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Where Are Self-Initiated Expatriate Workers
Positioned among Japanese Workers?

A Comparison of Earnings Trajectories between Japanese Expatriates
Overseas and Domestic Workers in Japan

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Where Are Self-Initiated Expatriate Workers Positioned among Japanese Workers? A Comparison of Earnings Trajectories between Japanese Expatriates Overseas and Domestic Workers in Japan

Kenji Ishida
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Abstract

This paper examines the economic outcomes of self-initiated expatriate (SIE) Japanese workers compared to domestic Japanese workers. Using novel longitudinal survey data from the ADIOS-J project (2020-2022) tracking Japanese expatriates and the JLPS dataset for domestic workers, the study tests two hypotheses: (1) Japanese SIEs experience higher earnings growth than domestic workers, and (2) returning to Japan is economically penalized for SIEs. Results support the first hypothesis. Japanese expatriates experienced approximately 6% annual earnings growth even after controlling for observable and unobservable factors, while domestic Japanese workers' earnings remained virtually stagnant (around 1% annual growth). However, earnings levels varied significantly among expatriate categories - SIEs in multinational companies earned more than domestic workers, while SIEs in Japanese-owned companies had earnings comparable to domestic workers. The second hypothesis was not supported. The apparent economic penalty for SIEs returning to Japan was largely explained by job characteristics and pre-migration conditions rather than the return itself. For SIEs in multinational companies, returning to Japan appeared initially beneficial, but this premium was also substantially explained by job characteristics. These findings reveal that transnational careers economically benefit Japanese middle-class workers, challenging conventional views of upward mobility occurring primarily within domestic labor markets. SIEs help Japanese companies balance globalization and localization needs by culturally linking Japanese corporate expatriates with local workers. Furthermore, this research contributes to understanding middle-class migration from high-income countries, particularly within the rapidly growing economic centers of Asia.

1. Introduction

Japanese workers have suffered from a long wage slump for over 30 years. According to OECD data, Japan's average annual wage at a constant price, which excludes the effects of price fluctuations, has been around 47,500 US dollars (PPP converted) until 2023 since the 1990s. On the contrary, the OECD average has constantly increased, which means that the wage gap between Japan and other OECD countries has widened. Furthermore, the real wage in South Korea, which is an OECD partner in East Asia, has overtaken Japan's wage since 2019.

The 30-year-long wage stagnation is a result of the 'lost decades' of the Japanese economic market since the early 1990s when the bubble economy burst. During this period, Japanese domestic firms shrunk their labor demand while keeping the employment of already existing regular workers. In Japan, where there is a strong linkage between its school-to-work transition system and long-term employment practice, the displacement of new employment hit the opportunity for the labor market entry for young people. Accordingly, a considerable number of young Japanese people had to start from non-regular employment, in which both wage level and employment stability are low. The expansion of non-regular employment also gradually yielded middle-aged people who used to have advantages in the Japanese labor market.

During the same period, an increasing number of young and middle-aged Japanese people working overseas was witnessed. A primary group of Japanese workers overseas consists of corporate expatriates (CEs, hereafter), who are dispatched to international branch companies from the headquarters to expand markets and launch local production bases. Meanwhile, against the backdrop of the recession since the 1990s, there has been a gradual number of self-initiated expatriates (SIEs, hereafter) who voluntarily find their jobs in the destination countries and then migrate there for several years or permanently. According to the official statistics, the number of Japanese workers in private companies in 2017, which is the latest data available, is 463,700, comprising 53.4% of long-term Japanese residents across the world. In particular, East and Southeast Asia are the epicenters of the growing number of Japanese workers.

The present study thus aims to answer the following two research questions with two novel longitudinal data for the expatriate and domestic workers: (1) do the Japanese SIEs experience their earnings growth compared to the domestic workers in Japan, and (2) is returning to Japan penalized or rewarded for the Japanese SIEs' career?

Few studies in social stratification research still focus on the SIEs' career opportunities, probably due to their small numbers compared to labor migrants.

Meanwhile, given that contemporary societies mutually depend on each other and are economically globalized, middle-class migrants, to whom Japanese SIEs are included, are becoming common (Robertson and Roberts 2022). How their transnational career experiences are incorporated depends on the labor market settings and results in the social stratification of SIE workers. Japan is a case of the coordinated economic markets (Hall and Soskice 2001), which have high levels of coordination between employers, workers, and governments, and the present study contributes to providing an insight into the transnational social stratification process from the Japanese labor market perspective.

2. Research Perspective and Literature

In contemporary societies, middle-class migrants are emerging (Scott 2019). Middle-class workers are primarily understood within each country because they consist of the majority of the domestic labor force in industrial societies. Accordingly, in the research stream of social stratification of migration, scholarly attention has been paid to the two ends of the social class structure: upper-middle or elite migrants (e.g., academics) and laborer or low-wage migrant workers.

However, in globalized economic markets, a broader range of middle-class workers increasingly experience migration in their career trajectories. Associated professionals and office clerks, who are less regulated by the national certification and licensing systems, are examples of middle-class migrant workers. For instance, around 10% of middle-class workers are foreign-born migrants in Western societies (Scott 2019). Thus, transnational mobility is now a positive strategy for middle-class workers to advance their career opportunities.

Japanese SIEs are not exceptions. For the labor demand side, while Japanese companies expanded their businesses overseas, centered on manufacturing and wholesale trading sectors (Buckley 2009), high costs for dispatching the CEs have been localization pressures (Beamish and Inkpen 1998; Furusawa 2020). Meanwhile, there is resistance to adapting local workers to occupy managerial positions in Japanese companies, which is called the 'rice-paper ceiling' (Kopp 1994). The labor demand for the Japanese SIEs is a compromise between localization and maintaining the Japanese style of management.

For the labor supply side, Japanese people sought second chances for their careers, particularly after the burst of the bubble economy in the early 1990s Japan. Previous studies pointed out that Japanese SIEs were lifestyle migrants who prioritized their private lives more than career advancement (Nagatomo 2013; Thang 2006). Meanwhile, in terms of their class positions, they are reported to be precarious and

marginal in their workplaces in destination societies (Kamiya and Niwa eds 2018; Kato and Kukimoto 2016; Kawashima 2010, 2017). According to prior research, Japanese SIEs have to work for Japanese-owned companies at their convenience, and they eventually lack the opportunity to accumulate transnational career experiences that are assumed to be beneficial in migration studies.

The previous studies have three remaining issues. First, while they are insightful in understanding the Japanese SIEs' stratification process, they heavily rely on qualitative methods and leave room to investigate a wide range of Japanese SIEs from a quantitative perspective. Second, the prior research lacks a comparative view with the Japanese domestic workers, who partly consist of the counterfactuals when the SIEs do not migrate. Third, many destination societies, which are primarily in Asia, have made remarkable economic progress in recent years. The prior findings might need to be updated with newer social survey data.

