

Married women's employment and the timing of the 1st marriage and the 1st childbirth in Japan: Patterns and covariates

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During the past two decades, Japan's fertility rates have been among the lowest in the developed societies. As a policy response to the prolonged fertility decline, Japanese government introduced sets of measures, and the policies promoting "work-family balance" such as childcare leave and flexible working arrangements are identified as the urgent necessities (Cabinet Office of Japan 2007). In spite of intensive policy supports for mothers, age-specific labor force participation rates exhibit a M-shaped pattern still in the 2010 population census of Japan, indicating that a large portion of married women experience relatively long career interruptions once they have left employments for a marriage or a childbirth.

This paper investigates the patterns and covariates of the married women's labor force participation around the time of the 1st marriage and the 1st childbirth. In particular, with applying an event history analysis technic to a micro-data for a Japanese family life history, we examine a job continuation behavior beyond the marriage and the childbirth under on-going circumstances of the delayed marriage and subsequent childbirth.

Data

The data used for the analysis are taken from the 5th National Survey on Family in Japan (NSFJ) which was conducted by National Institute of Population and Social Security Research in July 2013. It is a national representative sample of the household in which 300 locales were randomly selected based on the 2010 census tract distribution and within the selected locales all households were surveyed (potential N=15,000). The target population of the NSFJ is ever-married women of all ages. Field workers distributed self-administered questionnaires to the ever-married females lived in households in the target locales and then subsequently picked up. A total of 9,632 usable questionnaires was obtained and the response rate was 64%. In this study, we analyze 5,831 responses given by currently married women who continue the 1st marriage i.e. excluding those who were divorced or widowed and those who were re-married after a marital disruption.

Because NSFJ is a cross-sectional survey, we cannot hope to collect a whole life history of respondent's employments. Instead, we focus on three life course events around which respondent's employment status and the age (and month) at the beginning and the end of the employment are asked on the questionnaire. The three life course events include (1) the first time job after the graduation, (2) the decision right before getting into the current marriage union and (3) the notice of the pregnancy of the 1st childbirth.

Descriptive analysis

Figure 1 depicts potential patterns of the employed period that are covered for respondent's career on the time of the 1st marriage and the 1st childbirth by the three questions undertaken in NSFJ. For example, the type A-1, consisting of 13% of cases, corresponds with a career in which women quit the 1st job sometime before the 1st marriage and re-enter the labor market before the marriage. From the answers to NSFJ, we cannot conceive the work experience during the period after the leave of the 1st job and before the participation to the job at the marriage. The type A-2, consisting of 7% of cases, describes a pattern in which women leave the 1st job sometime before the 1st marriage, re-enter the labor market before the marriage and quit it before the pregnancy, and then participate in another employment again before the 1st childbirth. Figure 1 shows that nearly 90% of married women chooses career paths in the classification of the type A's and B's; about half chooses the type A's while 40% of women chose the type B's so that they do not re-enter the labor market by the 1st childbirth once quitting the job at the marriage.

Among 16 patterns of the timing of entering and exiting from the employment around the 1st marriage and the 1st childbirth, we identify 7 cases (A-1, A-2, B-1, B-2, C-1, D-1 and D-4; shown with orange circles in the figure) in which women leave the 1st job before the marriage. In 4 cases (A-1, A-2, B-1 and B-2) among these 7 cases, women re-participate in an employment before the marriage. These cases account 84% of women who re-participate in another employment before the 1st marriage among those who experienced an exit before the 1st marriage. Similarly, women re-enter the labor market by the time of the 1st childbirth in 3 cases (A-2, A-4 and C-3) out of 6 cases (A-2, A-4, B-1, B-3, C-3 and D-2; shown with red circles) in which they leave the job during the period between the 1st marriage and the 1st childbirth. These 3 cases consist only 7% of women who re-enter the labor market among those who experienced an exit before the 1st childbirths. These facts implies that examining the continuation or the exit timing of the job around the 1st marriage are enough to capture the employment participation decision through the 1st marriage and the 1st childbirth.

Figure 2 shows a nonparametric (correlation) relation between the completed duration at the job when getting married (vertical axis) and the duration from the entering the job to the occurrences of the 1st marriage or the 1st childbirth (horizontal axis). In the figure, the size of the symbols is proportional to frequencies. Both panel A and B show strong correlation, implying that both the 1st marriage and 1st childbirth are significant risk factors. Although there are significant variation in the timing of the 1st marriage and the 1st childbirth, the exits from the job at the marriage are concentrated with the right after the occurrences of the 1st marriage and are also concentrated with the same years of the occurrences of the 1st childbirth.

