

Japanese Wives' Decisions on Co-Residence and Employment Choices upon Husbands' Workplace Relocation (*Tenkin*)

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This paper studies married women's decisions on the co-residence and employment choices when their husbands are ordered by company to relocate for work (*tenkin*). In Japan, a broad range of companies—not limited to particular business sectors—rotate employees across positions and offices including the cases where employees need to migrate to live near new workplace with or without their families. Compared to married couples' migration due to a change in work in the United States and Europe, such migration in Japan is a less voluntary action of employees. We use the Japanese Panel Survey of Consumers from 1994 to 2019, which is an individual level data set that contains information on whether husbands have been relocated within the past year, as well as wives' co-residence and employment status before and after the relocation. First, we analyze wives' co-residence and employment status when their husbands were relocated, and organize descriptive statistics of wives' employment situation at that time and then compare the 2000s and 2010s for any changes. Next, considering the simultaneous decision of wives to accompany their husbands and to engage in work, we examine correlations between these two choices and analyze attributes of the wives. In this paper, the presence of children is of interest, since it is considered to influence the couples' choice. We find that, from the 2000s to the 2010s, the number of wives who accompanied their husbands and chose not to work decreased, while the number of dual-earner couples in which the husbands relocated alone (*tanshin-funin*) increased. We also show that there is a negative correlation between the wives' choices to accompany their husbands and choices to work. Furthermore, wives with only preschool children have a higher probability of following their husbands and leaving the job market.

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I. Introduction

A change in the place of residence due to workplace relocation (*tenkin*, job reassignment entailing migration) may affect not only the situation of relocated workers themselves but also their spouses' decisions on the

employment choices. In particular, husbands' workplace relocation may have a negative impact on their wives' employment: for example, some wives of relocated husbands may choose to leave their current job and migrate in order to co-reside with their husbands (co-residence behavior), while others may choose not only to leave their current job but also to remain in the non-labor force after migration (Ota, 2017; Kawabata, 2018). In Japan, where the working-age population is expected to shrink because of its aging society with a low birth rate, engaging women in work is a critical challenge. Although female empowerment continues to grow, if husbands' workplace relocation is still acting as an inhibiting factor for married women's employment, some corrective action must be taken. Our study reviews the migration and employment behaviors of wives whose spouses were relocated from the 2000s to the 2010s and also examines correlation between wives' decisions on the co-residence choice and the employment choice and identifies the individual attributes that affected the choices. In particular, the study aims to identify the attributes of wives who are likely to migrate with a relocated husband and forced to leave work after migration. Furthermore, focusing on remote work as a way of preventing migration from forcing wives to leave their current job, we describe some relevant existing studies.

Although double-income couples have become the majority, companies' policy on workplace relocation in Japan still gives excessive precedence to their own intentions over employees' desires. According to Sato (2007), job reassignment entailing migration, which is a relatively rare practice in the United States and Europe, is an important element of the Japanese-style employment system. In Japan, when workers have received a workplace relocation order from their employer, they accept it as something that must be followed even if some sacrifice becomes necessary on the part of their family. According to the Survey on the Actual Situation of Workplace Relocation conducted in 2016 by the Japan Institute for Labour Policy and Training (JILPT), 33.7% of companies have the possibility of workplace relocation for most of their permanent employees. Also, 79.7% of companies order the workplace relocation entirely at the companies' discretion. The survey also asks permanent employees about their attitude toward workplace relocation, and 79.5% chose the reply "It is natural to follow a workplace relocation order because it comes from the employer" (JILPT, 2017). In addition, few companies have a workplace change system that allows employees whose spouses are relocated to continue working at a new location or a leave system that allows such employees to migrate with their spouses and take leave of absence (Takeishi, 2016; Kawabata, 2018). It has been pointed out that it is difficult even for relocated workers themselves to obtain advance information on the details of their own workplace relocation. Therefore, even if some type of support system becomes available at companies employing relocated workers' spouses, it would not provide a sufficient solution (Kawabata, 2018).

In considering workplace relocation and spouses' employment, a model based on the human capital theory is a theoretical framework of economics regarding married couples' migration (change in the place of residence) and wives' employment behavior. This theory regards migration as investment in human capital and assumes that individuals earn a return from migration in the form of expected income and employment. According to Mincer (1978), when making migration decisions, married couples aim to maximize net family gain and choose family-wide migration when the return from migration outweighs the cost. Even when the wife suffers costs on a net basis, for example, she chooses to migrate with their husband if the net gain for their husband outweighs her own net costs, resulting in net gain on a family-wide basis. Conversely, if the wife's net costs outweigh their husband's net gain, the wife chooses not to migrate because net costs are incurred on a family-wide basis. Although returns and costs associated with migration include non-financial ones, they are measured in financial terms in most cases. Mincer (1978) points out that for wives, migration has the effect of reducing labor force participation and wages when their economic status is lower than their husbands.

In the study of sociology, the effects of gender-role ideology and the relative resource theory which maintains that either member of a married couple has the final say over migration, have been cited to explain the co-residence behavior. For example, using U.S. data, Bielby and Bielby (1992) shows that "wives in dual earner

couples are less willing than husbands” to relocate for better employment opportunities, pointing out an asymmetry that cannot be explained by hypotheses based on neoclassical economics.

Based on the abovementioned theoretical hypotheses, a large amount of empirical research literature has been accumulated in the United States and Europe (e.g., Shihadeh, 1991; Cooke et al., 2009). However, in many cases, U.S. and European studies discuss cases of voluntary migration, such as when the husband or wife seeks a better employment opportunity. For example, Taylor (2007), which uses British data, identifies migration cases related to husbands’ work and to wives’ work, respectively, and analyzes how each of the two sets of cases affected the post-migration employment probability for husbands and wives. The result shows that for both husbands and wives, migration related to their spouse’s work lowers their own employment probability and that the intensity of the impact was almost the same for both. Taylor (2007) also shows that having a preschool child (a child aged 6 or younger who has yet to attend elementary school) reduces the employment probability for wives and that the employment probability for mothers with a young first child is much lower than the probability for mothers without a child or with an older child.

Among the foreign studies that analyze workplace relocation similar to the situation in Japan is a study by Burke and Miller (2017). Using U.S. military administrative records, Burk and Miller (2017) analyzes how servicemen’s permanent change of station (PCS), which exogenously determines the timing and destination of migration, affects their spouse’s employment and income. As a result of an estimation controlled for the spouse’s fixed effects, the paper shows that PCS has a significant negative impact on the spouse’s employment and income and that the decrease in income is large in the case of couples with a preschool child aged six or younger.

The workplace relocation discussed in our study is one entailing migration. Unlike married couples’ migration commonly observed in the United States and Europe, workplace relocation in Japan is considered to be a less voluntary action by employees. Also, in Japan, a broad range of companies—not limited to particular business sectors—rotate employees between different business locations on a routine basis. Since workplace relocation is a matter that has an impact on the entire labor market, it is an object of strong research interest and surveys with companies and individuals have frequently been conducted. For example, according to a study by Ota (2017) which uses data from the Japanese Panel Study of Employment Dynamics (JPSED) (2016) that was conducted by the Recruit Works Institute in order to analyze married women’s reasons for leaving a job, the non-employment probability for wives is 34.6 percentage points higher when the reason is their husband’s workplace relocation compared with when the reason is dissatisfaction with wages. Moreover, Ota (2017) shows that women who left a job because of their husband’s workplace relocation had a relatively high level of educational attainment, raising concerns that such cases inflict significant costs not only on the individuals but on society at large.

