
Company Size and Childcare Leave: The Problems of Support for Women's Job Continuity

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I analyzed factors which determine job continuity at the stage of childbirth/childcare by company size focusing on the difference between the progresses of the childcare leave system of large and small/medium companies. It was said that small/medium companies flexibly support individual workers even without a system for balancing work and childcare. According to the analysis result, however, it was found that companies without a childcare leave system result in a high rate of women quitting the job before having the first child regardless of company size, the number of workers taking childcare leave is small in companies with less than 100 employee and the rate of women quitting the job before having the first child is high in urban areas where it is difficult to use a childcare center. It is important for even small/medium companies to promote the childcare leave system and utilization of that leave. On the other hand, even in large companies in which the rate of workers taking childcare leave is high, job continuity decreases due to the expansion of non-regular employment and the decreased job continuity of clerical workers. It can be an issue for large companies to further enhance the support system in response to changes in women's way of working.

I. Issues

The Childcare Leave Act was established in 1991 in Japan in order to support women's job continuity at the stage of childbirth/childcare, and workers became able to take childcare leave with or without that system in their companies. Since this act was put into effect, the number of women taking childcare leave increased.¹ In fact, most of women taking childcare leave are in companies with the childcare leave systems, but the number of companies without the childcare leave system which add provisions of childcare leave to their Work Rules is increasing (Wakisaka 2002).

However, the rate of small/medium companies with the childcare leave system (hereinafter referred to as introduction rate of childcare leave system) is relatively low compared with large companies. Higuchi (1994), Higuchi, Abe and Waldfogel (1997), Morita and Kaneko (1998), Nagase (2003) and Imada and Ikeda (2006) pointed out in their studies that the childcare leave system increases job continuity at the stage of childbirth/childcare. It is expected that more than a few women in small/medium companies quit the job since they cannot take childcare leave there. In the meantime, the actual support for balancing work

¹ Although the Childcare Leave Act was put into effect in 1992, that act has been applied to small establishments with 30 or less regular employees since 1995, i.e., three years were given for preparation. Since 1995, the name of the act has been changed to the Child Care and Family Care Leave Act due to adding provisions of family-care leave to the Childcare Leave Act.

and childcare in small/medium companies is different from that in large companies. Some researchers point out that small/medium companies respond flexibly to individual situations of employees (the Small and Medium Enterprise Agency 2006). According to this point, the relationship between childcare leave system and job continuity in small/medium companies is different from that in large companies.

Although having said that, there are still only a few studies which analyzed job continuity at the stage of childbirth/childcare by company size and it is still unclear that women can continue to work especially at the stage of having the first child, the most difficult time to continue the job, even without the childcare leave system. In this paper, therefore, factors determining job continuity at the stage of childbirth/childcare will be compared by company size. Through this analysis, I would like to highlight issues regarding the support for job continuity at the stage of childbirth/childcare of both large companies and small/medium companies.²

II. The Progress of Childcare Leave System in Japan

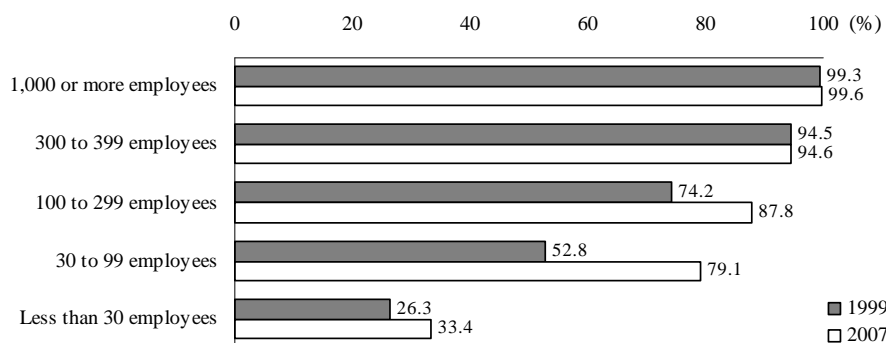
With the expansion of the employment of women in postwar Japan, the support for balancing work and childcare became an important issue of the employment support for women, and companies have provided childcare leave as a pillar of that support.³

In the legal sense, the words “childcare leave” first appeared in Article 11 of the Working Women Welfare Act established in 1972 stipulating that it is employers’ obligation to make effort to “provide childcare leave and other favors regarding childcare” (Fujii 1992). The Childcare Leave Act for Specific Jobs, which make the childcare leave for particular public workers such as female teachers, nurses and child-minders obligatory, was enacted in 1975. The Equal Employment Opportunity Act (hereinafter referred to as Equal Opportunity Act) which was established in 1985, by revising the Working Women Welfare Act, also stipulates that it is employers’ obligation to make effort to provide childcare leave.

During this time, the number of establishments introducing the childcare leave systems increased. According to the Survey on Implementation of Women’s Protection Work conducted by the Ministry of Labour, the rate of establishments with 30 or more regular employees having the childcare leave system was only 4.3% in 1973, just after the Working Women Welfare Act was passed, but rose to 19.2% according to the Basic Survey on Employment Management for Women conducted by the Ministry of Labour in 1988 after the

² This paper is based on the Japan Institute for Labour Policy and Training (JILPT) (2009). This report is an interim report of “Study on Policy Effect of Job Continuity,” a sub-theme of the project research, “Survey Research on the Way of Establishing Working Conditions towards Response to Diversification of Employment Formats and Realization of Work-Life Balance” in which JILPT conducts from FY2007 to FY2011.

³ For social movements in and out of Japan for establishment of the Childcare Leave Act, see Fujii (1992), Yokoyama (2002) and the Japan Institute for Labour Policy and Training (2006).



Sources: Ministry of Labour (1999), *Basic Survey on Employment Management for Women 1999*; The Japan Institute for Labour Policy and Training (2007), *Survey on Fixed-Term Contract Workers' Usage of Childcare Leave System, Etc.*

Figure 1. Companies with Childcare Leave System by Company Size:
Comparison of 1999 with 2007

Equal Opportunity Act has been put into effect. The obligatory childcare leave made by the Childcare Leave Act established in 1991 further encouraged this trend.⁴ The Basic Survey on Employment Management for Women conducted by the Ministry of Labour indicated that the rate of establishments with 30 or more regular employees having the childcare leave system was 21.9% in 1990, just before the Childcare Leave Act was passed, but rose substantially to 50.8% in 1993 just after that act came into effect. That rate continued to rise and became 88.8% in 2008 according to the Basic Survey of Gender Equality in Employment Management conducted by the Health, Labour and Welfare Ministry.

However, the progress of the childcare leave system in small/medium companies is different from that in large companies. Figure 1 shows the rates of establishments with the childcare leave system (introduction rates) in 1999 and 2007.⁵ Looking at the results in

⁴ This Childcare Leave Act was established riding on the strength of the fact that the declining birthrate was recognized as a serious problem, triggered by the so-called "1.57 shock," which the total fertility rate dropped down to 1.57 in 1989. Although the declining birthrate and the balancing work with childcare are different issues, the support for balancing work with childcare was positioned as an important issue for the measures against declining birthrate, since it was said that there is a burden of balancing work with childcare behind women's avoidance of marriage/childbirth. The background information on the measures against declining birthrate is provided by the Cabinet Office (2004).