3. Hypotheses

Based on the existing research, the present study tests the following two hypotheses to answer the research questions raised in the introduction.

As for the first research question, the corresponding hypothesis is that the growth rates of earnings for the SIEs are higher than those of domestic workers in Japan. Given that their work permits are guaranteed only when local staff cannot take on the job roles, the sponsor companies need to offer the SIE workers higher positions than those of local staff, accompanied by higher wages. Specifically, Japanese companies expect their Japanese SIE workers to intermediate local staff and head managers within their organizations and to be contact persons with other Japanese supply-chain firms in the local society/country because they are presumed to understand the Japanese ways of business customs as Japanese premium (Ishida et al. 2019). On the other hand, non-Japanese-owned or multinational companies do not necessarily require them for SIE workers, who are eventually selected relying on their professional skills. Taken together, it can be hypothesized that the Japanese SIE workers are able to obtain higher rates of earnings growth by taking advantage of their market premium, which the Japanese domestic workers do not receive.

Regarding the second research question, the present study hypothesizes that the SIEs' returning to Japan is a penalty against their earnings. The Japanese premium overseas diminishes after returning to Japan for the SIE workers in Japanese-owned companies. Furthermore, given that earnings growth in Japan primarily depends on

promotions within organizations due to the typical Japanese employment practice, getting a job through the external labor market does not secure a wage increase. Unlike the CEs, who are embedded into the job rotation system, the SIEs have to find their positions themselves when returning to Japan.

4. Data and Method

Data and Variables

a. ADIOS-J Data

The present study utilizes two kinds of longitudinal survey data to examine the two hypotheses. The first is a three-wave longitudinal dataset obtained through the research project ‘Advancing Dreams in Overseas Societies among Japanese Expatriate Workers (ADIOS-J).’ The first wave of the ADIOS-J survey was conducted online in January 2020, and its target population was Japanese citizens who worked overseas and were less than 50 years old at the time of the survey. The sample was drawn using a non-probability procedure, in which the ADIOS-J project collected respondents through an advertisement on a social media platform (Facebook) and a mailing list of an international staffing agency. The completed sample size of the first wave was 1,011.

The project conducted two follow-up online surveys in January 2021 (the second wave) and February 2022 (the third wave). The survey invitations were sent to 894 of the 1,011 respondents in the first wave, who consented to participate in the follow-up surveys, and 670 and 557 responded to the second and third waves, respectively. Accordingly, the response rates for the second and third waves were 75% (= 670/894) and 62% (= 557/894).

While all respondents in the first wave had paid jobs outside of Japan, some of the respondents became unemployed or jobless in the subsequent waves. Accordingly, the unemployed cases of the total observations are not included in the following analysis because they do not have information on job earnings as the outcome in the present study.

b. JLPS Data

The other data source is the JLPS (Japanese Life Course Panel Surveys) for youth (JLPS-Y) and middle-aged (JLPS-M), which includes workers in Japan during the same survey period from 2020 to 2022 with the ADIOS-J. The JLPS data are analyzed to compare with the ADIOS-J data for earnings trajectories and the associations between earnings and explanatory variables.

The JLPS started in January 2007 as the first wave with the drop-off and pick-

up method. Its original target population was comprised of those between 20 and 34 for the JLPS-Y and those between 35 and 40 who lived in Japan at the time of the survey. The sample was obtained with two-stage random sampling stratified by region, city size, gender, and age group. The follow-up surveys were conducted in January every year, and the additional respondents were amended in 2011 (the fifth wave from 2007) and 2019 (the thirteenth wave from 2007). The former sample was collected by the same birth cohort and sampling method, and the mode of the survey was by mail. The latter consisted of those between 20 and 31 who lived in Japan in 2019 (JLPS-Y refreshment sample, thereafter), and the sampling procedure and survey method were the same as the 2007 sample. In the present study, the datasets in 2020 (the fourteenth wave from 2007), 2021 (the fifteenth wave from 2007), and 2022 (the sixteenth wave from 2007) are used. The number of responses at each wave was 4,891, 4,671, and 4,524 in total. Table 1 represents the response rates for the initial wave for each sample and subsequent waves from 2020 to 2022.

[Table 1 here]

In addition to the ADIOS-J sample, the two kinds of cases are excluded in the following analysis. First, I excluded the tiny number of respondents who lived overseas during the panel due to the use of the JLPS sample in comparison with the ADIOS-J data. Because the number of those cases is five in 2020 and 2021 and two in 2022, their impacts on the data analysis will be negligible. Second, the same with the ADIOS-J data, the unemployed or jobless respondents are excluded from the dataset for each wave.

c. Variables

Table 2 shows the summary statistics of the outcome and explanatory variables of interest in the present study. The number of observations for each dataset in the table refers to the total observations across the three waves.

[Table 2 here]

The outcome variable is natural-logged annual job earnings at each wave of the ADIOS-J and JLPS datasets. Although its measurement is not detailed, the ADIOS-J surveys used a ten-point scale from one (around one million JPY) to ten (ten million JPY or more) for the respondents' earnings to make it easier to answer. When asked to answer their job earnings in the ADIOS-J survey, respondents are supposed to answer them in

JPY even though they receive their salaries in the currency of their destination societies.

The JLPS surveys ask respondents to indicate the type of wage payment: hourly, daily, weekly, monthly, or annual. Then, they are supposed to answer the detailed values of their wages. The present study calculated their yearly earnings based on their answers and converted them into a ten-point scale, the same as the ADIOS-J version for comparison.

The key explanatory variables are twofold. One is a linear time variable used in both the ADIOS-J and JLPS data, and the other is a dummy variable, whether the respondents lived in Japan at the time of surveys, which is used in the ADIOS-J data. The time variable takes from zero to two, indicating 2020, 2021, and 2022. The living-in-Japan dummy takes one as living in Japan and zero otherwise.

Furthermore, as for the ADIOS-J sample, the respondents' expatriate status in 2020 (the first wave) is also used as the initial employment status. It comprises the six groups: (1) SIEs in Japanese companies, (2) those in multinational companies (including destination-country-owned companies), (3) CEs from Japanese companies, (4) business executives (regardless of Japanese or non-Japanese companies), (5) self-employed or freelance, and (6) staff in professional or non-profit organizations. The typical workers in the sixth category are researchers, medical professionals, and officers in international or non-profit organizations like NGOs.

The regression models also include the following covariates: age, gender (female dummy), education, employment status (for JLPS only), occupation, managerial positions in large firms, monthly working hours, marital status, whether having a child or not and the type of sample (for JLPS only).

The employment status variable is controlled to estimate the growth rate of the outcome variable more rigorously because there are fair differences in the level and growth of job earnings among employment statuses in the Japanese labor market. Specifically, it has five categories: executives, self-employed or freelance, regular employment, non-regular employment, and other non-specified statuses.