To investigate factors associated with patterns of the job duration and timing of the marriage and the childbirth, figure 3 and 4 show lifetable estimates for the survival

rate of the job when getting married around the 1st marriage and the 1st childbirth by the birth cohorts and by the education attainment levels. In the figures, the time scales are taken on the basis of the event occurrences, so survival rates at x=1 correspond with the rate of women (who were employed in 12 months before the event and) who do not leave the job by the end of the month when getting married or giving the childbirth. Results show the survival rates beyond the 1st marriage and the 1st childbirth are higher for younger generations (Fig.3.) and highly educated women (Fig.4.).

Multivariate analysis

To cope with several factors and interactions between them, we conduct a discrete time event history analysis. In particular, person-years under the employment before the 1st marriage are analyzed by means of the complementary log-log models. Covariates taken in the model include the age at the beginning of the period under the risk as the baseline, the birth cohort, the education attainment level, age at the 1st marriage, a time-varying dummy indicator for the period after a leave of the 1st job, an employment status and the number of employees. Preliminary results (not shown here) confirms that even with other control variables, the job continuation rates beyond the 1st marriage and the 1st childbirth are higher for younger generations and highly educated women.

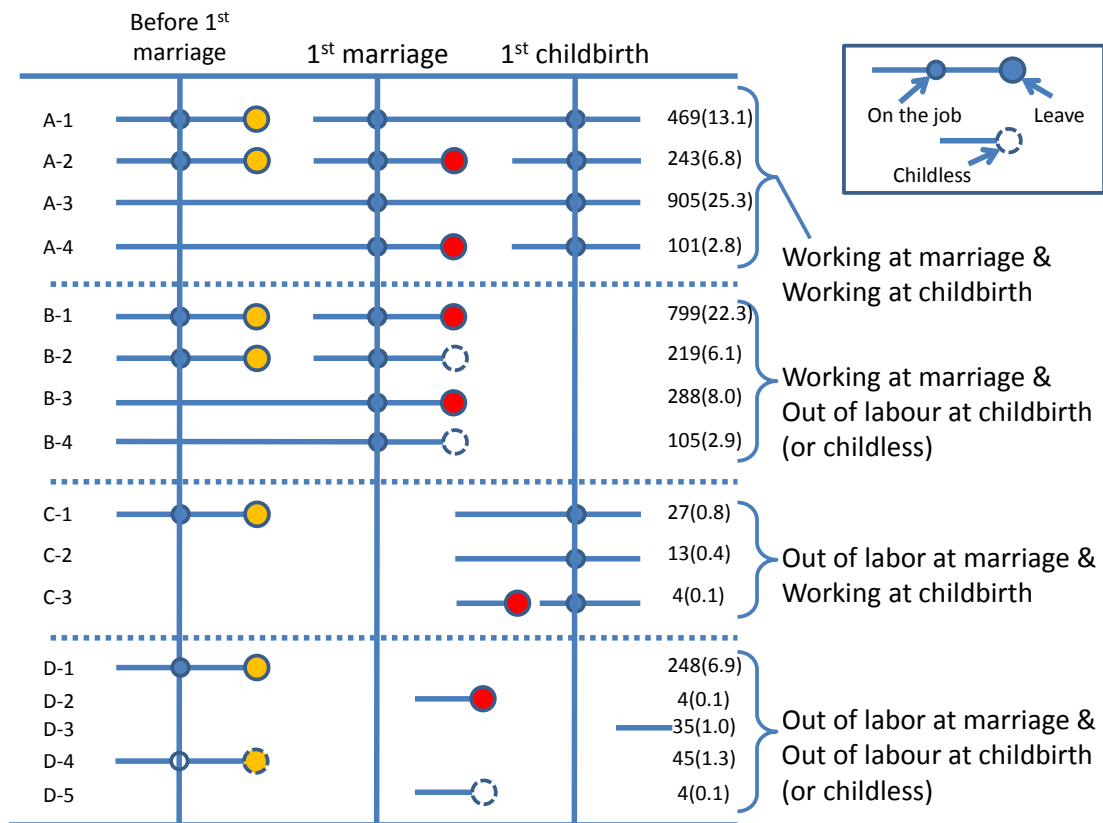
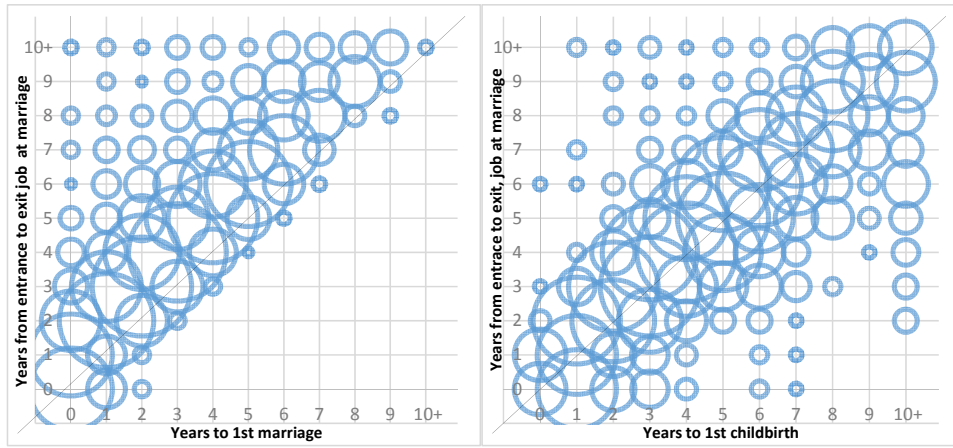


