AGE AT FIRST MARRIAGE AND BIRTH INTERVALS IN KOREA*

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The main purpose of this paper is to examine how and to what extent age at first marriage and birth intervals are associated with each other and related to socio-economic background of individuals in a Korean context. The empirical data used for the current analysis are from the 1974 Korean National Fertility Survey conducted in connection with the World Fertility Survey.

Major findings are: (1) In Korea marriage is generally known to signify the start of constant union and childbearing. It is also generally believed that the timing of births is a major factor affecting the completed family size and thus population growth. (2) In contrast to the case of the Western countries, the first birth interval in Korea decreases with increasing age at first marriage and is shorter among the higher social status group. However, the intervals of later births reveal no socio-economic relationships similar to that observed in the Western societies. (3) The mean number of children ever born decreases with delay in age at first birth. However since Korean women tend to have their first birth as soon as possible after marriage and the intervals of the second birth onwards tend to have little variation by age at first marriage, age at first marriage is still found to play a crucial role in determining the level of fertility in Korea.

Introduction

Arithmetically, it is easy to demonstrate that, other things being equal, a family in which all women marry at age 15 and produce daughters every five years until age 40 will have more than five times as many female members after a period of 80 years compared with a family in which all women marry at age 25 and also produce daughters every five years until age 40. A family in which all women marry at age 20 and produce daughters every four years until age 40 will have three times as many female members after a period of 80 years than a family in which all women marry also at age 20 and produce daughters every six years until age 40.

If a woman gives birth to her daughters at 5-year intervals after marriage until age 40, her total female descendants after 80 years (assuming the length of every female's life is between 60 and 70) would be 66 if age at first marriage is 15, 24 with age at first marriage 20, and 13 with age at first marriage 25. And, if a woman marries at age 20, her female decendants in 80 years would be 40 if she gives birth to daughters at every 4 years until age 40; it would be 24 when the birth interval is 5 years, and 13 when it is 6 years. Even if women have the same number of births during their life span and marry at the same age, those who have the shorter birth intervals will have more descendants over a fixed period of time. If every female marries at the same age and has 2 daughters in her life and the length of her life span is 60 years, the famale population will change according to the average birth interval as shown in Table 1.

* This is a substantially revised edition of a part of "Age at First Marriage and Fertility in Korea", submitted for the degree of Master of Arts in Demography to the Australian National University, Canberra in 1981.

Table 1. **Hypothesized Female Population Growth under Varying Assumptions on Birth Interval and Ages at First Marriage**

Age at First Marriage	Length of Birth Interval	Years Since the First Female Born				
		40	80	110	130	150
		Size of Female Population				
15	6	3	13	25	52	101
	8	3	10	22	29	55
25	4	3	6	12	23	29
	6	3	6	11	14	24

It is very clear that, in theory, age at first marriage and birth intervals influence population growth directly. However, for a number of reasons, the impact of later marriage and longer birth intervals on fertility may in fact never reach the limits that these hypothetical schemes suggest. These reasons include: the deliberate use of contraception and abortion to control fertility; extra-marital pregnancies, cultural norms regulating reproductive behaviour, and socio-economic conditions that influence fertility differently at various ages. Also, age at first marriage and birth intervals may not be independent of each other as assumed in the above hypothetical discussions. The main purpose of this paper is thus to examine how and to what extent these two basic components of fertility are associated with each other and related to socio-economic background of individuals in a Korean context. Through this, we may be able to evaluate indirectly their actual importance as factors in ultimate fertility and population growth. The empirical data used for the current analysis are from the 1974 Korean National Fertility Survey conducted in connection with the World Fertility Survey (EPB & KIEP, 1977: 32–37).

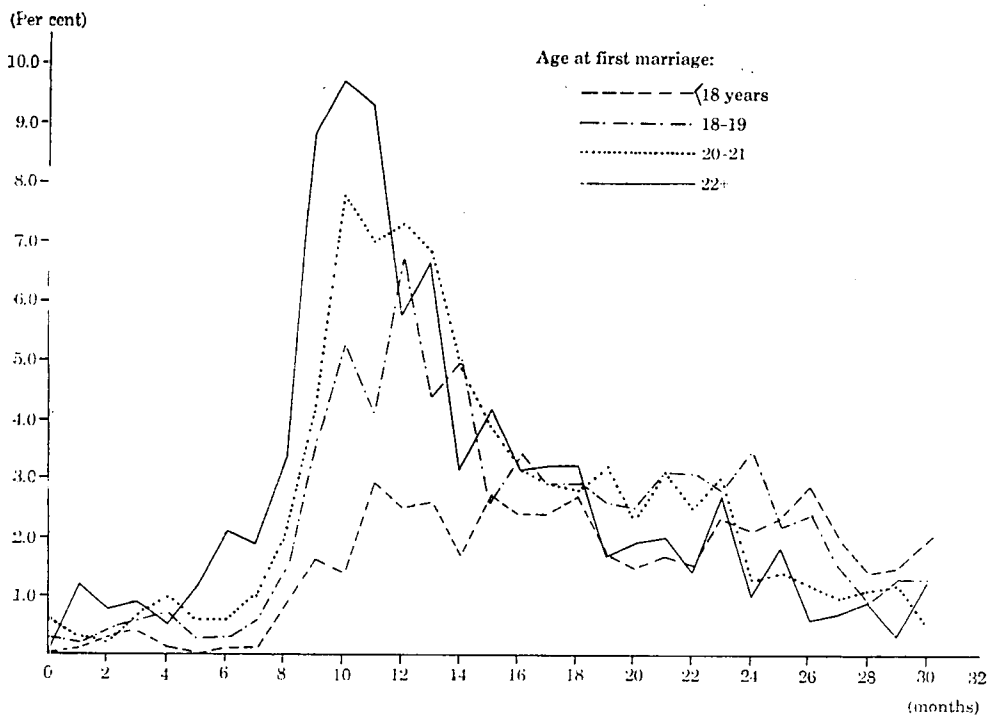
Age at First Marriage and the Timing of Births

