DESCRIPTION OF THE TOPIC TO BE STUDIED

Marriage is an important life event, but Japanese people are delaying marriage or not marrying at all. Almost all childbearing happens among married couples in Japan, so marriage postponement or avoidance raises a concern in Japan about declining fertility and consequent depopulation and population aging. There has been research focusing on how institutional characteristics of the Japanese family affects the timing of marriage, but this research has not been conclusive regarding the role played by *sibling configuration*. The *ie* system assigns different responsibilities and authorities to siblings by birth order. The eldest sons or the eldest daughters among female-only sibship groups are assumed to take responsibilities of maintaining family lineage and caring for their elderly parents in exchange for inheriting the family wealth. As Japanese society moved towards a more industrialized society, however, the meaning of being a family heir might have changed. Therefore, it is important to investigate the relationship between the timing of marriage and the "heir" status.

THEORETICAL FOCUS

Japanese society experienced rapid social change after World War II including the changes in the industrial structures, where people started to have more opportunities to upward mobility. People now have more access to higher education and farming is not the main industry any more. Legally Old Civil Code granted the family heir as a successor of a family wealth with responsibility of maintaining family lineage and care of elderly parents. New Civil Code, however, states the equal share of responsibility and wealth among siblings despite the fact that main responsibility of care of elderly parents are on a family heir, especially wives of the eldest sons. With more access to paid labor market and education, women have more power to choose the best future spouse, which means that they can avoid responsibilities of being a wife of the eldest son. In addition, although people still want to marry, the values and attitudes has changed. They are more acceptable to premarital sex, divorce and singlehood. In old days, more people married through arranged marriage, but now it is through from introduction by friends or siblings. With low fertility, the proportion of family heir is larger, which makes the market tighter for the heir because single people might want to avoid a family heir—avoiding responsibilities. Therefore, I expect that family heir marry later than the other siblings.

DATA AND METHODS

The Eleventh National Fertility Survey (The 11th NFS), conducted in 1997, is used for the study. This survey, approved by the Japanese government, is part of an effort to collect data on marriage and fertility in Japan and comprises surveys of married couples and single persons. Two separate data sets for men and women were created by combining the single and married couple survey data sets. The description statistics of female sample is shown in Table 1 (the description and results of men are omitted from the abstract due to the space limitation.) I will conduct 2 analyses. The dependent variable is the age of first marriage and the key independent variables are a set of sibling configuration variables (description is below) that indicate the family heir status, and the birth cohort. The control variables are education, occupation, father's occupation, mother's occupational history, age and birth cohorts. I will include the type of marriage for the analysis of the couple that I will describe later. *ANALYSIS1:* I will conduct the age of the first marriage for men and women separately. I will use the Cox proportional hazard model. The dependent variables are the age of the first marriage and the two key independent variables are heir status and birth cohorts. *ANALYSIS2:* I will conduct the age of the first marriage for married men and women separately to examine the influence of their spouse's heir status and the type of marriage (arranged vs. others.) I will use the Cox proportional hazard model. The independent variable of the type of marriage and the heir status of spouse will be added to the model.

Table 1. Descriptive Statistics of All Women

Variables	n	%
Sibling Configuration (Heir)		
Only	773	6.13
Eldest	1,593	12.64
Others	9,932	78.80
Missing	306	2.43
birthY>=1946 & birthY<1959	4,864	38.59
birthY>=1959 & birthY<1969	3,756	29.80
birthY>=1969 & birthY<=1979	3,984	31.61
Education		
Junior High	886	7.03
Senior High	5,757	45.68
Senior High Plus	4,097	32.51
College Plus	1,718	13.63
Missing	146	1.16
Occupational Status		
Full time	8,988	71.31
Non Full Time	1,410	11.19
Self-Employed	416	3.30
Unemployed	614	4.87
Student	879	6.97
Missing	297	2.36
Father's Occupational Status		
Full Time	6,569	52.12
Non Full Time	1,047	8.31
Self-Employed	3,917	31.08
Missing	1,071	8.50
Mother's Working History		
Working	5,658	44.89
Staying Home	5,896	46.78
Some Work	260	2.06
Missing	790	6.27
Arranged Marriage vs Love Marriage		
Arranged Marriage	1,782	14.14
Others	6,236	49.48
Missing	4,586	36.39
Age	34.59806	
	(9.37)	
Age of first marriage	25.12018	

(3.60)

*Standard Deviation in parenthesis

EXPECTED FINDINGS

Tables 2 shows the results of the logistic regression of the life-time marriage for the sample of women over 40 years old. The dependent variable is ever-married and the key independent variable is "family heir status." "Only child" is the only child in the family. "Eldest" category is the eldest daughters without male siblings (hereafter the eldest daughters), who are also family heirs. Others include those who are the eldest daughters with male siblings or who have female or male siblings. Men are categorized into 3: Only child, the eldest child (first-birth order men and men with older sisters), and others. Model 1 shows that the female only children over 40 are more likely to be never married compared to others net of other covariates in the model (β=-0.63, p<0.05.) Model 2 shows that comparing to "other"—non-heir—women, the only child women are less likely to be marry, but the eldest daughters are not significantly different from others net of other covariates in the model (β=-0.65, p<0.05.) Model 3 compared the family heir (only child and the eldest daughter together) and the others. It shows that family heirs are less likely to be married compared to the non heirs net of covariates (β=-0.40, p<0.05.) Although education and occupation are significant in the models, the ascribed sibling status is consistently significant and steady. On the other hand, education and occupation are significant for men's life-long marriage; the heir status is not significantly influence the probability of life-time marriage. Based on these findings, I expect that the timing of marriage for female is significantly influenced by the sibling configuration. Thus, I expect to see only children are more likely to marry later among all women, and followed by the eldest daughters and others. Although men's life time non-marriage is not significantly influenced by the heir status, the age of first marriage might be significantly late for the only child. The only child and family heir are expected to marry later in recent cohort compared to the old cohort because of the social changes in Japan which have made family heir less attractive. I also expect to see that couples both are only child marry later than others.

Table 2. Log odds of Ever Married vs. Never Married for Women

Variable	Model 1	Model 2	Model 3
Heir Status			
Only Child	-0.63*	-0.65*	--
eldest	--	-0.22	--
Heir	--	--	-0.40*
Missing	1.63*	1.61*	1.62*
(Non Heir)			
age	0.06*	0.06*	0.06*
Education			
Senior High and Plus	-0.12	-0.11	-0.12
Senior High Plus	-0.59*	-0.58*	-0.58*
College Plus	-0.63	-0.6	-0.59
Missing	-0.71	-0.71	-0.73
(Junior High)			
Occupational Status			
Non Full Time	-0.68**	-0.68**	-0.68**

Self-employed	-1.23***	-1.23***	-1.22***
Unemployed	-1.15***	-1.15***	-1.14***
Students	0.61	0.64	0.68
Missing	-0.47	-0.47	-0.47
(Full Time)			
Father's Occupational Status			
Non Full time	0.06	0.06	0.07
Self Employed	0.12	0.12	0.12
Missing	-0.38	-0.38	-0.39
Mother's occupational History			
Staying Home	-0.40*	-0.40*	-0.40*
Some Work	-0.51	-0.51	-0.52
Missing	-0.54	-0.54	-0.55
(Working)			
Constant	0.98	1	1
N	4238	4238	4238
Log Likelihood	-748.03	-747.66	-748.48
chi2	79.5	80.24	78.62

legend: * p<.05; ** p<.01; *** p<.001

Reference Category in parenthesis