However, because of data constraints, a sufficient volume of precedent studies has not been accumulated in Japan. Nowadays, in most cases, married workers who have been ordered to relocate are given the choice of whether they migrate alone (*tanshin-funin*) or with their family (*taido-funin*).¹ Some wives leave a job in order to migrate with their husband. There are also those who choose not to migrate in order to retain their current job or those who were full-time housewives since before their husband’s relocation. Wives in the latter cases cannot be captured by data consists of women who left their job. Among related literature, Chitose (2006), which is close to our study in terms of research interest, analyzes the relationship between married couples’ migration, including cases of migration not related to workplace relocation, and wives’ employment situation. Meanwhile, He (2021) uses an individual dataset from the Employment Status Survey, conducted by the Ministry of Internal Affairs and Communications, in order to identify the reasons for migration and analyzes how migration related to family members’ work affect employment. He (2021) shows that for married women who had a job before migration, the probability of shifting to non-permanent worker or unemployment is high due to migration related to family members’ work.

Some relevant studies are conducted from different viewpoints. Sasaki (2002) shows that “co-residence with

one's own parents or in-laws has significant positive effects on Japanese married women's labor force participation." Meanwhile, Compton and Pollak (2014) shows that "close geographical proximity to mothers or mothers-in-law has a substantial positive effect on the labor supply of married women with young children." Compton and Pollak (2014) argues that "the mechanism through which proximity increases labor supply is the availability of childcare." With whom to live and where to live are considered to be important factors of married women's employment.

Based on the abovementioned knowledge, our study focuses on both the co-residence choice and the employment choice faced by wives when their spouses have been ordered to relocate. We examine the decisions made on these choices at the time of workplace relocation considering the situation and attributes of individuals and their families before relocation. For the analysis, we use the Japanese Panel Survey of Consumers (JPSC), which includes information on whether or not workplace relocation occurred in samples' families. Specifically, first, we check whether wives whose spouses were relocated migrated with them and wives' employment situation (whether or not they were working). Then, we summarize their decisions on the co-residence and employment choices. We also check whether any trend change occurred between the 2000s and the 2010s. Next, using the Bivariate Probit model, we conduct a simultaneous estimation regarding the co-residence and employment choices and examine whether there is a correlation between the two choices. Furthermore, we analyze how individuals' attributes are related to these choices. Through this analysis, we identify the attributes of wives who are likely to leave work and suffer significant costs due to their spouse's relocation. We focus particularly on the impact of the presence of children, which has been pointed out in preceding studies.

As a result of the analysis, we find that compared with the 2000s, the percentage of families in which wives migrated with relocated spouses and became full-time housewives (leave work) fell in the 2010s, while the percentage of families in which wives chose not to migrate and remained working rose. We also find a negative correlation between the co-residence and employment choices: wives are less likely to remain working if they choose to migrate with spouses and are more likely to do so when they choose not to migrate. Another finding is that wives are more likely to migrate with relocated spouses and not working when the couple has only a preschool child. This finding was obtained when we controlled for wives' employment situation and occupation before relocation, and a similar result was obtained when the sample group was limited to wives who were working before their spouses' workplace relocation. This suggests that wives with a young child are more likely to choose to migrate with a relocated spouse and quit working.

Our study makes the following three contributions to research literature. First, paying attention to workplace relocation entailing migration as a corporate practice peculiar to Japan, the study analyzes the co-residence and employment choices faced by spouses of relocated workers based on an estimation considering the simultaneity of the two choices. To the best knowledge of the authors, it is rare in the United States and Europe that workers or their families involuntarily migrate for work-related reasons. Our study provides new knowledge on how workplace relocation orders for workers affect their spouses' co-residence and employment. Second, by using a unique dataset recording the occurrence of husbands' workplace relocation and couples' co-residence and employment status before and after relocation, our study identifies changes in the situation of couples who experienced workplace relocation before and after their relocation. Third, our study highlights anew the difficulty of balancing work and childcare duties—that is, mothers with a young child are less likely to remain working when their spouses are relocated.

Our study is structured as follows. Chapter II explains the data used, and III presents the analysis results. Chapter IV discusses the results and introduces readers to preceding studies related to remote work as a solution for the employment challenge (difficulty of remaining to work) for wives of relocated workers. Chapter V provides a summary.

II. Data

Our study uses an individual dataset from the JPSC, an annual survey started in 1993 by the Institute for Research on Household Economics. The JPSC has been conducted by the Panel Data Research Center at Keio University (PDRC) since 2018. In the first year of survey by the Institute for Research on Household Economics, 1,500 samples were adopted from the women aged between 24 and 34 who were randomly selected from across the nation. Roughly once every five years, women in their late 20s are added to the original sample group as new samples. Below, data for the period until 2019, the latest year for which relevant data are available, will be used.

The JPSC's panel of married women provides detailed records of the employment behavior, personal attributes and various living circumstances of each of husbands and wives, such as family relationship matters, including the presence or absence of children and parents, income, expenses, and savings. In addition, since 1994, the survey asks about changes in their living and work situation that had occurred in the past one-year period, and as a result, we can identify not only whether either the husband or wife (or both) experienced workplace relocation but also whether the couple continued to live together and whether they remained working after workplace relocation. In this study, we use samples of wives whose husbands continued to work for the same company over the past one-year period (including those who were on a leave of absence at the time of the survey) and who replied that their husbands experienced "transfer to another office entailing migration" (or "transfer to another office and, as a result, moved location") in the past one-year period (workplace relocation sample group). The percentage of wives who experienced their spouse's workplace relocation in each year was 2.8% on average. We obtain 776 workplace relocation samples from the pooled data between 1994 and 2019.²

The variables used for the analysis are constructed as follows. First, we construct a co-residence dummy that takes the value 1 when a wife lives with her spouse and the value 0 in the case of living apart. If the subject's spouse experienced workplace relocation in the past one-year and the couple currently lived together, the wife was deemed to have migrated with the spouse. Regarding wives' employment situation, we construct a dummy variable that takes the value 1 when the subject replied that she was working at the time of the survey and the value 0 when she was on a leave of absence (i.e., was not working currently but was set to return to the former workplace), was a "student," a "full-time housewife," or "otherwise non-working." Regarding the co-residence and employment status before the husband's workplace relocation, we construct dummy variables based on the replies given at the time of the previous year's survey.

For our estimation, we use data concerning the presence of children, wives' own attributes, and household finance as variables that affect wives' decisions on the co-residence and employment choices at the time of their spouse's workplace relocation. We focus particular attention on the presence of children. We construct a category variable that takes the value 0 when the couple has no child, the value 1 when the couple has only a preschool child (children), and the value 2, when the eldest child attends elementary or higher school, i.e., when the couple has at least one school-age child.

