Divergence in Women's Employment in Korea and Japan: What Shapes the Different Patterns around Childbirth?*

Junko Nishimura | Meisei University

Hyunji Kwon | Seoul National University**

With female employment patterns and their ever-diverging degrees in Korea and Japan, this paper identifies which factors influence women's labor supply around childbirth in each country, and draws cross-country analysis. It also aims to understand the different social context of each labor market, general attitudes towards female employment and work-life balance in two countries. With KLIPS and JPSC – the nationally representative panel data in each country –, we find that both Korean and Japanese women with more human capital and better employment status are likely to retain regular jobs. Japanese women's employment, whether regular or non-regular, is positively affected by one's cohort (the cohort effect), while negative by her spouse's income level. On the contrary, the results of Korean women demonstrate no signs of such similarity as in Japan. Consequently, it indicates that women's human capitals and job opportunities function as key mechanism determining their employment status in both countries.

Keywords: women's employment, Korea, Japan, labor market, attitudes toward women's employment, work-life-balance policies

^{*}The data from the Japanese Panel Survey of Consumers (JPSC) is provided by The Institute for Research on Household. A part of this work was supported by JSPS KAKENHI Grant Number 16K04107. We are thankful for effective assistance provided by In Choi.

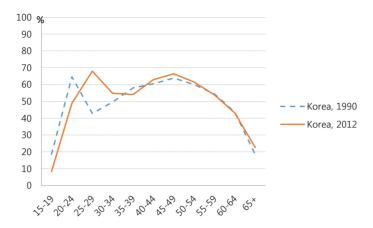
^{**}Corresponding author

Introduction

Korea and Japan are two of a few exceptions to the general pattern of women's employment observed in many industrial societies. In most industrial societies, general increases in the employment rate of women are accompanied by increases in the employment rate of mothers with young children (The Organization for Economic Cooperation and Development [OECD] 2011); however, in Korea and Japan, although the overall rate of employment of women has increased considerably over the past several decades, the employment rate of mothers of young children has remained low: the employment rate in Korea for mothers of children aged 0-2 was 30.1% in 2009 (Shin, Kim, and Yi 2012), and 33.2% in 2007 for Japan (calculated from the published tables of the Employment Status Survey by the Statistic Bureau, Ministry of Internal Affairs and Communications, Japan). It has also been widely observed that women with higher educational attainment are more likely to remain in the labor market; having young children affects the likelihood to withdraw from the labor market less for these women than for those without such education (Brewster and Rindfuss 2000; Vlasblom and Schippers 2004). However, educational attainment shows an inverse or at least no positive relationship with Korean and Japanese women's employment, especially among those with children (Brinton, Lee, and Parish 2001; Nishimura 2016).

Although these features are in common, trends in women's employment in Korea and Japan have diverged over the past few decades. The employment rate of Korean women aged 15–64 in 2000 was 50.0%, increasing to 55.7% in 2015. The change is more dramatic in Japan: the employment rate for women aged 15–64 was 56.7% in 2000, rising to 64.6% in 2015 (OECD 2016). Furthermore, it seems that the employment rate of women at prime working age increased more in Japan than in Korea. Figures 1a and 1b show Korean and Japanese women's employment rates by age category in 1990 and 2012. Although the employment rates of women between their late 20s and 40s increased both in Korea and Japan, Japan shows an even greater increase: the dip in the M-shaped curve for Japanese women's employment over age has become considerably shallower over the 20 years.

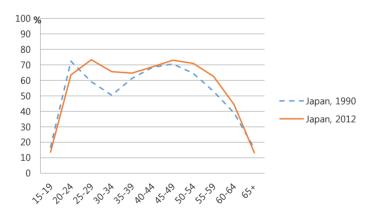
This study will investigate the mechanisms underlying these divergences, focusing on the supply of women's labor before and after childbirth. A major obstacle to working for Korean and Japanese women is their difficulty combining a career and motherhood; therefore, the supply of women's labor



Note.—The rates for 1990 represent participation rates.

SOURCE.—International Labor Office, LABORSTA for 1990, KOSIS (Korean Statistical Information Service) for 2012.

Fig. 1a.—Women's employment rate by age groups for Korea in 1990 and 2012



Source.—Statistics Bureau, Ministry of Internal Affairs and Communications, Japan, Labour Force Survey.

Fig. 1b.—Women's employment rate by age groups for Japan in 1990 and 2012

around childbirth is a critical aspect for exploring the dynamics that produce divergence in women's working behaviors in the two societies.

We assume that labor market structures, attitudes toward gender relations and mother's employment, and the development of social policies to support work—life balance, moderate the influence of the rise in educational attainment, later marriage, and lower fertility, which are considered forces increasing the supply of women's labor. We investigate whether differences in trends in the labor market, attitudinal changes, and the development of social policy in Korea and Japan have shaped patterns of women's employment.

In the next section, we will discuss labor market changes in Korea and Japan over the past few decades and propose labor market factors to explain the differences in women's employment behaviors in these two societies. Then, differences in trends in attitudinal changes and the development of social policies to support work–life balance in Korea and Japan and their anticipated impact on women's employment will be discussed and hypotheses proposed. After describing the data and variables we use and providing descriptive analyses, we will present the results of multinomial logit models predicting women's employment status at 1 year after first childbirth. Finally, in the last section, we will discuss the mechanisms that shape different patterns in women's employment in Korea and Japan.

Background: Women's Diverging Responses to Changing Labor Markets in Japan and Korea

For the last two decades, women's labor markets in Japan and Korea have diverged. These markets were once more similar than different in their lower employment rates and employment patterns over women's lives, reflecting the traditional gender roles in the family predominant in these countries. Much scholarly emphasis has been placed on the latter feature, the so-called M-shaped curve, with a large proportion of married women opting out of the labor market to devote themselves to their family responsibilities, especially for childbirth and childcare during their late 20s and early 30s, returning to much lower-quality jobs during their early 40s (Brinton 2001; Yu 2005). Although the two countries appear similar and seem to share East Asian characteristics from a broader international perspective, they have begun to diverge. To put it more precisely, Japanese women have recently started narrowing the gender gap in employment and relaxing the M-shaped employment pattern, although Japanese scholars are hesitant to consider this a major transformation (Nishimura 2016). More and more mothers with young children are opting for a third way, part-time employment, rather than withdrawing completely from the labor market. This has significantly increased women's employment rate (Figure 2). By contrast, Korean mothers

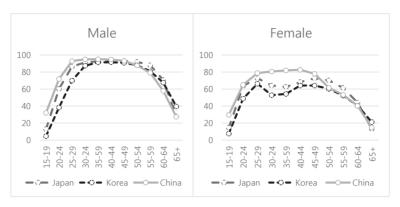


Fig. 2.—Employment rates by sex and age group in Japan and Korea, 2012

with young children still tend to make a stay-or-leave decision, and Korea remains a stronghold of the traditional women's employment pattern (Figure 2). An increase in women's employment rate is also observed in Korea but is concentrated in precarious youth, elderly, and in only some professional labor markets. Overall, women's participation during their prime working age is still very much depressed (Jung, Kim, and Kwon 2012). We highlight these differences in women's labor markets between the two countries and offer the background information of the divergent patterns by focusing on the changes in the countries' internal labor markets, which were dominated by a typical male single-breadwinner model.

It has been 20 years since the Asian economic crisis of the late 1990s struck the Korean economy. During those two decades, Koreans experienced changes in the norms of the labor market, whereby the psychological contract virtually became extinct and involvement in short- and fixed-term employment became normal. The constant fear of losing one's job has been widespread among wage earners (Jung 2013). In fact, the country currently ranks lowest in average tenure years among OECD countries. While the abrupt changes to the Korean economy of the late 1990s ruptured the previous system; for Japan, the restructuring caused by the burst of the bubble economy in 1991 and the succeeding economic recession, often called "the lost 20 years" (*ushinawareta nijunen*), has been a continuous process of adjustment. Japanese scholars also claim that the long-standing economic stagnation has ruined existing Japanese employment relations, and a transformation of the employment system has been taking place (Imai 2011). However, the degree of changes matters. The different degrees of changes in

