

CHAPTER 1

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Since independence in 1957, Malaysia has experienced rapid economic growth and profound socio-demographic changes. Substantial progress has been made in job creation, structural transformation, modernization, poverty eradication and restructuring of society. With a per capita gross domestic product of US \$2,230 in 1999 (World Development Report, 1999/2000), Malaysia is classified as an 'upper middle income' country by the World Bank. Primary education has become nearly universal, and the education level has seen marked improvement. According to the 1991 Population Census, 50.6 per cent of the population aged 17 years and above had completed secondary schooling, up from 16.9 per cent reported in the 1980 Population Census. More women are now entering the non-agricultural labour market as a result of increased employment opportunities. Youths are drifting away from low paying jobs in the rural agricultural sector to seek better economic opportunities in the urban industrial and service sectors. Consequently, the overall level of urbanization in Peninsular Malaysia increased from 26.8 per cent in 1970 and 34.2 per cent in 1980 to 50.7 per cent in 1991.

Social and economic changes have profound consequences on women's roles, marriage patterns and childbearing. The extended family has gradually given way to

nuclear family. Marriage postponement and non-marriage are becoming more and more common, particularly among the better-educated group of the population. In a society where out-of-wedlock births are rare, age at marriage has a strong influence on the timing of first birth and other demographic processes and outcomes.

Past studies showed a trend towards rising age at first marriage among all ethnic groups in Malaysia. Tan et al. (1988:19-21) found that among women aged 30-34 years in 1980, more than half of the Malays and 46 per cent of the Indians were married by age 19, compared to only 15 per cent for the Chinese. As for those aged 20-24 years, only 32 per cent of Malay women, 26 per cent of Indian women and 14 per cent of Chinese women were married by age 19. This clearly indicates a trend towards delayed marriage.

In the past, studies on fertility have dealt mainly with cumulative fertility as measured by number of children ever born. However, it should be borne in mind that fertility is actually the outcome of a series of behavior, decisions and events that may span a period of childbearing in the life of a woman. Detailed analysis of the sequence of steps in the fertility process would provide a more comprehensive picture of the dynamics of fertility transitions. Rising age at first birth has the effect of increasing the mean length of generation and slowing down the rate of population growth. The timing of the first birth has strong effects on both individual and aggregate levels of fertility as well as broader implications for women's roles and social change in general. Malaysia being a plural society presents an excellent

opportunity to study socioeconomic and cultural factors affecting the timing of first birth.

1.2 OBJECTIVES OF THE STUDY

This study is aimed at ascertaining the differentials in age at first birth among the various subgroups of the population in Malaysia, and factors that account for the differentials in the timing of birth. More specifically, the aims of this study are as follows:

- a) To examine the differentials in the timing of first birth according to a number of variables – ethnicity, religion, education, pre-marital work, place of residence, spousal age difference and age at first marriage.
- b) To examine the socio-economic factors affecting age at first birth and to obtain greater insights into factors associated with postponement in childbearing.
- c) To discuss the implications of delayed age at first birth on demographic trends and socioeconomic outcomes.

1.3 LITERATURE REVIEW

A large number of studies have been conducted to ascertain the determinants of woman's age at first birth in various parts of the world. Improvement in education level and opportunities for employment for women in the formal sector, as well as changes in traditional patterns of mate selection are all likely to influence the timing of family formation. Factors affecting fertility and age at first birth among Malaysian women include ethnicity, education, current place of residence, childhood place of residence and premarital work experience (Chander and others, 1977; Hirschman and Rindfuss, 1980; Bloom and Reddy, 1986; Tan, 1983; Tan and others, 1988; Hirschman, 1985; Morgan and Rindfuss, 1983).

1.3.1 Effects of Age at Marriage on Timing of First Birth

In Malaysia, childbearing rarely occurs before marriage. Hence, age at first marriage is of particular interest because it marks the beginning of regular exposure to the risks of pregnancy and childbearing. Age at first marriage determines the length of exposure to childbearing and has a significant effect on fertility. The 1991 census reported that both men and women were marrying later (see Table 1.1). The singulate mean age at first marriage for females was 24.7 in 1991 compared to 23.5 in 1980. The corresponding mean age at first marriage among males for 1991 and 1980 was 28.2 and 26.6 respectively.