With respect to wives, in addition to using the variable for educational attainment (university graduate or higher degree dummy), we construct variables for wives' employment situation (form of employment) in the year prior to their spouse's workplace relocation and for wives' occupation based on the previous year's survey.³ Regarding wives' employment situation, we construct a category variable that takes different values which each correspond to "full-time and permanent employee," "part-time employee," "other types of employee (temporary employee, fixed-term employee, self-employed, or others)," or "non-working." As for occupation, in order to capture occupational skills that are more likely to continue to work after migration, we construct three dummy variables: "self-employed/freelance" dummy, which takes the value 1 when the sample was a self-employed worker (working for companies with a workforce of nine employees or less in commercial, industrial and services industries) or a freelance worker (medical practitioner, lawyer, writer, etc.), and otherwise the value 0; the

“professional/engineer” dummy, which takes the value 1 when the sample was a professional worker (hospital doctor, researcher, etc.) or an engineer (engineer, programmer, nurse, etc.) and otherwise the value 0; and the “teacher” dummy, which takes the value 1 when the sample was a teacher (teacher at elementary, junior- or senior-high school, kindergarten, or nursery school) and otherwise the value 0.

As a variable related to husbands and household finance, we use husbands’ annual income. The total sum of husbands’ salary income from their employer and their own business income (income from self-operated business) in January-December of the previous year—the samples are asked about those figures in each year’s survey—is deemed to be the husbands’ annual income in the previous year. Regarding the residence ownership status before workplace relocation, we use a dummy variable that takes the value 1 when the sample lived in an owner-occupied house (a detached house or a condominium) at the time of the previous year’s survey and otherwise the value 0. We also count the total number of workplace relocations experienced by husbands, including the latest relocation.

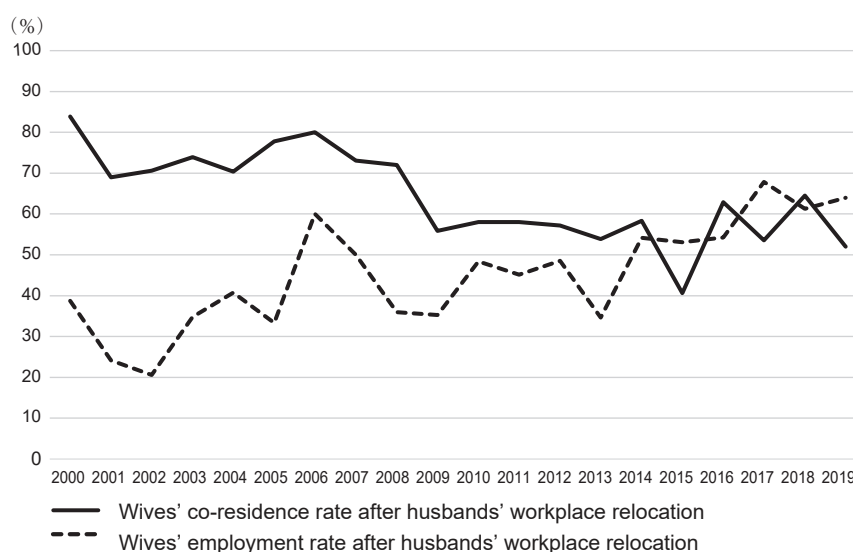
When using the JPSC panel, it is necessary to keep in mind the following points. First, the sample groups in the early years of the survey have an age bias, with the sample group limited to young people in their 20s and 30s. Although the younger cohorts were added, the age of original samples advanced year after year, and the age mix of the sample group differs depending on the survey year. When we examine the employment situation of wives, it is possible that the age effect may be working: when women are in their 20s and 30s, they are likely to face relevant family events such as birth-giving and childcare, while at older ages, they are likely to be charged with caring for aging parents, for example. Therefore, when we examine changes that occurred over periods of time based on descriptive statistics in Chapter III-1, we exclude the period when the sample group’s age distribution is skewed and use only samples obtained after 2000. In addition, as the JPSC does not use sample weighting, we cannot present weighted descriptive statistics.

III. Analysis

1. Changes in wives’ co-residence and employment status at the time of their husbands’ workplace relocation

Figure 1 shows changes in the co-residence rate of the household and wives’ employment rate among families in which the husband experienced workplace relocation in the past one-year period. The co-residence rate stayed at around approximately 70–80% in the 2000s and followed a moderate downtrend, declining to approximately 50–60%, in the 2010s. On the other hand, the employment rate among wives whose spouses experienced workplace relocation stayed at slightly below 40% in the first half of the 2000s but followed a moderate uptrend, rising to approximately 50–60%, in the latter half of the 2010s.⁴ These results indicate that previously, wives were likely to migrate with relocated spouses and become full-time housewives, but that as an increasing number of women continue working after marriage, the percentage of those who choose to maintain a double-income status regardless of living apart or together with their relocated spouses has increased.

Let us take a closer look at the decisions on the co-residence and employment choices made by wives whose spouses were relocated. First, we divide the sample of wives who were living with their spouses at the time of the previous year’s survey into two groups: one comprising those whose spouses experienced workplace relocation in the 2000s and the other comprising those whose spouses did so in the 2010s. The number of samples is 233 for the first group and 203 for the second group. Based on this categorization, Table 1 (A) shows changes in the co-residence status after relocation (whether or not wives co-resided with relocated spouses) and in the employment situation before and after relocation. The percentage of co-residing wives (the total in the lower row in each period) in the sample group (A) fell from approximately 70% in the 2000s to approximately 50% in the 2010s. According to a cross-tabulation with changes in the employment situation, in the 2000s, the



Source: The Japanese Panel Survey of Consumers (JPSC).

Note: The sample group comprises married women who replied that their spouses experienced “transfer to another office entailing migration” (or “transfer to another office and, as a result, moved location”) in the past one-year period at the time of each survey in each year. Wives’ co-residence rate refers to the percentage of those who were living with their spouses at the time of the survey. Wives’ employment rate refers to the percentage of those who were working at the time of the survey. Workers on a leave of absence, students, housewives, and others not working are included among those who are categorized as “not working.” The number of observations in the overall sample group for 2000-2019 is 593.

Figure 1. Changes in wives’ co-residence and employment status after husbands’ workplace relocation (2000-2019)

Table 1. Changes in wives’ co-residence and employment status after husbands’ workplace relocation (2000s, 2010s)

		(A) Distribution of wives' co-residence and employment status among wives whose husbands experienced workplace relocation in 2000s or in 2010s (%)				(B) Distribution of wives' co-residence and employment status among wives who were working in the previous year	
		Not working in the previous year		Working in the previous year		Not working	Working
		Not working	Working	Not working	Working		
2000s	Not co-resided	12	3	1	14	2	38
	Co-resided	46	3	10	11	29	31
2010s	Not co-resided	14	5	2	25	5	52
	Co-resided	26	5	9	12	18	25

Source: The Japanese Panel Survey of Consumers (JPSC).