⁵ Data sources are "Basic Survey on Employment Management for Women in 1999" conducted by the Ministry of Labour for 1999 and "Survey on Fixed-Term Contract Workers' Usage of Childcare Leave System, Etc." conducted by JILPT (hereinafter referred to as 'JILPT 2007 Survey'). Both are national surveys targeting private establishments with 5 or more regular employees and the sampling method is the same. Although the name of JILPT 2007 Survey is "Survey on Fixed-Term Contract Workers'..." since the implementation of the childcare leave system for open-ended contract employees was also surveyed as a target for comparison, we can see the implementation of the childcare leave system in establishments regardless of employment pattern. The meaning of company size in this paper is the number of employees in an entire company including affiliates and branches other than survey targets, distinguished from "scale of establishment" which indicates the number of regular

1999 (gray-colored bars), the introduction rates of establishments with 300 to 999 employees and 1000 or more employees exceed 90%, but the smaller the company size is, the lower the introduction rate becomes. There is a significant difference between companies with 300 or more employees and those with less than 300 employees. Although the results in 2007 (white-colored bars) show that the rate of companies with less than 300 employees introducing the childcare leave system rose, there is still a difference depending on company size. Particularly, the introduction rate of companies with less than 30 employees is low, about 30% in 2007.

However, it is pointed out that since small/medium companies respond flexibly to individual situations of employees even without a childcare leave system, women can continue the job (the Small and Medium Company Agency 2006). Nonetheless, such point is based on the survey of companies and more than a few women may have left the job under the situations in which companies have not recognized. Therefore, I will analyze whether or not the relationship between the existence of childcare leave system and job continuity at the stage of childbirth/childcare differs depending on company size based on individual data.⁶

III. Job Continuity at the Stage of Having the First Child by Company Size and Childcare Leave

1. Situation of Resignation before Having the First Child by Company Size

In Japan there are two peaks on the curve of women's workforce rate by age, one in

employees in a single establishment.

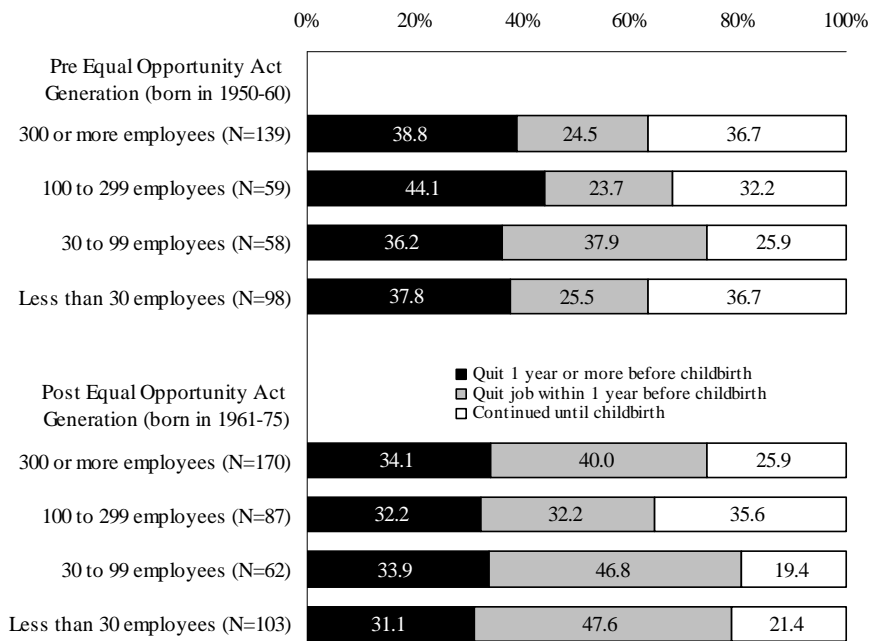
⁶ Data to be analyzed in the following are from "Survey on Work and Life" (JILPT 2005). 4,000 men and women at age between 30 and 54 were sampled with their spouses from throughout the country for the survey, conducted in the two-stage stratified random sampling method. The samples were interviewed and the placement method was used for their spouses. The survey was conducted in the period from June 17 to July 18, 2005 by a survey company (*Shin Joho* Center, Inc.). Responses were returned from 2,448 samples and 1,425 spouses, resulting in the collection rate of 57.9% from the samples (including 230 backup samples). This was the primary survey for the research project "Research on Establishment of Social System That Brings Harmony between Work and Life" conducted by the Japan Institute for Labour Policy and Training in the period from 2003 to 2006. The survey was designed to identify issues presented in establishing social systems that bring harmony between work and life, investigating actual conditions of employment management by companies, community services and family supports, at various life stages, including marriage, childbirth, childcare, independence of children, elderly care, retirement and others. The questionnaire was constructed primarily to ask about career, marriage, childcare, etc. For childcare in particular, detailed questions were prepared for care of each child they had, asking employment conditions during the stage of childcare (availability of the support systems for balancing work and childcare, use of the childcare leaves, etc.), assistance provided by family and relatives for childcare (division of household duties and childcare between husband and wife, helps of relatives for childcare), use of community services (childcare center, preschool childcare center, school children care center, nursery center, helps from neighbors, volunteer support, etc.). For details, see the Japan Institute for Labour Policy and Training (2006).

the young generation and the other in the middle-to-higher-age generation and there is a sharp drop of the workforce rate for childbirth and childcare, i.e., making an M-shape curve. Especially, the rate of women quitting the job at the time of having the first child is high. According to the 1st Longitudinal Survey of Babies in the 21st Century conducted by the Ministry of Health, Labour and Welfare in 2001, about 70% of women who worked one year before having the first child quit the job by six months after childbirth. It can be said that many women quit the job at the stage of pregnancy/childbirth. The Japan Institute for Labour Policy and Training (2006) and the National Institute of Population and Social Security Research (2007) proved that there was almost no change in the rate of women continuing the job after childbirth regardless of before or after the Equal Opportunity Act was put into effect. The Equal Opportunity Act put restrictions on employment management discrimination against women and the Childcare Leave Act put an obligation to give childcare leave on companies. Nevertheless, the rate of women continuing the job has not risen.

Is such situation dependent on company size? Figure 2 shows time to quit job before having the first child by company size for each cohort.⁷ A large majority of women in the "Pre Equal Opportunity Act Generation" (born in 1950-60) started their first job before the Equal Opportunity Act was enforced in 1986 and had their first child before the Childcare Leave Act was put into effect in 1992. On the other hand, a large majority of those in the "Post Equal Opportunity Act Generation" (born in 1961-75) started their first job after the Equal Opportunity Act was established and had their first child after the Childcare Leave Act was put into effect. I would like to mainly pay attention to "Post Equal Opportunity Act Generation" for the purpose of clarifying today's problems of the support for job continuity in the following, but will also show the analysis result of "Pre Equal Opportunity Act Generation" due to other issues to be clarified by comparing with the previous generation.