For the occupational variable, the ADIOS-J survey asked respondents to choose the following categories that most applied: clerical, sales, service or retail sales, professional or technical, managerial, and other occupations. I particularly distinguished the differences among the sales workers. Because Japanese companies overseas have a sizable labor demand for salespersons (Ishida et al. 2019), store sales workers are closer to service workers. The JLPS survey also asked respondents about their occupations, and I constructed the occupational variable to be comparable with the ADIOS-J dataset.

The variable of whether having managerial positions in large firms is

dichotomous. It is a combination of respondents' job ranks and the size of their firms. For both ADIOS-J and JLPS, the job rank is composed of seven categories: (1) no job title, (2) supervisor, foreman, team leader or equivalent, (3) assistant section chief or equivalent, (4) section chief or equivalent, (5) division chief or equivalent, (6) company president, executive, director, (7) other. Of the seven categories, I defined (4), (5), and (6) as managerial positions. Also, when working in firms with 300 employees or more, I regarded the respondents as large firm workers. Taken together, if a respondent was in a managerial position in a large firm, the dummy variable took one, and otherwise, zero.

The present study controls respondents' family situations. Specifically, I use marital status and whether they have children. For the marital status variable, having a spouse is coded as one, and otherwise, it is zero. The child variable is also a dichotomous variable, with one if respondents have children and zero if they do not.

Lastly, for the JLPS sample, I consider the sample types in the following regression models. As mentioned earlier, the JLPS dataset consists of the original, additional, and youth refreshment samples, which started in 2007, 2011, and 2019. Accordingly, I use the dummy variables for the additional and youth refreshment samples to control for the difference in job earnings among the sample types.

Method

a. Longitudinal Regression Models

In the present study, I first look at descriptive results of the earnings across the three years among the ADIOS-J and JLPS samples and also between those who were back in Japan after 2020 and those who lived overseas. The descriptive investigation is followed by the multi-variate analyses with the ADIOS-J and JLPS datasets separately. In taking advantage of the longitudinal structure of both datasets, the present study primarily relies on the random effect regression models in the following analysis. I specifically estimate the regression equation (1) below.

$$\ln(y_{it}) = b_0 + b_1 time_{it} + b_2 Japan_{it} + \mathbf{SIE}_i \mathbf{b}_3 + \mathbf{b}_4 (time_{it} \times \mathbf{SIE}_i) + \mathbf{b}_5 (Japan_{it} \times \mathbf{SIE}_i) + \mathbf{Zb} + u_i + e_{it} \quad (1)$$

$$u_i \sim N(0, \sigma_u^2), u_i \perp x_{it} \quad (2)$$

y_{it} refers to the outcome variable, the ten-scale job earnings at each wave. In the present study, I take its natural logarithmic value. Accordingly, one unit difference in explanatory variables means $(\exp(x) - 1)\%$ differences in the outcome.

Our key explanatory variables are the linear time variable (*time*), living in Japan at each wave (*Japan*), and the expatriate categories in 2020 (*SIE*). Of these, *time* and *Japan* are included only in the ADIOS-J dataset, as explained above. The reference category for *SIE* is the SIEs in Japanese-owned companies, and each dummy variable for *SIE* represents other SIE categories. In addition, I take interaction terms between *time* and *SIE* and between *Japan* and *SIE*. \mathbf{Zb} is the product of vectors of other covariates and parameters considered in the regression models.

For the first hypothesis that the earnings growth is higher for the SIEs than for domestic workers in Japan, the parameter b_1 is compared between the ADIOS-J and JLPS datasets, though each parameter is estimated using separate analyses. If the first hypothesis holds, b_1 is higher in the ADIOS-J dataset than in the JLPS after considering covariates. Also, I check if the growth rates might vary among the SIE statuses by b_5 .

For the second hypothesis is that the SIE's earnings after returning to Japan are less than those before returning or staying overseas, I particularly focus on the interaction effects b_4 . If the hypothesis is supported, the main effect of Japan, which represents the parameter for the SIEs in Japanese-owned firms (b_2), should be significantly negative. Furthermore, for example, the interaction effect for the CEs should be significantly positive.

I estimate the three random effect models for each sample. The first models include only the explanatory variables of particular interest. The second model adds variables such as gender, age, education, marital status, and children. In addition, the third model counts occupation, managerial positions, and monthly working hours.

In the meantime, as the equation (2) denotes, the random effect model presumes that the unobserved individual heterogeneity (u_i) follows a normal distribution with mean zero and a certain variance (σ_u^2), and that it is independent of explanatory variables (x_{it}). If these assumptions are not met, the estimated parameters are probably biased. To address this issue, I run fixed effect models for each dataset for a robustness check toward the estimated parameters on which I focus.

b. Longitudinal Regression Models

In performing the aforementioned longitudinal regression models, I may face a considerable reduction in sample size for each dataset. If there were no missing values for all respondents across all waves, 2,137 and 10,302 observations would be available for the ADIOS-J and JLPS datasets, respectively. With complete case analyses, however, sizable observations drop from the analytical datasets. For the ADIOS-J data, the numbers of observations and individuals are 1,768 and 716 with the complete case analysis,

resulting in around 17% decreases. Likewise, those are 7,439 and 3,469 for the JLPS data, and around 28% of the potentially available observations are omitted.

The risk of obtaining biased parameters is one of the most crucial concerns for the sample size reduction due to missing values. Ideally, an analytical dataset is assumed to meet the assumptions of missing completely at random (MCAR), which means that missingness for any variable is independent of other variables (Kenward and Carpenter 2008). Under the situation where the MCAR assumption holds, the complete case analysis theoretically provides unbiased estimates, though their standard errors might be large because of the random reduction of observations. In the meantime, it is almost always rare that the MCAR assumption is satisfied.

To address the sample reduction that potentially results in biased and unstable estimates, the present study employs multiple imputation (MI) techniques. In the MI process, missing values of the variables used are imputed by certain algorithms or regression models with other variables used, as well as auxiliary variables if necessary. After generating multiple complete datasets and estimating parameters with each data, the parameters from all the imputed datasets are combined into the final estimates. In doing so, while utilizing the information of the incomplete dataset as fully as possible, MI can also consider the risk of underestimating standard errors by increasing the sample size because the uncertainty accompanied by the imputation is taken into account in the MI process.

The MI results depend on the sort of imputation methods. In the present study, Amelia II (Honaker et al. 2011) is used for the imputation procedure, and the final estimates are obtained with 50 imputed datasets. I tried changing the number of imputed datasets for the MI process in the following analysis, but the results remain almost the same. Also, to compare the MI results to those in a conventional way, I supplementarily show the results based on the complete case analysis below.

