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Leaving the Parental Household in Contemporary Japan

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Abstract Demographic analysis of young people leaving the parental household in Japan was attempted based on the nationally representative sample survey data available. Life table analysis showed that males leave the parental household at an earlier age than females in spite of differences in age at marriage. Cohort comparison revealed that the delay in young people leaving home has been taking place since the 1970s. Decomposition analysis showed that this trend is not only a result of the delay in marriage but also a result of the decline in the number of young people leaving home before marriage. Cross-sectional analysis indicated that an important cause for the latter trend was the increase in the number of young people growing up in metropolitan areas, which in turn resulted from the rapid urbanization in Japan before 1970.

1. Introduction

The living arrangements of young people are determined by two life events—leaving the parental household and marriage. Coincidence or sequences of these two events are of special interest. Young men and women who leave the parental home before marriage experience a period of living alone or in an institutional context such as a student dormitory. Those who leave the parental home for the first time at marriage move from the status of dependent child into that of the couple-only household. Those who marry but do not leave the parental home form an extended household, as in the case of the eldest son in the traditional household formation pattern of Japan.

Although there are many quantitative demographic analyses of marriage in Japan (for example, Hirosima 1999; Kaneko 1995; Otani 1993; Shirahase 1999; Tsuya and Mason 1995; Wada 2000), demographic studies of young people leaving the parental household are rare.[1] This paper examines leaving the parental home as an important proximate determinant of household formation, using nationally representative sample survey data.

This paper is based on the article published in the *Journal of Population Problems*, 53(2), 1997. Additional analysis presented in the 10th Annual Meeting of Japan Society of Family Sociology in Sendai, Japan, is also included.

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[1] In addition to Suzuki (1997) on which this paper is based, Kurosu (1996) conducted a demographic study of leaving the parental household in nineteenth century Japan.

2. Data and Methods

The Third National Survey on Household Changes was conducted by the former Institute of Population Problems (now the National Institute of Population and Social Security Research) on a nationally representative sample of private households on 15 October 1994. Two questionnaires, one on household characteristics and the other on each household member aged 18 and over, were administered. A total of 8,578 households (89.4%) and 20,788 household members (92.2%) responded. The basic findings are described in IPP (1996) and Hirosima et al. (1996).

Household heads and adult members were asked about leaving the parental household, change in marital status, experience of being a head, and so forth. Household members with children were asked to provide data on the sex, age, and place of residence of each child. There is a response bias in this survey in that persons living alone are underrepresented. Case weight coefficients were calculated based on the 1995 Census of Japan to adjust this bias. Details are shown in Suzuki (1997, p. 19).

Two kinds of analysis are conducted. First, for a descriptive analysis, life tables are produced based on retrospective data. This section discusses the observed sex difference and cohort trends of young persons leaving the parental household. Second, a cross-sectional analysis is attempted in order to examine the determinants of leaving the parental household. Simple cross-tabulation and logistic regression analysis is conducted to examine the determinants of leaving home before marriage.

3. Life Tables on Leaving the Parental Household

The survey contains the retrospective data on the age at leaving home for the first time and the reason for leaving. The number of persons leaving by age (D_x) can be easily obtained with this information. The number of persons who have never left the parental home by age at the survey date (W_x) should be seen as the withdrawals from the observation. The number of persons who have not yet left the parental home by age (N_x) can be reconstructed from these two vectors. The conditional probability of leaving by age (q_x) was calculated as the actuarial estimator (Namboodiri 1991, p. 104),

$$q_x = \frac{D_x}{N_x - 0.5 W_x}. \qquad (1)$$

Life tables by sex and cohort were created. Survival function (l_x) refers to the

probability of not experiencing leaving the parental household by age. In this simple model, leaving the parental home was taken to be the only cause of attrition, and other causes such as death or emigration were ignored. Table 1 shows the age at the survival function crosses each quartile.