Looking at the result of "Pre Equal Opportunity Act Generation" (born in 1950-60), the rates of "continued until childbirth" (hereinafter referred to as job continuity rate) in companies with "300 or more employees" and "less than 30 employees" are relatively high. We can see from this that women in companies with less than 30 employees, the smallest company size, continued their job as same as those in large companies with 300 or more employees. However, the job continuity rates of younger cohort, "Post Equal Opportunity

⁷ As for company size, based on the results shown in Figure 1, companies with 300 or more employees are regarded as large companies and small/medium companies are divided into three groups by the number of employees: "100 to 299 employees," "30 to 99 employees" and "less than 30 employees." Companies with 300 or more employees are equivalent to the company size which is obliged to develop an action plan of support for balancing work and childcare on the basis of the Act on Advancement of Measures to Support Raising Next-Generation Children (hereinafter referred to as Next Generation Act). Companies with 100 to 299 employees are equivalent to the company size which is newly obliged to develop an action plan of support for balancing work and childcare by the revised Next Generation Act. As shown in Figure 1, even among enterprises with less than 100 employees, there is a difference of the introduction rate of the childcare leave system between those with 30 or more employees and less than 30 employees. That is why they are divided into four groups.



Source: The Japan Institute for Labour Policy and Training (2005), *Survey on work and life*.

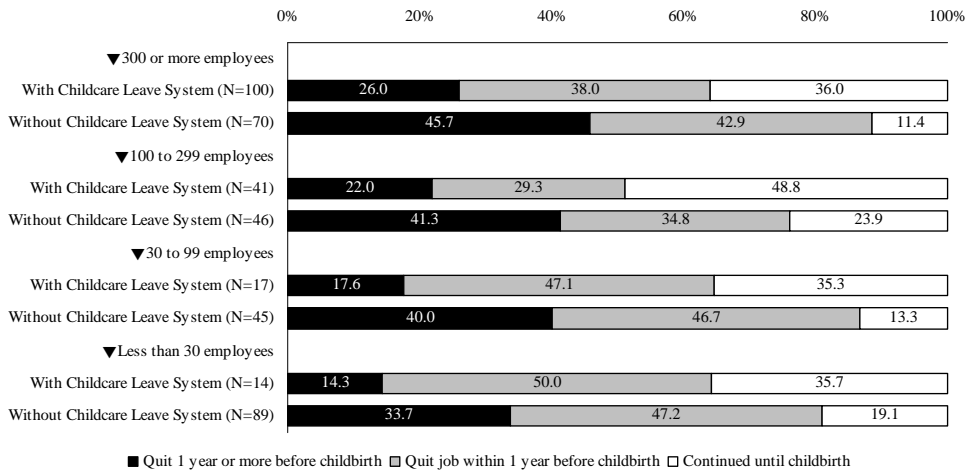
Figure 2. Time to Quit Job Immediately before Having the First Child: By Company Size for Each Cohort

Act Generation” (born in 1961-75), in companies with 300 or more employees and less than 30 employees are substantially lower compared with the previous generation. The job continuity rate of women in companies with 30 to 99 employees is also lower compared to the previous generation while its rate of drop is small. Women in companies with 100 to 299 employees show the highest job continuity rate among this generation and the rate is not lower compared to “Pre Equal Opportunity Act Generation.” It can be said the reason why younger cohorts’ job continuity rate does not rise is mainly due to drop in the job continuity rates of women in large companies with 300 or more employees and small/medium companies with less than 100 employees.

2. Quitting Job before Having the First Child and Childcare Leave System

In not only small/medium companies with less than 100 employees where the rate of adopting a childcare leave system is relatively low but also large companies with 300 or more employees which adopted that system at an early date, the job continuity rate of younger cohorts is still low. However, it would still be unwise to conclude that the childcare leave system does not have an effect of enhancing the job continuity rate.

Figure 3 shows time to leave job before having the first child by company size with



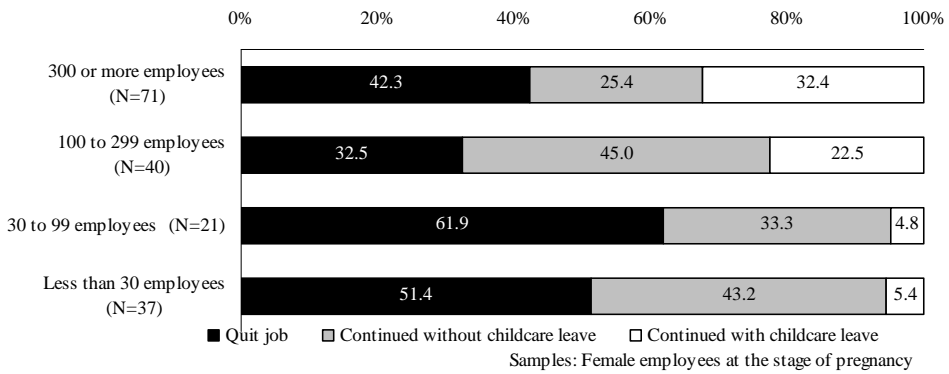
Source: Same as Figure 2.

Figure 3. Time to Quit Job Immediately before the First Childbirth: With or Without Childcare Leave System by Company Size for Each Cohort (Post Equal Opportunity Act Generation [Born in 1961-75])

and without the childcare leave system. Since a large majority of women in the “Pre Equal Opportunity Act Generation” had their first child before the Childcare Leave Act was put into effect and companies with the childcare leave system were rare, the result of younger cohort, “Post Equal Opportunity Act Generation” is only shown here. According to the result, the job continuity rate of women in companies without the childcare leave system is lower than that with the childcare system regardless of the company size. Particularly, the rate of quitting the job more than one year before childbirth is high in companies without the childcare leave system. In order to encourage women’s willingness to continue the job before pregnancy/childbirth, it is important for each company to make provisions for the childcare leave system regardless of the company size.

Nevertheless, we can see from Figure 4 that it is difficult to take childcare leave in small/medium companies with less than 100 employees. Figure 4 shows the rate of women in the “Post Equal Opportunity Act Generation” (born in 1961-75) who took childcare leave among those during the period of pregnancy/childbirth. The rate of women who continued their job by taking childcare leave in companies with less than 100 employees is extremely lower and the rate of those who quit their job is higher compared to that in companies with 100 or more employees.

On the other hand, no less important is the fact that the job continuity rate of women is also low in companies with 300 or more employees in which the rate of women who took childcare leave is the highest. In this company size, the rate of women who continued the



Source: Same as Figure 2.

