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Short-cycle Higher Education and the Labor Market in Japan: A Longitudinal Analysis of Japanese Life Course Panel Surveys

Hirofumi Taki
(The University of Tokyo)

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Abstract

This study investigates the impact of Japan's short-cycle higher education, including professional training colleges (PTCs), on labor market outcomes and labor force participation, with a focus on gender differences. Using panel data from the Japanese Life Course Panel Survey (JLPS), we analyze wages and labor participation over time, revealing significant gendered disparities. While short-cycle higher education does not lead to higher wages for men compared to high school graduates, it provides clear wage advantages for women. Moreover, female PTC graduates, are more likely to remain in the labor force after marriage and childbirth, unlike their counterparts from junior colleges, whose careers often align with traditional gender roles. These findings challenge the applicability of human capital and signaling theories in Japan's gender-segregated labor market. The study highlights that PTCs, linked to vocational qualifications, offer women a pathway to sustained labor force participation despite the constraints of Japan's internal labor market. The results suggest that previous studies, which treated PTC graduates as high school graduates, may have overlooked significant differences in labor market trajectories, especially for women. Our findings call for a reconsideration of the role of short-cycle higher education in Japanese stratification research in shaping labor market outcomes.

Keywords

professional training college, vocational education, hybrid model

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Direct correspondence to Hirofumi Taki, Graduate School of Education, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033 Japan.
Email: taki-h@p.u-tokyo.ac.jp

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1. Introduction

Japan's university advancement rate in April 2024 was 59.1%, surpassing the 50% universal benchmark and now approaching 60%. With the expansion of education, scholars have investigated whether the relationship between education and labor market outcomes has changed. This line of research includes analyses of internal differences among Japanese universities (e.g. Hirasawa 2011), as well as shifts in the disparities between high school and university graduates (e.g. Furuta 2018).

However, the institutions of higher education that students enter after graduating from high school are not limited to four-year universities. In the field of higher education research, increasing attention has been devoted to the growing presence of short-cycle higher education institutions, such as two- and three-year programs, amid the expansion of educational opportunities[1] (e.g., OECD 1973; Teichler 1988).

The effect of short-cycle higher education on labor market outcomes in Japan has not been fully examined in detail in the stratification research. There are two possible reasons for the lack of attention on these institutions. One is the belief that only a small number of people go to these institutions in Japan. However, this is not true, as detailed below. Higher education in Japan is generally defined as consisting of a four-year university (*Daigaku*), junior college (*Tanki Daigaku*), and technical college (*Koutou Senmon Gakko*; *KOSEN*). Two of these, junior college and technical college, can be defined as short-cycle higher education, with a study period of two or three years, in most cases. Of the 63.3% of students who entered higher education in Japan in 2024, 59.1% were enrolled in four-year universities. This means that only 4% of the students went to short-cycle higher education institutions. What is important here, however, is the difference in attendance rate by gender. While approximately 85% of students at junior colleges are female, around 75% of students at

[1] We use the term 'short-cycle higher education' for these institutions, which are often referred to as 'non-university higher education' or 'post-secondary education,' with a focus on their standard duration of study in this paper.

technical colleges are male, with the number of enrollees in junior colleges being three times that of technical colleges. Although the percentage of women enrolling in short-cycle higher education has been decreasing rapidly in recent years, it still exceeds 6%, compared to 2.4% for men. The studies mentioned above do refer to short-cycle higher education; however, due to the low number of male enrollees, it has not been included as a substantial subject for quantitative analysis. This is also likely influenced by the fact that stratification research in Japan has long focused on the status attainment of men.

Another important issue is the definition of higher education. Although Japanese higher education consists of these three institutions, there is another important post-secondary educational institution called professional training college (*Senmon Gakko*)[2], institutionalized in 1976. Although these professional training colleges (PTCs) are not educational institutions defined by Article 1 of the School Education Act, they are regarded as equivalent institutions in higher education due to their improved institutional status, especially since the beginning of the 2000s. For example, the recent Basic School Survey summary by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) confirms to the notation such as "higher education advancement rate including PTCs." Similar expressions can be found throughout many government documents. The OECD's PIAAC data also places PTCs in the same category as junior colleges using UNESCO's ISCED term. If we include these PTCs as higher educational institutions in Japan, the higher education enrollment rate reaches 87.3%.

Stratification studies have often treated educational background in terms of years of education when considering the effect of education on labor market outcomes. However, there are also different strand of research focusing on the effect of vocational education (e.g., Shavit and Müller

[2] There appears to be no fixed English translation for *senmon gakko* yet. Although the terms "Professional Training College" and "Special Training College" seem to be commonly used, we adopt the former in this paper, which has been used more frequently in recent years and is also used by semi-official administrative institutions, such as the Japan Student Services Organization (JASSO).

2000). Most studies in Japan have only compared high school and university graduates, ignoring short-cycle higher education. This can create several problems with the research. First, it may be unclear whether benefits really accrue simply with more years of education. Second, short-cycle higher education includes institutions with exceptionally strong ties to vocational education in Japan; therefore, it may be unclear how this affects status attainment.

In most stratification studies concerning Japan, PTC graduates are treated as high school graduates, even they spend an additional two years or more in educational institutions in fact. It is also important to point out that junior colleges have been considered only when dealing with the status of women, and are often lumped together with four-year universities. However, if students who enter short-cycle higher education attain occupational careers that differ significantly from those of high school or university graduates, this could cause serious problems in such studies.

Why has the effect of short-cycle higher education on labor market outcomes been ignored despite the fact that there are a number of both men and women who graduate from these institutions when PTCs are considered? To answer this, the particular institutional context in which Japanese education is embedded should be examined. In Japan, the so-called Japanese employment system, which consists of a strong internal labor market, with a bundle of norms and practices such as a specific periodical recruitment practice of hiring new graduates, and a strong male breadwinner model that manages life security for employee households as a unit coupled with frequent personnel relocation[3] (Osawa 2011). The reason why short-cycle higher education has not received attention in studies of social stratification is that graduates of these institutions tend to be outside the core members of this Japanese employment system. Vocational education in Japan generally has not received attention

[3] Mary Brinton called these bundle of norms and practices the "human capital development system." It encompasses the way social institutions and social actors share the responsibilities of human capital development across the individual's lifecycle (Brinton 1993). As in Brinton's study, we include not only actual management practices of specific large Japanese firms, but also the norms and practices that are widely shared in society when referencing the Japanese employment system.

because the Japanese employment system in which employees are hired directly after graduation and acquire firm-specific skills through on-the-job training based on the premise of long-term employment, does not require occupational skills from employees when they enter the workforce (Cantor 1985, McCormick 1988, Dore and Sako 1998). As a result, the research on short-cycle higher education is scarce, as it is often considered outside the main route to attaining occupational status in Japan.