Table 1 Age at leaving the parental household (quartiles)

Age (Cohort)	75%		50%		25%	
	Male	Female	Male	Female	Male	Female
25–29 (1964–69)	18.7	19.0	22.4	23.8	—	29.1
30–34 (1959–64)	18.6	18.7	22.1	23.0	31.0	26.7
35–39 (1954–59)	18.2	18.4	19.7	21.8	31.5	26.2
40–44 (1949–54)	18.2	18.4	19.7	21.7	28.6	24.9
45–49 (1944–49)	17.8	18.2	20.0	21.8	29.0	24.8
50–54 (1939–44)	18.1	18.4	20.1	21.9	28.4	24.8
55–59 (1934–39)	18.4	18.7	22.3	22.7	30.7	25.4

For all cohorts, males cross the 75% and 50% lines earlier than females. The observation that females are earlier to arrive at the 25% line should not be taken as a result of a difference in timing, rather than a difference in the proportion eventually leaving. In the traditional setting, it was a norm that the eldest son stayed and succeeded his parental household while younger sons and daughters left before or at the time of marriage. This traditional pattern still remains even for cohorts born in the 1960s and male attrition is slow after the survivors mostly consist of the eldest sons.

Comparing the overall timing, not the proportion leaving, it can be said that Japanese men leave the parental home earlier than women. In many countries, however, women leave the parental home earlier than men because women marry earlier and a large proportion of men and women leave at marriage. This pattern of women leaving earlier than men has been observed in many countries, such as Canada (Ravanera, Rajulton, and Burch 1995, p. 181), Netherlands (Liefbroer and de Jong Gierveld 1955, p. 67), West Germany (Mayer and Schwarz 1989, p. 156), Australia (Young 1987, p. 9), China, Korea, the United States, Sweden and France (Zeng et al. 1994, p. 69). The reverse pattern has been seldom observed, with notable exceptions such as in pre-industrial England (Wall 1989, p. 385) and in the United States during World War II (Goldscheider and Goldscheider 1994, p. 14).

In many countries, the proportion of men leaving the parental home before marriage is higher than women. For example, in Canada, the proportion of young persons leaving home at marriage was 38.1% for men and 50.5% for women (Ravanera, Rajulton, and Burch 1995, p. 186). Although the effect of this difference in the proportion on the timing of leaving does offset, to some extent,

that of difference in age at marriage, the latter is dominant in other countries. In Japan, however, the sex difference in the proportion leaving at marriage is so significant that it overcomes the difference in marriage timing. Table 2 shows the reason for leaving the parental home by age and sex. While the proportion of men who left home at marriage is less than 20% except for the oldest cohort, the proportion of women is more than 40% for all cohorts. The sex difference is always greater than 25%, and the largest difference (42.3%) can be found in the second oldest cohort. This behavioral difference generates the unique pattern in Japan that, in spite of the difference in age at marriage, men leave home earlier than women.

Table 2 Reason for leaving the parental household (%)

Age (Cohort)	N	School	Job	Marriage	Other
			(Male)		
25–29 (1964–69)	489	40.7	41.1	12.7	5.5
30–34 (1959–64)	508	36.2	40.0	18.5	5.3
35–39 (1954–59)	559	39.0	39.9	17.0	4.1
40–44 (1949–54)	604	29.1	48.7	18.2	4.0
45–49 (1944–49)	523	23.5	53.3	19.1	4.0
50–54 (1939–44)	384	19.3	63.5	12.2	4.9
55–59 (1934–39)	224	23.7	50.0	22.3	4.0
			(Female)		
25–29 (1964–69)	494	30.2	20.0	43.3	6.5
30–34 (1959–64)	608	22.0	21.4	51.6	4.9
35–39 (1954–59)	608	24.8	27.1	44.2	3.8
40–44 (1949–54)	691	17.7	30.1	50.7	1.6
45–49 (1944–49)	607	13.7	35.6	48.6	2.1
50–54 (1939–44)	448	8.9	34.6	54.5	2.0
55–59 (1934–39)	248	6.5	24.6	64.1	4.8

Comparing the age at leaving home between cohorts at 50% in Table 1, the delay in leaving the parental home can be observed for cohorts born after the mid 1950s, implying that the change started in 1970s. Such a delay has also been observed in Canada, West Germany, and the United States (Ravanera, et al. 1995, p. 181; Goldscheider and Goldscheider 1994, p. 18; Mayer and Schwarz 1989, p. 151).

To examine the change in leaving the parental home closely, multi-state life tables that simultaneously trace leaving home and marriage were created. The multi-state table focuses on the first experience of leaving home and that of marriage, distinguishing between the binary states of "not yet experienced" and "ever experienced" for each of the two life events. Since the life table does not consider returning home or marital dissolution, there are four states and five transitions as shown in Figure 1.