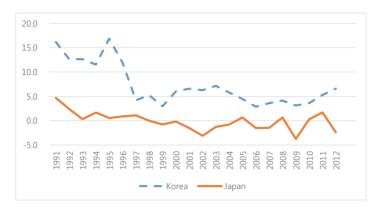


Fig. 3.—Average annual wage rate per full-time equivalent employee

internal labor markets (ILMs) in the two economies are noteworthy. In Japan, ILMs remain relatively solid, particularly in terms of longer-term employment, while the ILMs of many Korean firms, including large ones, are shadows of what they once were. Japanese firms have restrained wage increases for more than two decades, which seems to have been traded for long-term employment. The ILMs of Korea's larger firms, on the other hand, still offer significant wage premiums with a much looser long-term commitment to their employees than that offered by their Japanese counterparts. Figure 3 demonstrates that Japanese employees have been suffering from a 0 percent wage increase, or even less, since the early 1990s, whereas their Korean counterparts still show approximately a 3-4% wage increase annually, even following the economic crisis of the late 1990s. However, the incidence of low pay among men is much lower in Japan than in Korea (Figure 4). The incidence of low pay in Japan is as low as the incidence in Denmark, which means that the safety net for securing men's pay continues to function in Japan, despite the wage stagnation that has continued for the last 30 years. By contrast, a much larger share of Korean men encounter low pay, despite the annual average wage increases mentioned above. Figure 5 shows that a more evident increase in wages has been happening among firms employing over 1,000 or more workers than in firms employing between 30 and 99 workers. This also demonstrates that the wage gap between the two sectors is wide. The ratio of wages at larger firms to those at smaller firms has persisted over time at approximately 180%. The differences in amount between the two firm sizes have widened. Since large firms in Korea are highly likely to maintain internal labor markets (Jung

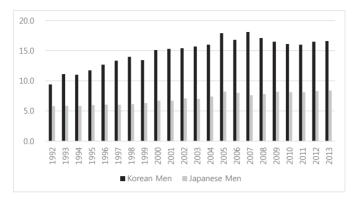
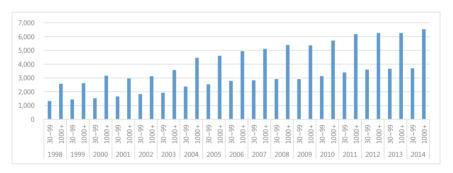


Fig. 4.—Low pay incidence among male employees



SOURCE.—OECD, http://stats.oecd.org/, 2015.6. Ministry of Labor (Korea). Survey of enterprise labor costs by year

Fig. 5.—Wage gap between employees of small and large firms in Korea

2013), this shows that Korean ILMs pay high wage premiums for their employees.

These different trends in employment systems between the two countries are associated with changes to women's labor markets. The pervasive post-crisis discourse highlights the image of middle-aged men whose fear of losing their jobs or their patriarchal status at home has suddenly skyrocketed. However, the impact of post-crisis restructuring on women has not been lesser than the impact on men. In unstable and depressed labor markets, men's earnings alone are in fact no longer sufficient to support their families, compelling women to find paid work. There have been several studies on the effects on women of the economic crisis and the

following recession (Chang 2001; Rubery 2015). Some would argue that women's employment has been less affected than men's, because women are concentrated in the peripheral sector. This low-wage periphery is less likely to be a major target of restructuring. From another point of view, a positive relationship is possible between economic hardship and women's employment in certain sectors. This is because employers keen to reduce labor costs are interested in replacing costly men with women who are more likely to accept lower wages. During economic recessions, women tend to reduce their reservation wages, because the demand for a paid job becomes greater than the need for housework, including childcare. Others have suggested a different view, that women are used as a buffer to absorb shock and thus will be the first fired when a crisis hits an organization (Chang 2001). According to this third view, women workers are viewed as a reservoir of the labor force, and thus their employment is highly unstable. It is unlikely that any one of the above views is predominant in reality. Which one has more explanatory power remains highly contingent upon the situation. In both Korea and Japan, during the earlier period of their economic crises, women were the first targets of the wave of flexibilization in the labor market, providing evidence for the buffer hypothesis. For example, in Korea in the late 1990s and early 2000s, many jobs occupied by regular female employees were replaced by jobs on a fixed-term contract occupied by women. The share of nonstandard work, mostly fixed-term temps, once reached 50% of all women employees. However, as time passed and economic instability and recession persisted, the role of men as single breadwinners progressively weakened, women's employment continuously increased, and, for certain socio-economic groups, employment per se became no longer conditional but constant. The recent increases in women's employment rates in both Korea and Japan indicate that this has been happening.

Other factors confirm this trend of increases in women's employment. Of these, two factors are particularly significant. First is the expansion of higher education. This has occurred among both men and women, but women's educational achievements are particularly noticeable. The ratio of women to men entering college surpassed one at the turn of the century, which was also seen in other advanced economies. This means that women are equipped with greater human capital and at the same time are more likely to be conscious of pursuing their own career than were earlier generations. The second factor is rapid changes in population, including the lowest fertility rates among advanced countries and the rapid increase in the elderly population. These changes have led to government policy initiatives to

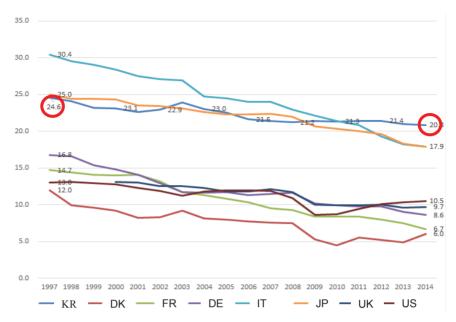


Fig. 6.—Gender gap in employment, selected OECD countries

facilitate care services as well as work-life balance such as part-time work. In particular, the expansion of care services in return increases the demand for women in the labor market.

Thanks to suppliers' need to meet market demands, both Korea and Japan have witnessed a significant increase in women's employment rates over the last two decades. However, differences in the degree and extent of changes that have narrowed the gender gap in employment are notable. Korea has been delayed in catching up with other advanced economies in achieving higher women's employment. In Korea, the employment rate for women between 15 and 64 years of age is just below 50%, the lowest in the OECD countries and lower than the Japanese rate by more than 10% (see Figure 2 above).

As shown in Figure 6, while Japan has made significant progress in reducing the gap in labor market participation between men and women over the last 20 years, Korea has made the least impressive progress in reducing the gap. According to recent empirical studies, the delay is salient in highly educated women from upper-middle-income families (Chang and Jeon 2014; Jung 2015). Mothers from lower-income families appear to have no choice between remaining in the labor market or quickly returning to it

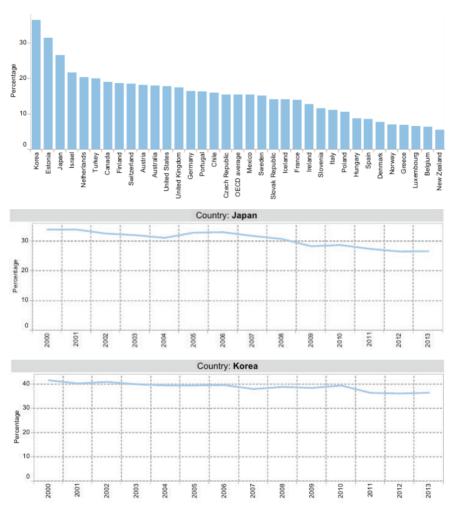
after childbirth, because dual incomes have become necessary. Yet the majority of middle-class mothers tend to opt out permanently, unlike Japanese mothers from the middle class, who tend to return to the labor market after several years of childcare.

Labor Market Factors to Explain Differences between Korean and Japanese Women's Labor Supply: Gender Wage Gap and The Availability of Good Part-Time Work

In addition to wage stagnation in men, particularly in Japanese middle-class families, as seen above, we consider that the following two labor market factors explain the differences between Korea and Japan in employment rates and the extent of the changes. The first is the gender wage gap, which is much greater in Korea. In both labor markets, the gender wage gap remains high, but, as Figure 7 shows, it is much higher in Korea, where the gap is greater than a 35% between men and women. Changes over time are also much slower in Korea than in Japan. This may at least partly explain why highly-educated women are more likely to be discouraged from remaining in the labor market in Korea.

The second factor that might be related to this pay gap is the availability of good part-time jobs in the labor market. The contemporary increase in employment among mothers in Japan relies heavily on the expansion of parttime work (Nishimura 2016). In European economies such as Germany, Netherlands, and the UK (Esping-Andersen 2014), traditional gender roles related to motherhood persist and the family regime is moving toward a 1.5 breadwinner model; it seems that Japan has joined the ranks of this group (see Figure 8). After the 1991 bubble collapse particularly, a greater number of mothers have been attempting to join the labor force as part timers and make the added worker effect1 significant in Japan. According to official government statistics, the pay gap between regular and non-regular women employees is approximately 30% (Statistic Bureau, Ministry of Internal Affairs and Communications, Japan 2016), and this appears to support women's motivation to work part-time. By contrast, part-time work is far less attractive to mothers with children in Korea, despite a recent surge in parttime work, owing to a strong government initiative, from 5% of available

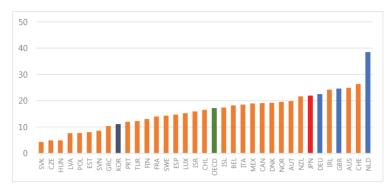
¹ This refers to an increase in the labor supply of married women when husbands' incomes become unstable.