Figure 4. Job Continuity at the Stage of the First Pregnancy/Having the First Child and Taking Childcare Leave: By Company Size for Each Cohort (Post Equal Opportunity Act Generation [Born in 1961-75])

job without taking childcare leave is low and even lower compared to that in small/medium companies with less than 100 employees. Therefore, the job continuity rate of women who continued the job by taking childcare leave and without taking childcare leave in companies with 300 or more employees is lower than that with 100 to 299 employees. It would appear that younger cohort's job continuity rate dropped in large companies with 300 or more employees due to increased number of women quitting the job without the reason of childcare leave.

IV. Difference of Factors Determining Job Continuity Depending on Company Size

1. Changes in Way of Working and Increase in Demand for Childcare Services

It is highly possible that many of women in small/medium companies with less than 100 employees quit the job since they cannot take childcare leave even after the Childcare Leave Act was put into effect. In large companies with 300 or more employees, on the other hand, the rate of women taking childcare leave is high but the job continuity rate of those who do not take childcare leave is lower compared to that in small/medium companies with less than 100 employees. In order to clarify today's problems of the support for job continuity, it is necessary to focus on other factors as well as the childcare leave system. I would like to focus on the following points in this paper.

Firstly, there is a possibility that it becomes difficult for younger cohort to continue the job due to changes in women's way of working. The Equal Opportunity Act put restrictions on the employment management which discriminated against women, while the Labor Standard Act was also revised and the regulation for female worker protection was substan-

tially relaxed. Although such policies provided a major boost to the expansion of women's job categories, there is a possibility that job continuity at the stage of childbirth/childcare became difficult due to their job categories such as night, dangerous and long hours of work. Among younger cohort, the number of non-regular workers has increased. Since many of non-regular workers sign a fixed-term contract, they were exempt from childcare leave before the revised Child Care and Family Care Leave Act was put into effect in 2005. It remains possible that the number of women who had to give up the hope of taking childcare leave due to such changes in the way of working. In particular, it would appear that the reason why women in large companies in which the childcare leave system is widely adopted and the rate of taking childcare leave is high do not continue the job is based on such changes in the way of working.

The other one is the change in support systems for balancing work and childcare outside the companies. It is a common knowledge that housework/childcare support by families living together played a great role for job continuity at the time when there were few companies which introduced the childcare leave system and there was no Childcare Leave Act. According to Imada and Ikeda (2006), however, it becomes difficult for younger cohort to rely on the childcare support by families in order to continue the job. On the other hand, the shortage of childcare centers is still a serious problem in urban areas even though childcare services have been expanded since the 1990s. There is a possibility that since the supply of childcare services cannot keep up with the increase of demand for that, it becomes difficult for younger cohort to continue the job. It is highly likely that women working for small/medium companies with less than 100 employees quit the job since it is difficult to take childcare leave and use childcare centers especially in urban areas.

I will analyze the data in the following for these issues.

2. Factors of Employment at the Stage of Having the First Child

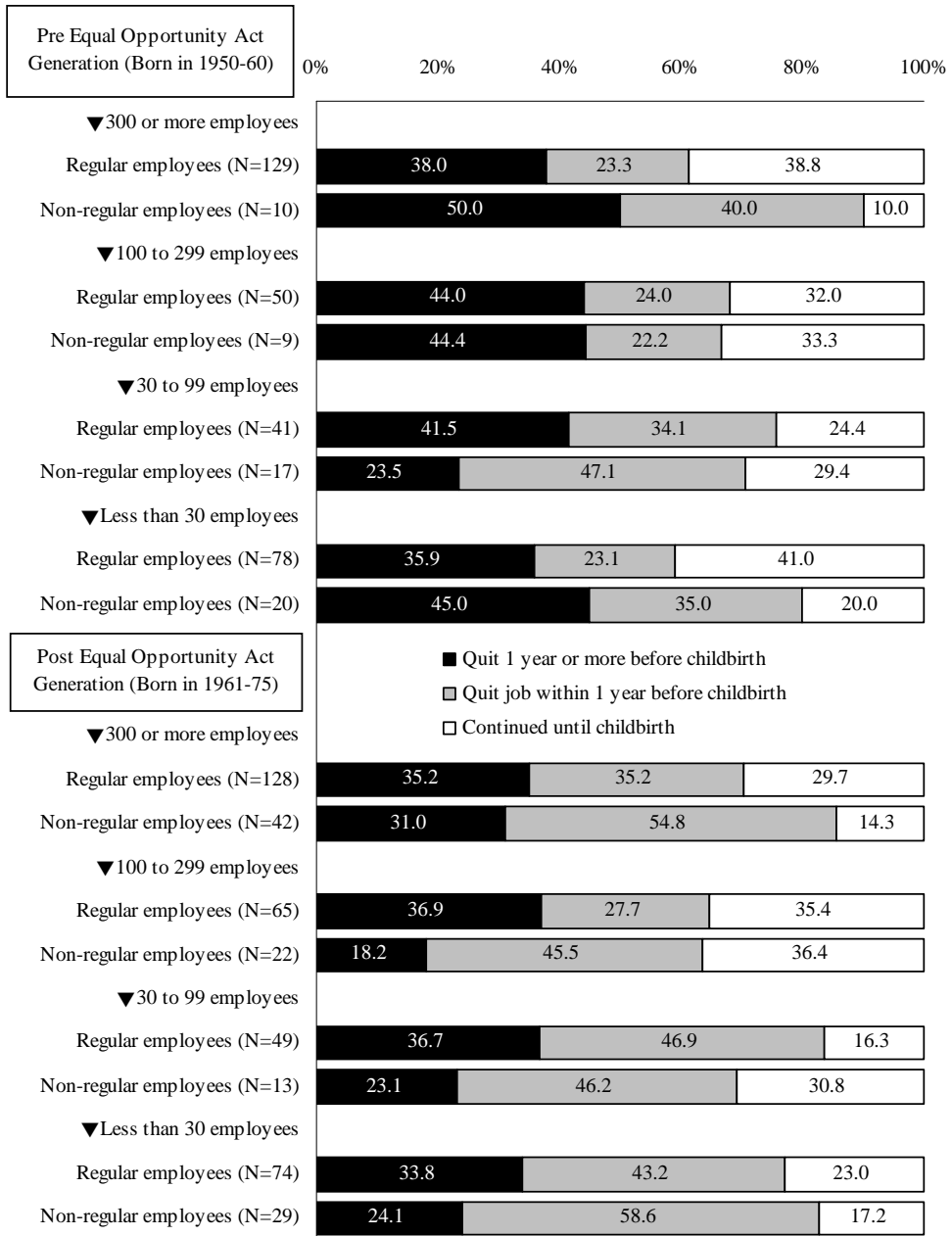
Figure 5 shows the time to quit job before having the first child of "Pre Equal Opportunity Act Generation" and "Post Equal Opportunity Act Generation" by type of employment immediately before childbirth for each company size.⁸

In this figure, I firstly would like to focus on "regular employees." In companies with "300 or more employees," "30 to 99 employees" and "less than 30 employees," the job continuity rate of female regular employees in "Post Equal Opportunity Act Generation" is lower than that in "Pre Equal Opportunity Act Generation."