The number of transitions $D_x^{(ij)}$ and the number of withdrawals $W_x^{(i)}$ were

available from the survey data. After reconstructing the number of persons by state $N_x^{(i)}$, the transition probability was calculated as follows:

$$q_x^{(ij)} = \frac{D_x^{(ij)}}{N_x^{(i)} - 0.5 W_x^{(i)}}. \tag{2}$$

Superscripts i and j refer to the following states defined in Figure 1.

(1) before leaving, before marriage,
(2) after leaving, before marriage,
(3) before leaving, after marriage,
(4) after leaving, after marriage.

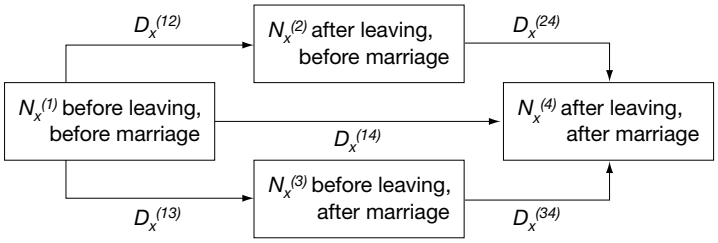

Figure 1 States and transitions in multi-state life table

The transition probability matrix was designed as follows:

$$\mathbf{P_x} = \begin{bmatrix} 1-(q_x^{(12)}+q_x^{(13)}q_x^{(14)}) & q_x^{(12)} & q_x^{(13)} & q_x^{(14)} \\ 0 & 1-q_x^{(24)} & 0 & q_x^{(24)} \\ 0 & 0 & 1-q_x^{(34)} & q_x^{(34)} \\ 0 & 0 & 0 & 0 \end{bmatrix}. \tag{3}$$

Multiplying the horizontal vector of $l_x^{(i)}$ from the left results in the survival function by state $l_{x+1}^{(i)}$ at age x+1. The stationary population ${}_nL_x^{(i)}$ was calculated with linear assumption, and the proportion that never left the parental household in the age group between x and x+n was calculated as follows:

$$\frac{{}_nL_x^{(1)} + {}_nL_x^{(3)}}{{}_nL_x^{(1)} + {}_nL_x^{(2)} + {}_nL_x^{(3)} + {}_nL_x^{(4)}}. \tag{4}$$

Figure 2 shows change in the proportion of young persons that never left home for the age group between 20 and 24 (${}_5L_{20}^{(i)}$, i=1,4). As expected from Table 1, the figure suggests that for younger cohorts a greater number of young

men and women tend to stay in the parental household, and that the trend started in the 1970s.

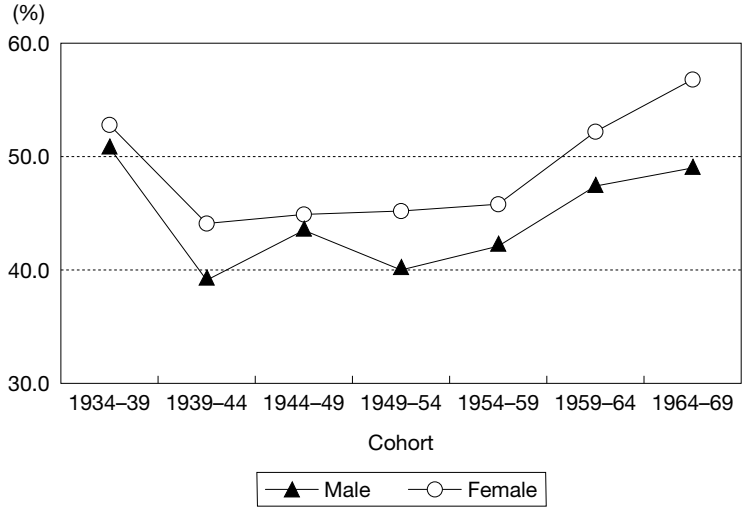

Figure 2 Proportion that never left parents, 20–24 years old

Such a delay in leaving home can be decomposed into three stages—leaving before marriage, at marriage, and after marriage. Leaving the parental home before marriage is mostly related to entering higher education or taking a job. It is expected that more and more young people will go to college or find a job without leaving home because the proportion of young people being born and growing up in metropolitan areas is higher for younger cohorts. Thus, the delay in leaving home could be attributed to leaving before marriage. However, it is also possible that the delay in leaving home is simply a result of the delay in marriage. If this is the case, the important change is not that in leaving home but that in marriage. Finally, the proportion that never left home can be influenced by the proportion living with parents after marriage. However, the recent trend is a decline in the traditional pattern of young people not leaving home at marriage. Therefore, this change may not raise the proportion staying at the parental home but instead offset it to some extent.