As mentioned above, the timing of births is of-everincreasing importance in the analysis of fertility. The spacing pattern and its changes are not only significant for the analysis and the evaluation of period changes in fertility from one year to the next, bur also provide us with an insight into the ultimate average family size of cohorts (Moors, 1974: 85). Moreover, whether women in a society have their children when they are young or delay births, whether the period of childbearing is concentrated or extended, and whether the reproduction is completed in one or in more than one phase should have different implications for the future population growth of the society, even if these differences result in the same number of children for both individual women and their aggregate (U.N., 1976: 66).

The pattern of timing of the first nuptial confinement by duration of marriage is found to have been rather uniform in all countries under observation (Prioux-Marchal, 1974: cited in Ruzicka, 1976: 529) and almost constant over a prolonged period of time. In Korea, although the pattern is not as salient as those of the Western countries, the proportion of women bearing their first child increases with the passage of marriage duration, and a minor peak in the proportion is seen between the third and sixth months. Then the proportion decreases to a minimum level and ascend again afterward to form a second peak between the tenth and twelfth months, descending slowly but consistently thereafter (Figure 1).

Some deviations in the pattern are usually observed when it is controlled for a single demographic determinant, the age at first marriage (Ruzicka, 1976: 529). In Korea, it is observed that the height of the early peak becomes more salient with increasing age at first marriage, as shown in Figure 1. This pattern is opposite to that of the Western coun-

Figure 1. **Distribution of Women Who Have Passed 5 or More Years since First Marriage by the Interval between First Marriage and First Birth—for Various Age at First Marriage Groups (in single month)**



Source: The 1974 Korean Fertility Survey

tries. The second peak of the first nuptial confinement on a marriage duration scale shows a range of proportion from 2.9 percent for women married at age under 18 to 9.7 percent for those married at 22 or more. A higher second peak for those marrying later is also evident in the Western countries.

The early first peak is not much noticed, while the second peak is pronounced except for women in the youngest age at first marriage group. This suggests that premarital pregnancies have been very infrequent in Korea regardless of age at first marriage which, in turn, is known to have been influenced by the traditional New-Confucianism principles. Although being suggestive of the extent of the impact of age at first marriage upon the timing of births, particularly the first births, the above analysis is neither definitive nor conclusive. A more refined measure to deal with this problem is to examine the differentials in birth intervals by age at first marriage for each parity of births. Beside birth intervals, the level of fertility is also a function of parity progression. However, this study confines to the analysis of differential intervals between two successive births, ignoring the influence of parity progression on the level of fertility on an aggregate level (and individual birth intervals) since many studies have already dealt with the parity progression ratios as a measure of fertility (Park, 1976; Cheong & Han, 1977; Lee & Han, 1978). Particularly for the first birth, whether a woman (or a couple) had the first birth is not a critical factor in examining the aggregate level of fertility in Korea for almost every woman married had at least one birth within four or five years of marriage (Presser, 1971: 331; Park, Choi & Kwon, 1979: 128). Now let us first examine the differences in interval between the timings

Table 2. **Distribution of Women Who Have Passed Five or More Years Since First Marriage According to the Interval Between First Marriage and First Birth by Age at First Marriage and Years Since First Marriage**