However, recently, there have been significant changes. The first is the downsizing of the employment system explained above. The bursting of the bubble economy in the 1990s led to a significant increase in the number of young people in precarious work situations or non-employed, making both long-term employment practices and smooth transitions from school to work more difficult than in the past (Brinton 2011, Kagawa et al. 2022). Consequently, the education system is now expected to develop skills that are useful for jobs, rather than just using the prestige of schools as a signal of the potential trainability of graduates. Another change has been the shifting nature of gender and labor in Japanese society, with the enactment of the Equal Employment Opportunity Act (EEOA) in 1985 and its revision in 1997. This situation has drastically changed the way men and women are employed and treated under the same framework—at least in theory, though in practice, this change has been occurring gradually in recent years especially on university graduates (Mugiyama 2024). Although the male breadwinner model has been part of the Japanese employment system for decades, such a gender role division of labor has reached its limits both in principle and in reality, under the declining birthrate and aging population in Japan.

Considering these changing times, our study aims to clarify the effect of Japan's short-cycle higher education, including professional training colleges, on the labor market outcomes of men and women.

2. Literature Review and Hypotheses

Characteristics of Short-cycle Higher Education in Japan [4]

[Figure 1]

Following the defeat in World War II, the Japanese government enacted the School Education Law under General Head Quarters (GHQ) occupation in 1947, establishing the current school system. Article 1 of the School Education Law defines six educational institutions: kindergartens, elementary schools, junior high schools, compulsory education schools, high schools, secondary education schools, special support schools, universities, and technical colleges.

Junior college is a type of university on this list. After the war, junior college was allowed to shape as a temporary institution for those that could not meet the requirements of the new university system; but in 1964, it was made permanent and have continued to this day. In the early postwar period, there were many male students who went on to junior colleges. However, as shown in Figure 1, high economic growth and an increased demand for higher education from the first baby boom generation led to an increase in the university attendance rate for males, while the same trend was more pronounced for females in terms of junior college enrollment rate. As a result, junior colleges were clearly established as a women's educational institution. The junior college enrollment rate for women remained higher than the college enrollment rate until 1996, when it reversed, and although the rate has declined significantly since then, about 5% of women still go to junior colleges. If we compare the attendance rate at four-year universities, Japan is one of the few OECD countries where men are more likely to attend university than women (DiPrete and Buchmann 2013). As identified here, the

[4] Representative studies in the Japanese literature on short-cycle higher education include Yano, Hamanaka and Asano (2018) for technical colleges, and Han (1996) and Uegami (2011) for PTCs. Amano (1986) is an important early study dealing with these educational institutions and gender.

reason for the gender imbalance in the university attendance rate is the existence of junior colleges that are biased against women.

Technical college, which was established in 1962, is also short-cycle institution of higher education. The technical college was established to provide five years of education, three years at the high school level, and two years at a later stage. The difference between universities and technical colleges is that the latter do not aim directly at research, but rather focus on vocational education. A catchphrase of the technical colleges is "training practical engineers," which has become a proxy for their image (Abe 1989). The high degree of specialization in vocational education and high employment rates have received strong international reputations for these colleges (OECD 2009). However, technical colleges have consistently had a relatively low numbers of students since their establishment. The rate of males entering technical college is about the same as that of males entering junior college, which is too low to distinguish at the bottom lines of Figure 1.

Finally, there is the professional training college (PTC). The PTC is not included in the six types of educational institutions listed in the School Education Law. Unlike these "authorized" educational institutions, as defined in Article 1, the PTC is defined as an educational institution in Article 124 of the School Education Law. The PTC was institutionalized in 1976 as a *Senshu Gakko* (special training school) based on the partial revision of the School Education Law in 1975, derived from its parent body of *Kakushu Gakko* (miscellaneous schools) which provide education similar to school education (Kambayashi 1981, Cantor 1985). Among the special training schools, post-secondary institutions that require high school graduation as an admission requirement, these are called *Senmon Gakko* (PTC).

The PTCs have not been covered frequently in the literature, in part because they are not “authorized” higher educational institutions defined in Article 1. However, as Figure 1 shows, the number of students entering these schools has increased steadily since their institutionalization in 1976.

Even as the percentage of students going to university has increased in the 1990s, the percentage of students going to PTCs has not declined as much as the percentage of those going to junior college. The PTCs are currently the second most popular destination after high school graduation, with approximately 20% of both male and female students attending. It is also worth noting that, unlike junior and technical colleges, the PTCs are not exclusively a destination for males or females.

Short-cycle higher education, as mentioned above, occupies a unique position in the Japanese society. As previously discussed, and will be detailed in the next section, Japanese educational institutions are generally expected to act as a screening device for trainability rather than as a means of developing skills directly related to occupation. Japanese high schools and universities form a prestige hierarchy based on academic skills not linked to occupation (Takeuchi 1997, LeTendre et al. 2003, Taki 2019a). By contrast, junior colleges, technical colleges, and PTCs are exceptional educational institutions that claim a clear link to occupational skills. They all require secondary school graduation as an admission requirement, and after two or three years of study, thus shorter than that of a university, students are expected to enter a labor market related to what they have studied. Although it is possible to enter a university after graduating from these institutions, that is less likely in Japan than in the U.S. (Clark, 1960, Brint and Karabel 1989, Rosenbaum et al. 2017), as few students in Japan enter with the intention of going on to a university[5].

There are also differences among these short-cycle higher education institutions. As already mentioned, those who enter junior colleges are more likely to be female, and those who enter technical colleges are more likely to be male, while such gender bias is less pronounced in PTCs. In addition, technical and junior colleges are formally recognized as institutions of higher education. Each of these institutions has a selection process for admission, which means they are not open to everyone who

[5] In recent years, students of short-term higher education in Japan have started to enter universities after graduation. This is especially the case for technical colleges since the 1990s. The PTCs also have established degrees to make connection to a university recently. However, it is still not a common option, especially among those who go to PTCs.

applies. However, with a few exceptions, PTCs do not have competitive entrance examinations for admission. This is one reason why junior and technical colleges are considered more prestigious than PTCs.

There are only a few studies written in English detailing the characteristics of short-cycle higher education in Japan (Kambayashi 1981, Cantor 1985, Fujimura 1985, McCormick 1988, Abe 1989, Goodman et al. 2009). Most such studies are limited to institutional descriptions or introduction of macro-statistics and do not focus on the destinations of graduates in detail. Although an increasing number of studies written in Japanese have examined empirically the social backgrounds and subsequent careers of graduates of these institutions in recent years (Hamanaka 2008, Nagao 2008, Manabe 2011; 2016, Taki 2016; 2021; 2023; 2024), we still do not understand the details and dynamic processes behind the labor-market outcomes and career choices.

Linkage between education and labor market outcomes

Neoclassical economics explains that the more years of education one has, the higher one's reward in the labor market through the accumulation of human capital (Becker 1964). In Japan, too, it has been confirmed that the more education one has, the more one earns.