Note: In (A), the sample group is limited to wives who replied that their spouses experienced “transfer to another office entailing migration” (or “transfer to another office and, as a result, moved location”) in the past one-year period at the time of each survey and who were also co-residing with their spouses at the time of the previous year’s survey. In (B), the sample group is further limited, to wives who were working in the previous year. The numbers of observations in (A) are 233 for the 2000s and 203 for the 2010s, and the numbers of observations in (B) are 84 for the 2000s and 99 for the 2010s.

percentage of wives who were “co-resided and remained not working” was the highest, 46%. In other words, nearly half were full-time housewives since before relocation and migrated with relocated spouses. The percentage of wives who were “not co-resided and remained working” was the second highest, 14%. On the other hand, in the 2010s, each of the percentages of wives who were “co-resided and remained not working” and wives who were “not co-resided and remained working” was approximately 25%. In other words, while the percentage of families in which the wife was a full-time housewife and migrated with a relocated spouse declined, the percentage of double-income families in which the husband migrated alone increased. Each of the percentages of wives who were “co-resided and not working” and wives who were “co-resided and working” remained almost flat at approximately 10% in the 2000s through the 2010s. In the entire workplace relocation sample group, we do not observe a significant change in recent years such as a decrease in the percentage of working wives who migrated with relocated spouses and not working or an increase in the percentage of working wives who remained working after migrating.

Table 1 (B) shows a comparison using sample groups limited to wives who were working before their spouses’ workplace relocation. The numbers of observations are small, 84 (36% of the entire workplace relocation sample group) for the group of wives whose spouses experienced workplace relocation in the 2000s and 99 (49%) for the group of wives whose spouses did so in the 2010s, but we can observe an increase in the percentage of wives who were working before their spouses’ relocation, a trend that is consistent with the recent increase in the percentage of double-income families. In those two sample groups, the percentage of wives who migrated with relocated spouses (the total in the lower row in each period) fell from approximately 60% in the 2000s to approximately 40% in the 2010s. As for the employment situation, the percentage of wives who remained working rose moderately, from approximately 70% in the 2000s to approximately 80% in the 2010s.⁵ According to a cross-tabulation between changes in the co-residence status and in the employment status, the percentage of wives who were “not co-resided and working” increased in the 2010s compared with the 2000s. Those wives accounted for more than half of the sample group of wives in double-income families in which the spouse experienced workplace relocation. On the other hand, the percentage of wives who were “co-resided and not working” declined, and the percentage of those in the sample group of wives in double-income families in which the spouse experienced workplace relocation fell below 20%. In addition, the percentage of wives who were “co-resided and working” declined slightly, indicating that wives in double-income families can work at the time of their spouses’ workplace relocation if the spouses migrate alone. In Japan, it may still difficult for working wives to choose to migrate with a relocated spouse and continue working. JILPT (2017) find that among male permanent employees whose wives also worked as permanent employees, the percentage of husbands who migrated with their family at the time of their workplace relocation within Japan was approximately 40%. Of those male employees, the percentage of those whose wives left their current employer at the time of relocation was 73%. This suggests that in many cases of husband-wife co-migration in Japan, wives tend to be forced to leave their current job and face difficulty remaining to work.

2. Decisions on wives’ co-residence and employment at the time of their husbands’ workplace relocation

What attributes affect wives’ decisions on the co-residence and employment choices at the time of their spouses’ workplace relocation? Below, we look at whether wives migrated with their spouses at the time of relocation and whether they were working after relocation. To take into consideration the simultaneous decisions (co-residence and employment), we estimate the Bivariate Probit model using the maximum-likelihood approach.

$$y_1^* = x'\beta + \epsilon_1 \quad y_1 = 1 \text{ if } y_1^* > 0, 0 \text{ otherwise} \quad (1)$$

$$y_2^* = x'\beta + \epsilon_2 \quad y_2 = 1 \text{ if } y_2^* > 0, 0 \text{ otherwise} \quad (2)$$

$$E[\epsilon_1] = E[\epsilon_2] = 0, \text{ Var}[\epsilon_1] = \text{Var}[\epsilon_2] = 1, \text{ Corr}[\epsilon_1, \epsilon_2] = \rho$$

(1) represents the co-residence function and (2) represents the employment function. We conduct simultaneous estimation of (1) and (2) and test the simultaneity. When simultaneity is acknowledged, we interpret the results of the Bivariate Probit estimation.

In the co-residence function, the dependent variable is a dummy indicating whether the wife was currently living with the spouse. In the employment function, the dependent variable is a dummy indicating whether the wife was currently working. Regarding both functions, the explanatory variables include the following: the presence of children; the wife's educational attainment (university graduate or higher degree dummy); the wives' employment situation in the year prior to relocation; the wife's occupation in the year prior to relocation (self-employed/freelance dummy, professional/engineer dummy, and teacher dummy); the spouse's income in the previous year (10,000 yen); a dummy indicating whether the couple lived in an owner-occupied house in the year prior to relocation; and the total number of workplace relocations experienced by the spouse. In particular, we focus on the presence of children. The number of observations used for the basic estimation is 542, and the descriptive statistics are as shown in Table 2.

The meanings of those variables and expected results are as follows. First, regarding the co-residence function, given the effects of the presence of children, when couples desire to live together with the childcare burden and the parent-child relationship in mind, the co-residence probability is expected to be high. On the other hand, when couples have a school-age child and want to avoid change of schools and the child's surrounding environment, the co-residence probability is expected to be low. With respect to wives' employment situation in the year prior to workplace relocation, the probability of wives' choosing not to migrate is expected to be high when they work as permanent employees and want to avoid workplace change, giving precedence to their own working career, or when they earn stable income and are unlikely to face budget constraint even if their families have to maintain two separate households due to husbands' relocation.⁶ Budget constraint problems are also unlikely to occur when husbands are high income earners. Wives may choose to migrate with relocated spouses if wives are permanent employees and their own employer is expected to provide generous support measures—such as granting a leave of absence associated with the spouse's workplace relocation or offering reemployment—when they have returned from migration. Regarding wives' occupation, when wives are freelance workers whose work is unlikely to be affected by location constraints or workers in the professional/engineer/teacher category who have special skills or government-certified qualifications and are therefore likely to find a job anywhere, the co-residence probability is expected to be high. On the other hand, when wives are self-employed or freelance workers who own a store or a local business network, the co-residence probability may be low. Meanwhile, the probability of wives choosing not to migrate is expected to be high when their families live in an owner-occupied house.

With respect to wives' employment function, the effects of having children are expected to be as follows: when wives cannot secure the time for work because of time constraints due to household chores and childcare, or when they think that mothers should concentrate on childcare, the employment probability is expected to be low. When couples have a school-age child and want to earn income to cover education expenses, the employment probability is expected to be high. Preceding studies also suggest that whether or not the child is of school-age is important for mothers' employment probability (indicated by preceding studies by Taylor [2007], etc.). When wives' educational attainment level is high, the employment probability is expected to be high because they are likely to be strongly eager to work in order to take advantage of their capabilities and to earn high income. Furthermore, when wives currently work as permanent employees or are freelance workers, professionals, or engineers who have special occupational skills, the employment probability is expected to be high. On the other hand, in the case of families in which the husband is a high income earner, the wife may choose not to work but to concentrate on household chores. When couples live in an owner-occupied house, they may choose to maintain a double-income status in order to repay housing loans.