A simple decomposition is attempted here. First, the following proportions are calculated for the age group between 20 and 24 by sex and cohort.

Proportion single $$s=\frac{{}_5L_{20}^{(1)}+{}_5L_{20}^{(2)}}{{}_5L_{20}^{(1)}+{}_5L_{20}^{(2)}+{}_5L_{20}^{(3)}+{}_5L_{20}^{(4)}}.$$

Proportion never left for single $ps = \frac{{}_5L_{20}^{(1)}}{{}_5L_{20}^{(1)} + {}_5L_{20}^{(2)}}$.

Proportion never left for married $pm = \frac{{}_5L_{20}^{(3)}}{{}_5L_{20}^{(3)} + {}_5L_{20}^{(4)}}$.

Let s_1, ps_1 and pm_1 be the proportions of the foregoing cohort and s_2, ps_2 and pm_2 be that of the succeeding cohort. Then, the change in the proportion never left can be decomposed as follows.

Change in leaving at marriage $(s_2 - s_1)(ps_1 - pm_1)$.

Change in leaving before marriage $s_1(ps_2 - ps_1)$.

Change in leaving after marriage $(1 - s_1)(pm_2 - pm_1)$.

Residual $(s_2 - s_1)(ps_2 - ps_1 - pm_2 + pm_1)$.

Figure 3 Decomposition of change in proportion never left, 20–24 years old (Change from preceding cohort)

Figure 3 shows the result of decomposition. Change in the traditional pattern of staying home after marriage is minimal in this age group. For males, a decrease in the proportion that left before marriage is always the dominant factor

behind an increase in the proportion that never left. The change between the 1949–54 and 1954–59 female cohort is explained by nuptiality decline. However, delay in leaving home before marriage took an important role in changes for cohorts born after 1959. Therefore, it is clear that single persons tend to stay at home longer before marriage and this change, not the delay in marriage, is the dominant factor for the recent delay in leaving home.

4. Cross-sectional Analysis of Staying at the Parental Household

This section examines the reason behind the recent delay in young people leaving home before marriage. Independent variables that may affect the leaving can be dichotomized into generations—parents and children. The former includes the socio-economic status, residential place, cultural background, the number of children, marital status, etc. The latter includes academic ability, education, labor-force status, income, and so forth (Goldscheider and Da Vanzo 1989).

Unfortunately, the Third National Survey on Household Changes does not allow such an abundant set of variables. Since this is a household survey, only limited information is available on children or parents living apart. It was decided here to concentrate on the parental characteristics, while setting aside those of the child. The reason is that major hypotheses explaining the recent delay in leaving home concern the characteristics of parents.

It is thought that the rapid urbanization before 1970 dramatically changed the geographic distribution of the youth. The proportion of young people growing up in urban areas is higher for younger cohorts, and they can find educational and occupational opportunities without leaving the parental household. In addition, developments in the transportation networks of metropolitan areas, a reduced number of siblings, and the rise in aspirations with regard to housing amenity could have prompted the delay in leaving (Suzuki 1997, p. 29). It is also thought that the high economic status of the father and high amount of leisure time of the mother may prevent children from leaving (Yamada 1999, p. 74).

Since most of the variables mentioned above concern parental characteristics, a cross-sectional analysis from the viewpoint of parents is conducted here. The unit of analysis is living children of each household head. If the sex or birth year of one child is missing the whole family is excluded from the analysis. Of the 8,578 household heads surveyed 1,423 had living children aged between 20 and 24. Six hundred and nine (63.8%) of 955 sons lived with the household head, and 647 (69.4%) of 932 daughters co-resided. Unfortunately, data on the marital status of children not living with the household head is not available from the

survey. The age group between 20 and 24 was chosen because the incidence of young people leaving home at marriage is not significant given the very late age of marriage observed recently in Japan.[2]

Table 3 shows the result of simple cross-tabulation analysis. Cases where the mother is the household head usually arise where a separated or divorced mother was sampled as the head, although there was also a small portion of parental couple households that were recorded as mother-headed households. The proportion of young people co-residing in these mother-headed households does not significantly differ from that in the father-headed households. If a parental couple is intact, sons are more likely to stay at the parental household. The number of children of the head, or the number of siblings, significantly affects daughters' leaving home. As expected, a daughter with a large number of siblings is more likely to leave home.