Age at First Marriage and Years Since First Marriage	First Birth Interval (months)									
	Negative	0–7	8–11	12–17	18–23	24–35	36–47	48+	No Child	N
(1) Years since first marriage: Total										
Total	1.2	4.3	17.6	23.3	14.6	16.4	8.0	13.2	1.4	4233
<18	0.8	1.0	6.7	14.3	11.8	23.9	13.2	26.7	1.5	1165
18–19	0.7	3.2	14.2	25.0	17.0	18.6	8.3	11.2	1.3	1085
20–21	1.3	5.1	20.7	29.0	17.2	12.6	5.7	7.3	1.1	985
22+	2.2	8.6	31.1	26.2	12.9	9.0	3.1	5.3	1.6	998
(2) Years since first Marriage: 5–9										
Total	10.7		28.3	26.8	14.1	11.1	4.3	3.5	1.4	1028
<20	7.5		14.5	29.4	18.0	17.5	7.5	3.9	1.8	228
20–21	9.5		26.5	28.6	13.6	12.9	4.4	3.1	1.4	294
22+	12.7		35.6	24.5	12.6	7.1	2.8	3.6	1.2	506
(3) Years since first marriage: 10–14										
Total	6.7		21.1	29.5	15.2	13.4	5.7	6.6	1.7	814
<20	5.9		16.5	26.7	13.4	19.9	7.6	8.5	1.3	236
20–21	5.3		20.4	29.6	19.0	12.7	5.3	6.7	1.1	284
22+	8.8		25.5	31.6	12.9	8.8	4.4	5.1	2.7	294
(4) Years since first Marriage: 15–19										
Total	4.6		17.7	27.0	16.3	15.7	6.6	10.9	1.2	808
<18	2.7		8.1	22.5	12.6	20.7	10.8	20.7	1.8	111
19–20	2.8		13.3	27.0	18.2	18.2	8.4	10.9	1.1	285
21–22	5.4		18.3	32.4	18.7	11.1	5.3	7.6	1.1	262
22+	8.0		32.0	20.7	11.3	15.3	2.0	9.3	1.3	150
(5) Years since first Marriage: 20+										
Total	2.1		8.8	15.9	13.8	21.7	12.3	23.9	1.3	1583
<18	0.9		5.7	11.9	12.2	24.8	13.7	29.2	1.7	945
19–20	2.9		13.3	21.1	15.3	18.9	11.2	16.4	1.1	445
20+	6.2		14.0	22.3	18.7	13.5	7.8	15.5	0.5	193

Source: The 1974 Korean National Fertility Survey

of first marriage and first birth by age at first marriage, controlling for years since first marriage.

The distribution of women by the first birth interval, age at first marriage, and years since first marriage is presented in Table 2. A marked concentration of the first birth interval is observed in 12 through 17 months for all groups of years since first marriage except the oldest age at first marriage group, that of 22 or more years. With the increase of age at first marriage the degree of concentration is getting stronger and the concentration is found in an earlier interval. For example, the degree of concentration of the first births is most marked with women married at age 22 or more (31.3 percent between 8 and 11 months). The tendency is diametrically opposed in the youngest age at first marriage group (less than 18 years). This pattern can be found in all groups of women regardless of the years since first marriage. This clearly indicates that women who marry at older ages have their first birth quicker. If this pattern of differential birth interval continues for the successive births, the net impact of age at marriage upon fertility would ultimately be reduced to a insignificant degree.

Table 3 presents the proportions of women who had the first through fourth birth among

Table 3. **Cumulative Per Cent Having A Birth upto Selected Times Since First Marriage or the Preceding Birth for First through Fourth Birth by Age at First Marriage***

Age at First Marriage	Months Since First Marriage or Preceding Birth							
	12	18	24	30	36	42	48	N
(1) First Birth								
Total	23.9	47.3	62.0	71.2	78.1	82.3	85.9	4469
<18	8.5	23.0	34.9	47.2	58.9	65.0	72.0	1175
18–19	18.7	43.6	60.6	72.2	79.1	84.6	87.7	1116
20–21	27.4	56.7	73.6	81.1	86.1	89.4	91.8	1035
22+	41.7	57.6	80.9	85.9	89.6	91.3	93.1	1143
(2) Second Birth								
Total	1.1	8.6	28.0	49.5	67.2	78.5	84.5	4113
<18	1.1	5.8	19.7	38.0	56.3	70.7	79.7	1142
18–19	1.0	7.7	26.9	48.1	65.6	78.1	83.9	1060
20–21	0.7	7.5	30.4	54.4	73.5	83.6	87.4	944
22+	1.7	14.0	36.6	59.9	75.5	83.2	88.0	967
(3) Third Birth								
Total	1.1	5.0	18.3	42.4	62.4	75.7	83.4	3510
<18	1.4	5.3	16.6	37.1	56.8	71.5	81.4	1085
18–19	1.2	4.7	17.7	42.4	46.2	68.6	76.6	946
20–21	0.5	3.8	18.6	47.1	67.9	79.6	85.3	778
22+	1.1	6.2	21.2	45.3	62.4	74.0	80.0	701
(4) Fourth Birth								
Total	1.1	5.3	15.2	36.4	55.7	68.5	75.3	2841
<18	1.3	5.3	15.0	34.7	57.6	74.0	81.1	1006
18–19	1.2	5.7	15.6	37.7	57.9	70.0	67.7	815
20–21	0.8	4.6	15.3	37.5	55.5	66.3	72.8	600
22+	1.0	5.8	14.6	36.3	47.3	55.4	62.1	420

* Included are only those women who have passed 4 years at least since first marriage or the preceding birth.