However, a different explanation that considers the relationship between education and rewards in the Japanese context has also received attention other than human capital theory. Namely, signaling theory (Spence 1973) and its application to network theory (Rosenbaum et al. 1990), which focuses on the institutional context. These theories also refer to the positive association between education and rewards, but assume different mechanisms to explain this. Japan is known as a society with a predominantly internal labor market, which is similar in part to the explanation of organizational space in France (Maurice, Sellier, and Silvestre 1986). Firms (especially large firms) maintain the practice of hiring young people without job training under periodic new graduate hiring plans and then develop

their skills inside the firm through on-the-job training. This practice, which is a known as a part of the Japanese employment system, provides a context in which educational background is used not as actual human capital, but as a signal of potential trainability. The emphasis on high school and university academic ranking, rather than on what one has acquired in terms of occupational skills, is interpreted as potential productivity and trainability of prospective employees when recruiting at the entrance of the internal labor market (Ishida, Spilerman and Su 1997).

These Japanese recruitment practices have been supported by unique institutional linkages between high schools and universities, on the one hand, and firms, on the other (Rosenbaum and Kariya 1989, Brinton and Kariya 1998). At the high school level, firms send job offers to schools and not to students. They are prohibited from making direct contact with students under law. Based on job offers sent from firms, schools recommend students to companies based on their decisions. However, if the number of jobs offered and student choices do not match, schools select students based mostly on their GPA, with some educational considerations (Okano 1993). When sending job offers, firms consider the number of students they need to recruit and at which high schools, taking into account the selectivity of the schools. The accumulation of these continuous transactions creates mutual expectations and trust between specific schools and firms, which provides a context of rational choice for social actors, although different than the assumptions of the market theory of neoclassical economics (Rosenbaum et al. 1990). This institutional linkage provides a context in which selection is based on school-based academic skills rather than vocational skill. Such institutional complementarity also works at the university level through the OBs/OGs network, although not as explicitly as at the high school level (Brinton and Kariya 1998).

When considering the context of this unique linkage between schools and companies in Japan, the uniqueness of short-cycle higher education emerges. As discussed in the previous section, short-cycle higher education in Japan is strongly linked to vocational skills and qualifications. What then

are the effects of these educational institutions on labor market outcomes in Japan that does not emphasize vocational skills at the times of hiring? This important question has not yet been fully explored.

Different Function of Junior and Professional Training Colleges in Female Labor Participation

It is important to note that the institutional context discussed in the previous section varies by gender. This stems partly from gender being an important component of the Japanese employment system. This raises the need to look separately at the roles of junior colleges and PTCs in terms of women's careers.

Although junior colleges claim to be educational institutions to cultivate vocational skills, in reality they produce not only professionals, but also female clerical workers for large companies who play supporting roles for men as *office ladies* "OLs." In large Japanese companies, only men are guaranteed long-term employment and OLs are expected to retire at marriage or childbirth (Brinton 1992; 1993, Nishimura 2016, Yamato 2016). Although men and women may be placed in the same company as clerks, they are on different "tracks" under Japan's strong internal labor market (Amano 1997). It is convenient to employ women who have graduated from junior colleges, rather than the same four-year university degree as men, to justify such different treatment by gender.

From this point of view, the PTCs are noteworthy because they are less associated with this Japanese employment management practice (Cantor 1985, McCormick 1988, Taki 2016). Since the PTCs have stronger links to vocational qualifications and professional occupations than junior colleges, one would expect them to be relatively immune to the pressures of career interruption under Japanese employment practice.

In light of the above, we need to examine not only the impact of short-cycle higher education

on labor outcomes, but also on labor force participation in the lives of women. In Japan, there is no clear positive correlation between years of education and labor force participation among women (Nishimura 2016), which is different from that in the U.S. (Goldin 1990). This is because it is difficult for even highly educated women in Japan to return to higher-paying jobs when their careers are interrupted by marriage or child rearing in a strong internal labor market. In recent years, attempts have been made to improve the work environment for women by establishing childcare leave and other institutional arrangements, particularly in large companies. However, these improvements are limited mostly to companies where university graduates are employed; and it is still underway (Brinton and Oh 2019). In light of this, we need to examine the impact of short-cycle higher education on labor participation with regard to women, paying attention to life events.

Hypothesis

Based on the literature review, we formulate several hypotheses regarding the linkage between short-cycle higher education and the labor market in Japan.

First, based on orthodox human capital theory, we assume that graduates of short-cycle higher education institutions will receive remuneration according to their added value because they attended an additional two years of education beyond high school.

H1. Short-cycle higher education brings higher wages compared with high school, accounting for the additional years spent in the educational institution.

However, if we take into account the predominance of the internal labor market in Japan and the institutional linkages between firms and high schools, two further assumptions can be made. First, as short-cycle higher education does not provide a signal of potential trainability, it therefore only

leads to wages equivalent to those of high school graduates (H2a). Yet, junior colleges and technical colleges are legitimate educational institutions, as defined by the School Education Law, and they conduct admissions for selection, although PTCs rarely follow such selection. Given this, in the Japanese context, which emphasizes academic background as a signal of trainability, only junior and technical colleges will provide additional compensation to high school graduates, whereas PTC graduates will not receive additional wages compared with those of high school graduates (H2b).

H2a. Short-cycle higher education does not provide additional advantages over high school diplomas.
H2b. Only "authorized" institutions, junior colleges and technical colleges, will bring additional returns, whereas PTCs will not bring additional benefits.

Our third hypothesis assumes gender differences. The first is that short-cycle higher education will not bring additional returns for men, but will for women (H3a). For men, institutional linkages between high schools and firms allow high school graduates to enter the lucrative internal labor market. In contrast, short-cycle higher education, which enhances occupational skills, will not bring an advantage because it will not show their trainability to enter the internal labor market. For women, obtaining a short-cycle higher education degree will help them attain better jobs by enhancing their occupational skills, since institutional linkages are not linked to the better position in the internal labor market. However, we can also hypothesize a distinction between junior and technical colleges and PTCs as "authorized" and not “authorized” educational institutions (H3b). For men, junior and technical colleges, which are "authorized" educational institutions, bring advantages because they also signal trainability, while PTCs do not. For women, "authorized" junior and technical colleges bring advantages because they signal an advantage over high school graduates even both qualifications do not link to the better position in the internal labor market, and PTCs also bring advantages by

enhancing occupational skills.

H3a. Short-cycle higher education does not offer advantages for men compared with high school, but does for women.

H3b. For men, only junior and technical colleges provide additional returns compared with high school, while PTCs do not, but for women, both provide benefits.

The final hypotheses are limited to women to identify the effect of short-cycle higher education on labor participation and its attenuating effect on the negative impact of life events. More years of education will result in greater forgone earnings, and thus, stronger incentive to enter the workforce. Thus, compared with women with a high school diploma, women with a short-cycle higher education are more likely to participate in the labor force (H4a). However, in short-cycle higher education, junior college is connected to firms where women are expected to work for a short time as OLs and then leave after marriage or childbirth, whereas PTCs are less connected to such practices. Given this difference, we can assume that among holders of short-cycle higher education degrees, only female PTC graduates will show significant positive labor force participation compared with high school graduates. In addition, we examine the interaction between education and life events, such as marriage and having children, to interpret the results.