Source.—OECD Employment Database 2014

FIG. 7.—Gender wage gap in OECD countries in 2013, and the trend of the gap in Japan and Korea between 2000 and 2013

work in the early 2000s to 11.6% in 2015. This work is concentrated in the low-wage service sector, and its quality is particularly poor. For example, the average pay gap based on hourly wages between regular workers and part-timers is greater than 50%, and part-timers' average monthly income is only 26.2% of what regular workers earn, as of 2015. This means that the expected additional income is very small, and Korean mothers with children appear



Source.—OECD Employment Database 2014

Fig. 8.—Share of part-time employment in OECD countries, 2013

motivated to choose between either a full-time job or completely leaving the labor market. This, in turn, explains the difference between Korea and Japan in their women's labor market trends.

Attitudes toward Women's Employment

In addition to labor market factors, a degree of attitudinal change as well as differences in social policies might be related to different employment patterns of women in Korea and Japan. Previous research reveals that attitudes toward gender relations in Korea and Japan are more conservative than in Western societies, such as France, Sweden, and the US (National Women's Education Center of Japan 2006). In particular, being a housewife is highly valued in both Korea and Japan; more than 80% of men and women in Seoul and nearly 70% of men and women in Tokyo agree with the statement that "being a housewife is just as fulfilling as working for pay" (Kwon, Nishimura, and Chen forthcoming), although these are not national-, but city-level comparisons.

Notably, the number of those who agree with gender division of labor has largely decreased in both Korea and Japan. According to the World Youth Value Survey, which has been conducted by the Japanese government every five years since 1972, the percentage of those who agreed with the statement "men should go to work while women should stay at home and take care of the house" was 41.8% and 44.5% in 1982 in Korea and Japan, respectively. However, in 2013, this percentage decreased to 12.3% in Korea and 22.3% in

Japan (Cabinet Office, Government of Japan 2009, 2014).

Some divergence in gender attitudes seems to have emerged in Korea and Japan during the liberalization of attitudes toward gender relations in general. That is, although Korean women and men do not oppose married women's employment and seem to show increasingly liberal attitudes toward gendered division of labor in recent years compared to their Japanese counterparts, mothers' childcare responsibilities are more highly approved in Korea than in Japan; therefore, Korean women and men are more likely to think that maternal employment is detrimental to their children compared to their Japanese counterparts. Research on youth showed that the percentage of those who agreed with the statement "a child should be cared for by its mother when the child is small" in 2013 was 40.6% in Korea and 25.4% in Japan (Cabinet Office, Government of Japan 2014). Another study indicates that more Koreans are concerned about the possible negative effects of women's employment on family life than Japanese (Lee and Eun 2005).

It appears that this comparatively liberal attitude of the Japanese toward mother's employment was shaped over the last 20 years. In 1994, 37% of Japanese men and women agreed with the statement that "a preschool child is likely to suffer if his or her mother works," whereas this fell to 20% in 2012 (Kobayashi 2003, 2013).

These attitudinal differences toward women's employment are thought to have resulted in different dynamics in the choice of employment by Korean and Japanese women.

Social Policies to Support Women's Employment and their Impact on Workplace Practice

In Korea, policies to support gender equality and work-life balance were first introduced in the late 1980s, when the women's movement was in full bloom, in the context of democratization. However, policy initiatives centering on work-life balance have accelerated since the turn of the century and the principle of gender equality in these policies has been significantly enhanced. The progressive government that came to power during the economic crisis established the Ministry of Gender Equality in 2001 and integrated the concept of gender mainstreaming into the government policy area. As mentioned above, these policy initiatives could be implemented not only because women's voices and civil movements aiming for greater gender equality and welfare were received by the government but also because Korea

had become an aging society. The shockingly low fertility rates particularly attracted work-life-balance policies. The law made far-reaching changes to childcare and parental leave by expanding legal provisions, which have since been divided into the Equal Employment Opportunities Act, the Labor Standards Act, and Employment Insurance.

Although Thévenon (2011) categorizes both Korea and Japan in the same group of countries with limited policy assistance to support families among the 28 OECD countries, Korea has made remarkable progress in the socialization of its childcare services. The use of childcare facilities among children aged 0 to 5 has increased from only 17% in 2003 to 62% in 2012 (Chang 2016). The extent of the increase and catch-up with the ongoing pace has been extraordinary. As of today, the rate of the use of childcare facilities per se has even come close to that of Denmark, which is ranked the highest among the OECD countries. Korea's detailed policy measures appear to be quite similar to those of Japan, but its quantitative expansion for a shorter period has outpaced Japan. Therefore, it is relatively difficult to determine why such a rapid expansion has not led to an increase in the employment of mothers with young children. One possible reason is that the quality of the measures does not yet meet parents' standards despite the quantitative improvement involved. Although the government's market-oriented approach, whereby private centers run the facilities and parents are able to choose a center with either vouchers or cash transfers, has made the rapid expansion of the providers possible, it has generally failed to control the quality. While there are long queues for vacancies at public centers, many home-based, small private certified centers, which comprise up to 50% of all childcare centers, have recently discontinued their services.

Another important policy measure to support families with young children is parental leave. In 1998, when the policy was first introduced, only women with a child younger than one year were eligible for the leave. However, the policy rapidly developed as the concept of parental leave, which supports gender equality and accordingly the eligibility for paid leave, has since expanded greatly. As of 2016, parents who have a child younger than 8 years can apply for paid leave on an individual basis and each parent can use the leave for up to one year. They can also use the leave on a part-time basis or split the full eligible duration into two parts. Thus, the policy has been designed to be more flexible for users. However, its income substitution is not as good as its Japanese counterpart (40% or wages up to 1,000,000 KRW are paid for the entire period). Moreover, paid leave is only eligible for those who are covered by employment insurance. Considering the fact that a significant

number of nonstandard employees, who are predominantly women, are not covered by social insurance, the effectiveness of the policy decreases to a certain extent. Due to either the low income substitution or the corporate culture, which is by and large ignorant of or negative toward the policy, the use of parental leave in Korea is not yet satisfactory. In particular, despite the law, its use by male employees has been extremely low. The government has introduced an incentive that pays full wages (up to 1,500,000KRW) to the parent who applies for the second period of leave for the same child.

Owing to declining birth rates, the Japanese government has been enacting policies intended to promote gender equality and support work-life balance since the 1990s. The Childcare Leave Act, enacted in 1991 and amended several times since, requires all businesses to allow their employees to take one-year parental leave (leave can be extended up to 18 months in case of inability to find a place at a day-care center by the time the child is one year old). Parental leave benefits are paid from the unemployment insurance program, and payment has been improved; from 2014 onward, 67% of the wages received just before the start of leave are paid for the first 6 months and 50% for the remainder of the leave period. Since 2004, fixed-term employees, most of whom are non-regular employees, are eligible to take parental leave, if they are assured employment after returning from leave. Furthermore, an option for shorter work hours for employees with children under three years old has been mandated for companies with more than 101 employees since 2010. In addition, since 2003, companies with more than 301 employees, as well as local municipalities, are mandated to notify the Ministry of Health, Labour and Welfare of their action plans to develop a workplace environment that will enable their employees to balance work and family; these action plans are required to be released to the public as well as to their employees since 2009, and companies with more than 101 employees have also been mandated to set action plans and release them, since 2011.

These changes in social policy are thought to make Japanese workplaces more favorable for women to stay on after having children. Japanese workplaces, especially large firms that have developed an internal labor market, are highly gender-discriminative; white-collar workers are divided into two categories, core workers and other workers, which correspond to men and women workers. Core workers deal with the company's major businesses, and at the same time, they are required to work according to the company's demand, irrespective of their own interests. On the other hand, workers not regarded as core workers are assigned ancillary jobs, and along with not being expected to work long, inflexible work schedules, they are not

expected to stay at the firm for long, either. These workplace practices have remained relatively intractable, even after the Equal Employment Opportunity Law was enacted in 1986 and women with university educations started to be recruited as core workers. Women, even with a university degree, were still regarded as ancillary workers; thus, they were not assigned jobs for which they were qualified, and even though their companies had yearlong parental leave systems, they were often unable to take the leave, leaving work entirely instead (Ogasawara 2001).

However, the development of social policies that explicitly exert pressure on Japanese firms to promote work-life balance in their employees seems to have gradually, if not dramatically, changed workplace practice. In particular, the mandatory option for shorter work hours and the mandatory publicity for the firm's work-life balance action plans are thought effectively to have reduced work hours during the child-rearing years and placed legal pressure on firms to make their workplaces favorable for work-life balance. Some studies suggest that the mandate for a shorter working hours option and the mandate for notification and release of company action plans have enhanced Japanese women's employment (Mizuochi 2012; Nagase 2014).

The number of children who need day-care centers has exceeded the supply of such centers, particularly in urban areas, and childcare waiting lists have been an ongoing issue since the 1990s. In response, the Japanese government has increased the number of day-care centers, mainly by enacting a scheme that enables local municipalities to establish day-care centers according to their own standards and encouraging joint-stock companies and other entities to become involved in day-care businesses. However, although the number of day-care centers has considerably increased, the number of children enrolled has also reached almost full capacity over the past ten years (Ministry of Health, Labour and Welfare, Japan 2014), which suggests that a large number of potential users wish to but do not apply for day-care centers because of the expected inability to be enrolled. The causal relation between the increase in the number of day-care centers and maternal employment has not been clarified effectively: some suggest a positive relation (Unayama 2011) while others do not (Asai, Kambayashi, and Yamaguchi 2015).