Table 3 Proportion living with household head by level of independent variable (%)

Variable	Sons of Head			Daughters of Head		
Sex of head	Mother 56.2	Father 64.4	χ^2 1.638	Mother 67.5	Father 69.6	χ^2 0.069
Marriage status of head	One-parent 50.8	Couple 65.7	χ^2 9.520**	One-parent 63.0	Couple 70.4	χ^2 2.294
Number of children (Small if <3)	Large 60.1	Small 66.1	χ^2 3.345	Large 61.8	Small 74.3	χ^2 15.700**
Education of head (High if tertiary)	Low 65.2	High 58.7	χ^2 2.607	Low 69.7	High 68.4	χ^2 0.080
House ownership	Rent 58.1	Own 65.5	χ^2 3.758	Rent 63.0	Own 71.4	χ^2 5.134*
Residence of head (1)	Not DID 60.8	DID[1)] 66.0	χ^2 2.527	Not DID 61.9	DID[1)] 75.2	χ^2 18.473**
Residence of head (2)	Not metro-politan 53.8	Metro-politan[2)] 74.6	χ^2 43.737**	Not metro-politan 57.1	Metro-politan[2)] 81.9	χ^2 65.880**

*p<.05, **p<.01.

[1)] Densely inhabited districts (DID), as defined in the 1995 Census of Japan.

[2)] Saitama, Chiba, Tokyo, Kanagawa, Gifu, Aichi, Mie, Kyoto, Osaka and Hyogo.

[2] The 1995 Census of Japan shows that the proportion of single persons in the age group between 20 and 24 was 93.3% for male and 86.8% for female.

The educational attainment of parents (mostly the father) does not have significant effects. House ownership raises the proportion of daughters staying home. Daughters who grew up in densely inhabited districts (DID) tend to stay at the parental household. The effect of residing in one of three major metropolitan areas (Tokyo, Osaka and Nagoya) is outstanding. Where both sons and daughters grew up in these metropolitan areas they are highly likely to stay at home.

One might be interested in net effects of independent variables, rather than gross effects as shown in Table 3. However, the logistic regression result shown in Table 4 should be taken carefully. The survey failed to include important variables such as parental income, whether the mother is a full-time housewife, detailed information on the parental house, and properties of children other than age and sex. Because some relevant variables are missing, the estimates of coefficients in a multivariate model would be distorted.

Table 4 Logistic regression on children living with household head

Independent Variables	Sons of Head		Daughters of Head	
	Coefficient	*t*	Coefficient	*t*
Intercept	0.5999	–1.6965	0.4750	–2.3221*
Head is father	0.4913	–1.8579	0.5318	–1.4763
Intact couple	2.8042	3.3774**	2.2806	2.2033*
Two children or less	1.3061	1.8433	1.6252	3.1400**
Head tertiary education	0.6307	–2.6751**	0.7556	–1.5151
Head owns house	1.4625	2.1276*	1.9370	3.5395**
Head lives in DID[1)]	1.0653	0.3882	1.4529	2.1293*
Head lives in metropolitan area[2)]	2.7961	6.7163**	3.2058	7.0147**

*p<.05, **p<.01.

[1)] Densely Inhabited Districts, as defined in the 1995 Census of Japan.

[2)] Saitama, Chiba, Tokyo, Kanagawa, Gifu, Aichi, Mie, Kyoto, Osaka and Hyogo.

Although no gross effect disappeared some new effects appeared. Both sons and daughters stay at home when the parental couple is intact and when parents own a house. In addition, sons tend to stay at home when the head (usually the father) has a high level of educational attainment. Although some of these results are questionable, the effect of metropolitan area is still impressive; living in a metropolitan area almost triples the odds of staying home. It seems that marital status of parents is also important, especially for sons. It is interesting that the effect of number of siblings is significant only for daughters. For sons, whether one is the eldest son or not is probably more important than the number of siblings. Table 4 indicates that if there is any effect of parental education, it

prompts the leaving home of sons. It is imagined that the higher the level of parental education, the more likely sons and daughters are to obtain tertiary education. However, the effect is not significant for daughters because they prefer going to a nearby college or junior college without leaving home. As expected, house ownership prevents both sons and daughters from leaving.