H4a. Short-cycle higher education strengthens female labor market participation compared with high school.

H4b. Junior college does not strengthen female labor market participation compared with high school, but PTCs do.

Based on the above hypotheses, we examine the impact of short-cycle higher education on labor-market outcomes. Although there have been some studies concerning this topic, there are almost no papers considering changing nature over life-course. We also present copious descriptive information prior to our panel data analysis, because previous quantitative literature written in English has not done this before.

3. Data and Methods

We use data from wave 1 through 13 of the Japanese Life Course Panel Survey (JLPS-Y, JLPS-M), which has been conducted annually since 2007 by the Institute of Social Science at the University of Tokyo. The JLPS targets respondents aged 20 to 40 at the end of December in 2006. All respondents belong to a cohort after the PTCs have been institutionalized. By using the JLPS, we can capture the dynamic relationship between short-cycle higher education and labor market outcomes in contemporary Japan for men and women.

Our analysis is based on the continuing sample surveyed from wave 1 (N=4,800) and the additional sample in wave 5 (N=963). We delete observations of respondents that are still students. To examine changes in wages and employment status, we do not include the newly added refreshed sample from Wave 13, as it contains less information. The analytic sample contains of 14,517 person-year observation from 2,212 men and 15,549 person-year observation from 2,371 women for the first analysis, and 25,285 person-year observation from 2,905 women for the second analysis after eliminating DK/NA and the other invalid information for the variables used in the analyses.

The first dependent variable is the natural log-transformed hourly wages. From Wave 2 onward, the JLPS panel asks about the form and amount of salary or income, and the number of hours worked per day and days worked per month for the job the worker is usually engaged. The answers to these

questions are used to calculate hourly wages[6].

The second dependent variable is a dummy variable for whether the worker participates in the labor force. This is used in the analysis to test H4a and 4b for women only.

A major advantage of analyzing panel data is to control unobserved heterogeneity among individuals by explaining within-individual variation (Halaby 2004). Our two dependent variables vary within individuals at different points in time, making them suitable for panel analysis. However, educational attainment, which is our focus, is an attribute that does not change within individuals (especially in Japan), and, thus, cannot be the focus of an analysis that takes unobserved heterogeneity into account. Nevertheless, capturing changes in individuals' wages and employment status at multiple points in time and examining the effect of education on these changes using panel survey data can be valuable for identifying the average effect of education on an individual's changing status. Therefore, to examine the effect of education, which is not a time-variant variable, we use a hybrid method to take into account the structure of the panel data and present the effect of independent variables separately, as within-individual and between-individual effects (Allison 2009).

The education variables are categorized as follows: junior high school (JH), high school (HS), professional training college (PTC), junior college and technical college (JC/TC), university (Univ), and graduate school (GS). The education variable is created from the questionnaire answered in the first wave for the continuing sample and in the fifth wave for additional samples[7] .

In addition, several points should be noted in the education variable. First, there are three types of short-cycle higher education: junior college, technical college, and PTC. However, since junior college and technical college are asked together as a single option in the survey, they cannot be

[6] Arita (2020) also used the same dependent variable of the JLPS to clarify who in the JLPS in current Japanese society achieved steady wage increases, which idealized under the Japanese employment system.

[7] In some cases, individuals quit their jobs and went back to school after graduation, but these cases are still very rare in Japan. Thus, we did not take additional education during the survey period into account in this study.

analyzed separately. Since only a small number of women attend technical colleges, the JC/TC category can be basically considered as junior college for women. For men, it can be assumed that there is a mixture of junior and technical colleges. The combined sample size of these two categories is small and should be considered with caution in any case for men. We also need to use caution regarding small sample sizes of individuals with junior high school and graduate school degrees. For the latter, we combine graduate school and university degrees as the Univ+ category in the panel analysis.

Furthermore, we compute dummy variables for marriage, having the youngest child under age six, youngest child over age six[8], employment status (standard, non-standard, self-employed (including family worker)), occupation (SSM scheme), and firm size[9]. Three of these variables, marriage (dummy), youngest child under age six, and youngest child over age six, are also used as interaction terms with education when we examine H4.

4. Descriptive Analysis

Figure 2 shows the distribution of the educational background of the subjects by cohort. We distinguish two types of short-cycle higher education for both men and women: technical college/junior college and PTC. The small percentage of graduate schools in the newest cohort is due to the fact that the respondents were still young at the time of the survey.

[Figure 2]

[8] Respondents' answers to life event questions were sometimes contradictory between the waves. We recoded them accordingly to assume reliable information as much as possible (see also Yagishita and Ishida, 2021).

[9] We also construct a DK/NA dummy for firm size, because this variable has a relatively large number of of missing values, especially for females (probably reflecting the position of part-time workers in the labor market).

Figure shows that there are more than a few respondents with short-cycle higher education degrees in Japan; when the three institutions are added together, about 20% of men and more than 40% of women hold short-cycle higher education degrees. Of these, a large percentage of both men and women graduated from PTCs, which has not been considered as educational background in previous studies. In the traditional SSM education scheme widely used in Japan, the PTC graduate has been classified as a high school graduate. To the best of our knowledge, Ishida (1998) is the only empirical study written in English that treats PTCs separately as an educational background from high school graduates in stratification studies.

As can be seen in the figure, about 40% of the high school graduates attended PTCs after graduating from high school. If the occupations and wages of high school and PTC graduates differ significantly, studies on school-to-work transitions in Japan would be seriously biased by ignoring this category.

[Figure 3]

Figure 3 shows the correspondence between education and first job using the SSM occupational scheme. For both men and women, the occupational distribution of PTC and junior college is clearly different from that of high school graduates. When we look at the percentage of professionals, male high school graduates are 2.3% compared with 21.4% for PTC graduates, and 3.5% compared with 44.1%, respectively, for female graduates. Junior colleges also are linked to a much larger percentage of professionals than high school graduates. Thus, short-cycle higher education is strongly associated with professional jobs, and we can infer strong relevance between the field of study and occupation.

Next, we looked at gender differences. When compare by gender, the percentage of professional women is much higher than that of men among the PTC graduates. Why is there such a large difference

between men and women? This is because the fields of study differ greatly between men and women, even among PTC graduates (Uegami, 2011, Taki 2021). While women are more likely to be nurses, men are more likely to be in industry-linked occupations[10].

For junior and technical colleges, there are interesting differences between men and women. Men with these degrees are associated with professional and blue-collar skilled jobs. This is understandable given the position of short-cycle higher education, especially technical college, in the training of intermediate technicians. In contrast, more women with junior college degrees are employed as clerks than as professionals, accounting for more than half of all junior college graduates. This result is consistent with the fact that women with junior college degrees are expected to work as OLs; generally, in a supportive role to men even in the same clerical category (Brinton 1993, Ogasawara 1998). Although junior college advancement for females has shifted rapidly to four-year universities, the respondents we study include individuals who had graduated before this change at junior college and are relatively more likely to be clerical workers.