Source: The 1974 Korean National Fertility Survey.

those passed 4 years at least since the first marriage or the previous birth by age at first marriage and the order of births.[1] The table shows that the difference in birth intervals among different age at first marriage groups decreases after the second birth: Comparing women with age at first marriage less than 18 to those with 22 or more, the difference of the cumulative percentage of women who had births up to the 30th month is 39 percentage points for the first birth, and while the difference becomes narrower with later births. It ultimately disappears at the fourth birth. The average interval between the first marriage and the first birth ranges between a low of 18 and a high of 39 months depending upon age at first marriage. (Table 4)[2] The use of averages may be somewhat deceptive, however, for the distributions are highly skewed. For example, the mean first birth interval is 26 months for all women who have passed 4 years or more since first marriage, while more than 60 percent of women had the first births before they had been married for 26 months. In fact, 50 percent of women had the first birth within 19 months of marriage (this is the median value of the first birth intervals). The mode is placed in a lower interval, which is reported

1. If all ever-married women are included some should have married or a birth of the given order only recently. For analytical purposes, it is better to restrict the tabulation to women who experienced marriage or the birth of the given order at least four years ago. The cumulative percent having a birth within four years is 80 percent or more.
2. In discussing the interval between marriage and first birth, it should also be noted that births occurring before marriage would have negative intervals (Whelston, Campbell and Patterson,

Table 4. **Mean Birth Interval Since First Marriage or the Preceding Birth by Age at First Marriage and Years Since First Marriage***

Age at First Marriage	Years Since First Marriage					
	4–9	10–14	15–19	20+	Total Mean	
(1) First Birth						
Total	17.3	21.5	24.6	37.1	26.5	4345
<18	22.0	29.4	31.0	41.2	39.0	1148
18–19	19.8	21.4	25.0	30.2	25.5	1093
20–21	17.5	22.5	22.8	34.2	22.5	1009
22+	15.9	19.1	22.1	(24.3)	17.9	1095
(2) Second Birth						
Total	26.8	31.1	32.1	38.1	33.0	3973
<18	(26.8)	(32.4)	32.8	38.4	37.1	1114
18–19	26.6	31.4	31.3	36.7	33.2	1029
20–21	27.4	31.0	33.0	39.6	31.8	913
22+	26.0	30.6	31.3	(40.3)	28.9	917
(3) Third Birth						
Total	28.8	32.2	33.4	36.3	33.8	3305
<18	(27.5)	34.8	34.3	37.1	36.5	1045
18–19	31.2	30.7	32.8	35.4	33.5	904
20–21	28.5	31.5	33.2	34.5	32.1	730
22+	28.4	33.3	34.3	(33.8)	31.8	626
(4) Fourth Birth						
Total	27.6	32.1	35.6	35.4	34.6	2455
<18	—	(31.8)	37.4	36.0	35.9	944
18–19	—	32.6	35.2	33.8	34.0	712
20–21	(32.6)	32.8	33.9	34.8	33.6	500
22+	(25.4)	30.9	38.2	(41.3)	33.7	299

* (1) Included are only those women who have passed 4 years at least snice first marriage or the preceding bith and have had the nth birth.
(2) Negative intervals are not included for first births.
(3) ( ) refers to figures based on less than 50 cases and an asterisk to figures based on less than 10 cases.

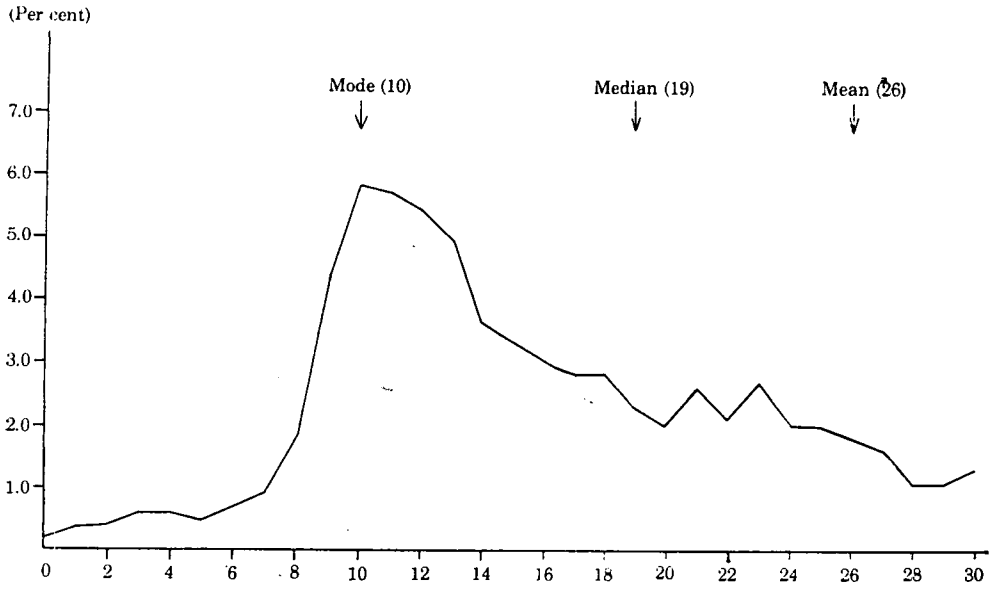
Source: The 1974 Korean National Fertility Survey.

as 10 months. The relationship between these values of central tendencies and the distribution of first birth intervals is seen more clearly in Figure 2. The reason for such a higher mean value than the median and mode is, of course, that a large proportion of couples delayed the first birth for a significant period of time after marriage. The proportion of couples who had their first birth after 4 years of marriage is reported to have been 13.2 percent (Table 2).