In Figure 2, the job continuity rate of these company sizes dropped overall. Figure 5 indicates that the dropped job continuity rate of female regular employees contributed to that.

I also would like to focus on non-regular employees in "Post Equal Opportunity Act

⁸ Based on the questionnaire, "department managers and above" and "general regular employees" are defined as "regular employees," and "part-timers, temporary workers and contract employees" and "dispatched workers" are defined as "non-regular employees."



Source: Same as Figure 2.

Figure 5. Time to Quit Job Immediately before Having the First Child: By Company Size and Type of Employment Immediately before Having the First Child for Each Cohort

Generation.” Although a part of fixed-term contract employees became eligible for childcare leave by the revised Child Care and Family Care Leave Act enforced in 2005, most of women analyzed here had the first child before the revised act has been put in effect. There is a high possibility that many of non-regular employees could not take childcare leave due to the fixed-term contract.

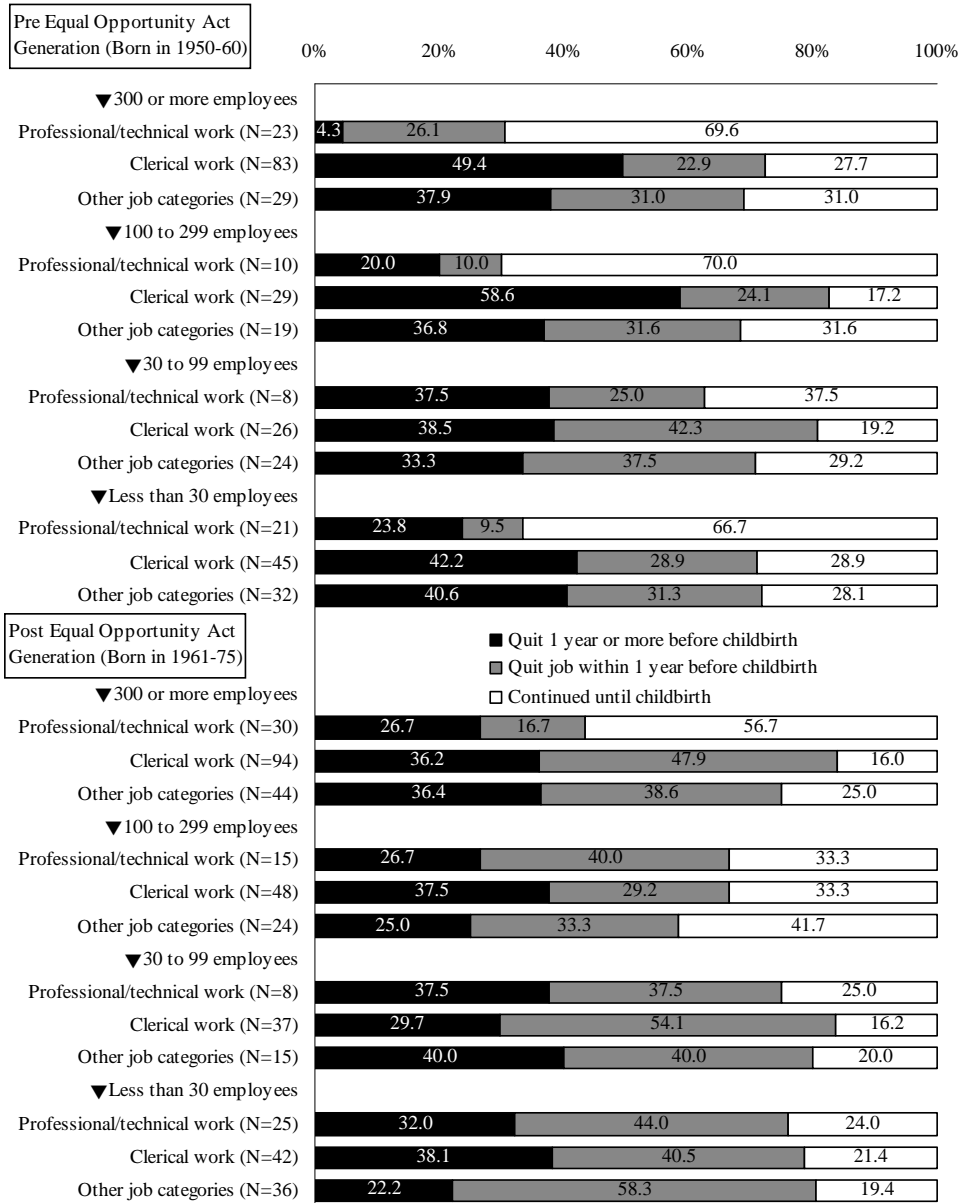
However, I also would like to pay attention to the fact that the difference of the job continuity rates between regular and non-regular employees are dependent on company size. In companies with “300 or more employees” and “less than 30 employees,” the job continuity rate of non-regular employees is lower than that of regular employees. Although figures are omitted, the rate of younger generation's non-regular employees in companies with 100 or more employees rises and that rate in companies with 300 or more employees rises from 7.2% of “Pre Equal Opportunity Act Generation” to 24.7% of “Post Equal Opportunity Act Generation.” It can be said that the expansion of non-regular employment in young people became a factor contributing to reduce the job continuity rate of large companies. In companies with “100 to 299 employees” and “30 to 99 employees,” however, the job continuity rate of non-regular employment is not lower than that of regular employment. The expansion of job continuity for fixed-term contract employees who became eligible for childcare leave after 2005 is an important issue especially for companies with 300 or more employees.

Next, I focus on the relationship with type of job category. Figure 6 shows the time to quit job before having the first child of “Pre Equal Opportunity Act Generation” and “Post Equal Opportunity Act Generation” by type of job category immediately before childbirth for each company size.⁹

Firstly, I would like to point out that the job continuity rate of professional/technical work dropped regardless of company size. The childcare leave has been legalized for traditional female professional work, i.e., nurses, teachers and child-minders, by the Childcare Leave Act for Specific Jobs since 1975. Nevertheless, the job continuity rate of professional/technical work dropped among younger cohort.¹⁰ Additionally, I would like to pay attention to the job continuity rate of clerical work. In companies with “300 or more employees” and “less than 30 employees” in which overall job continuity rate dropped substantially in figure 2, the job continuity rate of clerical work also dropped. Especially in companies with 300 or more employees, that rate dropped extremely. In contrast, the job continuity rate of clerical work increased in companies with 100 to 299 employees.

⁹ Since the samples size which allows to analyze each job category by company size cannot be secured, clerical work which has the highest rate in each company size in “Pre Equal Opportunity Act Generation” and “Post Equal Opportunity Act Generation” and professional/technical work which has traditionally high job continuity rate are regarded as single categories and other job categories are lumped together and regarded as “others.”