Hypotheses

We presume that the differences in social context in the labor market,

attitudes, and social policies discussed in the former sections will generate different patterns in women's employment in Korea and Japan. Specifically, we hypothesize that Japanese women are more likely to be in non-regular employment at time around childbirth compared with Korean women, and the difference is wider among younger cohort. Furthermore, we will explore how the effects of women's human capital and husbands' economic statuses, both of which have been widely studied as influential factors on women's labor supply among societies (Blossfeld and Drobnič 2001), differ between Korea and Japan. We assume that the directions of the effect of these two factors on women's employment are generally similar between Korea and Japan, but we speculate that the effect that human capital enhances women's non-regular employment will be found in Japan, but not in Korea, given that good part-time work is comparatively less available among Korean women. We will also focus on differences in employment behaviors among birth cohorts to see whether changes in social context over time affect women's employment decisions. In Japan, we expect that women in younger birth cohort are more likely to be in regular and non-regular employment after childbirth, but we do not expect such effect in Korea, since attitudinal change toward women's employment and narrowing the gender gap in the labor market seem to be more slowly taking place in Korea. In summary, we hypothesize differences in the patterns of women's employment, and its relation with human capital and husband's economic status between Korea and Japan in the following ways:

- H1. Japanese women are more likely to be in non-regular employment at time around childbirth compared with Korean women.
- H2. Women with greater human capital are more likely to stay in the labor market after having a baby in both countries.
 - H2-a. After having a baby, Japanese women with greater human capital are also more likely to stay in non-regular employment than to stay out of the labor market. However, there is no significant effect of human capital between those in nonstandard employment and those not in employment in Korea.
- H3. Lower husband income is more likely to have women stay in the labor market in Japan. However, the same effect is not found in Korea.
- H4. The Japanese younger women cohort is more likely to remain employed

right after giving a birth. However, the Korean counterparts do not have the same effect.

Methods

Data and Samples

We use two data sets, one each from Korea and Japan: the Korean Labor & Income Panel Study (KLIPS) and the Japanese Panel Survey of Consumers (JPSC).

The KLIPS, which is administered by the Korea Labor Institute, is a longitudinal survey of the labor market and income activities of 5000 urban households and their individual members (13,321 members in the first wave data). Since 1998, when the first wave was launched to face the unprecedented economic crisis following the nation-wide, large-scale employment restructuring, the survey has been conducted every year. We used panel data from 15 waves, from the $3^{\rm rd}$ to the $17^{\rm th}$ wave, and selected mothers who were born in the 1970s and 1980s and who have more than one child for analysis (n = 1461).

The JPSC, conducted by the Institute for Research on Household Economics, is an annual survey of a nationally representative sample of women. The original sample was stratified by marital status, with 1002 married women and 498 unmarried women between ages of 24 and 34 (born between 1959 and 1969) surveyed in the first wave of 1993. Women born during the periods 1970 to 1973, 1974 to 1979, 1980 to 1984, and 1985 to 1989 were added in 1997, 2003, 2008, and 2013, respectively. We use data from the first 21 waves (1993–2013) of the survey. Women with children were included in the analysis (n = 2327).

Variables

The dependent variable is the respondent's employment status 1 year after first childbirth, categorized as regular employee, non-regular employee, and not working.

We incorporate variables that measure the respondent's human capital, husband's economic status, and birth cohorts into multinomial logit models. Respondent's human capital is measured by educational attainment (high school or less/junior college/university), a dummy variable for whether the

respondent was in regular employment 2 years before first childbirth, years of work experience before first childbirth, and type of occupation in which the respondent was before childbirth (professional/clerical/sales and service/manual labor), measured by the first occupation for Japan, and the last occupation before childbirth for Korea. Husband's economic status is measured by husband's income: his monthly income for Korea and his annual income for Japan. Birth cohorts were set as a series of dummy variables.

We set variables measuring the availability of social support as control variables, since these will likely affect women's labor supply. The availability of support from parents, measured by frequency of visits for Korea and living arrangements for Japan, and support from husband, measured by husband's weekly work hours in the first year after the first childbirth, were used in the analyses. For the JPSC, husband's weekly working hours were only measured for the survey's second wave; thereafter, they were measured by categorical variable. The mean for each category was used, such as 7.5 for "less than 15 hours," 18 for "15-21 hours," and 28 for "22-34 hours;" the highest category, "65 hours and over," was recoded as 67.

Analytic procedures

After showing descriptive statistics in Tables 1a and 1b, the distribution of women's employment statuses 2 years before and 1 year before the birth of their first child, in the year of the first birth and 1 year after the birth in Korea and Japan are presented in Table 2. The relationship between women's employment statuses prior to and after childbirth is examined through the crosstab tables on women's employment statuses 2 years before and 1 year after the first childbirth (Tables 3a-3e). Crosstab tables are shown by birth cohort for the 1960s (only for Japan), the 1970s and the 1980s cohorts, in order to determine whether there are any changes in women's employment behaviors among different cohorts. Finally, in Tables 4a and 4b, we will present the results of multinomial logit models predicting women's employment statuses 1 year after first childbirth. Those self-employed at 1 year after childbirth were excluded from the analyses, because there are only small number of women with this status in both Korea and Japan. In the JPSC, samples are restricted to those who had their first childbirth after participating in the survey and were married the year of the first childbirth, because information on the husband and parents at the year of the first childbirth is available only for those samples, yielding a sample size of n = 561.

Results

Women's employment status before and after childbirth

Tables 1a and 1b present the descriptive statistics for each variable, separately by birth cohorts. Mean ages at the first childbirth for respondents and husbands are similar in Korea and Japan. Educational attainment levels are slightly higher in Korea than in Japan, although women in younger cohorts attain higher levels of education in both societies. More Korean women are in regular employment 2 years before childbirth compared with the Japanese counterparts, whereas Japanese women have longer working experience before childbirth in an average than Korean women. Distributions of occupation are somewhat different across the two societies; Korean women are more likely to be in professional and clerical work before childbirth, and less likely to be in sales and service work. Korean women, in an average, visit their parents occasionally, whereas the majority of Japanese women do not live close to either of their parents or parents-in-law. Japanese husbands work for longer hours than Korean husbands, although this comparison is difficult because of the difference in measurements.

Table 2 shows the distribution of women's employment statuses 2 years before and 1 year before the birth of their first child, in the year of the first birth, and 1 year after the birth in Korea and Japan, by birth cohorts (1970s and 1980s for Korea; 1960s, 1970s, and 1980s for Japan). In both Korea and Japan, women's employment rate decreases between 2 years prior to childbirth and the year of birth, and this decrease is even more dramatic in Japan than in Korea. The overall employment rate is higher in Japan than in Korea throughout these periods, and the difference seems wider for the younger cohort; for the 1980s cohort, the percentages of women without a job at the year of childbirth were 69.1% and 61.4% in Korea and Japan, respectively. The increase in the Japanese women's employment rate is due mainly to the increase in women with non-regular employment. For the 1960s cohort, the non-regular employment rate prior to childbirth is within the 10% range, and is less than 10% after birth; however, for the 1980s cohort, the non-regular employment rate increases to the 30% range prior to childbirth, and it is around 15% after the birth. On the other hand, in Korea, women's non-regular employment rates during these periods are lower than in Japan, and the rate is even lower in the 1980s cohort than in the 1970s cohort; the non-regular employment rate at the year of childbirth is 7.5% and

TABLE 1A
DESCRIPTIVE STATISTICS FOR THE KOREAN SAMPLES

77:-1.1.		1970	1970s birth cohorts (N=772)	orts (N=;	772)	198(1980s birth cohorts (N=376)	orts (N=	376)
Variable		Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Respondent's age at the first childbirth	Z	30.74	3.46	22	42	28.76	2.99	19	34
Birth year of first child	Z	2005.22	3.56	2000	2013	2009.85	2.81	2000	2013
Husband's age at the first childbirth	Z	32.94	3.72	22	46	31.69	3.48	21	45
Employment status 1 year after the first childbirth, regular employment	1= yes 0= no	0.22	0.42	0	1	0.23	0.42	0	1
non-regular employment	1 = yes 0 = no	0.04	0.20	0	П	0.03	0.17	0	1
self-employed	1 = yes 0 = no	0.04	0.20	0	П	0.03	0.16	0	1
not working	1 = yes 0 = no	0.70	0.46	0	П	0.72	0.45	0	1
Education attainment level	1= high school or less 2 = junior college 3 = university	1.99	0.83	П	ы	2.03	0.82	_	ю
Regular employment at 2 years before childbirth	1= yes 0= no	0.75	0.43	0	П	0.81	0.40	0	1
Working experience before childbirth	Z	1.68	3.23	0	18.1	1.73	2.53	0	10.6
Husband's monthly income	10,000KRW	237.59	208.29	30	3500	258.14	118.37	0	1000
Last occupation, professional	1 = yes 0 = no	0.44	0.50	0	1	0.44	0.50	0	1
clerical	1 = yes 0 = no	0.42	0.49	0	1	0.37	0.48	0	1
sales and service	1 = yes 0 = no	0.09	0.29	0	1	0.12	0.32	0	1
manual labour	1 = yes 0 = no	0.02	0.21	0	1	0.07	0.26	0	1
Frequncy of visiting parents	1= rarely visit 2= frequently visit 3= coresidence	1.99	0.46	П	8	2.01	0.50		ы
Husband's weekly working hours	hours	49.36	13.67	2	126	46.11	86.6	12	06

Note.—No controls on missing observations.