It is important to note from Tables 2 and 4 that the interval length has been getting progressively shorter over time for every parity of births when controlled for age at marriage; that is, the intervals have been shorter for the more recent marriage cohorts. In other words, it is indicated that years since first marriage is a more distinct factor than age at first mar-

1966: 322). The calculation here has been restricted to births occurring after marriage. Hence, if the negative intervals were included, the mean number of months from marriage to first birth would have been slightly lower than the 26 months shown here. However, only 1.2 percent (Table 2) of women with births reported that their first birth occurred before marriage. Therefore the influence of negative intervals to the total average will be negligible (Lee, Park and Choi, 1978; Cho, Arnold and Kwon, 1982: 75–76).

Figure 2. **Distribution of Women Who Have Passed 5 or More Years since First Marriage According to the Interval between First Marriage and First Birth—by marriage duration (in single month)**



Source: The 1974 Korean National Fertility Survey

riage in determining birth intervals in general. The apparent relationship between age at first marriage and birth interval from the second parity onwards based on the data for all women irrespective of marriage duration disappears if the individual marriage duration groups are examined separately. This suggests that the observed relationship for all women can be explained by the differential composition of marriage durations by age at first marriage.

Age at first marriage, therefore, appears to have influenced only the first birth interval and not the subsequent intervals. The following are the most probable reasons for this:

(i) The proportion of women who married before menarche, which is generally defined as around age 15 (Lucas, 1980C: 65), is much smaller for all ever-married (6.4%) women than that for the women married before 18 years of age (28.8%).[3]

(ii) The proportions having had a subsequent birth within four years from the previous birth remain about the same for all parities for women married at young ages, while these proportions decrease with an increasing birth order for women married at older ages (Table 3). This may be explained by the fact that a significant portion of women at an earlier age at first marriage controlled their fertility at higher birth orders, while for most women married at a relatively late age the second, third and fourth births within four years after the previous confinement can be considered to reflect "natural" fertility.

(iii) The proportions of confinements after 4 years since first marriage or the preceding

3. The proportions are calculated from Table 1.1.1 and 1.1.2 of *The 1974 Korean National Fertility Survey, First Report* (E.P.B. and K.I.F.P., 1977: T 213– T 217).

Table 5. **Per Cent of Women Who Had Births After 4 Years Since First Marriage or Preceding Birth by Age at First Marriage**

	Age at First Marriage			
	<18	18–19	20–21	22+
Marriage to 1st Birth	26.5	10 8	7.0	4.8
1st Birth to 2nd Birth	17.8	12.9	9.3	6.9
2nd Birth to 3rd Birth	14.9	9.0	8.5	9.3
3rd Birth to 4th Birth	12.8	10.4	10.5	9.3

Source: The 1974 Korean National Fetility Survey.

birth increase with the increasing birth order for the later age at first marriage groups. The reverse is true for the earlier age at first marriage groups (Table 5). This again appears to be related with the differential patterns of fertility control in accordance with the age at first marriage.

In sum, this section has examined the differential patterns of the timing and intervals of the first to fourth births in terms of age at first marriage. The analysis has confirmed that age at first marriage is a crucial factor in the timing of births. The timing, however, may be expected to vary according to the socio-economic background of women. For this, socio-economic differentials in birth intervals, controlling for age at first marriage, will be examined below.

Socio-Economic Differentials in Birth Intervals

Many studies have established the relationship between family size and such basic socio-economic characteristics of women and their husbands as family income, occupational status, and educational level. Some demonstrated significant relationships between birth intervals and such variables. Pakrasi and Malaker (1973: 103–110), who studied the nature of the distribution of the average number of months between effective marriage and first birth within and between social classes in India, concluded that the average first birth interval declined steadily with an increasing age at first marriage in all social classes and that the couples of Calcutta with higher status and better educated revealed a pattern of family building behaviour, just after consummation of marriage, which hardly differed from that of their counterparts in relatively lower social strata. Whelpton, Campbell and Patterson (1966: 320–327), baded on a study of socio-economic differences in age at first marriage and the timing of births for 18-39-year-old white wives in the United states, concluded that the couples in the different socio-economic groups differ mainly in the timing when they start their families, but show approximately the same birth intervals for the births of later parties.

Socio-economic differences in birth spacing in Korea for the parties up to the fourth are shown in Table 6. On the whole, socio-economic differences in the first birth interval are pronounced. Among them, most marked differences are shown in terms of the level of educational attainment. The socio-economic differences tend to be less pronounced, however, among women married at older ages. As is the case of India (Pakrasi and Malaker, 1973: 107), a shorter first birth interval is observed in Korea in an older age at first marriage and higher social status group: Women who are living or grew up in a city, with higher education or whose husband's are white collar workers reveal a shorter interval. The situation is reversed in most Western countries where the higher the status, the longer is the interval. Those differential patterns are clearly linked with the group differences in the timing of the first use of contraception and the effectiveness of the contraceptive use early in marriage (Whelpton, Campbell and Patterson, 1966: 325; U.N., 1976: 75). The second,

Table 6. **Mean Birth Interval Since First Marriage or The Preceding Birth by Age at Marriage and Selected Socio-Economic Characteristics***