¹⁰ In the traditionally sustainable job category of clinical nurses, teachers and childcare nurses, there are an increasing number of other professionals of diversified job descriptions. A separate research shall be conducted to analyze this issue in detail.



Source: Same as Figure 2.

Figure 6. Time to Quit Job Immediately before Having the First Child: By Company Size and Job Category Immediately before Having the First Child for Each Cohort

Companies with 30 to 99 employees showed little or no drop in that rate. We can see the fact that the job continuity rate of clerical work which makes up the largest number of women before childbirth has a great influence on entire job continuity rate.

Based on these analysis results, I will conduct multivariate analysis in order to clarify the factors that determine quitting job before having the first child. What I would like to examine in this analysis is not the effect of company size on job continuity but the difference of factors depending on company size. As shown in Figure 4, since there is a big difference of the rate of women taking childcare leave between companies with 100 or more employees and less than 100 employees, the object of analysis is divided into companies with 100 or more employees and those with less than 100 employees.

The explained variable is employment at the time of having the first child; employment = 1, unemployment = 0. Explanatory variables include cohort, educational attainment, age at first birth, type of employment immediately before having the first child (regular employment = 1, non-regular employment = 0), job category immediately before having the first child¹¹ (benchmark is clerical work), availability of the childcare leave system at the workplace immediately before having the first child (available = 1, unavailable = 0), the first child's age when using a childcare center for the first time, availability of childcare help from the parent (available = 1, unavailable = 0), sharing of husband's housework/childcare, and attribute of residential area (urban¹² = 1, others = 0).¹³ As for childcare center, child's age when using it for the first time is important for job continuity, not just use of it. Therefore, the first child's age when using a childcare center for the first time shall be divided into "infant," "one year old," "two years old" and "three years old or older" and the benchmark shall be "no use of childcare center." Regarding the availability of childcare help from the parent, "available" = 1 and "unavailable" = 0. Concerning the sharing of husband's housework/childcare, "30% or higher" is regarded as "sharing" = 1, "10%" and "wife shares almost all" are regarded as "none" = 0.

Table 1 shows a result of breakdown for all cohorts.

¹¹ No appropriate samples were available for "Workers in agriculture, forestry or fishery," "Managers and officials" and "Protective service work." A few samples were found for "Transportation" and "Communication," but the number of samples was not large enough for the analysis and they were excluded.

¹² The term "urban areas" means urban areas defined by "Situations of Childcare Center (as of April 1, 2008)," the Ministry of Health, Labour and Welfare and specifically refers to Tokyo, Kanagawa, Chiba and Saitama in the Tokyo metropolitan district, Kyoto, Osaka and Hyogo in the Osaka metropolitan district, ordinance-designated cities and core cities with a large size of population. In Japan, children who cannot get in childcare centers due to applications exceeding the capacity are called "waiting children." According to that report, 77.7% of the waiting children concentrate in urban areas.

¹³ Although JILPT (2006, 2007) analyzed with combination variables of childcare leave system, use of childcare center and childcare help from family/relatives, since the sample size which allows to estimate in each category cannot be secured with combination variables, those are inputted as independent variables.

Table 1. Factors Determining Employment/Non-Employment at the Time of Having the First Child (Logistic Regression Analysis)

Explained variable	Employment/non-employment at the first childbirth (employed = 1, not employed = 0)					
	100 and more employees			Less than 100 employees		
Subjects of analysis (company size)	Coefficient	Standard error	Odds ratio	Coefficient	Standard error	Odds ratio
Cohort (reference: Born in 1950-55)						
Born in 1956-60	-.152	.393	.859	-.199	.414	.820
Born in 1961-65	-.693	.450	.500	-1.054*	.497	.349
Born in 1966-70	-1.397**	.455	.247	-1.490*	.587	.225
Born in 1971-75	-.957*	.466	.384	-1.066*	.527	.344
Educational attainment	-.098	.105	.907	-.293**	.109	.746
Age at first birth	.010	.041	1.010	-.072	.048	.930
Type of employment (regular employment = 1, non-regular employment = 0)	.110	.389	1.116	.017	.402	1.017
Job category (reference: clerical work)						
Professional/technical work	.906*	.388	2.474	1.408**	.445	4.086
Sales	-.171	.449	.843	-.434	.546	.648
Services	.433	.785	1.542	.089	.537	1.093
Skilled workers and laborers	1.256**	.412	3.512	-.277	.559	.758
The childcare leave system at the workplace (available = 1, unavailable = 0)	1.586**	.302	4.883	1.028**	.385	2.796
First child's age when using a childcare center for the first time (reference: no use of childcare center)						
Infant	3.113**	.588	22.480	2.899**	.724	18.159
One year old	1.689**	.490	5.412	1.816*	.817	6.147
Two years old	.805	.577	2.236	.260	.671	1.297
Three years old or older	.342	.337	1.407	.424	.370	1.528
Childcare help from the parent (available = 1, unavailable = 0)	.911*	.354	2.487	.760	.404	2.137
Husband's housework/childcare (sharing = 1, none = 0)	.724*	.344	2.064	1.150**	.442	3.158
Attribute of residential area (urban = 1, others = 0)	-.583*	.284	.558	-.644	.350	.525
Constant	-1.420	1.646	.242	3.869*	1.744	47.909
Chi-square		138.848**			81.906**	
Df		19			19	
N		406			297	

Samples: Women who were employed before having the first child.

**p<.01; *p<.05

Source: Same as Figure 2.

In this result, I would like to firstly point out that both companies with “100 or more employees” and “less than 100 employees” show a positive effect of the childcare leave system. To make provisions for the childcare leave system as a support for job continuity at the stage of childbirth/childcare must be important regardless of company size. As for the effect of job category, “professional/technical work” also shows a positive effect regardless of company size. Looking at companies with “100 or more employees,” however, “skilled work/labor service” also shows a significant positive effect. This result suggests the job continuity rate of “skilled workers and laborers” is higher among “other job categories” in Figure 6. On the other hand, companies with “less than 100 employees” shows a negative effect of educational attainment and the analysis result indicates that the higher the level of education, the more women quit the job. It would appear that since not only the progress of the childcare leave system but also the use of female workforce differ depending on company size, differences in the effects of educational background and job category appear.

Focusing on the effect of support systems for balancing work and childcare outside companies, both companies with "100 or more employees" and "less than 100 employees" shows common effects that women using a childcare center from when child is infant or one year old continue the job more than those who do not use any childcare center and the more the husband shares housework/childcare, the more the wife continues the job. Meanwhile, the availability of childcare help from the parent and the attribute of residential area show different effects between companies with "100 or more employees" and "less than 100 employees." The analysis result shows that among women working for companies with "100 or more employees," the job continuity rate is higher if the parent helps childcare and the rate of quitting job is higher if living in "an urban area." By contrast, there is no significant effect of the availability of childcare help from the parent or the attribute of residential area in companies with "less than 100 employees." It indicates that since the way of working differs depending on company size, the effect of support outside companies on job continuity also differs.