5. Conclusion

The life table on young people in Japan leaving the parental home revealed that males leave earlier than females. Although it is certain that this pattern is different from Europe and North America, it is uncertain if the pattern in Japan is really unique in Asia. Although Zen et al. (1994) showed that it is females that leave earlier in China and Korea, their result relies on an indirect estimation procedure. Direct evidence on the timing of leaving home in Asian countries is expected.

Cohort comparison indicated that there has been a delay in young people leaving home since the 1970s. This trend was caused not only by the delay in marriage but also by the decrease in the proportion of young people leaving home before marriage. In fact, the latter was the dominant cause in most cases where the age group between 20 and 24 is concerned.

Cross-sectional analysis showed that one of the most important factors that caused this change was the concentration of the youth population in metropolitan areas. Thus, it is essential to understand the changes in the proportion of children living in metropolitan areas in order to predict the future trends in young people leaving home. Such a proportion is available from the censuses of Japan. Figure 4 presents the proportion of children aged between 10 and 14 living in a metropolitan area. This graph indicates that the proportion did increase rapidly in 1970s, but the trend came to a standstill in the 1980s and even reversed in 1990s. Thus, the major cause of the delay in leaving home has disappeared for cohorts born after 1970.

Another important factor was, according to Table 3 and 4, whether the household is headed by an intact couple or a single-parent. Figure 5 depicts the proportion of currently married males of child-raising age from the censuses between 1950 and 1995. The proportion rose thanks to an improvement in joint survivorship by the 1970s; but, the trend reversed after the 1980s because of the rising divorce rate. Again, an important cause of delay disappeared for more recent cohorts than were observed in this study. Therefore, the chances are extremely high that the delay in leaving home will slow down or even halt for cohorts born after the 1970s.

The cross-sectional analysis here could have been greatly strengthened by the inclusion of some important factors which are unfortunately absent due to a lack

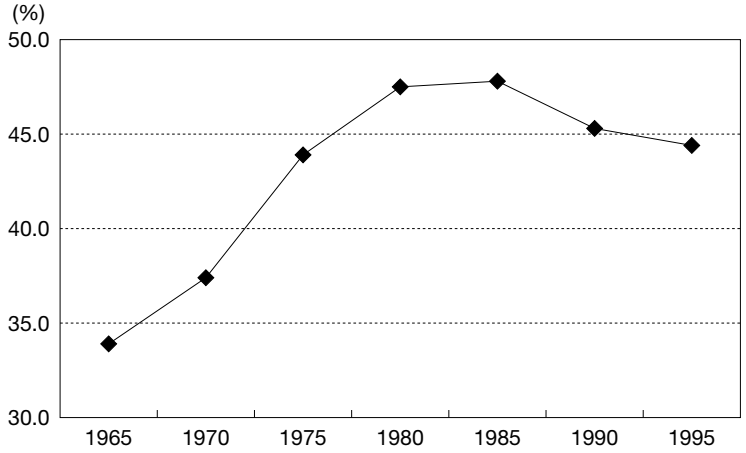

Figure 4 Census population of children aged 10–14 living in metropolitan areas

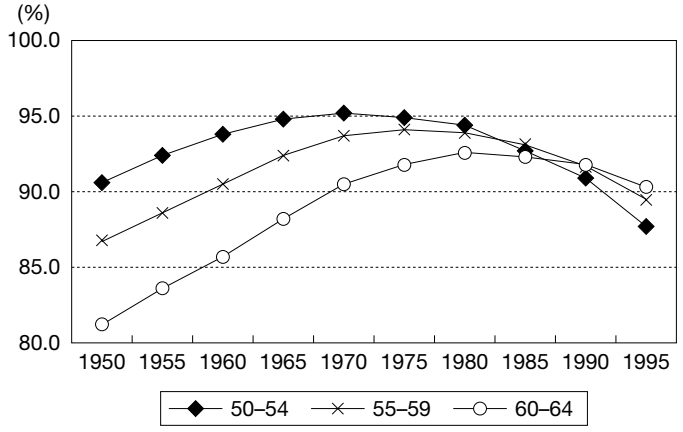

Figure 5 Census population of currently married males

of available data. However, the Fourth National Survey on Household Changes conducted in 1999 includes data on the labor force status and occupation of adult household members. And, although detailed information on children living outside the home is still missing, questions on the number of children by sex, age and marital status were asked. Thus, the 1999 survey data allows an examination of the effect of father's occupation or mother's leisure time on the leaving of children before marriage. The result of a revised multivariate model will be presented in the not too distant future.

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