Selected Characteristics \ Age at First Marriage / Birth Interval	Less than 20 years				20 and more years			
	Marriage to 1st	1st to 2nd	2nd to 3rd	3rd to 4th	Marriage to 1st	1st to 2nd	2nd to 3rd	3rd to 4th
Total Mean	32.4	35.2	35.1	35.1	20.1	30.4	31.9	33.7
No. of Respondents	2241	2144	1949	1656	2104	1829	1356	799
(1) Current Place of Residence								
City	30.9	35.9	35.7	36.4	19.8	31.1	32.2	35.1
Town & Village	33.4	34.8	34.7	34.5	20.6	29.3	31.5	32.4
(2) Childhood Type of Residence								
City	26.6	36.1	36.7	38.4	20.2	30.2	33.2	36.7
Town & Village	33.1	35.1	34.9	34.8	20.0	30.4	31.6	33.2
(3) Level of Education								
Less than middle school	33.4	35.3	35.0	35.1	20.7	30.5	31.8	33.5
Middle School & higher	23.5	34.5	35.7	35.4	19.1	30.2	32.2	34.1
(4) Religion								
Buddhist	31.3	36.2	34.5	35.2	19.4	30.1	32.5	35.9
Christian	30.6	35.4	33.0	34.7	19.7	30.4	31.6	32.6
None or others	33.1	34.8	35.6	35.1	20.5	30.4	31.8	33.0
(5) Pattern of Work								
Current	33.5	35.0	35.0	34.8	20.1	30.1	32.1	33.3
Before & after Marriage but not current	30.3	34.5	36.1	37.2	19.2	30.7	31.6	33.8
Never	30.8	36.5	34.6	34.6	31.4	30.6	32.1	34.5
(6) Husband's Occupation								
Prof., Manag., Clercal, Sales & Service	30.4	35.0	34.9	35.3	20.0	30.6	32.3	34.0
Agricultural	34.5	34.9	34.8	34.4	20.4	28.9	30.8	33.3
Others	30.5	35.9	35.8	36.6	20.0	31.3	32.7	33.8

*) 1) Included are only those women who have passed 4 years at least since first maniage or the preceding birth and have had the nth birth.
2) Negative Intervals are not included.
Source: The 1974 Korean National Fetility Survey.

third and fourth intervals of births do not appear to vary by socio-economic backgrounds of the couples in Korea. This phenomenon is similar to what is observed in the Western countries, where, after the beginning of contraceptive use, birth intervals are known not to vary necessarily with any socio-economic status of the couple.

When the differences in birth intervals by socio-economic background are compared with those by age at first marriage, the latter are clearly more distinctive. The mean of the first birth intervals is calculated as 32.4 months for women with less than 20 years, while the equivalent is 20.1 months for those with 20 years and over. For the second or higher-order intervals, although not as big as for the first birth intervals, the differences by age at first marriage still exist, whereas this is not the case with socio-economic background. It can be concluded from these observations that the higher-order birth intervals are not so directly

related to socio-economic status of individuals unlike the first intervals, as has also been observed in Western and other developing countries.

Age at First Marriage and Fertility According to Timing of First and Other Births

The timing of the first birth is known to be a critical factor in generating subsequent fertility. The general hypothesis is that the earlier the timing of the first birth, the higher the completed fertility (Presser, 1971: 352). Postponement of the first birth tends in several ways to be related to social change in developing countries. It also tends to slow rates of population growth as examined in the first section of this paper. Birth control and rising age at first marriage are known to be the major factors in the postponement of first births and thus slowing population growth.

A survey in Detroit suggests that postponement of the first birth would permit the couples the accumulation of cash and possessions (Pohlman, 1968: 262), and that the timing of fertility would be as important for the health and welfare of families as the number of births in low fertility societies. A number of studies for Western societies suggest that family well-being is conditioned by how soon childbearing is begun and how rapidly it proceeds (Bumpass, Rindfuss and Janoski, 1978: 75). Furthermore, early childbearing is suggested to affect adversely the health of mothers and infants (Menken, 1972), the economic welfare of the family (Freedman and Coombs, 1966 and 1970; Campbell, 1967), and marital stability (Bumpass and Sweet, 1972). It was also found that, the size of completed families is likely to be influenced strongly by age at first motherhood (Presser, 1971; Bumpass and Mburugu, 1977).

No national data which show the relationship between the timing of the first birth and completed fertility are yet available in Korea. However, the relationship can be estabolished though rough, using the mean number of births to women whose first marriage occurred 20 or more years ago may as an index of the completed fertility. In this case the index understates moderately the true level of completed fertility since women in this age bracket still has some chance, though remote, to have additional children. Table 7 presents the mean number of children ever born by age at first birth for women ever married 20 or

Table 7. **Mean Number of Children Ever Born to Ever-Married Women Who have Passed 20 or More Years Since First Marriage by ar First Birth***

Age at First Birth**	Number of Respondents	Mean Number of Children Ever Born
Total	1562	5.6
<17	70	6.7
17	113	6.6
18	212	6.4
19	300	6.0
20	265	5.7
21	175	5.2
22	146	5.2
23–24	146	4.8
25+	135	4.1

* Women who have no children ever born are excluded.

** (1) Age at first birth = Age at first marriage + First birth interval

(2) In case of the first birth being a pre-marital birth, the age at first birth is considered to be the same as the age at first marriage

Surce: The 1974 Korean National Frtility Survey.