I would like to point out another thing; even if the effect of these supports for balancing work and childcare is controlled, younger cohort's job continuity rate is still low. Among companies with "less than 100 employees," the job continuity rates of women born in 1961-65, 1966-70 and 1971-75 are lower than that of those born in 1950-55, the oldest cohort. Even among companies with "100 or more employees," the job continuity rates of women born in 1966-70 and 1971-75 are lower than that of those born in 1950-55. The cohorts equivalent to "Post Equal Opportunity Act Generation" in the previous analyses discontinued the job. Younger cohorts reach the stage of childbirth/childcare when childcare centers are expanded as well as spreading the childcare leave system. Husbands take part in housework/childcare more than previous generations. Nevertheless, the number of women quitting the job before having the first child increases according to the analysis result.

Under such circumstances of younger cohorts quitting the job, the important thing is that the factors determining job continuity have changed from "Pre Equal Opportunity Act Generation." Analysis objects were divided into "Pre Equal Opportunity Act Generation" and "Post Equal Opportunity Act Generation" and the results are as follows:

Table 2 shows the result when the analysis object was limited to "Pre Equal Opportunity Act Generation" (born in 1950-60). I would like to pay attention that the factors determining job continuity differ depending on company size, i.e., different between companies with "100 or more employees" and "less than 100 employees."

In case of companies with 100 or more employees, the analysis result shows that the job continuity rates of professional/technical work and skilled work/labor service are higher than that of clerical work and that rate is higher if there is a childcare system in the company and the husband takes part in housework/childcare. The rate of quitting job is higher if living in an urban area. As for the support for balancing work and childcare, the childcare leave system and husband's housework/childcare have a significant positive effect. Note that not many companies adopted the childcare leave system even among those with 100 or

Table 2. Factors Determining Employment/Non-Employment at the Time of Having the First Child in Pre Equal Opportunity Act Generation (Born in 1950-60) (Logistic Regression Analysis)

Explained variable	Employment/non-employment at the first childbirth (employed = 1, not employed = 0)					
	Pre Equal Opportunity Act Generation (born in 1950-60)					
Subjects of analysis (cohort)	100 and more employees			Less than 100 employees		
Subjects of analysis (company size)	Coefficient	Standard error	Odds ratio	Coefficient	Standard error	Odds ratio
Educational attainment	-.020	.158	.980	-.294*	.145	.745
Age at first birth	.038	.064	1.038	-.082	.065	.921
Type of employment (regular employment = 1, non-regular employment = 0)	.433	.713	1.542	-.109	.535	.896
Job category immediately before having the first child (reference: clerical work)						
Professional/technical work	1.427*	.651	4.167	1.846**	.655	6.331
Sales	-.805	.879	.447	-.584	.784	.558
Services	1.022	1.236	2.779	-.056	.839	.945
Skilled workers and laborers	1.974**	.632	7.201	-.007	.621	.993
The childcare leave system at the workplace (available = 1, unavailable = 0)	1.622**	.461	5.062	.987	.564	2.683
First child's age when using a childcare center for the first time (reference: no use of childcare center)						
Infant	23.246	13910.166	12457522376.982	4.235**	1.263	69.056
One year old	1.586	.982	4.882	22.398	18564.539	5338909666.460
Two years old	-.699	.986	.497	-.449	1.254	.638
Three years old or older	.423	.494	1.526	.940	.482	2.561
Childcare help from the parent (available = 1, unavailable = 0)	.608	.514	1.837	.689	.521	1.991
Husband's housework/childcare (sharing = 1, none = 0)	1.442*	.626	4.230	.950	.717	2.587
Attribute of residential area (urban = 1, others = 0)	-.909*	.463	.403	-.573	.497	.564
Constant	-3.420	2.560	.033	3.814	2.558	45.330
Chi-square		71.909**			51.812**	
Df		15			15	
N		173			146	

Samples: Women who were employed before having the first child.

**p<.01; *p<.05

Source: Same as Figure 2.

more employees in this generation. The rate of husbands participating in housework/childcare is also lower compared with younger cohorts. It is believed that the childcare help from the parent played a central role for job continuity in this generation. The rate of living with the parent in urban areas is lower than that in rural areas. The childcare help from the parent appears as the effect of residential area here. It seems childcare leave system and husband's housework/childcare in which there is no regional difference show independent effects.

Next, in case of companies with less than 100 employees, professional/technical work and use of a childcare center for the first child when the child is infant show significant effects. The effect of professional/technical work is common to that in companies with 100 or more employees. My focus is that not childcare leave system but infant childcare has a significant effect on the support for balancing work and childcare. As pointed out in Figure 4, not many women take childcare leave in companies with less than 100 employees. This analysis result indicates that infant childcare was practically used for job continuity with or without the childcare leave system in the company.

Table 3. Factors Determining Employment/Non-Employment at the Time of Having the First Child in Post Equal Opportunity Act Generation (Born in 1961-75) (Logistic Regression Analysis)

Explained variable	Employment/non-employment at the first childbirth (employed = 1, not employed = 0)					
	Post Equal Opportunity Act Generation (born in 1961-75)					
Subjects of analysis (cohort)	Post Equal Opportunity Act Generation (born in 1961-75)					
Subjects of analysis (company size)	100 and more employees			Less than 100 employees		
	Coefficient	Standard error	Odds ratio	Coefficient	Standard error	Odds ratio
Educational attainment	-.161	.142	.851	-.540*	.236	.583
Age at first birth	-.014	.055	.986	-.055	.078	.946
Type of employment (regular employment = 1, non-regular employment = 0)	.030	.501	1.031	.267	.670	1.306
Job category (reference: clerical work)						
Professional/technical work	.787	.505	2.196	1.176	.673	3.242
Sales	.081	.551	1.085	-.799	.848	.450
Services	.335	1.002	1.399	-.035	.782	.965
Skilled workers and laborers	.771	.583	2.163	-19.077	16065.806	.000
The childcare leave system at the workplace (available = 1, unavailable = 0)	1.650**	.433	5.206	.584	.581	1.793
First child's age when using a childcare center for the first time (reference: no use of childcare center)						
Infant	2.670**	.632	14.445	1.598	.995	4.943
One year old	1.777**	.611	5.910	.063	1.192	1.065
Two years old	1.464*	.702	4.325	.035	.856	1.035
Three years old or older	.239	.492	1.270	-.994	.719	.370
Childcare help from the parent (available = 1, unavailable = 0)	1.270*	.555	3.559	.926	.739	2.525
Husband's housework/childcare (sharing = 1, none = 0)	.488	.441	1.630	1.398*	.607	4.048
Attribute of residential area (urban = 1, others = 0)	-.536	.377	.585	-1.257*	.585	.285
Constant	-1.170	2.276	.310	6.155*	2.787	471.075
Chi-square		77.523**			35.570**	
Df		15			15	
N		233			151	

Samples: Women who were employed before having the first child.

**p<.01; *p<.05

Source: Same as Figure 2.