Table 2. Descriptive statistics

Variables	(1) Overall workplace relocation sample group				(2) Sample group of the period from 2000		(3) Sample group of wives who were working in the previous year	
	Mean	Standard deviation	Min. value	Max. value	Mean	Standard deviation	Mean	Standard deviation
Employment dummy	0.35	0.48	0	1	0.39	0.49	0.71	0.46
Co-residence dummy	0.69	0.46	0	1	0.63	0.48	0.56	0.50
Wife university graduate or higher degree dummy	0.24	0.43	0	1	0.25	0.43	0.25	0.44
Self-employed/freelance dummy (wives' occupation in the previous year)	0.01	0.09	0	1	0.01	0.10	0.02	0.14
Professional/engineering dummy (wives' occupation in the previous year)	0.06	0.23	0	1	0.07	0.25	0.13	0.34
School teacher dummy (wives' occupation in the previous year)	0.02	0.13	0	1	0.02	0.13	0.04	0.19
Husbands' income in the previous year (10,000 yen)	690.87	291.17	230	3600	709.18	312.21	691.36	325.13
Owner-occupied house dummy	0.43	0.49	0	1	0.44	0.50	0.57	0.50
Number of workplace relocations experienced	2.99	2.05	1	12	3.03	2.07	2.83	1.98
Presence of children (%)								
Without a child	12.55				13.35		21.25	
With only a preschool child	31.37				27.18		14.90	
With a school-age child	56.09				59.47		63.94	
Wives' employment situation in the previous year (%)								
Not working	61.62				58.25			
Full-time/permanent employee	9.96				9.22		25.96	
Part-time employee	23.99				27.18		62.50	
Temporary employee, fixed-term employee, self-employed or others	4.43				5.34		11.54	
Number of observations	542				412		208	

Note: The overall workplace relocation sample group comprises wives who replied that their spouses experienced “transfer to another office entailing migration” (or “transfer to another office and, as a result, moved location”) in the past one-year period and who were also co-residing with their spouses at the time of the previous year’s survey. The data for 1994–2019 were pooled.

Workplace relocation that occurred in the estimation sample is presumed to be exogenous, but the following points should be kept in mind. First, the sample group does not include wives whose spouses never experienced workplace relocation. As a result, the sample group may have a selection bias: the sample group is limited to women who married men engaging in jobs that might entail workplace relocation. If wives make work-related adjustments in anticipation of their spouses’ possible workplace relocation, such as refraining from working in the first place or obtaining professional qualifications so that they can find a job anywhere after migration, they

are expected to be resilient to a shock caused by relocation. Next, when wives were expecting their spouses' workplace relocation from early on, wives may make arrangements so that the timing of life events such as leaving a job or migrating corresponds to the timing of birth giving. However, as mentioned in Chapter I, it is rare for employers to consider the wishes of workers being relocated and that it is difficult to accurately predict the timing or duration of future workplace relocation. It should be noted that among wives aged 40 or younger in the data set used in this study, the percentage of those who gave birth in the past one-year period was 12% in the group of wives who experienced their spouses' workplace relocation and 11% in the group of wives who did not: in other words, we do not observe a significant difference between the results for those two groups.

The estimation presented below is conducted as follows: (1) in the basic estimation, in order to secure a sufficient number of samples, we do not limit the sample to particular age groups, and we include samples of wives who were not working in the previous year. Regarding the employment function, we look at whether wives were working after their spouses' workplace relocation, (2) we also conduct an estimation limited to samples whose spouses experienced workplace relocation in the 2000s or later, and (3) we also conduct yet another estimation limited to samples who were working in the previous year in order to identify whether working wives remained working after relocation.

Table 3 shows the coefficients of the estimation results. In the basic estimation (1), the ρ value is -0.471, and the null hypothesis of $\rho=0$ is rejected. This means that there is simultaneity between wives' co-residence and employment choices. In addition, the negative ρ value indicates a negative correlation between the two choices. In other words, for wives whose spouses experienced workplace relocation, their own co-residence and employment have a trade-off relationship, which means that if wives migrate with their spouse they find it more difficult to work, while if wives do not migrate, they find it easier to do so. The choice of migrating with a relocated spouse and the choice of working after relocation are difficult to make at the same time.

Let us look at the coefficient of the co-residence function in (1). The coefficient is positive in the case of mothers with only a preschool child and is negative in the case of mothers with a school-age child. However, statistical significance cannot be confirmed at a significance level of 5%. With respect to other variables, the coefficient of the full-time/permanent employee dummy takes a significant negative value, which means that wives are more likely to choose not to migrate when they work as permanent employees compared with when they are not working. The self-employed/freelance dummy, the owner-occupied house dummy, and the total number of workplace relocations experienced also take a significant negative value.

Regarding the employment function in (1), the coefficient takes a significant negative value in the case of mothers with a preschool child. On the other hand, in the case of mothers with a school-age child, the coefficient is positive but is not statistically significant. When the estimation is controlled for the employment situation in the previous year, the employment probability is low among mothers with only a preschool child when their spouses are relocated. The coefficient takes a significant positive value for the dummy for the wife's educational attainment (university graduate or higher degree dummy), for the dummies for the various types of employment situation for wives in the previous year as compared with those are not working, for the self-employed/freelance dummy, and for the teacher dummy. The results can be interpreted to mean that the employment probability after husbands' relocation is high for wives who possessed a high level of work skills and capabilities since before relocation. The coefficient of the owner-occupied house dummy also takes a significant positive value, which means that the probability of a couple choosing to maintain a double-income status is high when they live in an owner-occupied house.

The results of the estimation (2), in which the sample group was limited to wives whose spouses experienced workplace relocation in the 2000s or later, show that on the whole, there is not much difference compared with (1) in terms of whether the value of each variable's coefficient is positive or negative or whether or not the coefficient is statistically significant. Similar results were obtained from the estimation (3), in which the sample

Table 3. Estimation results regarding wives' choices on the co-residence and employment choices

	(1) Overall workplace relocation sample group		(2) Sample group of the period from 2000		(3) Sample group of wives who were working in the previous year	
	Co-residence function	Employment function	Co-residence function	Employment function	Co-residence function	Employment function
Presence of children (ref. "Without a child")						
With only a preschool child	0.414* (0.241)	-0.887*** (0.072)	0.308 (0.265)	-0.787** (0.319)	0.194 (0.390)	-1.197*** (0.397)
With only a school-age child	-0.432* (0.227)	0.040 (0.243)	-0.419* (0.246)	0.033 (0.278)	-0.430 (0.341)	0.716** (0.311)
Wives' educational attainment (university graduate or higher degree dummy)	-0.035 (0.159)	0.370** (0.170)	0.073 (0.174)	0.342* (0.187)	0.016 (0.243)	0.620** (0.260)
Wives' employment situation in the previous year (ref. "Not working")						
Full-time/permanent employee	-0.506** (0.241)	1.685*** (0.231)	-0.611** (0.283)	1.876*** (0.286)	-0.876** (0.419)	1.775*** (0.405)
Part-time employee	-0.132 (0.164)	1.524*** (0.160)	-0.032 (0.182)	1.537*** (0.178)	-0.407 (0.362)	1.184*** (0.333)
Temporary employee, fixed-term employee, self-employed or others	0.320 (0.348)	0.643** (0.285)	0.287 (0.361)	0.570* (0.302)	(ref.)	
Wives' occupation in the previous year						
Self-employed/freelance dummy	-7.361*** (0.437)	6.467*** (0.388)	-7.308*** (0.450)	6.458*** (0.406)	-7.886*** (0.514)	8.211*** (0.528)
Professional/engineering dummy	-0.188 (0.321)	0.195 (0.281)	-0.265 (0.339)	0.019 (0.317)	0.327 (0.317)	0.345 (0.331)
Teacher dummy	-0.148 (0.416)	1.556** (0.729)	0.052 (0.494)	0.868 (0.602)	0.028 (0.450)	1.530** (0.708)
Husbands' income in the previous year	-0.00039* (0.00021)	0.00002 (0.00025)	-0.00021 (0.00022)	0.00004 (0.00026)	-0.00022 (0.00028)	0.00028 (0.00033)
Owner-occupied house dummy (previous year)	-1.102*** (0.144)	0.498*** (0.146)	-1.212*** (0.161)	0.563*** (0.166)	-1.077*** (0.238)	1.027*** (0.246)
Number of workplace relocations experienced	-0.0773** (0.0306)	-0.0007 (0.0347)	-0.0865** (0.0345)	0.0179 (0.0379)	-0.2245*** (0.0585)	0.0087 (0.0537)
Constant	1.855*** (0.254)	-1.251*** (0.291)	1.631*** (0.260)	-1.287*** (0.324)	2.341*** (0.560)	-1.889*** (0.486)
Log likelihood	-458.948		-364.425		-186.614	
ρ value	-0.471*** (0.104)		-0.453*** (0.114)		-0.650*** (0.168)	
Number of observations	542		412		208	