5. Results

Descriptive Results

Figure 1 illustrates the trajectories of mean natural logged earnings between the ADIOS-J and JLPS samples. The former is divided into seven groups based on the expatriate statuses at the first wave in 2020.

[Figure 1 here]

In the ADIOS-J sample, the mean earnings of the self-initiated expatriates in Japanese-owned companies denoted as (1) were the second lowest for the three years and the lowest among the employee categories. As for the SIEs in multinational companies denoted as (2), however, their earnings were higher than those of (1). In absolute terms, the difference was around 600 thousand JPY. Likewise, the corporate expatriates (3) exhibited higher earnings than (1), and they were the highest among all categories in Figure 1.

In terms of changes in job earnings, all groups in the ADIOS-J sample experienced an increase in earnings across the survey waves. Specifically, group (1) 's earnings increased by around 0.08 points per year, which is an 8.3% increase. For group (2), the outcome increased almost the same way as group (1). Similarly, group (3) 's earnings increased by around 0.075 points per year on average, which means a 7.8% increase. The growth rates for the employee subsamples in the ADIOS-J are thus around 8%, regardless of the expatriate statuses. Other groups, such as business executives (4), self-employees and freelancers (5), and officers in professional or non-profit organizations (6), have higher earnings growth rates than the former three groups.

The JLPS sample's earnings, which are represented as the dashed line, are similar to that of the SIEs in Japanese-owned companies, which is around 1.2 for three years. However, their earning trajectory was almost flat across the survey waves in terms of their growth rate. In absolute terms, their job earnings were 3.26, 3.31, and 3.36 million JPY in 2020, 2021, and 2022. On the three-year average, Japanese workers just received around a 30 thousand JPY increase, a 1% increase per year. The descriptive results indicate that the earnings growth rate is higher in Japanese expatriate workers, even SIEs in Japanese-owned firms, than in Japanese domestic workers.

[Figure 2 here]

In relation to the second question and hypothesis, Figure 2 represents the mean natural logged earnings by the sample type (ADIOS-J or JLPS), expatriate statuses in 2020 within the ADIOS-J sample, and whether living in Japan or not at each survey wave. The SIEs in Japanese-owned firms' earnings are less in Japan than overseas. The point difference is -0.21, indicating that their earnings in Japan are less by 18.9% than those overseas. Because they rarely move from Japan to overseas societies in the subsequent waves, the difference in the mean earnings indicates their decline after returning to Japan.

On the contrary, other expatriate categories exhibit an increase in their earnings between Japan and overseas, though the differences vary depending on the categories. The SIEs in multinational companies, CEs, and executives show around 5% to 6% increases. The self-employed and staff in professional or other non-profit organizations received higher percentages, which are 38.3% and 24.7% increases, respectively. In a similar vein, they are not likely to move from Japan to overseas after returning to Japan. Accordingly, these increases in earnings indicate that Japanese migrant workers other than the SIEs in Japanese-owned companies could increase their economic return after going back to Japan.

The JLPS average as the domestic Japanese workers' earnings is exhibited at the rightest in Figure 2. As aforementioned, their mean is around 1.2, which is similar to the SIEs in Japanese-owned firms. While their earnings are slightly higher overseas than those of the domestic Japanese workers, they get less than the domestic workers after returning to Japan.

The descriptive results from Figures 1 and 2 denote that the Japanese migrant workers could reap their earnings rising from 2020 to 2022 while the domestic workers could not witness the equivalent growth. Furthermore, after the SIEs in Japanese-owned firms returned to Japan, their earnings were less than those of the Japanese domestic workers, which implies a loss of their advantages in the transnational career. Meanwhile, other Japanese migrant workers could still experience an increase in earnings even after coming back to Japan.

Results of Random Effect Models

The descriptive results above could reflect respondents' characteristics, both observable and unobservable. Accordingly, this paper demonstrates longitudinal panel regression models with both the ADIOS-J and JLPS datasets to examine the growth in job earnings and the association between returning to Japan and earnings. Tables 3 and 4 denote random effect regression models, which are introduced in 4.2.1, for the ADIOS-J and JLPS samples, respectively.

[Table 3 here]

Model 1-1 in Table 3 is a baseline model for the ADIOS-J sample. It includes only the variables of explicit interest: linear time, living in Japan at each survey, expatriate categories, and interaction terms between the expatriate categories and time and living in

Japan. The time variable shows a significantly positive coefficient, 0.079. It means the job earnings increase by 8.2% ($= (\exp(0.079) - 1) \times 100$) per year. As for the growth rate, only the interaction between time and staff in professional or non-profit organizations is positively significant. There are no significant interaction or additive effects for the employed expatriates, such as the SIEs in multinational companies and CEs.

The coefficient of living in Japan is negative, -0.132. It is marginally significant at a 10% level, but its impact might not be marginal because it indicates a 12.4% decline in job earnings when returning to Japan. In terms of its heterogeneity, the interaction effects are significantly positive for the SIEs in multinational companies and the self-employed or freelancers. In particular, the combined effect of the main and interaction effects for the former is 0.08, which means an 8.3% increase. Accordingly, the association between returning to Japan and job earnings shows opposite directions between the SIEs in Japanese-owned and multinational companies.

As shown in Figure 1, Model 1-1 also exhibits differences in job earnings among the expatriate categories. The SIEs in multinational companies and CEs experienced 15.3% and 80.7% increases, respectively, and they are statistically significant.

Model 1-2 additionally includes the following variables: the female dummy, age at the time of the survey, education in Japan and overseas, and the dummy variables of having a spouse and children. Even after controlling for them, the coefficient of the time variable is significantly positive, 0.059. Put differently, it is a 6% increase in job earnings per year. The results of the interaction effects with the expatriate categories are the same as those with Model 1-1; only the interaction term with the staff in professional or non-profit organizations exhibits a positively significant coefficient.

The coefficient of whether to be in Japan at the survey is statistically significant even at the 10% level. However, it should still be noted that the parameter estimate is -0.111, which implies a 10.5% decline in job earnings before and after returning to Japan. The differences between the 12.4% and 10.5% declines in Models 1-1 and 1-2 might not be significant. For the interaction terms, the results in Model 1-2 denote almost the same estimates as Model 1-1: positive interaction effects with the SIEs in multinational companies and the self-employed or freelancers.

The differences in the outcome variable among the expatriate statuses make the coefficients of the SIEs in multinational companies and business executives insignificant. Furthermore, their magnitudes also decline by around 50%. These changes indicate that the income differences between the two categories and the SIEs in Japanese-owned firms can be explained by the variables added in Model 1-2.

In addition to the prior models, Model 1-3 considers respondents' job characteristics: occupation, managerial position, and monthly working hours. The time variable retains a positively significant estimate, 0.062 (a 6.4% increase per year). After considering job characteristics, the interaction effects are still closely similar to the prior models.