TABLE 1B
DESCRIPTIVE STATISTICS FOR THE JAPANESE SAMPLES

		1960s bi	1960s birth cohort (N=200)	ort (N	=200)	1970s b	1970s birth cohort (N=294)	ort (N=	:294)	1980s birth cohort (N=81)	rth coh	ort (N	=81)
Variable	'	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Respondent's age at the first childbirth	Z	30.75	3.37	25	42	30.19	3.37	24	42	28.35	1.90	24	32
Birth year of first child	Z	1997.13	2.94	1994	2009	2004.62	4.04	1997	2013	2010.25	1.47	2008	2012
Husband's age at the first childbirth	Z	32.17	4.29	23	46	31.52	4.27	23	50	30.33	3.28	24	38
Employment status 1 year after the first childbirth, regular employment	1= yes 0= no	0.19	0.39	0	П	0.22	0.42	0	1	0.26	0.44	0	_
non-regular employment	1= yes 0= no	0.03	0.17	0	-	0.12	0.32	0	1	0.14	0.34	0	1
self-employed	1= yes 0= no	0.01	0.10	0	-	0.03	0.18	0	1	0.02	0.16	0	-
not working	1= yes 0= no	0.77	0.42	0	-	0.63	0.48	0	1	0.58	0.50	0	-
Educational attainment level	1= high school or less 2= junior college 3= university	1.67	0.78	0	1	1.81	0.80	0	1	1.89	0.92	0	1
Regular employment at 2 years before childbirth	1= yes 0= no	0.54	0.50	0	1	0.55	0.50	0	1	0.52	0.50	0	1
Working experience before childbirth	years	9.49	3.62	2	21	8.89	3.50	2	22	7.15	2.73	1	14
First occupation, professional	1= yes 0= no	0.25	0.43	0	1	0.26	0.44	0	1	0.30	0.46	0	1
clerical	1 = yes 0 = no	0.52	0.50	0	1	0.48	0.50	0	1	0.27	0.45	0	1
sales and service	1 = yes 0 = no	0.17	0.38	0	1	0.20	0.40	0	1	0.37	0.49	0	1
manual labor	1 = yes 0 = no	0.07	0.25	0	1	90.0	0.24	0	1	90.0	0.24	0	1
Husband's annual income	10,000JPY	526.04	266.94	187	3000	442.58	176.24	0	1800	394.85	179.82	0	1180
Living arrangements	1= parents lived further than the same town 2= proximate residence with parents 3= coreside with parents	1.51	0.80	П	8	1.51	0.74	-	Е	1.31	0.61	1	8
Husband's weekly working hours	hours	52.16	10.71	7.5	- 62	52.04	10.48	7.5	67	54.05	10.28	28	29

TARIF 2

ON OF EM	PLOYMEN	tt Stat	US AROU	ND THE T	ADLE 2 E TIME OF I	Віктн оғ Т	HEIR FIR	sт Снігр	BY BIRT	н Соноктя		
1960	s birth co	hort			1970s bii	rth cohort			1980s bii	rth cohort		
	ıe		One	Two	One		One	Two	One		One	
		year	year	years	year	The year	year	years	year	The year	year	
		irth	after	before	before	of birth	after	before	before	of birth	after	
	th		birth	birth	birth		birth	birth	birth		birth	
				n=468				n=213				
				48.0	35.9	22.0	22.1	56.9	47.9	26.4	25.1	
				19.0	16.4	7.5	5.2	10.8	8.6	2.5	3.8	
				4.3	5.4	4.1	5.4	3.7	4.8	2.0	2.0	
				28.7	42.3	6.59	67.3	28.7	38.6	69.1	69.1	
				100	100	100	100	100	100	100	100	
086				n=671				n=347				
		8.8	15.5	55.4	40.2	20.3	17.7	44.7	36.3	23.9	19.3	
		9:	5.6	22.1	17.9	7.2	12.4	35.7	32.3	13.3	15.3	
		.5	7.4	2.8	3.0	4.0	4.3	1.7	1.7	1.4	2.6	
		9.2	71.5	19.7	38.9	9.89	9.59	17.9	29.7	61.4	62.8	
		00	100	100	100	100	100	100	100	100	100	
	1960. Two Or Daysears yes before beff birth birth birth birth birth 11. 11. 11. 11. 14.9 6.5 17.6 17.6 17.6 17.6 17.6 17.6 17.6 17.6	on of EmpLoyMEN 1960s birth co vo One urs year The ore before of b th birth birth 380 5 39.3 18 1 11.4 4 9 6.9 7 6 42.4 68	on OF EMPLOYMENT STAT 1960s birth cohort or One before of birth th birth birth 380 5 39.3 18.8 1 11.4 4.6 9 6.9 7.5 16 42.4 69.2	on of Employment Status Arou 1960s birth cohort on One One Obirth after th birth birth birth 380 5 39.3 18.8 15.5 1 11.4 4.6 5.6 9 6.9 7.5 7.4 6 42.4 69.2 71.5 10 100 100 100	ON OF EMPLOYMENT STATUS AROUND THE I 1960s birth cohort Ao One before of birth after before th birth	ON OF EMPLOYMENT STATUS AROUND THE TIME OF 1960s birth cohort One Two One vo One Two One vear Years Years Year vear Years Year Year vear Year Year Year	One Two One Two One Two One The year of birth chort vea One Two One Two One The year of birth chort The year of birth chort	One Two One Two One Two One One One voluments One Two One Two One One	1960s birth cohort 1970s birth cohort 1970s birth cohort vo One Two One Two One Two birth birth birth birth birth birth birth birth sore before of birth birth birth birth birth birth birth sore before birth birth <t< td=""><td>1960s birth cohort 1970s birth cohort 1970s birth cohort 1980s birth cohort <th colspan<="" td=""><td> 1960s birth cohort 1970s b</td></th></td></t<>	1960s birth cohort 1970s birth cohort 1970s birth cohort 1980s birth cohort <th colspan<="" td=""><td> 1960s birth cohort 1970s b</td></th>	<td> 1960s birth cohort 1970s b</td>	1960s birth cohort 1970s b

NOTE.—Samples restricted to whose employment status of two years, one year before birth, the year of birth and one year after the birth is known.

TABLES 3A-3E Crosstab Tables on Women's Employment Status 2 Years Before And 1 Year After The First Childbirth

3A: Korea, 1970s Birth Cohort

			One	year after t	he birth	
		Regular	Non- regular	Self- employed	Not employed	Total
Two years	Regular	35.12(72)	3.90(8)	3.90(8)	57.07(117)	100.0(205)
before	Non-regular	11.76(8)	11.76(8)	4.41(3)	72.06(49)	100.0(68)
birth	Self-employed	0.00(0)	4.35(1)	47.83(11)	47.83(11)	100.0(23)
	Not employed	8.87(11)	4.03(5)	4.03(5)	83.06(103)	100.0(124)
Total		21.67(91)	5.24(22)	6.43(27)	66.67(280)	100.0(420)

3B: Korea, 1980s Birth Cohort

			One	year after th	ne birth	
		Regular	Non- regular	Self- employed	Not employed	Total
Two years	Regular	37.50(39)	2.88(3)	0.96(1)	58.65(61)	100.0 (104)
before	Non-regular	28.00(7)	12.00(3)	0.00(0)	60.00(15)	100.0(25)
birth	Self-employed	0.00(0)	0.00(0)	28.57(2)	71.43(5)	100.0(7)
DIFUI	Not employed	13.21(7)	1.89(1)	1.89(1)	83.02(44)	100.0(53)
Total		28.04(53)	3.70(7)	2.12(4)	66.14(125)	100.0(189)