Table 8. **Mean Number of Children Evern Born to Women Who Have Passed 20 or More Year Since First Marriage by Birth Order, Age at First Marriage, and Birth Interval***

Birth Interval (in months)	No. of Respondents	Age at First Marriage				
		16	17–18	18–19	20	Total Mean
(1) First Birth						
Total	1562	6.6	5.7	5.3	4.4	5.6
<12	174	(6.6)	5.8	5.4	(4.3)	5.4
12–23	471	7.0	6.1	5.5	5.0	5.8
24–35	344	6.8	6.0	5.6	(4.3)	6.0
36–47	194	7.3	6.2	5.2	(4.2)	6.1
48+	379	5.9	4.8	4.6	(3.4)	5.0
(2) Second Birth						
Total	1511	6.7	5.9	5.5	4.7	5.8
<24	315	7.4	6.6	5.6	(5.5)	6.3
24–35	557	6.9	6.0	5.8	4.7	6.0
36–47	335	6.5	5.9	5.5	(5.1)	5.9
48+	304	6.1	5.0	4.5	(3.5)	4.9
(3) Third Birth						
Total	1442	6.9	6.0	5.6	4.9	6.0
<24	254	7.6	6.6	6.0	(5.3)	6.4
24–35	612	7.0	6.1	5.8	5.1	6.0
36–47	357	7.0	6.0	5.6	(4.6)	6.0
48+	219	(5.8)	5.4	4.8	(4.3)	5.2
(4) Fourth Birth						
Total	133	7.1	6.3	5.9	5.2	6.2
<24	220	(7.8)	6.8	6.5	(5.7)	6.8
24–35	617	7.1	6.4	6.0	5.3	6.3
36–47	322	6.8	6.2	5.6	(4.9)	6.0
48+	174	(6.6)	5.6	(5.0)	(4.5)	5.5

* (1) The women who have not borne the n^{th} birth are excepted.
(2) ( ) refers to figures based on 10–49 cases.
Source: The 1974 Korean National Fetility Survey.

more years. In the table age at first birth is calculated as follows:

(Age at First Birth) = (Age at First Marriage) + (First Birth Interval)/12

Table 7 shows that the mean number of children ever born is decreasing continuously and steadily according to the rising age at first birth, confirming the existence of influence of age at first birth on completed fertility. Table 8 shows the mean number of children ever born by birth order (up to fourth birth), birth interval, and age at first marriage for women whose first marriage occurred 20 or more years ago. The table indicates that Korean fertility might be less influenced by birth interval than by age at first marriage. Particularly, no fertility differentials are found in terms of the first birth interval. This is explained by the fact that Koreans do not usually control their first birth intervals as a way to regulate their ultimate family size ( ). It is clear that age at first marriage, not the first birth interval is a major cause of variations in the number of children ever born in Table 7. However, from the second birth onwards, the mean number of children ever born decreases as the birth interval increases. Even though the total number of respondents decreases for each successive parity, the number of women at birth intervals in the categories of 24–35 months and 36-47 months increases continuously from the second birth onwards.

Accordingly, it may be concluded from Tables 7 and 8 that (i) the general observation in

the western societies that the shorter the first birth interval the higher is the completed fertility does not apply to modern Korea because Korean women tend to have their first birth as soon as possible after marriage; (ii) age at first marriage is the major mechanism for Korean women to postpone their childbearing, and thus to determine the completed fertility; and (iii) birth control appears to influence birth intervals from the second birth onwards.

Conclusion

If other conditions are constant, it can be logically shown that how and to what extend the changes or differentals in age at first marriage and birth intervals would affect fertility and the pace of population growth of a society. However, it is often hypothesized that the impact of age at first marriage is related to birth intervals and also subject to the variations in terms of socio-economic background of the couples. Present study was organized to examine these points with special reference to Korea; that is to identify the general pattern of relationship between age at first marriage and birth interval and its socio-economic differentials based on the 1974 KNFS data. The major findings are presented below:

1) In Korea marriage is generally known to signify the start of constant union and childbearing. It is also generally believed that the timing of births is a major factor affecting the completed family size and thus population growth. Although the distribution of timing of the first birth shows two peaks in Korea similar to that of Western countries, the early peak in relatively insignificant while the second peak is very sharp and conspicuous. Infrequent pre-marital pregnancies and the tendency of most women giving first birth as soon as possible after marriage regardless age at first marriage are responsible for the observed pattern. Furthermore a tendency is revealed that the second peak becomes more conspicuous and places in an earlier time among women with a later age at first marriage.

2) In contrast to the case of the Western countries, the first birth interval in Korea decreases with increasing age at first marriage and is shorter among the higher social status group. However, the intervals of later births reveal no socio-economic relationships similar to that observed in the Western societies.

3) The mean number of children ever born decreases with delay in age at first birth. However, since Korean women tend to have their first birth as soon as possible after marriage and the intervals of the second birth onwards tend to have little variation by ate at first marriage, age at fi!st marriage is still found to play a crucial role in determing the level of fertility in Korea.

References

Bumpass, Larry L., & Edward K. Mburugu
1977 "Age at Marriage and Completed Family Size". *Social Biology* 24: 31–37.

Bumpass, Larry L., Ronald, R. Rindfuss & Richard B. Janosik
1978 "Age and Marital Status at First Birth and the Pace of Subsequent Fertility." *Demography* 15: 75–86.