As for the living-in-Japan variable, however, its coefficient is insignificant and exhibits a substantial decrease between Models 1-2 and 1-3 by 52.2% ($= \frac{-0.111 - (-0.053)}{-0.111} \times 100$). Likewise, the interaction effects with the expatriate categories also become statistically insignificant except for business executives at the 10% level. In addition to the statistical insignificance, their magnitudes are reduced by tens of percent or more. These considerable declines in both main and interaction effects indicate that the heterogeneous associations between returning to Japan and the expatriate categories reflect the Japanese migrant workers' job characteristics before and after their returns rather than there being some penalties.

[Table 4 here]

Table 4 shows the results of the corresponding models for the JLPS sample, which represents the Japanese workers in Japan. Because there are just a tiny number of respondents living overseas in each wave for the JLPS data, I excluded these cases from the analytical dataset. Accordingly, the JLPS dataset includes only respondents living in Japan, and the variable of returning to Japan, which is available in the ADIOS-J dataset, is not investigated.

Model 2-1 in Table 4 is a baseline and includes the linear time variable, employment statuses, and sample types. The time variable, which is of interest in the present study, denotes a positively significant coefficient, 0.013. This coefficient means that, on the whole, domestic Japanese workers experience a 1.3% increase in job earnings per year. Although statistically significant, the growth rate in job earnings is apparently lower than that of the ADIOS-J sample.

After considering the female dummy, respondents' age, education, and family variables in Model 2-2, however, the time variable's coefficient is insignificant. Also, its magnitude is reduced to almost zero. Instead, the age parameter is significantly positive, 0.012. For the ADIOS-J sample, in Table 3, both the time and age variables exhibit significantly positive coefficients at the 0.1% level. Given these results, age is more relevant than the length of labor market experience in domestic Japanese workers, while

both matter for Japanese migrant workers overseas. The results, as mentioned earlier, remain in Model 2-3, which controls for job characteristics: occupation, managerial position, and monthly working hours.

Supplementary Analyses

While the random effect models with multiple imputations enable the present study to utilize the analytical datasets as fully as possible and both time-invariant and variant variables, there might still be two considerable concerns: unobserved between-individual heterogeneity and the degree to which the multiple imputation technique improves the parameter estimates. Accordingly, the following two supplementary analyses are demonstrated below. The first one is the results of the fixed effect models, and the second is the results of the complete case analyses.

As for the first issue, the unobserved individual heterogeneity may bias the parameter estimates if it is not properly controlled. To address the unobserved heterogeneity, I demonstrated the fixed effect model for the ADIOS-J and JLPS datasets. The fixed effect models are performed using multiple imputations, as are the random effect models. The results for the ADIOS-J and JLPS samples are presented in Models 1-4 and 2-4 in Tables 3 and 4.

Regarding the ADIOS-J dataset, the time variable is significantly positive, at 0.079, even after accounting for unobserved individual traits and other observable time-variant variables. The interaction effects of time and expatriate categories are insignificant except for the staff in professional or non-profit organizations.

The living-in-Japan variable shows a negative coefficient, -0.025, but it is insignificant. There is a 2.5% decline in job earnings before and after returning to Japan, which is less than the coefficient in Model 1-3. There are no statistically significant interaction effects, even at the 10% level. The results in Model 1-4 resemble those in Model 1-3 in terms of the focal explanatory variables of interest.

Model 2-4 in Table 4 presents the results of the fixed effect model using the JLPS dataset. Unlike Model 2-3, the time variable exhibits a significantly positive coefficient, 0.016, which implies a 1.6% increase in job earnings per year. This result is different from the one in Model 2-3. Because the current datasets have a maximum of three years of observations for each individual, the age parameter cannot be estimated due to a constraint on the degree of freedom after controlling for two factors: the time variable and unobserved heterogeneity. Accordingly, the coefficient of the time variable might be confounded with a potential age effect. Despite this, the time variable still shows a low

growth rate in job earnings compared to the ADIOS-J sample.

[Table 5 here]

Lastly, I demonstrated the random effect models using the complete case analysis, which exploits the analytical sample with no missing values for any variables. Table 5 shows the results of the complete case analysis, which has the same independent variables as Models 1-3 and 2-3.

For the ADIOS-J dataset, the time variable exhibits a significantly positive coefficient, 0.086. Additionally, the coefficient of the living-in-Japan dummy is -0.219 and statistically significant. The interaction effects are also larger than those in the same model with MI. Assuming MAR is held, these regression coefficients may be overestimated compared to those obtained by MI. As for the JLPS sample, there is no difference between the MI and complete case methods.

6. Discussion and Conclusion

In the current global economy, the number of middle-class migrants engaging in transnational career experiences is on the rise. Japan is not an exception, given that an increasing number of young workers have sought career opportunities overseas, as the Japanese economy has stagnated for several decades since the 1990s. Against the societal backdrop, this study examines whether transnational career experiences pay off for Japanese migrant workers, particularly self-initiated expatriate workers. Specifically, the two research questions are investigated: (1) do the Japanese SIEs experience their earnings growth compared to the domestic workers in Japan, and (2) is returning to Japan penalized or rewarded for the Japanese SIEs' career?

Using novel survey data on Japanese middle-class migrant workers overseas, this study provides a longitudinal perspective on their career opportunities. By utilizing another longitudinal dataset that represents Japanese youth and middle-aged workers, the present study can also characterize the career opportunities of Japanese migrant workers in comparison with those of Japanese domestic workers.

The results of the panel regression models supported the first hypothesis, which stated that the growth rates of earnings for SIEs were higher than those of domestic workers in Japan. While the growth rates for Japanese expatriates were around 6% or higher per year, even after considering both observable and unobservable factors, the growth rate for Japanese domestic workers was almost flat. Accordingly, the transnational

career experiences of the Japanese SIEs pay off, at least in terms of their earnings growth.

Considering the level of job earnings as well, however, the position of Japanese expatriates depends on their respective categories. For the two types of SIEs, those in Japanese-owned and multinational companies, while the latter earn more than the former, Japanese domestic workers are closer to the latter. While the SIEs can leverage their transnational career experiences for income growth, those employed by Japanese companies are eventually integrated into the stratification of Japanese organizations, which explicitly distinguishes between CEs from headquarters in Japan and SIEs.

Oppositely, the second hypothesis does not hold. For the SIEs in Japanese-owned companies, a seeming economic penalty upon returning to Japan is attributed to their observable and unobservable characteristics, such as job attributes and pre-migration conditions. Unlike them, the SIEs in multinational companies appeared to increase their job earnings after returning to Japan. However, their return premium was also considerably explained by their job characteristics. Accordingly, going back to Japan itself results in neither a penalty nor a premium for job earnings.