3C: Japan, 1960s Birth Cohort

			One	year after t	he birth	
	·	Regular	Non- regular	Self- employed	Not employed	Total
Two years	Regular	23.4(143)	5.1(31)	5.7(35)	65.9(403)	100.0(612)
before	Non-regular	2.7(4)	8.8(13)	6.8(10)	81.8(121)	100.0(148)
birth	Self-employed	2.1(1)	8.3(4)	52.1(25)	37.5(18)	100.0(48)
	Not employed	2.3(4)	4.1 (7)	1.2(2)	92.4(159)	100.0(172)
Total		15.5(152)	5.6(55)	7.4(72)	71.53(701)	100.0(980)

TABLES 3A-3E (CONTINUED)

3D: Japan, 1970s Birth Cohort

			One	year after th	ne birth	
		Regular	Non- regular	Self- employed	Not employed	Total
Two years	Regular	28.0(104)	8.9(33)	3.0(11)	60.2(224)	100.0(372)
before	Non-regular	2.7(4)	21.6(32)	1.4(2)	74.3(110)	100.0(148)
birth	Self-employed	5.3(1)	10.5(2)	47.4(9)	36.8(7)	100.0(19)
	Not employed	7.6(10)	12.1(16)	5.3(7)	75.0(99)	100.0(132)
Total		17.7(119)	12.4(83)	4.3(29)	65.6(440)	100.0(671)

3E: Japan, 1980s Birth Cohort

			One	year after th	ne birth	
		Regular	Non- regular	Self- employed	Not employed	Total
Two years	Regular	33.6(52)	10.3(16)	1.3(2)	54.8(885)	100.0(155)
before	Non-regular	7.3(9)	23.4(29)	3.2(4)	66.1(82)	100.0(124)
birth	Self-employed	0.0(0)	0.0(0)	33.3(2)	66.7(4)	100.0(6)
	Not employed	9.7(6)	12.8(8)	1.6(1)	75.8(47)	100.0(62)
Total		19.3(67)	15.3(53)	2.6(9)	62.8(218)	100.0(347)

2.5% for the 1970s and 1980s cohort, respectively. Thus, we can say that Japanese women are more likely to be in non-regular employment at time around childbirth compared with Korean women; therefore, our first hypothesis is supported.

We then examined the relationship between women's employment status prior to and after childbirth. Tables 3a-3e show crosstabs on women's employment statuses 2 years before and 1 year after first childbirth by birth cohorts. In both Korea and Japan, most women, regardless of their employment status, withdraw from work prior to childbirth. If they do continue working after childbirth, they tend to remain in the same employment status as before childbirth. It appears that there is only a small proportion of Korean and Japanese women who switch from regular to non-regular employment before and after childbirth; this might be a strategy to

balance work and family, suggesting that there are certain disparities between these employment statuses in the labor market in both Korea and Japan. These tables also confirm the increase in non-regular employment among Japanese younger women. In addition, there is a greater number of younger Japanese women in non-regular employment before childbirth who remain in the same status after birth. These evidences also support our first hypothesis.

Determinants of women's employment status 1 year after childbirth

Tables 4a and 4b show the results of multinomial logit models that predict employment status at 1 year after the first childbirth for Korean and Japanese women. Compared to those who are not working, the effects of factors determining being regular employees or non-regular employees 1 year after first childbirth are presented. The results shown in these models are, to a certain extent, similar between Korea and Japan, but there are some notable differences.

Women with university degrees are more likely to be in regular employment than are those with high school or lower levels of education, in both Korea and Japan. Both Korean and Japanese women in regular employment 2 years before childbirth were more likely to be in regular employment, and this effect is salient for Japanese women (odds ratio 21.65). Work experience before childbirth also shows a significant positive effect for regular and non-regular employment after birth, both in Korea and Japan. The effect of types of occupation before childbirth differs somewhat between these two societies. In Korea, those whose employment was in sales and service work were less likely to be in regular employment after childbirth than those whose occupation was clerical work. In Japan, women whose occupation was professional work were more likely to be in regular and non-regular employment after childbirth, while the effect of having been in sales and service work was negative, as in Korea, but not at a significant level.

These results show that women with greater human capital are more likely to stay in the labor market after childbirth, suggesting that our second hypothesis is supported, and it is particularly true for regular employment. With regard to post-birth non-regular employment, the results suggest only partial support for hypothesis 2a. That is, women's educational attainment does not show significant positive effect on women's non-regular employment after childbirth both in Korea and Japan; whereas the effect of work experience is positive in the two societies. However, positive effect of

TABLE 4A

MULTINOMIAL LOGIT MODELS PREDICTING EMPLOYMENT STATUS AT 1 YEAR

AFTER THE FIRST CHILDBIRTH FOR KOREA

(Ref. Not working)	Regular emp	loyment	Non-re employ	
, 0,	В	Exp(B)	В	Exp(B)
Constant	-3.545 *		-1.067	
Educational attainment				
High school or lower levels	_	_	_	_
Junior college	0.416	1.516	-0.114	0.892
University	1.302 **	3.677	0.690	1.994
Regular employment at 2 years before childbirth	0.531 †	1.701	-0.468	0.626
Work experience before childbirth	0.296 ***	1.344	0.239 **	1.270
Last occupation				
Professional	-0.260	0.771	-0.141	0.868
Clerical	_	_	_	_
Sales and service	-1.752 **	0.173	-0.315	0.730
Manual labor	1.161	3.193	0.300	1.350
Husband's income 1 year after childbirth	0.000	1.000	0.002	1.002
Birth cohorts				
1970-1974s	_	_	_	_
1975-1979s	-0.459	0.632	0.308	1.361
1980-1984s	-0.081	0.922	-0.546	0.579
1985-1989s	-1.203	0.300	-13.762	0.000
Respondent's age at the year of childbirth	0.032	1.033	-0.121	0.886
Regular employment at two years before childbirth	0.531 †	1.701	-0.468	0.626
Frequency of visiting parents per week after the year of last child birth				
Coresidence	1.017	2.765	-12.190	0.000
Frequently visit	0.806 †	2.239	1.093	2.983
Rarely visit	_	_	_	_
Husband's work hour	0.010	1.010	0.009	1.009
N	346			
Log likelihood	-236.299			
$LR \chi^2$	112.530			
$Prob > \chi^2$	0.000			
Pseudo R ²	0.179			

[†]p<.10, *p<.05, *p<.01,***p<.001.

TABLE 4B

MULTINOMIAL LOGIT MODELS PREDICTING EMPLOYMENT STATUS AT 1 YEAR

AFTER THE FIRST CHILDBIRTH FOR JAPAN

(Ref. Not working)	Regular emp	oloyment	Non-re employ	
<i>C</i> .	В	Exp(B)	В	Exp(B)
Constant	-5.380		-1.536	
Educational attainment				
High school or lower levels	_	_	_	_
Junior college	0.311	1.364	0.272	1.313
University	1.215 ***	3.369	0.278	1.320
Regular employment at two years before childbirth	3.074 ***	21.650	-0.112	0.894
Work experience before childbirth	0.215 ***	1.240	0.096 †	1.101
First occupation				
Professional	0.736 *	2.087	1.204 **	3.336
Clerical	_	_	_	_
Sales and service	-0.567	0.567	0.569	1.766
Manual labor	-0.261	0.770	0.710	2.035
Husband's income at the year of birth	-0.002 *	0.998	-0.005 **	0.995
Birth cohort				
1960s	_	_	_	_
1970s	0.468	1.598	1.233 *	3.432
1980s	1.138 **	3.121	1.301 *	3.675
Residence distance from parents at the year of birth				
Coresidence	0.652 †	1.921	-1.167 †	0.311
Proximate residence	0.182	1.200	0.255	1.290
Parents lived further away than the same town, parents deceased	_	_	_	_
Husband's work hour at the year of birth	-0.003	0.997	-0.016	0.984
N	561			
Log likelihood	-334.778			
$LR \chi^2$	238.010			
Prob > χ^2	0.000			
Pseudo R ²	0.262			

Note.—Respondent's age at the year of childbirth is not included in the model, because of the high correlation with work experience.

[†]p<.10, *p<.05, **p<.01,***p<.001.

being in professional work before childbirth is found only in Japan, suggesting that Japanese women, not Korean women, are able to utilize their occupational qualifications to stay as non-regular workers during the period shortly after childbirth, given that professional work often requires certain levels of occupational qualifications.

Husband's income shows a significant negative effect in Japan but not in Korea, which supports our third hypothesis.

Furthermore, the effect of birth cohort also differs between Korea and Japan. While there are no significant differences in probabilities for being in regular and non-regular employment across cohorts in Korea, Japanese women born during the 1980s are significantly more likely to be in regular and non-regular employment than are the 1960s cohort; those in the 1970s were also more likely to be in non-regular employment, suggesting that our fourth hypothesis is also supported.

Among the social support variables, although the measurements differ somewhat between Korea and Japan, the availability of parents' support shows a positive effect on being a regular employee in both societies. The negative effect of co-residence with parents on having non-regular employment in Japan is inconsistent with our predictions. This might be because of the older generation's more conservative view on women taking non-regular work at this life stage, but further investigation is required.

