 (0.0533)
First employment as non-regular employee dummy	-0.0100 (0.0314)	-0.0372 (0.0499)	-0.0134 (0.0539)	0.00867 (0.0674)	0.0444 (0.0378)	0.0278 (0.0450)	-0.0125 (0.0877)	0.104 (0.0948)
Company size (vs. less than 100 people)	0.101 *** (0.0231)				0.0798 *** (0.0286)			
1,000 people or more dummy	0.257 *** (0.0236)				0.132 *** (0.0333)			
Government and municipal offices dummy	0.0603 (0.105)				0.177 (0.116)			
Constant term	6.601 *** (0.0998)	6.682 *** (0.152)	6.704 *** (0.209)	6.793 *** (0.187)	6.326 *** (0.176)	6.430 *** (0.251)	6.328 *** (0.247)	6.225 *** (0.493)
Sample size	4,813	1,330	1,388	1,751	1,884	787	514	491
Adjusted R ²	0.289	0.166	0.251	0.263	0.243	0.244	0.232	0.244

Source: Estimated by author on the basis of the Recruit Works Institute, *Working Person Survey* (2012).

Note: Sample includes regular employees only. Industry dummies and occupation dummies also used as other explanatory variables. Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 7. Ordered Probit Analysis regarding Level of Job Satisfaction

Explained variables	Males				Females			
	Total for all company sizes (1)	Less than 100 people (2)	100-999 people (3)	1,000 people or more (4)	Total for all company sizes (1)	Less than 100 people (2)	100-999 people (3)	1,000 people or more (4)
With restrictions on place of work	-0.00138 (0.0762)	0.118 (0.132)	0.00669 (0.142)	-0.252 ** (0.102)	0.00267 (0.100)	0.0658 (0.157)	0.121 (0.198)	-0.117 (0.214)
With restrictions on scope of work duties	0.251 *** (0.0914)	0.158 ** (0.077)	0.547 *** (0.167)	0.0782 *** (0.185)	0.189 * (0.115)	0.161 (0.172)	0.336 (0.233)	0.241 (0.259)
With restrictions on working hours	0.0341 (0.128)	-0.184 (0.264)	-0.374 (0.262)	0.368 * (0.210)	0.143 (0.146)	0.211 (0.319)	0.0769 (0.257)	0.0765 (0.247)
Hourly wage rate (logarithmic values)	0.416 *** (0.0621)	0.379 *** (0.102)	0.506 *** (0.127)	0.372 *** (0.115)	0.206 ** (0.0936)	0.170 (0.162)	0.125 (0.199)	0.317 ** (0.153)
Tenure (years)	-0.138 *** (0.0482)	-0.263 *** (0.0783)	-0.104 (0.101)	-0.113 (0.0932)	-0.250 *** (0.0710)	-0.0460 (0.116)	-0.371 ** (0.150)	-0.522 *** (0.144)
Square of tenure (/100)	0.00773 ** (0.00321)	0.0179 *** (0.00566)	0.00547 (0.00666)	0.00432 (0.00595)	0.0207 *** (0.00519)	0.00353 (0.00851)	0.0349 *** (0.0116)	0.0381 *** (0.0103)
Educational attainment (vs. junior high/high school graduates)								
Junior colleges/specialised training college dummy	-0.0309 (0.101)	-0.0211 (0.166)	-0.206 (0.195)	0.0846 (0.205)	0.0189 (0.130)	-0.0544 (0.183)	-0.416 (0.305)	0.393 (0.302)
University/graduate school dummy	0.00214 (0.0824)	0.0764 (0.145)	0.00339 (0.164)	-0.0407 (0.151)	0.0656 (0.130)	-0.00918 (0.197)	-0.0976 (0.286)	0.319 (0.292)
“High school performance” at age 15 dummy	0.118 ** (0.0572)	0.132 (0.106)	0.134 (0.105)	0.0938 (0.100)	0.0509 (0.0955)	0.0726 (0.152)	0.0522 (0.178)	0.0724 (0.220)
First employment as non-regular employee dummy	-0.230 * (0.128)	-0.307 * (0.171)	0.00245 (0.276)	-0.456 (0.289)	-0.0513 (0.145)	0.183 (0.224)	-0.190 (0.276)	-0.474 (0.330)
Company size (vs. less than 100 people)								
100-999 people dummy	-0.0184 (0.0737)				-0.202 * (0.108)			
1,000 people or more dummy	0.187 ** (0.0774)				-0.303 ** (0.126)			
Government and municipal offices dummy	-0.0470 (0.399)				0.413 (0.415)			
Sample size	4,813	1,330	1,388	1,751	1,884	787	514	491
Log likelihood	-7435.0	-7432.6	-5245.6	-5244.2	-2538.5	-2536.2	-1325.5	-1324.8

Source: Estimated by author on the basis of the Recruit Works Institute, Working Person Survey (2012).

Note: Sample includes regular employees only. Industry dummies and occupation dummies also used as other explanatory variables. Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

scope of work duties is positive and significant for companies with less than 100 employees, in Equation (2), and for companies with 100–999 employees, in Equation (3), suggesting that job satisfaction level is greater for people with restrictions on scope of work duties in companies of small size. On the other hand, for large companies with 1,000 employees or more, the coefficient for restriction on place of work is negative and significant, although with a significance level of 10%, and the coefficient for restriction on working hours is positive and significant. For females, some form of restriction is not significant by company size, but looking at the total for the different company sizes, as with males the coefficient for restrictions on scope of work duties is positive, albeit with a significance level of 10%, suggesting that job satisfaction levels are higher for employees with restrictions on scope of work duties.