The abovementioned results have three implications in social stratification and migration research. First, the present study contributes to understanding the social stratification process and the subsequent inequality among middle-class migrants who are accompanied by transnational mobility. In contrast to previous studies, which have focused on international or transnational mobilities among labor migrants, I demonstrated that transnational careers economically benefited middle-class migrants, specifically in Japan's case. Middle-class workers are conventionally thought to experience upward mobility within the domestic labor market. In particular, large Japanese companies still maintain their employment systems, which embed regular workers into job rotation cycles for their internal promotions. The income growth rate for SIE workers, however, suggests a new perspective on the career formation of Japanese workers, in that their voluntary transnational career experiences can be translated into economic remuneration. Furthermore, the negligible impact of return migration to Japan might overturn the perception that Japanese SIE workers face a dead end in their career opportunities after returning.

The transformation of a transnational career into an economic return is also noteworthy as the second implication. Indeed, it is not surprising that the CEs are experiencing income growth due to their embeddedness in the Japanese employment system. Turning to the SIEs, it is still worth questioning why they can capitalize on transnational experiences. One possibility is that the current SIEs can fill a labor gap structurally. It is necessary for Japanese companies to both globalize their businesses and

localize their organizations to compete with other capitals in the global market, given their increasing cost constraints. Considering the path dependency of Japanese employment customs, however, satisfying both globalization and localization can often be difficult. Under such situations, the SIEs play both global and local roles, as they culturally link the Japanese CEs and local workers, and are hired locally and directly by local organizations.

Thirdly, the present study provides a case of middle-class migration from high-income countries. As Asian cities have achieved particularly rapid economic growth, each developed city is interconnected as a node, resulting in the creation of a regional yet partially global labor market that brings better job opportunities to the SIEs. For Japanese young and middle-aged people, it is a convenient and plausible option for advancing their transnational careers, with a flight distance of around seven or eight hours. Accordingly, the labor market for the Japanese SIEs differs from the past one, which previous studies have discussed in a pessimistic manner.

To be sure, the present study has research limitations. The most critical issue is the sampling bias in the ADIOS-J sample, as it was not drawn using a conventional random sampling procedure. Unless a representative sampling frame is available, relying on non-random sampling eventually becomes the second-best option. Some studies focus on the so-called ‘hidden’ or ‘hard-to-reach’ population (Salganik and Heckathorn 2004), and it will be beneficial to apply such methods as much as possible in future research. Additionally, measuring job earnings for the ADIOS-J surveys has room for improvement, as the ten-point scale is somewhat imprecise. The present study also took the second best in this respect due to concerns about the non-response bias resulting from missing values. Nevertheless, using the rough outcome might still be reasonable for understanding the overall trends and differences among expatriates and domestic workers, as long as we do not intend to measure the exact income level. Addressing these issues in subsequent research leads us to rigorously test the validity of the current results.

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Table 1: Response rate for each sample and wave

Survey period	Original sample					Additional sample					Refreshment sample		
	Wave	Response	%	Response	%	Wave	Response	%	Response	%	Wave	Response	%
Jan.-Apr. 2007	Wave1	3367	35%	1433	40%								
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Jan.-Mar. 2011	Wave5	2232	76%	1087	85%	Wave1	710	32%	253	31%			
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Jan.-Mar. 2019	Wave13	1736	81%	889	88%	Wave9	441	69%	178	74%	Wave1	2380	36%
Jan.-Mar. 2020	Wave14	1724	82%	871	88%	Wave10	424	68%	175	73%	Wave2	1697	83%
Jan.-Mar. 2021	Wave15	1700	83%	846	87%	Wave11	409	67%	176	75%	Wave3	1540	80%
Jan.-Mar. 2022	Wave16	1682	84%	837	88%	Wave12	401	67%	175	75%	Wave4	1429	80%

Note: Each response rate is the percentage of responses to the valid survey invitations. Because the second and subsequent waves for each sample are follow-up surveys, high response rates are achieved.

Table 2: Summary Statistics of the Variables of Interest

	ADIOS-J		JLPS			ADIOS-J		JLPS	
	Obs.**	Mean (SD)/%	Obs.**	Mean (SD)/%		Obs.**	Mean (SD)/%	Obs.**	Mean (SD)/%
Natural logged earnings	2053	1.373 (0.685)	7876	1.198 (0.448)	Employment status	-		10302	
Living in Japan at survey	2137	7.58%			Executives	-			2.69%
Age	2137	37.898 (7.196)	10302	37.595 (8.410)	Self-employed	-			5.73%
Female	2106	64.39%	10302	53.86%	Regular employment	-			66.30%
Educational status obtained in Japan*	2119		10251		Non-regular employment	-			25.11%
No education		0.28%		-	Others	-			0.17%
Upper secondary or lower		12.18%		23.79%	Occupational status	2102		10110	
Post-secondary		13.36%		30.80%	Clerical		17.65%		26.54%
Undergraduate		56.91%		40.15%	Sales		16.65%		4.05%
Graduate		17.27%		5.26%	Service or retail sales		16.51%		16.29%
Educational status obtained overseas	1996		-		Professional or technical		40.15%		28.84%
No education		66.58%		-	Managerial		8.56%		2.14%
Upper secondary or lower		2.86%		-	Others		0.48%		22.15%
Post-secondary		7.06%		-	Manager positions in large firms	2071	10.09%	10177	3.74%
Undergraduate		9.12%		-	Monthly working hours	1997	157.078 (60.320)	9825	170.163 (55.867)
Graduate		14.38%		-	Having spouse	2103	59.96%	10295	58.13%
Expatriate status at 2020	2137		-		Having children	2108	36.86%	10238	49.12%
SIE in Japanese companies		26.06%		-	Survey year	2137		10302	
SIE in multinational companies		34.96%		-	2020		46.65%		34.49%
Corporate expatriates from JPN		18.02%		-	2021		28.97%		33.15%
Business executives		3.32%		-	2022		24.38%		32.36%
Self-employed or freelance		13.62%		-	Sample type	-		10302	
Professional or non-profit organizations		4.02%		-	Original sample since 2007		-		50.78%
					Additional sample since 2011		-		11.79%
					Refresh sample since 2019		-		37.43%

* For the JLPS sample, respondents' countries of education are not specified.