[Table 1]

While the confirmation up to this point is information at a single point in time, with the respondent as the unit, we can now look at Table 1, which shows the descriptive statistics of the variables used in the multivariate analysis in person-year units by educational background. Note that the number of observations is small for junior high school graduates and graduate school degrees for both males and females, and junior and technical college degrees for males.

First, when we look at age, marital status, and age of the youngest child, we find that the age of the youngest child is older among high school graduates than that among short-cycle higher education

[10] This trend is also confirmed for our JLPS sample in this study.

graduates, although not very different. These data imply that those who receive additional education after high school tend to marry and have children later, on average.

Next, we consider the hourly wage as the first dependent variable. For males, the hourly wage is 1,448 yen for high school graduates, 1,443 yen for PTC graduates, 1,527 yen for junior and technical college graduates, and 1,677 yen for university graduates. The hourly wage for women is considerably lower than that for men: 1,027 yen for high school graduates, 1,249 yen for PTC graduates, 1,254 yen for junior and technical college graduates, and 1,357 yen for university graduates. In terms of wages for short-cycle higher education graduates, our main focus, wages for men are almost the same for high school and professional training college graduates, while wages for junior and technical college graduates are approximately 80 yen higher than those for high school graduates. Prior studies have shown that hourly wages are relatively higher for men who graduate from technical colleges (Yano et al. 2019), which is consistent with our results. Among women, both junior college graduates and PTC graduates earn higher wages than high school graduates do. These trends are also confirmed when we look at yearly income.

Our second dependent variable is labor force participation. We will only examine this variable for females in multivariate analysis, but here, we also look at employment status for men. When we look at standard employment, which represents stable status, corresponding percentage for men are 76.5% for high school, 75.0% for PTC, 85.2% for junior and technical college graduates, and 83.6% and 88.3% for university and graduate school graduates. Again, we find no advantage for male PTC graduates compared with high school graduates. The percentage of standard employment for high school and PTC graduates is almost the same, but it is higher for junior and technical colleges. As with the hourly wages, we see no advantage for men attending an additional PTC after high school. For women, the results between educational categories are different from the hourly wages. The percentages of respondents who are not working are 25.8% for high school graduates, 22.1% for PTC

graduates, and 28.3% for junior college graduates. Attending additional short-cycle higher education after high school decreases the risk of being non-employed among PTC graduates, but not among junior college graduates. We infer from this that many women who graduate from junior college work as office workers in gender-segregated workplaces in Japanese companies, as there are more clerks among the junior college graduates. Again, in Table 1, the higher number of non-employed graduates from junior college can be interpreted as consistent with the implicit expectation that OLs retire upon marriage or childbearing (Brinton 1992). Although this practice is fading slowly, it may remain more prevalent among women in clerical positions in larger firms in these cohorts.

There are other work factors as well. Regarding occupation, we can confirm roughly similar results to the first job trend, as shown in Figure 2. Regarding firm size, PTC is the educational background least associated with the typical Japanese employment practice (Cantor 1985, McCormick 1988, Taki 2016). A large percentage of both male and female graduates work in small firms. In contrast, a larger proportion of female junior college graduates work for larger firms than those who graduate from PTCs, consistent with the prediction that female office workers are more susceptible to retirement pressures. We can examine further whether such an interpretation is valid through multivariate analysis, controlling the different marriage and childbearing experiences and other factors simultaneously.

5. Panel Data Analysis

[Table 2]

In our longitudinal analysis, we examine whether the trends in the descriptive statistics can be observed even after controlling the effects of the variables on each other. First, we test H1 through H3 by setting the logged hourly wages as the dependent variable. The hybrid model estimates the effects

of the independent variables separately for within-individual and between-individual differences. Since education is a time-constant variable, only between-individual effects are shown. Model 1, with only education, age, marriage, and children dummies, are included as a baseline model, showing that wage differences by education differ significantly for men and women, as shown in the descriptive statistics. Among men, university graduates earn approximately 18% more than high school graduates, while the difference between junior and technical college graduates and high school graduates is not significant. However, among women, both junior and technical college and PTC graduates earn approximately 15% more than high school graduates, while university graduates earn 28% more.

The effect of short-cycle higher education compared with high school is not significant for males but is clearly so for females. Among women, short-cycle higher education graduates earn more than high school graduates, whereas male short-cycle higher education graduates earn only about the same as high school graduates. Thus, H1, based on a simple human capital theory, which states that two to three years of additional short-cycle higher education in Japan will result in additional wages, is rejected. In addition, H2a, which predicts that there is no effect of short-cycle higher education, and H2b, which predicts that the effect differs between junior/ technical college and PTC, is also rejected. The returns on a short-cycle higher education does differ between males and females[11]. From the analysis here judging along the lines of statistical significance, we can conclude that there is no effect for males, but clear positive effect for females, which supports H3a. However, in light of the results of the descriptive statistics in Table 1, and considering the small sample of JC/TC category, it is safe to assume that the possibility of H3b will remain to a certain extent.

In Model 2, we include occupation, employment status, and firm size. A large part of the effect

[11] This result basically does not change when we limit our sample to those unmarried, or exclude variables related to marital status and children in Model 1. Results related to education also did not change drastically when limiting our samples to standard employment, considering important difference between full-time and part-time pointed out in the literature (Shirahase and Ishida 1994, Yu 2002). We would like to put our interpretation on hold for the effect of marital status and having children on wage here because it is not a focus of our study and is controversial (Kato et al. 2013, Mugiyama 2016).

of a university degree observed in Model 1 disappears for males in Model 2. All the variables added to Model 2 show a significant effect, but the occupation variable particularly mediates the effect of education to a large extent when we add those variables one by one. Similar to men, the added variables also explain more than half of the effect of education in Model 1 for women. As in the case of men, the degree of mediation is particularly large for the occupational variable[12].

If we extrapolate from Model 2, notably the within-individual effects of occupation differ between men and women. As confirmed in Table 1, junior / technical college and PTC graduates are more likely associated with professional occupations for both men and women. Excluding managerial positions which the number of observations is small, women earn more as a professional than as a clerical workers within the same person. For men, however, professionals do not earn more than clerical workers. In terms of within-individual effects, men earn higher wages when they are in larger firms than women do. These facts suggest that variables related to the typical Japanese employment system have a stronger positive effect on wages for males than for females.

[Table 3]

Table 3 applies the hybrid model to the female sample only, setting the dummy variable for labor force participation as one, and non-participation as zero, excluding students[13].

[12] When we add the inverse mill ratio for these models, it shows a significant effect only for females, which is understandable based on what is considered as division of labor by gender role in Japanese society. We also include both age and age squared and find that the within-individual effect of age square is negative for males and females, but more clearly for males, as expected from the seniority-based wage system. However, adding these variables does not change what we find for the effect of short-term higher education on logged hourly wages. Thus, we do not include in the final model for the sake of simplicity and stability in our estimation using the hybrid method.

[13] Recent studies have pointed out that estimation of hybrid model can be biased, especially when applying non-linear models such as those in Table 3 (Schunck and Perales 2017). However, the results in this table were also examined by applying a fixed effect models for interaction terms, and also applied random effect models for the main effect, and confirmed that the findings obtained are basically consistent.