Note: The table shows the coefficients of the estimation results and the robust standard errors (in parentheses) under the Bivariate Probit model. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 4. Presence of children and wives' co-residence and employment choices (average marginal effects)

	Co-resided and working	Co-resided and not working	Not co-resided and working	Neither co-resided nor working
A. Overall workplace relocation sample group				
With only a preschool child	-0.106** (0.0507)	0.202*** (0.0619)	-0.0932*** (0.0534)	-0.00282 (0.0333)
With a school-age child	-0.0537 (0.0511)	-0.0725 (0.0587)	0.0643 (0.0398)	0.0619* (0.0343)
B. Sample group of wives who were working in the previous year				
With only a preschool child	-0.208*** (0.0779)	0.262*** (0.0971)	-0.148* (0.0822)	0.0937 (0.0588)
With a school-age child	0.0308 (0.0917)	-0.162** (0.0731)	0.151* (0.0897)	-0.0207 (0.0276)

Note: "A" shows the average marginal effects calculated based on the estimation results in Table 3 (1), and "B" shows the average marginal effects calculated based on the estimation results in Table 3 (3). The numbers of observations are 542 for "A" and 208 for "B." The figures in parentheses represent standard errors. * p<0.1, ** p<0.05, *** p<0.01

group was limited to those wives in the sample group of the estimation (1) who were working in the previous year. Wives who were working before their spouses' workplace relocation are less likely to work after relocation when they have a preschool child, and they are more likely to work when they have a school-age child.

Table 4 shows the marginal effects of the presence of children on wives' probability of choosing to migrate and of choosing to work shown in Table 3. More specifically, the table shows differences in that probability, in terms of the average probability within each sample group, between wives with only a preschool child and wives with a school-age child with respect to the four patterns of outcomes regarding a binary choice between the co-residence and employment functions. The four patterns are: (1, 1) = migrated and working; (1, 0) = migrated and not working; (0, 1) = did not migrate and working; and (0, 0) = neither migrated nor working. In the overall sample group A, the figure takes a significant negative value in the case of wives who migrated and remained working and wives who did not migrate and remained working if they had a preschool child. On the other hand, the figure takes a significant positive value in the case of wives who migrated and not working. This means that compared with other women, wives with only a preschool child are more likely (specifically, the probability is 20% higher) to migrate with a relocated spouse and choose not to work. In other words, the choice of migrating with a relocated spouse and not working is likely to be made by wives with a young child. Similar results were obtained when the sample group is limited to wives who were working in the previous year, indicating that the probability of migrating with a relocated spouse and not working is high among women with a preschool child. The finding that the employment probability after migration is low among mothers with a young child is consistent with the results of preceding studies (as indicated by Taylor [2007], etc.).

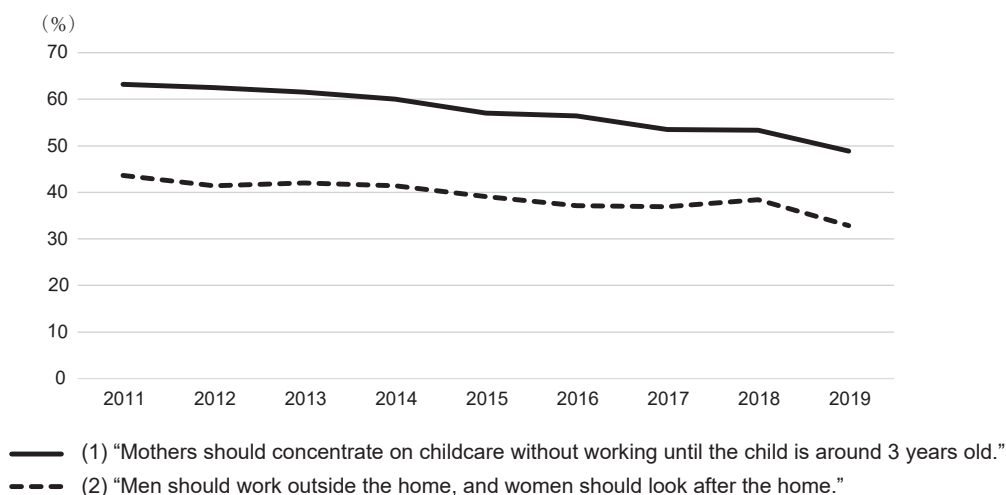
IV. Discussions

1. Reasons why wives migrated and not working

Why is the tendency to choose to migrate with a relocated husband and not to work stronger among women with a young child? As a possible reason, let us look at time constraints due to household chores and childcare. As the presence of a young child increases the burden of household chores and childcare, it is necessary to share the burden between husband and wife, a situation that makes it more likely that wives choose to migrate with a

relocated spouse. In that case, if wives were working before their spouses' workplace relocation and if they left their current job at the time of migration, they are expected to face difficulty finding a new job, and that may be the reason why they are forced to leave work. Meanwhile, time constraints due to household chores and childcare may in itself become a reason why wives are forced to leave work after migration. That is because the migration to a new place of residence may impose an additional household chores burden. If a change in the circumstances, such as increased inconvenience for household chores and childcare due to locational factors, causes an additional burden for a couple with a young child and if the wife bears the additional burden, the wife may be forced to leave work so that she can concentrate on household chores and childcare. For example, childcare services and facilities may not be available in the new place of residence. Some preceding studies (Imada and Ikeda, 2004) have indicated that the availability of childcare services and childcare in the community and assistance provided by parents living nearby affect wives' employment. In particular, in the case of wives who were working before migration while receiving childcare services, if the services become unavailable, they are forced to give up on working even though they may be eager to work. Reasons like these are consistent with the finding that the tendency to be forced to leave work after migration is significant only among wives with a young child, for whom the availability of childcare services is essential.