** The number of observations for each dataset is the total observations for the three waves.

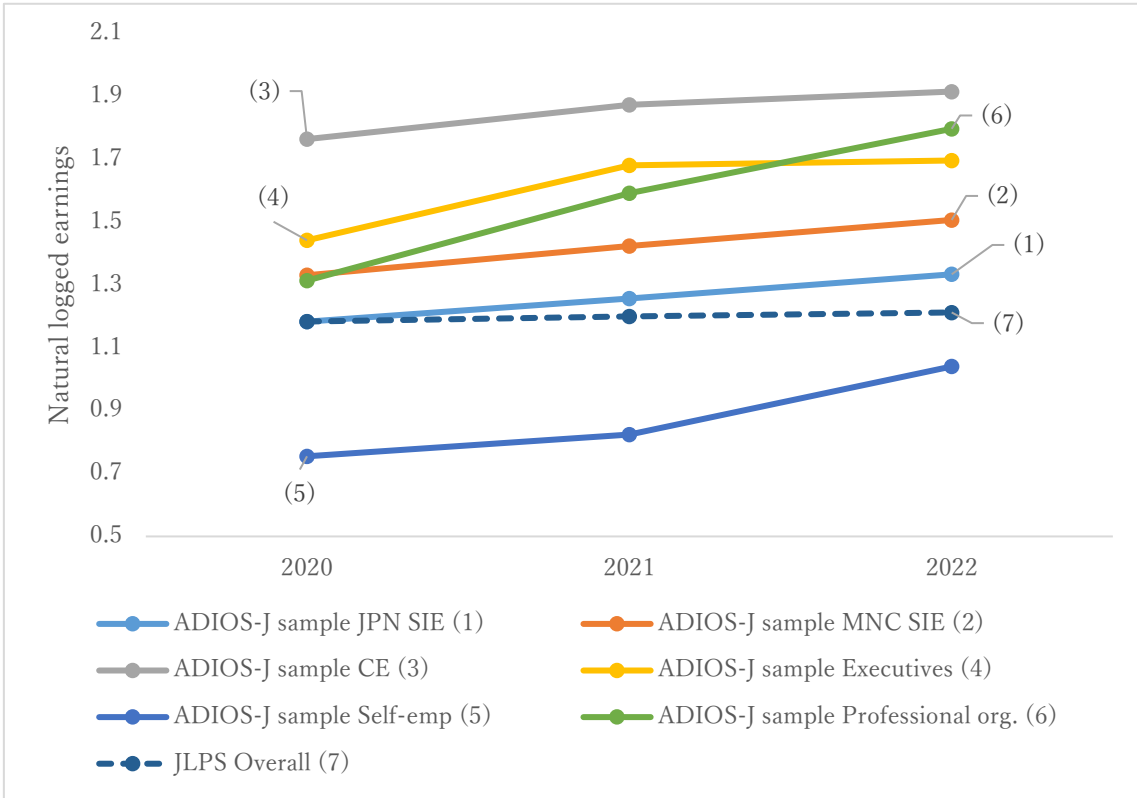


Figure 1: Job earnings trajectories for the ADIOS-J and JLPS samples

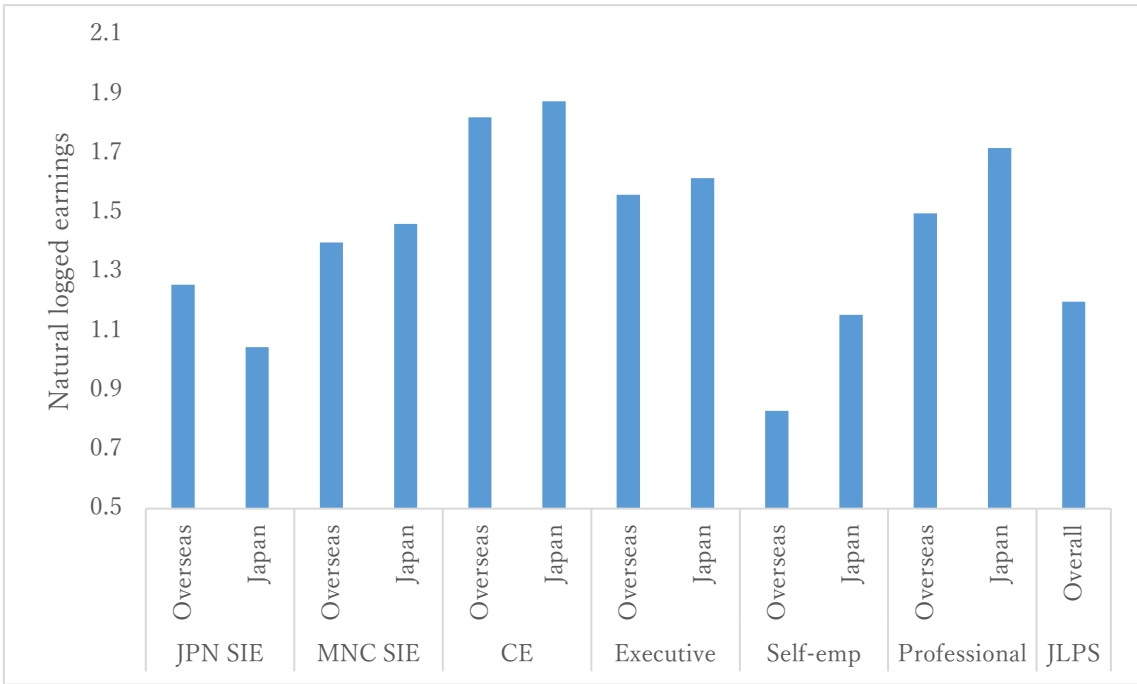


Figure 2: Mean earnings by whether to be in Japan during the survey

Table 3: Random and Fixed Effect Models for the ADIOS-J Sample

	Model 1-1 (RE)		Model 1-2 (RE)		Model 1-3 (RE)		Model 1-4 (FE)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Intercept	1.178 ***	0.038	0.504 +	0.298	0.115	0.274		
Japan at survey	-0.132 +	0.072	-0.111	0.071	-0.053	0.070	-0.025	0.075
Time (2020 = 0)	0.079 ***	0.019	0.059 **	0.019	0.062 ***	0.019	0.079 ***	0.019
Expatriate category at 2020 (ref: JPN SIE)								
MNC SIE	0.143 **	0.051	0.069	0.048	0.116 **	0.044		
CE	0.592 ***	0.059	0.448 ***	0.056	0.401 ***	0.051		
Executive	0.283 *	0.111	0.102	0.104	0.077	0.096		
Self-employed	-0.438 ***	0.065	-0.480 ***	0.061	-0.299 ***	0.057		
Professional organization	0.145	0.104	-0.130	0.099	-0.091	0.091		
Female			-0.300 ***	0.038	-0.179 ***	0.036		
Age at survey			0.016 ***	0.003	0.015 ***	0.002		
Education in Japan (ref: no education)								
Secondary			0.202	0.286	0.035	0.257		
Post-secondary			0.119	0.288	-0.026	0.258		
Undergraduate			0.320	0.286	0.133	0.257		
Graduate			0.509 +	0.289	0.322	0.259		
Education overseas (ref: no education)								
Secondary			-0.303 **	0.096	-0.253 **	0.087		
Post-secondary			-0.030	0.069	0.047	0.062		
Undergraduate			0.115 +	0.063	0.096	0.057		
Graduate			0.258 ***	0.054	0.253 ***	0.049		
Having a spouse			0.020	0.034	0.032	0.031	0.039	0.049
Having children			0.013	0.034	0.038	0.031	0.023	0.046
Occupation at survey (ref: Clerical work)								
Sales					0.057	0.037	0.062	0.047
Service and retail sales					-0.135 ***	0.038	-0.042	0.050
Professional and technical					-0.023	0.033	-0.027	0.041
Managerial					0.068	0.045	0.029	0.054
Other occupations					-0.316 *	0.153	-0.342 *	0.168
Manager in large firms					0.200 ***	0.038	0.104 *	0.047
Monthly working hours					0.0031 ***	0.0002	0.0029 ***	0.0003
Interaction: Japan x Expatriate Status								
Japan x MNC SIE	0.212 *	0.101	0.203 *	0.099	0.094	0.097	0.104	0.104
Japan x CE	0.081	0.099	0.060	0.097	-0.047	0.094	-0.078	0.102
Japan x Executive	0.287	0.234	0.247	0.231	0.396 +	0.222	0.355	0.237
Japan x Self-employed	0.371 *	0.153	0.356 *	0.150	0.206	0.145	0.185	0.156
Japan x Professional organization	0.375	0.241	0.374	0.236	0.184	0.224	0.182	0.247
Interaction: Time x Expatriate Status								
Time x MNC SIE	-0.010	0.026	-0.008	0.025	-0.015	0.025	-0.019	0.025
Time x CE	-0.029	0.033	-0.032	0.033	-0.042	0.032	-0.039	0.033
Time x Executive	0.013	0.062	0.016	0.061	0.023	0.060	0.010	0.063
Time x Self-employed	0.003	0.033	0.001	0.033	-0.008	0.032	-0.008	0.033
Time x Professional organization	0.139 **	0.052	0.138 **	0.051	0.135 **	0.050	0.144 **	0.051
rho	0.754		0.708		0.677		0.887	
Obs.	2137		2137		2137		2137	
Individuals	997		997		997		997	

*** p < 0.001, ** p < 0.01, * p < 0.05, + p < 0.1 (two-tailed test)

The number of imputed datasets is 50.

Table 4: Random and Fixed Effect Models for the JLPS Sample