Focusing on the effect of education, Model 1 shows that PTCs and universities have a positive effect on labor force participation compared with high school as reference. Junior and technical colleges have no effect in this model, as shown in the descriptive statistics in Table 1. Model 2, which includes variables related to marriage and children, shows that there is no change in the effect of PTC and university. In other words, the tendency for female PTC and university graduates to participate in labor force more than high school graduates is not due to the fact that these female graduates did not get married or have children. In addition, women who graduate from junior and technical colleges do not tend to work more than those who graduate from high school, even they spend the same additional years as PTC graduates. This result is consistent with the findings of previous studies showing that women with junior college degrees are more likely to have clerical jobs, be placed on a different track than men as office workers, and be more likely to be encouraged to retire upon marriage or childbirth (Brinton 1992; 1993).

Model 3, the final model, adds interaction terms to examine the mechanism by which such attenuation effect of education arises in relation to marriage and childrearing. When interaction terms are included, the main effect of education disappears[14]. Instead, the interaction terms of marriage and having children with PTC show consistent positive and significant effects, which supports H4b. In general, marriage and having children (especially preschool children under 6) have a deterrent effect on women's labor market participation, but this effect is attenuated for those graduates of PTC. Although the internal labor market tends to disadvantage women who interrupt their careers by having children under the context of a skill-formation regime in which on-the-job training enhances firm-specific skills (Estévez-Abe 2006, Estévez-Abe, Iversen, and Soskice 2001), women with PTC degrees are relatively less disadvantaged[15].

[14] The age variable used in Table 3 is centered by mean. This treatment is made for the interpretation of the main effect of Model 3 to show any difference between education categories at the mean age of the sample.

[15] We also found the positive effect of university on labor market participation in Model 1 and

Our interpretations here only show one possibility. The reasons for such results need to be explored further by comparing cohorts or examining the institutional conditions in the workplace before these women leave their jobs. It is also important to control household income and family support. In any case, the results here do not confirm a linear association between years of education and labor participation but do reveal that women with PTC degrees are relatively more likely to work after marriage and childbearing than women with other educational backgrounds.

6. Discussion

Our focus is on short-cycle higher education in Japan, exploring its effects on labor market outcomes for both men and women, and on labor force participation specifically for women. Our main findings are as follows.

First, generally, the results are not consistent by gender regarding whether attending short-cycle higher education will yield a return on the investment of two or three additional years of education after high school in terms of wages. For males, the wages of those who go on to short-cycle higher education, especially those who go on to PTCs, are equivalent to those of high school graduates. For women, however, wages are clearly higher for those with a PTC or junior college degree than for those with only a high school degree. Neither the screening hypothesis nor network theory adequately explains the differences in the results between men and women. If those theories, concerned with how educational credentials are used mainly as signals of potential trainability under a strong internal labor market, are applicable, they apply only to men and not to women. Unless one assumes the existence of a gender-segregated labor market or gender differences in skills acquired through short-cycle higher education under strong internal labor market, it is not possible to provide a consistent explanation for

Model 2. However, this effect was not brought about by weakening the negative effects of life events, as was the case with the PTC. It is interesting to note that the interaction term with age shows a significant negative effect, but this interpretation requires further investigation.

our results.

Second, when setting female labor force participation as the dependent variable, we could not find evidence that more years of education strengthened labor market participation in Japan, which has been found in other countries (Goldin 1990). Although this fact was already known (Nishimura 2016), our study showed different results are obtained for junior colleges and PTCs. The results of the interaction terms indicate that the negative effects of marriage and having children on female labor force participation have less impact on those with a PTC degree. Since the wages of women with junior college and PTC degrees do not differ significantly, simple opportunity cost alone cannot explain the predominant difference in the degree of labor force participation between those with short-cycle higher education. This supports the institutional hypothesis proposed here, which focuses on the fact that PTCs are linked more closely to occupational qualifications and professions, and for females, rejects the screening theory concerning prestige derived from authorization or academic standing. However, this point could also be explained by lower income among the spouses of the women with PTC degrees compared with those with junior college degrees (Taki 2019b) when considering the tendency of educational assortative mating (Fujihara and Uchikoshi 2019). The interpretation of our results thus leaves room for further exploration.

In the past studies in the field of stratification in Japan, PTC graduates have been treated as high school graduates. Such treatment does not seem to be an important issue for men, although it depends on the research purpose. However, when examining the effect of women's education on status attainment, coding PTC graduates as high school graduates could lead to serious bias. For men, wages are the same as those for high school graduates after attending PTCs, while women, in junior colleges as well, earn about 15% higher wages than those with only high school diplomas. In addition, female PTC graduates are less likely to be out of labor force than high school and junior college graduates, even if they are married and having preschool children.

Why do the effects of short-cycle higher education differ significantly between men and women? Underlying this are the core practices of the employment practice in Japan. Gender is one of the most important elements of the Japanese employment system. For men, factors other than occupation, such as firm size and position in the workplace, are of relative importance. Even if the individuals are professionals, they may not earn higher wages than high school graduates if they are not in the core sector of the Japanese employment system. In contrast, for women entering large companies as office workers does not mean that they will receive the same treatment as men, at least in the cohorts in our sample. The pressure to retire at marriage or childbirth remains strong. Among short-cycle higher education, PTC degrees may mitigate women's career disadvantage due to the internal labor market.

However, there are reservations regarding this interpretation. We need to continue to explore why our results are obtained by setting a dependent variable that is not limited to wages, such as access to managerial position or distinguishing standard employment and non-standard employment. In addition, major shifts in the work environment for women have occurred especially after the mid-1990s. Therefore, we should examine the changing roles of junior colleges and PTCs over the years. Research expanding its focus on household unit, or focusing on the effect of vocational qualifications is necessary as well. These issues should be addressed in future studies.

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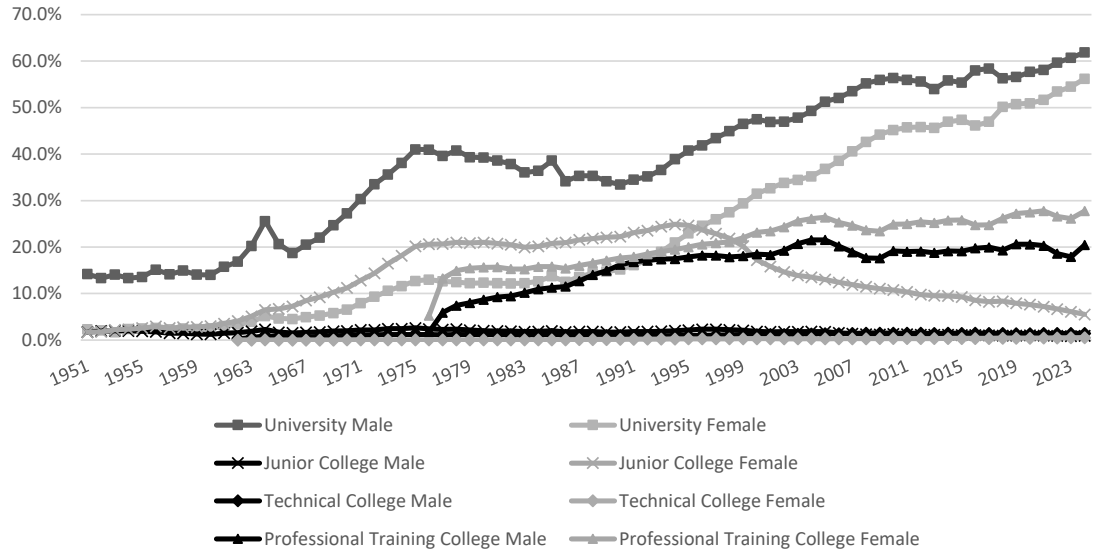