Such factors determining job continuity have changed in younger cohorts. Table 3 shows the analysis result of "Post Equal Opportunity Act Generation" (born in 1961-75).

Looking at companies with 100 or more employees, the analysis result shows that the job continuity rate is higher if (i) there is a childcare leave system in the company, (ii) using a childcare center when child is infant/one year old/two years old compared to "no use of childcare center" and (iii) the parent helps childcare. The effect of job category is not significant. Women who can use the childcare leave system, childcare center for infant to 2-year-old child and childcare help from the parent have a high rate of continuing the job regardless of the way of working.

It should be noted that the first child's age when using a childcare center for the first time shows a positive effect when the child is not only infant but also one year old and two years old. By comparing odds ratios, the effect of infant is outstandingly high followed by one year old and two years old. It would be appear that since the use of a childcare center for infant has a positive impact on the job continuity of women who do not take childcare leave as same as those in companies with less than 100 employees of "Pre Equal Opportu-

nity Act Generation,” the effect of infant is the highest. The reason why one year old and two years old also show a significant effect independently of the effect of the childcare leave system may be due to the period of taking childcare leave. Although the legal childcare leave period is until the child becomes one year old, if a childcare center can be used for infant, women can select options such as not taking childcare leave and returning to work after a short leave. Some of large companies even allow women to take childcare leave more than the legal period. It is contemplated that since the period of returning the job depends on the use of a childcare center even among women whose company adopts a childcare leave system, infant, one year old and two years old show independent effects.

It should also be noted that the effect of residential area is not significant. The analysis result indicates that the difficulty of job continuity in an urban area is made easier by flexibly using the childcare leave system and childcare service for infant/one-year-old/two-year-old child depending on the situation. In addition, the childcare help from the parent has a significant positive effect in companies with 100 or more employees. As Imada and Ikeda (2006) pointed out, this result tells that childcare leave system, childcare center and childcare help from family or relatives function effectively in an interrelationship.

In contrast, both childcare leave system and use of a childcare center have no significant effect in companies with less than 100 employees. “Educational attainment,” “husband’s housework/childcare” and “residential area” show significant effects. According to the analysis result, women are more likely to continue the job if the husband takes part in housework/childcare and more likely to quit the job if better educated or living in an urban area.

I would like to pay special attention to the effect of residential area. Most of women using a childcare center for infant who showed a significant effect in the previous generation are living in urban areas. Women of professional/technical work who also showed a significant effect are more likely to be working in urban areas. It would be appear that the effect of residential area had no significant effect in “Pre Equal Opportunity Act Generation” since women using a childcare center for infant and of professional/technical work raised the job continuity rate in urban area. However, due to increase in the demand of using a childcare center for infant and decrease in the job continuity rate of professional/technical work shown in Figure 6, a sharp contrast between residential areas is seen in younger cohorts. The husband’s housework/childcare shows a significant effect in companies with less than 100 employees while it has no significant effect in those with 100 or more employees. Men’s participation in housework/childcare has been a recent important issue. It shows that sharing housework/childcare with husband plays an important role especially for women working for small/medium companies with less than 100 employees.

Interpreting the analysis result of such “Post Equal Opportunity Act Generation” of companies with less than 100 employees from the perspective of the interrelationship between childcare leave system, childcare center and childcare help from family/relatives, it is

believed that women in younger cohorts living in urban areas and working for small/medium companies do not continue the job since it is difficult to take childcare leave, use a childcare center and rely on childcare help from the parent.

V. Summary and Conclusions

Focusing on the difference between the progresses of the childcare leave system of large companies and small/medium companies, I examined problems of the support system for job continuity at the stage of childbirth/childcare. The results can be summarized as below:

- (i) Regardless of company size, women whose company does not adopt a childcare leave system are more likely to quit the job before having the first child.
- (ii) In case of small/medium companies with less than 100 employees, there are few women taking childcare leave even among younger cohorts, and those living in urban areas where it is difficult to use a childcare center are more likely to quit the job before having the first child.
- (iii) Even in case of large companies with 300 or more employees in which the rate of taking childcare leave is high, the job continuity rate of younger cohorts is decreasing due to the expansion of non-regular employment and the decreased job continuity rate of clerical work.

I should firstly point out that it is important for even small/medium companies to institutionalize the childcare leave system in order to improve the job continuity at the stage of childbirth/childcare. Previous studies have pointed out in the surveys of companies that small/medium companies have flexibly supported individual employees even without a support system for balancing work and childcare. However, there are cases in which companies do not recognize the real reason for leaving job, e.g., some of women quit the job not revealing the fact of pregnancy. In this paper, I analyzed data of individual employees and it became clear that women are more likely to quit the job before having the first child without a childcare leave system in the company regardless of company size according to the analysis result. Especially I would like to pay attention to the time to quit the job. Women whose company does not adopt a childcare leave system are more likely to quit the job more than one year before having the first child. That is, not a few women quit the job before the period of pregnancy. It is important for individual companies to make provisions for the childcare leave system in order to enhance women's willingness to continue the job.

In companies with less than 100 employees, however, there are few women taking childcare leave even after the Childcare Leave Act was put into effect. That is why the rate of quitting job is high during the period of one year before childbirth, i.e., at the stage of pregnancy/childbirth. Of course, there is an option to return the job taking leave only after childbirth using childcare help from family/relatives or a childcare center for young child even without taking childcare leave. Nevertheless, it is difficult to rely on childcare help

from family/relatives in urban areas and it is not easy to leave the child in a childcare center. The analysis result indicates that under such circumstances, women have to give up the hope of continuing job if they cannot take childcare leave.

On the other hand, from the analysis result we can see the fact that female workers can flexibly select the period of leaving the child in a childcare center and returning the job since they can take childcare leave in companies with 100 or more employees. However, even in companies with 300 or more employees in which the rate of women who took childcare leave is the highest, younger cohort's job continuity rate has dropped due to the expansion of non-regular employment and the decreased job continuity rate of clerical work. As for non-regular employment, the Child Care and Family Care Leave Act was revised after most of women who were analyzed in this paper had the first child and the target of childcare leave has expanded to a part of fixed-term contract employees. It can be said that it is an important issue especially for large companies to support the job continuity of non-regular employees with such policy. In either company size, the job continuity rate of professional/technical work which is a traditional continuous job dropped in younger cohorts. In addition, the job continuity rate of clerical work also dropped in companies with 300 or more employees. Although women's job categories have been expanded after the Equal Opportunity Act was enforced, the number of women having jobs in which it is difficult to balance work with childcare is increasing as a result. The analysis result shows that such effect is widespread in large companies. It is an issue for large companies to further improve the support system for job continuity in response to such changes in women's way of working.

Regardless of company size, many of women quit the job before having the first child even today in Japan. But facing specific problems of promoting job continuity differ depending on company size. In order to provide an effective support for job continuity, it is a future issue to study the analysis result in this paper in depth and examine the way of support in response to each issue of large companies and small/medium companies.

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