Wives' values are also presumed to be a factor behind their tendency to bear an additional burden due to change in families' living arrangements and time constraints. In JPSC surveys conducted in 2011 and later, respondents were asked whether they "agree," "somewhat agree," "somewhat disagree" or "disagree" with the following values-based notions: "Men should work outside the home, and women should look after the home." and "Mothers should concentrate on childcare without working until the child is about 3 years old." Figure 2 shows changes in the percentage of those who replied that they agreed or somewhat agreed among wives aged 50 or younger. While the percentage of women who agreed with those notions declined over time, approximately 30% agreed with the first notion and around half agreed with the second notion as of 2019. Some preceding studies have indicated the presence of the impact of values (e.g., Bielby and Bielby, 1992). In Japan, traditional values, such as "women should concentrate on childcare while their child is young," have still persisted in recent years despite the progress of female empowerment. Factors like this may be behind the tendency of working



Note: The sample group comprises married women aged 50 or younger, excluding those who did not respond to the question. The numbers of observations are 10,531 for the graph legend (1) and 10,536 for (2).

Figure 2. Changes in wives' values related to household chores and childcare (percentage of wives who agreed)

wives with a young child to leave a job and migrate with a relocated spouse when the spouse's workplace relocation brings a shock to household.

2. Possibility of using remote work

What should be done to encourage wives to continue working after migrating with a relocated husband? For wives, in addition to using a support program available at their employer, such as one that allows them to change workplace when their husband is relocated, there are two alternative options. One is to leave their current employer and find a new job at another company in their new location of residence. The other is to stay with their current employer and do remote work. As one way of making the first option more feasible than now, Takeishi (2016) cites the "Regional Banks' Human Resource Bank" initiative. Under this initiative, regional banks have formed a network of cooperation whereby workers at regional banks who are forced to leave a job for reasons such as their spouse's workplace relocation are introduced to other regional banks located in their new place of residence. However, initiatives like this have a demerit in that employers must release employees whom they have recruited and trained at their expense.

In this respect, if remote work can be successfully used, workers can stay with their current employer and continue working after migration while the employer is spared the loss of workers. Although this point has already been examined by preceding studies (e.g., Kantani, 2005), in Japan, remote work was not in widespread use before the COVID-19 pandemic, so many companies remained institutionally unprepared. As working from home has become popular across the world because of the COVID-19 pandemic,⁷ relevant empirical research and knowledge is rapidly being accumulated. In the future, remote work may become a realistic option for women to avoid not working due to migration.

Remote work⁸ has the potential to encourage women with a young child in particular to work. That has been pointed out since before the COVID-19 pandemic. According to Edwards and Field-Hendrey (2002), fixed costs associated with working from home, such as commuting hours, are low, making it easier to perform childcare and other domestic production activities while working. As a result, for women, the levels of reservation wage and reservation hours are different between working from home and working onsite. Even though the presence of a young child has the effect of inhibiting women's labor force participation, the inhibiting effect is smaller in the case of working from home. This indicates that the probability of choosing to work from home is high among women participating in both household production and market labor. Mas and Pallais (2017) shows that "women do place a higher value on working from home and this is particularly true for women with young children." In Japan as well, Kawaguchi and Motegi (2021) shows that the probability of choosing to work from home is high among workers with a child aged 6 or younger.

Although working from home has been adopted widely amid the COVID-19 pandemic, it should also be kept in mind that this style of working is not necessarily useful for all women. It has been pointed out that the availability of working from home (working-from-home potential) differs from occupation to occupation (Dingel and Neiman, 2020; Kotera, 2020; Ishii, Nakayama, and Yamamoto, 2021). Some analysis results have shown that the use of remote work by mothers decreased after the end of the across-the-board closures of elementary and junior high schools introduced under state of emergency declaration (Hansen, Sabia and Schaller, 2022). However, a study by Okubo (2022), which analyzes panel data concerning the use of telework amid the COVID-19 pandemic in Japan shows that women are more likely than men to continue to use telework even when the working-from-home potential is taken into consideration. At present, regarding remote work, discussions are ongoing on various matters, including the impact on productivity and mental health (Ishii, Nakayama, and Yamamoto, 2021; Morikawa, 2022). In the future, it is desirable to consider using remote work from the viewpoint of promoting women's employment.

V. Summary

Our study, using the JPSC panel, examined wives' co-residence and employment behavior associated with their husbands' workplace relocation. It also estimated simultaneity between wives' co-residence and employment choices and looked into correlation between these two choices. At the same time, the study analyzed how individuals' attributes, such as the presence of children, affect wives' decisions on the choices of whether or not to migrate with a relocated spouse and of whether or not to work after migration.

As a result of the analysis, we found that in the 2010s, the percentage of families in which the wife migrated with a relocated spouse and became a full-time housewife declined, while the percentage of families in which a relocated spouse migrated alone and the wife continued to work increased. It was also found that the choice of migrating with a relocated husband and not working was more likely to be made by wives with only a preschool child. As reasons for that, we considered the following possibilities: if the husband and wife migrated together and the wife left a job in order to share the burden of household chores and childcare, the wife may face difficulty working after migration; the wife may face difficulty working because of an additional burden of household chores and childcare following migration because she bears the additional burden. Our study also indicated the possibility that traditional values regarding household chores and childcare may have persistent effects on wives' decisions on the employment choice. In addition, the study looked at remote work as an option for wives to continue to work after migrating with a relocated spouse and cited relevant preceding studies.

As for future research, while our study conducted an estimation based on pooled data because of the limited sample size of the workplace relocation group, it is necessary to verify the robustness of the results by using a panel structure to conduct an estimation controlled for individuals' fixed effects. Other factors that should be controlled include whether or not wives live with parents and expectation for a wage rise and promotion for husbands after workplace relocation. Moreover, it is desirable that more research be accumulated, including the analysis of the co-residence and employment choices that treats workplace relocation as an exogenous shock.

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Notes

1. According to Tanaka (2013), the percentage of companies that made it a principle that relocated employees migrate with their family was higher than 80% in the 1980s but declined in the 1990s. According to a survey conducted in a recent year, the percentage was 25.5% (JILPT, 2017).
2. Wives whose spouses experienced multiple workplace relocations are treated as separate samples at the time of each relocation. That is because the situation of wives of relocated spouses remains the same at the time of each relocation regardless of the number of relocations experienced in that it is impossible to foresee with certainty how many years later the next relocation will occur and when they can return from migration. In the estimation, expectations for a future return are controlled to a certain degree by including the owner-occupied dummy among the variables.
3. As wives' age has a strong correlation with the variable for the presence of children, it is excluded from our study due to identification problems.
4. It should be kept in mind that the "M-shaped curve," which represents the trend line of female labor participation over age groups, also changed because of a rise in the female employment rate caused by improvements in the macroeconomic conditions from 2012 onwards.
5. When we checked the employment status regarding wives who migrated and continued to work or who did not migrate and continued to work, we found very few samples whose form of employment changed: from permanent employment to part-time employment, for example. As the numbers of observations who continued to work were limited, in the future, it is desirable to conduct an analysis paying attention to wives' form of employment.
6. Among other factors that may affect household budget constraints when husbands migrate alone are benefits for employees living apart from their family. According to the General Survey on Working Conditions (2018), conducted by the Ministry of Health, Labour and Welfare, the percentage of companies offering such benefits is 14% among all respondent companies and 67% among large companies.

with a workforce of 1,000 or more employees. However, the average level of benefits paid per employee is 47,600 yen, a financial compensation that is not necessarily sufficient for families to maintain two separate households.