IV. Conclusion

This paper studies the current conditions of restricted regular employees with a particular focus on differences according to size of company, in the context of the Japanese government's efforts to further promote the use of restricted regular employment systems. The results demonstrate a tendency for women who need to care for and raise particularly young children to work as employees with restrictions on working hours, and suggest that it is highly likely that restricted regular employment systems contribute to providing flexible forms of employment.

Moreover, while there is a slight difference in results according to sex, the analysis regarding wages shows that restrictions on place of work and restrictions on working hours lead to wage penalties. In the case of restrictions on scope of work duties, results show that there is a possibility that annual income may increase due to the recognition of individual's specializations, and that restrictions on the scope of work duties may lead to an increase in job satisfaction, particularly in the case of small and medium-sized companies. The results also suggest that as many large companies have multiple places of business, and transfers to different positions and places of work are therefore very common, particularly forms of employment that restrict relocation to another place of work lead to a decrease in wages. As results also show that for males with restrictions on place of work not only wages but also levels of job satisfaction are lower than non-restricted regular employees to an extent that has statistical significance, it is also necessary to take note of the fact that for males wage penalties in return for not having the possibility of transfer lead to a decrease in levels of satisfaction. At the same time, as in the case of females levels of satisfaction have not decreased despite the existence of wage penalties due to restriction on place of work, it is highly likely that employment with restrictions on place of work at a large company is more easily accepted by women.

In the case of small and medium-sized companies, no wage premiums or penalties were observed as such issues regarding transfers do not tend to exist. Moreover, while we

can merely speculate, it is conceivable that in small and medium-companies restricting scope of work duties leads to an increase in job satisfaction as it allows employees to focus on a certain type of work, whereas normally each employee has a wide scope of duties due to the fact that the business needs to be run with a smaller number of people. As this suggests, the differences in company sizes lead to differences in the aspects of employment that are restricted and what effects these restrictions have on wages and levels of job satisfaction. It is therefore necessary to take such differences into account when investigating policies to promote the use of restricted regular employment systems, and to avoid introducing across-the-board policies that may in fact lead to disadvantages for companies or their employees. The Japanese government is currently gathering examples of companies that have successfully introduced restricted regular employment, and setting out and promoting examples of relevant employment regulations and points to be addressed in managing such systems, with the aim of assisting companies to ensure that labor and management pursue effective initiatives for the smooth introduction and operation of restricted regular employment systems. It is important that it takes a flexible approach to such initiatives and the information that it provides on successful cases and means by which companies can avoid risk when introducing such systems.

There are two issues to address regarding the research described in this paper. Firstly, it is necessary to improve how “restricted regular employee” is defined in questionnaire surveys for workers. This research has looked at restricted regular employees from the perspective of whether or not employees are under a restricted regular employment system implemented by their company’s personnel management, but it is possible that in addition to such conventional restricted regular employees, survey respondents who are not under such an employment system—but feel that they have such restrictions on their employment as a result of how they have been assigned to their job positions—also responded that they are a restricted regular employee. Secondly, when using data from the Working Persons Survey it is not possible to distinguish whether those who responded that they are regular employees with restrictions on place of work have responded as such because they are actually subject to such a system, or because their company only has one place of business and their place of work is therefore automatically limited to one location. It is hoped that these points can be improved in further research in the future.

References

- Kuroda, Sachiko, and Isamu Yamamoto. 2013. *Waku raifu baransu ni taisuru chingin puremiamu no kensho* [Wage premiums for firms’ work-life balance practice]. Discussion Paper 13-J-004, the Research Institute of Economy, Trade and Industry (RIETI), Tokyo.
- Morikawa, Masayuki. 2010. *Koyo hosho to waku raifu baransu: Hosho chingin kakusa no shiten kara* [Insecurity of employment and work-life balance: From the viewpoint of

- compensating wage differentials]. Discussion Paper 10-J-042, the Research Institute of Economy, Trade and Industry (RIETI), Tokyo.
- Morishima, Motohiro. 2011. “Tayona seishain” to hiseiki koyo [Diverse regular employees and non-regular employment]. In *Hiseiki koyo kaikaku* [Non-regular employment system reform in Japan], ed. Kotaro Tsuru, Yoshio Higuchi, and Yuichiro Mizumachi, chap. 9. Tokyo: Nippon Hyoronsha.
- Nishimura, Takashi, and Motohiro Morishima. 2009. Kigyonai rodo shijo no bunka to sono kitei yoin [Diversification of internal labor market and determinative factors], *The Japanese Journal of Labour Studies* 51, no. 5:20–33.
- Sato, Hiroki, Yoshihide Sano, and Hiromi Hara. 2003. Koyo kubun no tagenka to jinji kanri no kadai: Koyo kubunkan no kinko shogu [Diversifying employment categories and issues of HRM: Balancing wages across employment categories]. *The Japanese Journal of Labour Studies* 45, no. 9: 31–46.
- Takahashi, Koji. 2013. Gentei seishain no taipubetsu ni mita jinji kanrijo no kadai [Diversity of limited regular employees and issues of human resource management]. *The Japanese Journal of Labour Studies* 55, no. 7:48–62.
- Toda, Akihito. 2015. Gentei seishain no jittai: Kigyo kibobetsu ni okeru chingin, manzokudo no chigai [Understanding the situation of limited regular employment: With an emphasis on the difference in wage and satisfaction among firm size]. Special issue, *The Japanese Journal of Labour Studies* 57:110–118.
- Usui, Emiko. 2013. Tayona hatarakikata no igi to jitsugensei: Keizaigakuteki apurochi kara [Flexible jobs and compensating wage differentials: Theory and evidence]. *The Japanese Journal of Labour Studies* 55, no. 7: 37–47.