Figure 1 Higher Education Attendance Rate in Japan

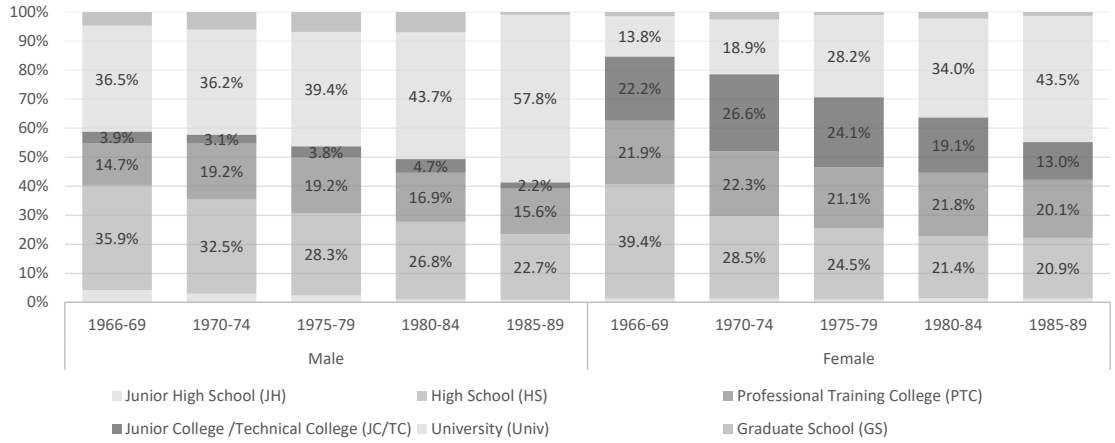

Figure 2 Educational Attainment by Gender and Birth Cohort

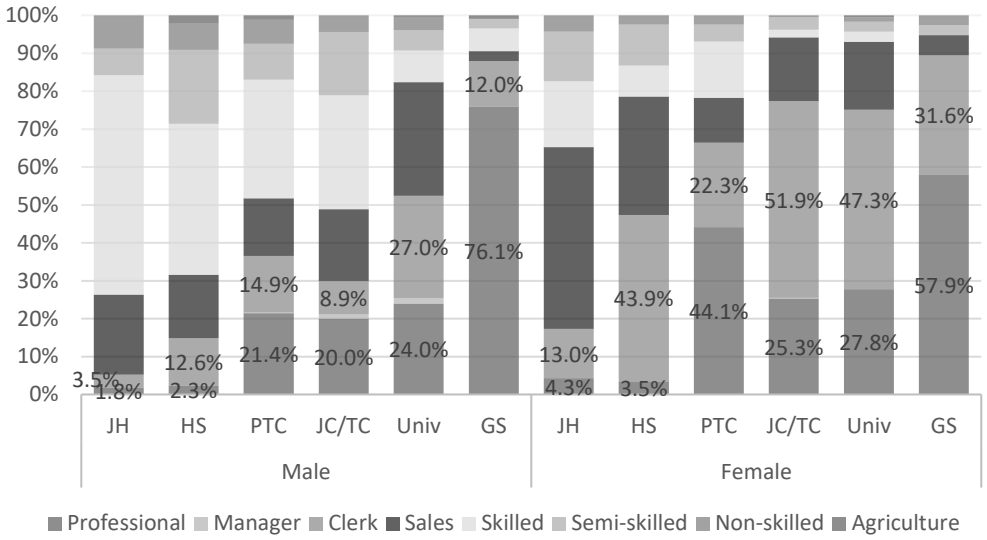

Figure 3 First Job by Gender and Education

Table 1 Descriptive Statistics by Gender and Education

	Male						Female					
	JH	HS	PTC	JC/TC	Univ	GS	JH	HS	PTC	JC/TC	Univ	GS
Age	40.2	38.7	38.3	38.2	37.4	37.7	38.0	39.6	38.4	39.1	36.2	38.2
Married	0.561	0.622	0.594	0.720	0.576	0.628	0.780	0.739	0.680	0.735	0.604	0.675
Youngest child under age 6	0.223	0.194	0.221	0.245	0.242	0.263	0.220	0.209	0.250	0.260	0.276	0.292
Youngest child over age 6	0.380	0.359	0.274	0.383	0.223	0.153	0.516	0.498	0.370	0.394	0.230	0.235
Hourly Wage (Yen)	1274.3	1448.2	1442.9	1526.9	1677.4	1891.2	915.7	1027.1	1249.3	1254.0	1357.4	1651.3
Income (Ten thousand-Yen)	311.1	398.8	385.7	457.2	494.7	598.0	117.6	169.5	226.7	216.8	281.6	308.3
Employment Status												
Standard employment	0.495	0.765	0.750	0.852	0.836	0.883	0.031	0.245	0.377	0.334	0.459	0.391
Non-standard employment	0.188	0.113	0.110	0.068	0.091	0.071	0.435	0.471	0.368	0.354	0.286	0.350
Self-employed and family	0.143	0.078	0.081	0.048	0.036	0.012	0.072	0.026	0.034	0.029	0.020	0.025
Not working	0.174	0.044	0.060	0.032	0.037	0.034	0.462	0.258	0.221	0.283	0.235	0.235
Occupation												
Professional	0.000	0.024	0.191	0.222	0.287	0.768	0.000	0.045	0.446	0.235	0.321	0.639
Manager	0.004	0.013	0.016	0.019	0.049	0.011	0.000	0.003	0.001	0.001	0.003	0.000
Clerk	0.068	0.125	0.188	0.141	0.278	0.150	0.133	0.369	0.220	0.469	0.463	0.314
Sales	0.080	0.133	0.106	0.128	0.214	0.021	0.442	0.236	0.132	0.153	0.107	0.043
Skilled	0.494	0.363	0.289	0.297	0.079	0.021	0.183	0.100	0.102	0.045	0.040	0.000
Semi-skilled	0.181	0.237	0.155	0.149	0.072	0.017	0.042	0.153	0.061	0.056	0.037	0.004
Non-skilled	0.139	0.085	0.035	0.033	0.021	0.003	0.092	0.083	0.032	0.034	0.025	0.000
Agriculture	0.034	0.020	0.021	0.011	0.001	0.009	0.108	0.011	0.007	0.007	0.004	0.000
Firm Size												
1-29	0.671	0.334	0.317	0.293	0.180	0.093	0.475	0.273	0.312	0.289	0.178	0.186
30-99	0.131	0.175	0.206	0.167	0.137	0.077	0.167	0.163	0.122	0.165	0.194	0.150
100-299	0.046	0.127	0.143	0.106	0.132	0.114	0.033	0.137	0.148	0.122	0.108	0.104
300-999	0.059	0.103	0.123	0.161	0.155	0.114	0.017	0.089	0.137	0.096	0.121	0.032
1000-	0.042	0.190	0.149	0.189	0.298	0.485	0.142	0.157	0.143	0.175	0.221	0.189
Public sector	0.008	0.031	0.023	0.067	0.073	0.080	0.000	0.015	0.022	0.046	0.086	0.243
DK NA	0.042	0.040	0.038	0.016	0.026	0.038	0.167	0.167	0.116	0.106	0.091	0.096
N of observation	287	4,340	2,711	660	6,224	982	223	5,832	4,350	4,873	5,146	366
N of respondents	55	682	400	87	902	135	28	724	560	594	656	47