7. Among studies that show the spread of telework in Japan amid the COVID-19 pandemic are Okubo (2020) and Morikawa (2022).
8. Remote work, also known as telework, may be variously defined, but the remote work as referred to here is mainly “working from home.”

References

- Bielby, W. T. and D. D. Bielby. 1992. “I Will Follow Him: Family Ties, Gender-role Beliefs, and Reluctance to Relocate for a Better Job.” *American Journal of Sociology* vol.97, no.5: 1241–1267, doi: 10.1086/229901.
- Burke, J. and A. Miller. 2017. “The Effects of Job Relocation on Spousal Careers: Evidence from Military Change of Station Moves.” *Economic Inquiry*, vol.56, no.2: 1261–1277. doi: 10.1111/ecin.12529.
- Chitose, Yoshimi. 2006. “Fufu-kan ido to yu-haigu josei no shugyo” [Migration as a couple and the employment of women with spouses]. In *Jinko mondai kenkyu* [Research of population issues], edited by National Institute of Population and Social Security Research vol.62, no.4: 20–40.
- Compton, J. and R. A. Pollak. 2014. “Family Proximity, Childcare, and Women’s Labor Force Attachment.” *Journal of Urban Economics* vol.79: 72–90, doi: <https://doi.org/10.1016/j.jue.2013.03.007>.
- Cooke, T. J., P. Boyle, K. Couch and P. Feijten. 2009. “A Longitudinal Analysis of Family Migration and the Gender Gap in Earnings in the United States and Great Britain.” *Demography* vol.46, no.1: 147–167, doi: 10.1353/dem.0.0036.
- Dingel, J. I. and B. Neiman. 2020. “How Many Jobs Can be Done at Home?” *Journal of Public Economics* 189, <https://doi.org/10.1016/j.jpubeco.2020.104235>.
- Edwards, L. N. and E. Field-Hendrey. 2002. “Home-Based Work and Women’s Labor Force Decisions.” *Journal of Labor Economics* vol.20, no.1: 170–200.
- Hansen, B., J. J. Sabia and J. Schaller. 2022. “Schools, Job Flexibility, and Married Women’s Labor Supply: Evidence From the COVID-19 Pandemic.” NBER Working Paper no.29660, doi: 10.3386/w29660.
- He Fang. 2021. “Josei no chiiki ido to shugyo/chingin” [Women’s migration and employment/wages]. JILPT Discussion Paper 21–02, Japan Institute for Labour Policy and Training, Tokyo.
- Imada, Sachiko, and Shingou Ikeda. 2004. “Shigoto to ikuji no ryoritsu shien-saku no kakudai ni mukete” [Toward expanding measures to support work-child care balance]. JILPT Discussion Paper 04–12, Japan Institute for Labour Policy and Training, Tokyo.
- Ishii, Kayoko, Mao Nakayama and Isao Yamamoto. 2021. “Corona-ka shoki no kinkyu jitai sengen-ka ni okeru zaitaku kinmu no jisshi yoin to shotoku ya fuan ni taisuru eikyo” [Factors leading to working from home and impact on income and anxiety under early stage of declared state of emergency due to COVID-19 crisis]. *Japanese Journal of Labour Studies* vol.63, no.731: 81–98.
- JILPT (Japan Institute for Labour Policy and Training). 2017. *Kigyo no tenkin no jittai ni kansuru chosa* [Survey on actual situation of workplace relocation]. JILPT Research Series no.174. Tokyo: JILPT.
- Kantani, Takayuki. 2005. “Zaitaku kinmu ni yoru josei no koyo keizoku: Tekisei na shigoto haibun to rodo jikan kisei no kanwa no hitsuyo-sei” [Continued employment of women through working from home: Necessity of appropriate work allocation and working hours deregulation]. JILPT Discussion Paper 05–05, Japan Institute for Labour Policy and Training, Tokyo.
- Kawabata, Yumiko. 2018. “Haigusha no tenkin ni taisuru shoseido to sono kadai: Ido, Kyushoku, Saikoyo no kanten kara” [The human resources management systems for spousal transfers and its problems: From the perspective of workplace transfer programs, administrative leave, and reemployment programs]. *Journal of Japan Society of Human Resource Management* vol.19, no.1: 26–42, doi: 10.24592/jshrm.19.1_26.
- Kawaguchi, D. and H. Motegi. 2021. “Who Can Work from Home? The Roles of Job Tasks and HRM Practices.” *Journal of the Japanese and International Economies* vol.62, doi: 10.1016/j.jjie.2021.101162.
- Kotera, Shinya. 2020. “Zaitaku kinmu wa dokomade susumu ka” [How far will telecommuting go?]. *Mizuho insight*, May 22, 2020, Mizuho Sogo Institute.
- Mas, A. and A. Pallais. 2017. “Valuing Alternative Work Arrangements.” *American Economic Review* vol.107, no.12: 3722–3759, doi: 10.1257/aer.20161500.
- Mincer, J. 1978. “Family Migration Decisions,” *Journal of Political Economy* vol.86, no.5: 749–773.
- Morikawa, M. 2022. “Work-from-home Productivity during the COVID-19 Pandemic: Evidence from Japan,” *Economic Inquiry* vol.60, no.2: 508–527, doi: 10.1111/ecin.13056.
- Ohta, Soichi. 2017. “Otto no tenkin ni yoru tsuma no mugyo-ka ni tsuite” [Wives’ drop-out from labor force due to husbands’ workplace relocation]. *Japanese Panel Study of Employment Dynamics: Find out the Japanese working pattern*, Recruit Works Institute vol.13.
- Okubo, T. 2020. “Spread of COVID-19 and Telework: Evidence from Japan,” *Covid Economics* vol.32: 1–25.
- . 2022. “Telework in the Spread of COVID-19,” *Information Economics and Policy*, 100987, doi: 10.1016/j.infoecopol.2022.100987.
- Sasaki, M. 2002. “The Causal Effect of Family Structure on Labor Force Participation among Japanese Married Women,” *Journal of Human Resources*, vol.37, no.2: 429–440.
- Sato, Atsushi “Tanshin funin o tomonau tenkin o jyugyoin ga ukeirete iru koto” [The background that allows company employees to accept job relocation away from families]. *Japanese Journal of Labour Studies* vol.49, no.561: 71–73.

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- Shihadeh, E. S. 1991. "The Prevalence of Husband-Centered Migration: Employment Consequences for Married Mothers," *Journal of Marriage and Family* vol.53, no.2: 432-444.
- Takeishi, Emiko. 2016. "Tenkin seisaku no genjo to kadai" [Current status and issues of job relocation practices]. *Lifelong Learning and Career Design* vol.14, no.1: 49-65.
- Tanaka, Yuko. 2013. "Jinji kanri ni okeru kazoku" [Personnel management and workers' family]. *Japanese Journal of Labour Studies* vol.55, no.638: 43-52.
- . 2014. "The Family in Human Resource Management" *Japan Labor Review* vol.11, no.4: 67-85. https://www.jil.go.jp/english/JLR/documents/2014/JLR44_tanaka.pdf.
- Taylor, M. P. 2007. "Tied Migration and Subsequent Employment: Evidence from Couples in Britain," *Oxford Bulletin of Economics and Statistics* vol.69, no.6: 795-818, doi: <https://doi.org/10.1111/j.1468-0084.2007.00482.x>.

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