Discussion and Conclusion

In this study, we have examined the diverging patterns of women's employment between Korea and Japan. Both countries have long been thought to share similarities in traditional women's employment patterns, particularly those associated with mothers of young children opting out of the labor market. Women's long-term career breaks in their prime age because of the responsibility of rearing children constitute one of the major sources of persistent labor-market gender inequality. While this pattern continues, significant changes have occurred in both societies. To a certain extent, these include the easing of traditional patterns and the overall increase in women's employment rates. However, the two labor markets have increasingly diverged during the last two decades and we pay more attention to these emerging differences than on the similarities. Obvious is that the extent of these changes differs Japanese women in all age groups are much more actively involved in paid work compared to their Korean counterparts.

Japanese women's employment rate no longer seems lower than the OECD average for every age group, except for the age group between 30 and 39. In contrast, women's employment rates in Korea are still much lower than those in other OECD countries.

This study endeavors to shed light on the mechanism that creates these differences between Korean and Japanese women's labor supply. We started our examination by comparing broader societal and labor market changes: changes in dominant employment systems and gendered attitudes toward women's paid work. Furthermore, we consider social policies in the area of childcare and parental leave. Many institutionalists have focused on examining the effect that national institutional arrangements, including social policies, have on cross-national differences in women's employment (Fagan, Rubery, and Smith 2003; Van der Lippe and Van Dijk 2002). Although Korea and Japan show some differences in their recent policy developments regarding work-life balance, these are too minor to explain why the two countries display such a difference in employment. In particular, given Korea's remarkable improvement in both childcare and parental leave provisions based on the gender equality principle and its display of flexibility in practice, it is difficult to explain why Korea's improvement in terms of women's employment has been delayed so much.

Thus, we used multivariate analysis to examine the individual factors that represent a mother's human capital factors as well as her family factors; individual factors include educational background and work experiences while family factors, which could either facilitate or hamper women's paid work, include husband's income, his working hours, and the intergenerational network that could be the proxy of familiar support for rearing children. Furthermore, we are also interested in the influence of the social context in which each individual's norms and attitudes are embedded into women's labor supply. We examined this effect using individual women's birth cohorts.

As reported in the results section, human capital factors have a significant and positive influence on women's decision to stay in the labor market in the year after the birth of their first child in both countries. Mothers having experience of paid work before childbirth are more likely to remain employed. This is observed for both regular and non-regular employees in both countries. Higher education still strongly influences women's decision to stay in the labor market, but that influence is only significant among women who were (still) on a regular employment contract after one year since childbirth in both countries. Mothers' prior experience as

regular employees has a similarly significant and positive influence on their employment status of being regular employees after childbirth. In other words, women who have higher human capital and a better-paid job prior to childbirth are more likely to decide to stay in the labor market immediately after their maternal leave rather than quit working. However, in both countries, women under the same conditions are not likely to take a nonstandard job. These results could imply that qualified women, once they occupy a better position in the labor market, are less likely to quit their job even after childbirth. However, qualified women with the experience of having a regular employment contract do not prefer to choose an unstable (and possibly lower wage earning) non-standard job after childbirth, thus implying that women would calculate the opportunity costs and stay at home if the reservation wage is more substantial than the market wage. In other words, as long as qualified women receive a better offer from their jobs after childbirth, they do not wish to quit their jobs. This implies that a firm's indiscriminating and good practices for educated women would increase the number of mothers who choose to stay in the labor market. In fact, the enhancing effect of a firm's practices on mothers' employment has gradually been observed in Japan. Among young women whose first occupation was a clerical job, regular employment rates one year after childbirth have considerably increased across cohorts; in the JPSC data, the rates are 14.6%, 21.4%, and 40.9% for the 1960s, 1970s, and 1980s cohorts, respectively, although those who were in professional jobs were even more likely to continue as regular employees compared to those with clerical jobs. This implies that women with clerical jobs, who used to have no other choice but to leave their jobs after marriage or childbirth because of firms' genderdiscriminative human resource development systems and corporate culture, have gradually been able to find a way of staying in the labor market through changes in their workplace practices, pushed forward by legal force. The sharper decline of internal labor markets offering better paid jobs in Korea has constrained men and women's opportunities for those jobs in general. In addition, this might also increase insiders' interest to hoard exclusive organizational resources by maintaining male dominant corporate culture as well as male oriented employment practices, which might allow only smaller opportunities for the limited share of women to get access to those jobs. The persistently low women's employment rates in their prime age in Korea might imply that a greater extent of women were discouraged to enter an internal labor market. This line of logic is made possible because our results show that qualified women with a better job tend to stay in the labor market not just in

Japan but in Korea too.

In terms of family factors, interesting similarities and differences are observed between Korea and Japan. Both countries have suffered from either a long-lasting economic recession or economic turmoil over the past two decades. Such an economic situation has led to declining internal labor markets that previously served as the key sources of the strong, male, single breadwinner family model. We expect that this change in the labor market in both countries has influenced women's decision to get a paid job. Our results confirm this influence in Japan, where women are more likely to get either a regular or non-regular job when their husband's wage is lower. However, this effect is not confirmed in Korea. This is probably because Japanese women have a stronger motivation to be additional workers within their households given the fact that wages in Japanese (internal) labor markets have stagnated for a long time. Moreover, the labor markets in Japan offer relatively better paid part-time jobs compared to those in Korea, where people expect a wide pay gap between non-standard and standard jobs. Therefore, young Korean mothers, who often need to decide whether they should completely enter or exit the labor market, are more likely to rely on their own conditions than those of their family (or husband). Despite this difference, in both countries, the intergenerational family network, which might provide women with childcare support, positively influences women to stay in the labor market. However, this influence is only confirmed in families with mothers who have maintained a regular job.

An additional major difference between the two countries is associated with cohort effect. These findings are consistent with our understanding, obtained from the descriptive statistics. While the newer generation has a much higher interest in maintaining their employment in Japan, despite their lesser availability during the intensive childcare period, this change is occurring much more slowly in Korea. This may partly be attributed to a much stronger work–life conflict there. In our multivariate analysis, a positive and strong cohort effect is confirmed in Japan, whereas no significant cohort effect is found in Korea.

This explorative study has found that women's employment has changed in both Japan and Korea, albeit in uneven degrees. We argue that women's human capital, comprising both school education and work experience, which has recently increased remarkably, constitutes an important set of factors that can shed light on the increasing level of women's labor market participation. However, we have also argued that the opportunities that firms offer women constitute another key factor that influences women's decision to stay in the labor market. Moreover, the transformation of family relations is an important aspect that explains the changes in women's employment, but this is more evident in Japan than in Korea, where no specific family model seems to be established yet. It could be interesting to observe whether or not the path that Korea is to take in the future will resemble that taken by Japan.

(Submitted: November 30, 2016; Accepted: December 15, 2016)

References

- Asai, Yukiko, Ryo Kambayashi, and Shintaro Yamaguchi. 2015. "Childcare Availability, Household Structure, and Maternal Employment." *Journal of the Japanese and International Economics* 38: 172-192.
- Blossfeld, Hans-Peter and Sonja Drobnič (Eds.). 2001. *Careers of Couples in Contemporary Society: From Male Breadwinner to Dual-Earner Families*. Oxford: Oxford University Press.
- Brewster, Karin L. and Ronald R. Rindfuss. 2000. "Fertility and Women's Employment in Industrialized Nations." *Annual Review of Sociology* 26: 271-96.
- Brinton, Mary. C (Ed.). 2001. Women's Working Lives in East Asia. Stanford: Stanford University Press.
- Brinton, Mary C., Yean-Ju Lee, and William L. Parish. 2001. "Married Women's Employment in Rapidly Industrializing Societies: South Korea and Taiwan." Pp. 38-69, in *Women's Working Lives in East Asia*, edited by Mary C. Brinton. Stanford: Stanford University Press.
- Cabinet Office, Government of Japan. 2009. (In Japanese) "Dai 8 kai sekai seinen ishiki chōsa [8th World Youth Value Survey]." Retrieved December 5, 2016 (http://www8.cao.go.jp/youth/kenkyu/worldyouth8/html/mokuji.html).
- _____. 2014. (In Japanese) "Heisei 25 nendo waga kuni to shogaikoku no wakanono no ishiki ni kansuru chōsa [Fiscal 2013 World Youth Value Survey]." Retrieved December 5, 2016 (http://www8.cao.go.jp/youth/kenkyu/thinking/h25/pdf_index.html).
- Chang, Ji-Yeon. 2001. (In Korean) "Gyeongje wigi wa yeoseong nodong [Economic Crisis and Women's Employment]." *Jeongchaegyeongu* [*Policy Paper*]. Korea Labor Institute.
- ______. 2016. (In Korean) "Jendeogwanjeomeseo bon goyongjeongchaek [Employment Policies from the Gender Perspective]." Paper presented in the 16th Han-il nodong poreom [Korea-Japan Labor Forum], Korea Labor Institute.
- Chang, Ji-Yeon, and Byung-Yoo Jeon. 2014. (In Korean) "Sodeukgyecheungbyeol yeoseong chwieobui byeonhwa: Baeuja sodeuk sujuneul jungsimeuro [Changes in Female Labor Force Participation by Income Groups]." Saneomnodongyeongu