Table 1.1: Singulate Mean Age at First Marriage for Males and Females, Malaysia 1980 and 1991

Year	Total	Males	Females
1980	25.0	26.6	23.5
1991	26.4	28.2	24.7

Source: Department of Statistics, Malaysia – General Report of the Population Census 1991, Vol. 1

Coale and Tye (1961) showed that the rising age at marriage among the Malays and Chinese in Singapore in the 1950s had brought about a reduction in the crude birth rate and hence the rate of population growth even though completed family size remained unchanged. Ryder (1964) too demonstrated that the delay of births on account of marriage postponement had the effect of increasing the mean length of generation and hence slower population growth. A report of the National Population and Family Development Board (NPFDB, 1999) showed that between 1984 and 1994 the average age at which women gave birth to their first child increased by more than a year from 21.3 years to 22.7 years.

Marriage is usually the normative proxy for exposure to the risk of childbearing, given that pre-marital sexual intercourse is relatively uncommon among Malaysia's women. Using data from the 1966-67 West Malaysia Family Survey, Hirschman and Rindfuss (1980) showed that there was a strong correlation between the mean age at first birth and mean age at first marriage among a sample of 2,839 married women, aged 30-34 (see Table 1.2).

Table 1.2: Summary Statistics and Correlation Ratio of Age at Marriage and Age at First Birth Among Women Aged 30-34 by Ethnicity, Peninsular Malaysia, 1966-67

Ethnic Group		Age at First Marriage	Age at First Birth	Correlation Ratio between Age at Marriage and Age at First Birth
Total	Mean	17.55	19.75	0.71
	Std Dev	4.19	4.55	
Malays	Mean	16.24	18.84	0.62
	Std Dev	3.64	4.45	
Chinese	Mean	20.59	21.89	0.83
	Std Dev	4.00	4.20	
Indians	Mean	18.22	20.07	0.76
	Std Dev	4.06	4.21	

Source: Hirschman and Rindfuss (1980) based on 1966-67 West Malaysian Family Survey

In a study on Asian countries, Hirschman (1985) found that population differentials by age at first birth paralleled that of age at marriage. Korean, Taiwanese, Sinhalese (Sri Lanka) and Malaysian-Chinese women have their first birth at about age 21 to 23 while women in the other groups (Sri Lanka Tamil, Indonesian, Javanese, Sundanese, Madurese, Balinese, Malaysian-Malays and Malaysian-Indians) have their first child in their teens. For populations with a rising age at marriage, the age at first birth did not rise as fast. Hence, there is a general trend towards shorter intervals between age at first marriage and age at first birth.

Using the 1984 Malaysian Population and Family Survey, Hamid Arshat and co-researchers (1988) found that Malaysian women were having their first birth at ever later ages and at even shorter intervals after first marriage. The median age of

mothers at first birth had risen progressively for each of the cohorts, from 17.2 years among those of the 1950 to 1954 cohort to 21.8 years for those in the 1975 to 1979 cohort. Data show that 43 per cent of women who first married in the period 1975-79 had a birth within the first 12 months of marriage, whereas the corresponding figure among those who first married in the 1950-54 period was 18 per cent.

In India, Reddy and Bloom (1986) found that younger women (age 15 to 19 in 1975) whose mean age at marriage was 15.1 had their first child at mean age of 16.5, but women age 30 to 34 years who married on average at 13.6 years had their first child at mean age of 17.7.

Hirschman (1985) estimated five multiple regression models of age at first birth in selected Asian populations on a number of independent variables. In the first model, Hirschman found that country and ethnicity, cohort and place of residence explained about 10.5 per cent of the variance in age at first birth. Table 1.3 shows that adding years of schooling increases the predictive power to 18.9 per cent. Further addition of premarital work (in model 3) and husband's occupation (model 4) increases the predictive power of the model only marginally. However, adding age at first marriage into the model improves the predictive power by as much as 50 percentage points.

Table 1.3: Effects of Social Background on Age at First Birth in Selected Asian Populations

Model	Variables	R ² (per cent)
1	Country and Ethnicity, Birth Cohort and Place of Residence	10.5
2	Plus Years of Schooling	18.9
3	Plus Premarital Work	20.2
4	Plus Husband's Occupation	20.5
5	Plus Age at First Marriage	69.9

1.3.2 Ethnic Differentials in Age At First Birth

Hirschman and Rindfuss (1980) found that Chinese women married on average about 4 years later than Malay women, but the interval between marriage and first birth was only about 16 months for Chinese as against about 31 months among Malay women. The variance in the age at first birth among Chinese and Indians is somewhat smaller than the differentials observed between the Malays and the Chinese. In another study, Tan (1981) also showed pronounced variations in the duration between the mean age at first marriage and the mean age at first birth among the three main ethnic groups: Malays, 1.4 year (18.9 – 17.5); Chinese, 0.8 year (21.9 – 21.1); and Indians, 1.0 year (19.3 – 18.3).