Bumpass, Larry L. & J.A. Sweet
1972 "Differentials in Marital Instability." *American Sociological Review* 37: 754–766.

Campbell, A. A.
1968 "The Role of Family Planning in the Reduction of Poverty." *Journal of Marriage and the Family* 30: 236–245.

Cheong, Chi-Ja Kim & Seung-Huyn, Han
1977 *Study on the Maximization of Family Planning Services Among High Fertility Risk Women* (in Korean) Seoul: Korean Institute for Family Planning.

Cho, L-J., Fred, Arnold & T.H. Kwon
1982 *The Determinants of Fertility in the Republic of Korea.* Committee on Population and Demography Report No. 14. Washington D.C.: National Academy Press.
Economic Planning Board & Korean Institute for Family Planning
1977 *The Korean National Fertility Survey-1974: First Country Report.* Seoul: National Bureau of Statistics, Economic Planning Board and Korean Institute for Family Planning.
Freedman, R. & L. C. Coombs
1966 "Childspacing and Family Economic Position." *American Sociological Review* 31: 631–648.
Lee, M. T. & D. W. Han
1978 *Age at First Marriage and Fertility: Based on 1974 and 1976 Fertility Survey* (in Korean) Seoul: Korean Institute for Family Planning.
Lee, S. B., B. T. Park & S. Choi
1978 "Honjon Imsin Buinui Chulsanryok Sujun Kochal". (An Analysis of Fertility for Premaritally Pregnant Women) *Kajok Kyehoek Nonjip* (Journal of Family Planning Studies) 5: 7–28. Seoul: Korean Institute for Family Planning.
Lucas, David
1980 "Fertility". *Beginning Population Studies.* ed. David Lucas, 63–92. Canberra: Australian National University.
Menken, J. A.
1972 "Teenage Childbearing: Its Medical Aspects and Implications for the United States Population". *Demographic and Social Aspects of Populatioh Growth.* ed. Charles F. Westoff and R. Parke, Jr., 1: 331–354, Washington, D.C.: U.S. Government Printing Office.
Moors, Hein G.
1974 *Child spacing and Family Size in the Netherlands.* Netherlands Interuniversity Demographic Institute.
Pakrasi, K., & C. Malaker
1973 "Interval Between Age at Marriage and First Birth in India." *Social Biology* 20: 103–110.
Park, Chai-Bin
1976 "The Fourth Child." *The Effect of Son Preference on Subsequent Fertility.* Hawaii: University of Hawaii, School of Public Health.
Park, Byung-Tae, & Byoung-Mohk Choi, & Ho-Youn Kwon.
1979 *The 1976 National Fertility and Family Planning Evaluation Survey.* Seoul: Korean Institute for Family Planning.
Pohlman, Edward
1968 "The Timing of First Births: A Review of Effects." *Eugenics Quarterly* 15: 252–263.
Population Information Program
1979 "Age at Marriage and Fertility." *Population Reports* Series M. No. 4, Special Topic Monograph. Baltimore: The Johns Hopkins University.
Presser, H. B.
1971 "The Timing of the First Birth, Female Roles and Black Fertility". *Milbank Memorial Fund Quarterly* 49: 329–362.
Ruzicka, Lado T.
1976 "Age at Marriage and Timing of First Birth". *Population Studies* 30: 527–538.
United Nations
1976 *Fertility and Family Planning in Europe Around 1970: A Comparative Study of Twelve National Surveys.* Department of Economic and Social Affairs, Population Studies No. 58.
Whelpton, P.K., Campbell, A. A. & Patterson, J.E.
1966 *Fertility and Family Planning in the United States.* Princeton: Princeton University Press.

<國文要約>

한국의 초혼 연령과 출산 간격

金 泰 憲

이 논문은 한국에 있어서 초혼 연령과 출산간격 상호간의 관계 및 이들과 개인의 사회·경제적 배경과의 관계를 고찰하는 것을 주요 목적으로 한다. 경험적 자료로서는 세계 출산력 조사와 관련하여 행해진 1974년도 한국 출산력 조사가 이용되고 있다.

주요 발견 사항들은 다음과 같다 : (1) 한국에서는 일반적으로 결혼은 항구적인 결합과 출산의 시작을 의미하는 것으로 알려져 있다. 또한 출산 시기는 가족 크기에 영향을 끼치고 이로써 인구성장에도 영향을 끼치게 되는 주요인이라고 믿어진다. (2) 한국의 경우 첫번째 출산간격은 서구의 경우와는 대조적으로 초혼연령이 높아질수록 줄어들고 사회적 지위가 높을수록 짧아진다. 그러나 이후의 출산 간격은 서구사회의 경우와 마찬가지로 개인의 사회·경제적 지위와 직접적인 관계를 보이지 않는다. (3) 평균자녀수는 첫번째 출산의 연령이 늦어짐에 따라 감소된다. 그러나 한국 여성들은 결혼 후 가능한한 빨리 첫번째 출산을 하게 되며 이후 두번째의 출산 간격은 초혼 연령에 따른 변이가 별로 없기 때문에 초혼 연령은 출산력 수준 결정에 중대한 역할을 하고 있다.