- [Korean Journal of Labor Studies] 20(2): 219-248.
- Esping-Andersen, Gøsta. 2014. "Gender Egalitarianism and the Resurgent Family." *Stato e Mercato*. 100: 127-144.
- Fagan, Colette, Jill Rubery, and Mark Smith. 2003. *Women's Employment in Europe: Trends and Prospects*. London: Routledge.
- Imai, Jun. 2011. The Transformation of Japanese Employment Relations: Reform without Labor. Basingstoke: Palgrave Macmillan.
- International Labour Office (ILO). 2016. LABORSTA Internet. Retrieved November 27, 2016 (http://laborsta.ilo.org/STP/guest).
- Jung, Ee-Hwan. 2013. (In Korean) Hangukgoyongchejeron [Korea Employment Relations System]. Humanitaseu.
- Jung, Ee-Hwan, Young-Mi Kim, and Hyunji Kwon. 2012. (In Korean) "Dongasia sinheung seonjingugui yeoseonggoyong: Hangukgwa daeman bigyo [Female Employment in Newly Industrialized Countries in East Asia: A Comparison of Korea and Taiwan]." *Hangugyeoseonghak* [Korean Journal of Women's Studies] 28(1): 147-181.
- Jung, Sung-Mi. 2015. (In Korean) "Geumyungwigi ihu yeoseong nodongsijangui byeonhwawa teukjing [Changes in Women's Labor Market in the Post-Economic Crisis]." *Nodong Review* [*Labor Review*] 122: 35-51.
- Kobayashi, Toshiyuki. 2003. (In Japanese) "Ishiki no henka ni miru shōshika no kōzu: Katei to danjo no yakuwari ni kansuru chōsa kara [Attitudinal Changes and Low Fertility: Analyses on a Survey on Household and Gender Roles]." *Hōso Kenkyū to Chōsa [The NHK Monthly Report on Broadcast Research*] 53(4): 60-77.
- ______. 2013. (In Japanese) "Kekkon ya kaji ni kansuru dannjo no ishiki no chigai: ISSP kokusai hikaku chōsa katei to dannjo no yakuwari nihon no kekka kara [Gender Differences in Views on Marriage and Division of Housework: Analyses on the ISSP Survey on "Family and Changing Gender Roles" for Japan]." *Hōso Kenkyū to Chōsa* [The NHK Monthly Report on Broadcast Research] 63(4): 44-58.
- Korean Statistical Information Service (KOSIS). 2016. *Statistical Database*. Retrieved November 27, 2016 (http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parentId=B#SubCont).
- Kwon, Hyunji, Junko Nishimura, and Meng Chen. Forthcoming. (In Korean) "Sedosiui il-gajok gyeonggye Gwan-ri: Taiger madeosidaee ilhaneun eommaro saranamgi [Work-Family Interfaces in the Three East Asian Cities, Seoul, Shanghai, and Tokyo]. In *Dongasia se dosiui huimanggwa jeolmang [Hope and Despair in East Asian Cities*], edited by Dukjin Chang et al. Hanul Mplus.
- Lee, Yun-Suk and Ki-Soo Eun. 2005. "Attitude toward Married Women's Employment in Korea and Japan: Implications from Latent Class Analyses." *Development and Society* 34(1): 125-145.
- Ministry of Health, Labour and Welfare, Japan. 2014. (In Japanese) "Hoikujo kanren jõkyō torimatome [*Reports on Daycare Centers*]." Retrieved November 25, 2016 (http://www.mhlw.go.jp/stf/houdou/0000057750.html).

- Mizuochi, Masaaki. 2012. (In Japanese) "Jisedai ikusei shien taisaku suishin hō ga shussan oyobi josei no shūgyō keizoku ni ataeru eikyō [The Effect of Work-Family Policy on Childbirth and Women's Job Continuity]". Shakai Kagaku Kenkyū [Journal of Social Science] 64(1): 6-24.
- Nagase, Nobuko. 2014. (In Japanese) "Ikuji tanjikan no gimuka ga daiisshi shussan to shūgyō keizoku, shussan iyoku ni ataeru eikyō: hō kaisei wo shizen jikken to shita jisshō bunseki [The Effect of a Short-Hour Option Mandate on First Childbirth, Birth Intention and Work Continuation after Childbirth: Evidence from Japan]". *Jinkōgaku Kenkyū* [Journal of Population Studies] 50: 29-53.
- National Women's Education Center of Japan (Ed.). 2006. (In Japanese) *Katei kyoiku ni kansuru kokusai hikaku chosa houkokusho* [Report on Comparative Studies on Home Education]. Retrieved December 5, 2016 (http://www.nwec.jp/jp/publish/report/page16.html).
- Nishimura, Junko. 2016. *Motherhood and Work in Contemporary Japan*. Abingdon, Oxon and New York: Routledge.
- Organisation for Economic Co-operation and Development (OECD). 2011. *Doing Better for Families: Families are Changing*. Paris: OECD Publishing.
- ______. 2016. OECD. Stat. Retrieved November 27, 2016 (http://stats.oecd.org/Index.aspx?QueryId=64196).
- Ogasawara, Yuko. 2001. "Women's Solidarity: Company Policies and Japanese Office Ladies." Pp. 151-179, in *Women's Working Lives in East Asia* by Mary C. Brinton. Stanford: Stanford University Press.
- Rubery, Jill. 2015. "Austerity and the Future for Gender Equality in Europe." *ILR Review* 68(4): 715-741
- Shin, Yoon-Jeong, Hyunsik Kim, and Jihye Yi. 2012. OECD Family Database on Korea. Retrieved December 2, 2016 (http://www.oecdkorea.org/user/nd12191. do?View&uQ=&page=1&pageSC=REGDATE&pageSO=DESC&dmlType=&pageST=SUBJECT&pageSV=&boardNo=00001389&itemShCd1=44&itemShCd2=24&itemShCd3=&dmlType=).
- Statistics Bureau, Ministry of Internal Affairs and Communications, Japan. 2015. (In Japanese) "Heisei 24 nen shūgyō kōzō kihon chōsa no kekka gaiyō tou [Results and Summary of the Employment Status Survey 2012 and Former Surveys]." Retrieved July 3, 2015 (http://www.stat.go.jp/data/shugyou/2012/index2. htm#kekka).
- _____. 2016. (In Japanese) "Chingin kōzō kihon tōkei chōsa [Basic Survey on Wage Structure]". Retrieved November 17, 2016 (http://www.e-stat.go.jp/SG1/estat/GL08020101.do?_toGL08020101_&tstatCode=000001011429).
- _____. Various years. (In Japanese) "Rōdōuryoku chōsa [Labour Force Survey]." Retrieved July 29, 2015 (http://www.stat.go.jp/data/roudou/2.htm).
- Thévenon, Olivier. 2011. "Family Policies in OECD Countries: A Comparative Analysis." *Population and Development Review* 37(1): 57-87.
- Unayama, Takashi. 2011. (In Japanese) "Kekkon shussan shūgyō no ryōritsu kanōsei

- to hoikujo no seibi [Marriage and Female Labor Participation: Evidence from Japanese Prefectural Cross-Section Data]." Nihon Keizai Kenkyū [The Journal of Japan Economic Research] 65: 1-22.
- Van der Lippe, Tanja and Liset Van Dijk. 2002. "Comparative Research on Women's Employment." *Annual Review of Sociology* 28: 221-241.
- Vlasblom, Jan Dirk and Joop J. Schippers. 2004. "Increases in Female Labour Force Participation in Europe: Similarities and Differences." *European Journal of Population* 20: 375-92.
- Yu, Wei-Hsin. 2005. "Changes in Women's Postmarital Employment in Japan and Taiwan." *Demography* 42(4): 693-717.

JUNKO NISHIMURA is professor of sociology at Meisei University, Japan. Her research interests include reconciliation of family and paid work, women's labor market participation and career development, individual well-being and institutional arrangements. She has involved in the National Family Research of Japan (NFRJ), and has published works on changes in family dynamics and relationships. Address: 2-1-1 Hodokubo, Hino-shi, Tokyo, 191-8506, Japan [E-mail: nishimura-junko@soci. meisei-u.ac.jp]

HYUNJI KWON is associate professor of Sociology at Seoul National University. Her research centers around workforce flexibility, restructuring and changing employment systems, gender and employment, and low wage workers in service economy. Her work has been published in journals including Industrial and Labor Relations Review, British Journal of Industrial Relations and Human Relations. Address: Department of Sociology, Seoul National University, Gwanak-ro 1, Gwanak-gu, Seoul, 151-015, Korea. 08826 [E-mail: hkwon248@snu.ac.kr]