Figure1. Patterns of the timing of entrances and exits to/from employments at the 1st time, the 1st marriage and the 1st childbirth by a combination of labor force participation status each time.



A. The 1st marriage

B. The 1st childbirth

Figure 2. The Completed duration of the job at the 1st marriage and the duration from entering the job to the occurrences of the 1st marriage and the 1st childbirth.

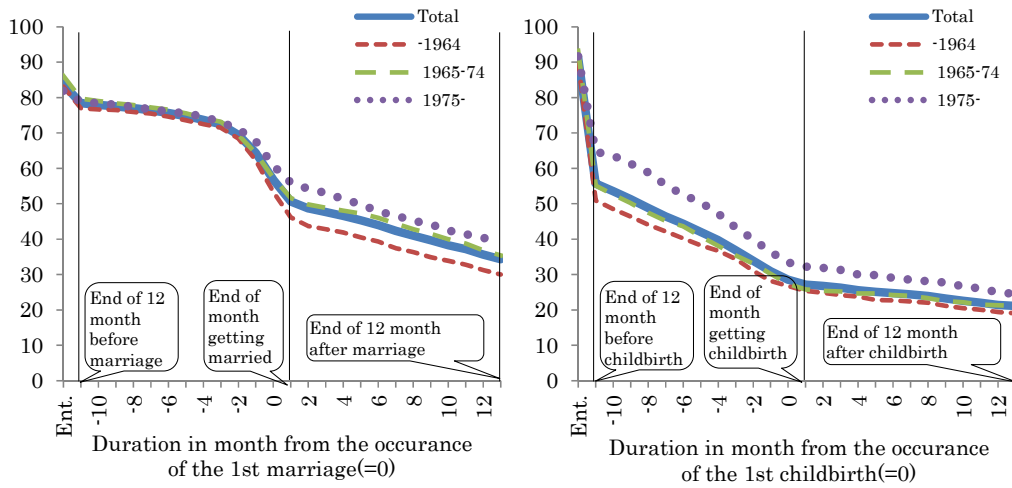


Figure 3. Survival rate of the job at the 1st marriage before and after the 1st marriage and 1st childbirth by the birth cohorts.

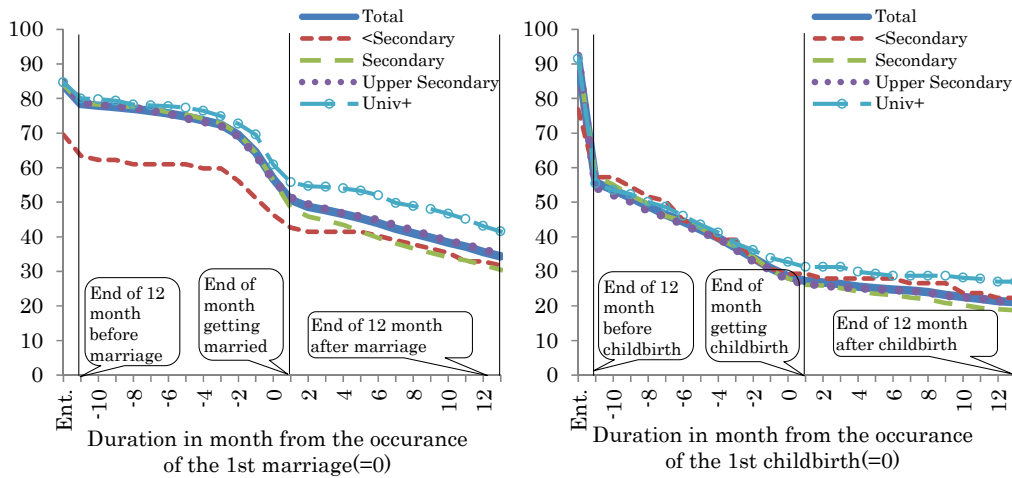


Figure 4. Survival rate of the job at the 1st marriage before and after the 1st marriage and 1st childbirth by the education attainment level.