Table 2　Hybrid Model Analysis of Hourly Wage

	Male								Female							
	model 1				model 2				model 1				model 2			
	within		between		within		between		within		between		within		between	
	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.
JH			-0.075	0.055			0.004	0.051			-0.032	0.074			0.079	0.065
PTC			-0.006	0.024			-0.039	0.022 +			0.167	0.020 **			0.065	0.019 **
JC/TC			0.045	0.042			-0.014	0.039			0.151	0.020 **			0.065	0.018 **
Univ/GS			0.175	0.019 **			0.037	0.020 +			0.282	0.019 **			0.144	0.018 **
Age	0.019	0.001 **	0.017	0.002 **	0.019	0.001 **	0.015	0.001 **	0.015	0.001 **	0.010	0.001 **	0.014	0.001 **	0.010	0.001 **
Married	0.067	0.011 **	0.201	0.029 **	0.067	0.011 **	0.117	0.027 **	0.014	0.010	-0.011	0.022	0.026	0.010 *	0.032	0.020
Youngest child under 6	0.069	0.011 **	0.048	0.035	0.067	0.011 **	0.058	0.032 +	0.012	0.012	0.023	0.030	0.019	0.012	-0.001	0.026
Youngest child over 6	0.088	0.015 **	0.040	0.031	0.085	0.015 **	0.043	0.029	0.003	0.016	-0.136	0.024 **	0.006	0.016	-0.078	0.021 **
Non-standard employment					-0.040	0.013 **	-0.187	0.029 **					-0.036	0.009 **	-0.196	0.017 **
Self-employed and family					0.017	0.018	-0.036	0.037					-0.173	0.020 **	-0.052	0.038
Professional					0.019	0.016	0.109	0.026 **					0.078	0.015 **	0.120	0.018 **
Manager					0.028	0.020	0.285	0.059 **					0.129	0.053 *	0.735	0.266 **
Sales					-0.067	0.014 **	-0.119	0.029 **					-0.042	0.012 **	-0.108	0.021 **
Skilled					-0.034	0.016 *	-0.055	0.029 +					-0.079	0.015 **	-0.192	0.028 **
Semi-skilled					-0.038	0.015 *	-0.115	0.031 **					-0.018	0.014	-0.156	0.029 **
Non-skilled					-0.045	0.020 *	-0.090	0.047 +					-0.031	0.016 +	-0.106	0.037 **
Agriculture					-0.157	0.051 **	-0.222	0.073 **					-0.035	0.047	-0.458	0.072 **
1-29					-0.009	0.012	-0.008	0.029					-0.007	0.010	0.004	0.025
100-299					0.023	0.012 +	0.075	0.034 *					0.005	0.010	0.063	0.031 *
300-999					0.046	0.014 **	0.107	0.033 **					0.002	0.012	0.112	0.031 **
1000-					0.060	0.014 **	0.235	0.028 **					0.022	0.011 +	0.189	0.026 **
Public sector					0.028	0.021	0.147	0.046 **					0.025	0.018	0.174	0.040 **
DK NA					0.026	0.018	0.019	0.057					-0.001	0.011	-0.004	0.030
cons			6.395	0.056 **			6.524	0.061 **			6.510	0.049 **			6.615	0.049 **
var(_cons[panelid])							0.099	0.004 **							0.072	0.003 **
var(_cons[e.logwage2])							0.057	0.001 **							0.053	0.001 **
N of obs.	14517								15549							
N of resp.	2212								2371							

Table 3 Hybrid Model Analysis on Labor Force Participation for Females

	model 1				model 2				model 3			
	within		between		within		between		within		between	
	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.	coef.	s.e.
JH			-2.200	0.548 **			-2.074	0.574 **			-4.332	1.183 **
PTC			0.464	0.168 **			0.610	0.187 **			0.476	0.413
JC/TC			-0.094	0.163			0.002	0.179			0.452	0.411
Univ+			0.683	0.161 **			0.778	0.180 **			0.370	0.393
Age	0.108	0.006 **	0.007	0.009	0.199	0.009 **	0.024	0.014 +	0.224	0.016 **	0.064	0.024 **
Married					-3.693	0.152 **	-2.717	0.236 **	-3.948	0.318 **	-2.959	0.437 **
Youngest child under 6					-1.833	0.115 **	-2.146	0.277 **	-2.292	0.254 **	-1.935	0.522 **
Youngest child over 6					-0.370	0.160 *	0.848	0.232 **	-0.863	0.327 **	1.162	0.400 **
JH*age									-0.256	0.070 **	0.042	0.102
PTC*age									-0.057	0.025 *	-0.051	0.037
JC/TC*age									0.030	0.025	-0.022	0.038
Univ+*age									-0.077	0.025 **	-0.096	0.037 *
JH*Married									-1.035	2.490	-0.392	2.002
PTC*Married									0.765	0.462 +	-0.043	0.654
JC/TC*Married									0.167	0.434	0.366	0.663
Univ+*Married									0.330	0.418	0.625	0.645
JH*YC under 6									5.508	1.336 **	5.113	2.571 *
PTC*YC under 6									1.028	0.356 **	0.286	0.772
JC/TC*YC under 6									0.513	0.341	-1.264	0.788
Univ+*YC under 6									0.258	0.328	0.081	0.764
JH*YC over 6									1.819	1.428	2.734	2.091
PTC*YC over 6									1.083	0.478 *	0.037	0.638
JC/TC*YC over 6									0.475	0.460	-0.998	0.627
Univ+*YC over 6									0.686	0.462	-0.579	0.668
cons			2.464	0.118 **			4.744	0.195 **			4.757	0.287 **
var(_cons[panelid])			9.542	0.559 **			10.179	0.603 **			10.175	0.604 **
N of obs.	25285											
N of resp.	2905											

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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ともない、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。

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