	Model 2-1 (RE)		Model 2-2 (RE)		Model 2-3 (RE)		Model 2-4 (FE)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Intercept	1.479 ***	0.029	0.896 ***	0.061	0.669 ***	0.063		
Time (2020 = 0)	0.013 ***	0.004	-0.0004	0.004	0.002	0.004	0.016 ***	0.004
Employment status at survey (ref: Executives)								
Self-employed	-0.396 ***	0.034	-0.350 ***	0.032	-0.331 ***	0.030	-0.078	0.047
Regular employment	-0.196 ***	0.029	-0.164 ***	0.027	-0.198 ***	0.026	-0.047	0.044
Non-regular employment	-0.688 ***	0.034	-0.571 ***	0.032	-0.493 ***	0.030	-0.223 ***	0.051
Others	-0.898 ***	0.113	-0.843 ***	0.109	-0.736 ***	0.107	-0.404 **	0.129
Female			-0.286 ***	0.012	-0.236 ***	0.012		
Age at survey			0.012 ***	0.001	0.011 ***	0.001		
Education (ref: Secondary)								
Post-secondary			0.041 **	0.015	-0.003	0.015		
Undergraduate			0.197 ***	0.014	0.141 ***	0.015		
Graduate			0.317 ***	0.026	0.216 ***	0.025		
Having a spouse			0.080 ***	0.014	0.083 ***	0.013	0.017	0.025
Having children			0.009	0.014	0.013	0.013	0.000	0.027
Occupation at survey (ref: Clerical work)								
Sales					0.042 +	0.024	0.006	0.044
Service and retail sales					-0.070 ***	0.017	0.004	0.033
Professional and technical					0.108 ***	0.014	0.047	0.034
Managerial					0.177 ***	0.032	0.056	0.048
Other occupations					-0.025	0.016	0.016	0.034
Manager in large firms					0.214 ***	0.023	0.062 +	0.034
Monthly working hours					0.0016 ***	0.0001	0.0010 ***	0.0001
Sample type (ref: Original)								
Additional sample since 2011	-0.043 *	0.020	-0.003	0.017	0.007	0.016		
Refresh sample since 2019	-0.229 ***	0.013	-0.013	0.022	-0.020	0.020		
rho	0.678		0.601		0.545		0.836	
Obs.	10302		10302		10302		10302	
Individuals	3971		3971		3971		3971	

*** p < 0.001, ** p < 0.01, * p < 0.05, + p < 0.1 (two-tailed test)

The number of imputed datasets is 50.

Table 5: Random effect models with the complete cases

	ADIOS-J		JLPS	
	Coef	SE	Coef	SE
Japan at survey	-0.219 *	0.105		
Time (2020 = 0)	0.086 **	0.027	0.003	0.004
Interaction: Japan x Expatriate Status				
Japan x MNC SIE	0.264 +	0.140		
Japan x CE	0.063	0.133		
Japan x Executive	0.685 *	0.281		
Japan x Self-employed	0.413 *	0.187		
Japan x Professional organization	0.249	0.273		
Interaction: Time x Expatriate Status				
Time x MNC SIE	-0.041	0.035		
Time x CE	-0.061	0.044		
Time x Executive	0.184 *	0.085		
Time x Self-employed	0.007	0.046		
Time x Professional organization	0.065	0.072		
Other covariates	Controlled		Controlled	
rho	0.399		0.556	
Obs.	1768		7439	
Individuals	716		3469	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$ (two-tailed test)

The other covariates are the same as Models 1-3 and 2-3 for the ADIOS-J and JLPS samples.

東京大学社会科学研究所パネル調査プロジェクトについて

労働市場の構造変動、急激な少子高齢化、グローバル化の進展などにもない、日本社会における就業、結婚、家族、教育、意識、ライフスタイルのあり方は大きく変化を遂げようとしている。これからの日本社会がどのような方向に進むのかを考える上で、現在生じている変化がどのような原因によるものなのか、あるいはどこが変化してどこが変化していないのかを明確にすることはきわめて重要である。

本プロジェクトは、こうした問題をパネル調査の手法を用いることによって、実証的に解明することを研究課題とするものである。このため社会科学研究所では、若年パネル調査、壮年パネル調査、高卒パネル調査、中学生親子パネル調査の4つのパネル調査を実施している。

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東京大学社会科学研究所パネル調査プロジェクト ディスカッションペーパーシリーズについて

東京大学社会科学研究所パネル調査プロジェクトディスカッションペーパーシリーズは、東京大学社会科学研究所におけるパネル調査プロジェクト関連の研究成果を、速報性を重視し暫定的にまとめたものである。

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