Hirschman and Rindfuss (1980) showed that part of the differentials in the age at first birth among the three main ethnic groups in Peninsular Malaysia was partly due to differences in women's background variables which included father's

occupation, birthplace, years of schooling, medium of instruction in school, and premarital work experience (see Table 1.4).

Table 1.4: Comparison of Gross and Net Ethnic Differences in Mean Age at First Birth of Currently Married Women, Age 30 – 44: Peninsular Malaysia, 1966-67

	Age at First Birth	
	Observed	Adjusted for Other Variables *
Malays	18.9	19.0
Chinese	21.9	21.6
Indians	20.1	19.8

* Father's occupation, birthplace, years of schooling, medium of instruction in schools, and premarital work

After controlling for all the variables shown in Table 1.4, the Malay-Indian difference in the average age at first birth would have reduced from 1.2 to 0.8 year and the Malay-Chinese gap from 3.0 to 2.6 years. These findings are consistent with the interpretation that ethnic cultures, independent of socio-structural roles, exercise sizeable effects on age at first birth.

According to Tan (1981), Chinese women gave birth for the first time at about age 22 as compared to age 19 for both Malay and Indian women. Similarly, the median age of Chinese mothers at first birth is more than two years older than Malay women, a pattern consistent with their later age at first marriage (Hamid Arshat et al., 1988). Part of the ethnic differentials in age at first birth could be explained by the fact that the Chinese are relatively more urbanized, better educated, and were more likely to work for longer period prior to marriage as compared to Malays and Indians.

1.3.3 The Effects of Premarital Work Experience on Age At First Birth

Do premarital socioeconomic roles affect the timing of family formation? According to past studies, social change is most likely to pose role conflicts at the initial stage of family formation. At this stage, many women are exposed to non-household opportunities, which may compete with their traditional role obligations of being a wife and mother. The theoretical ideas that underpin hypotheses about such an effect are drawn from the sociological literature on changing family structure (Goode, 1963), demographic studies that emphasize the impact of 'modern' roles on marriage postponement and fertility decline (Goldberg, 1975; Holsinger and Kasarda, 1976) and economic theory which points to the opportunity cost considerations in choosing between family formation roles and participation in formal labor markets (Schultz, 1981). Common to all of these intellectual streams are the notion of role conflicts for women between traditional wife/mother obligations and alternative non-household opportunities that result from urbanization, industrialization and the changing character of societies in the process of socioeconomic development.

In a comparative study of five Asian societies, Hirschman (1985) showed that work experience has a modest but real effect on the timing of family formation. Women who worked as employees in the non-agricultural sector (professional, clerical, sales, service and blue collar) married about one and a half to two years later than women who had not worked at all or who had worked only as unpaid family

workers. The effects on age at first birth follow the same pattern, but the impact was almost entirely mediated by age at marriage.

As alluded to earlier, premarital work adds only 1.3 percentage to the explanatory power of Model 2 in Table 1.3. In other words, premarital work experience does not explain why some populations take longer or shorter period to have their first child after marriage.

In contrast, a study by Hirschman and Rindfuss (1980) found that working before marriage, whether at home or outside, had strong effects on the postponement of the first birth. Net of all prior variables, working women delayed first birth by almost one year among Malay women and by about two years for Chinese and Indian women.

Tan (1983) found that Malay women who never worked had a shorter interval between marriage and first birth as compared to those who worked--the difference being about one month. Chinese women, however, showed a reverse pattern --that is those who worked had a shorter birth interval than those who did not.

1.3.4 Educational Effects on Age At First Birth

Past studies indicated a positive relationship between the education level of women and age at first birth. Table 1.5 shows that the mean age at first birth of currently married women generally increases with additional years of schooling.

Table 1.5: Mean Age at First Birth of Currently Married Women Aged 30-44 by Ethnicity and Years of Schooling

Years of Schooling	Mean Age at First Birth			
	Total	Malays	Chinese	Indians
None	19.3	18.6	21.3	20.0
1 to 3 years	20.5	19.2	22.2	20.2
4 to 5 years	20.0	19.3	22.4	19.0
6 years	20.8	20.1	21.6	18.6
7 to 8 years	22.6	23.0	22.7	21.5
9 or more years	24.6	23.0	25.4	24.1

Source: Hirschman and Rindfuss (1980: Table 2)

The education level of Malaysian women tends to have a direct relationship with age at first birth, except for the Indians. What is consistent is the strong effect of post-primary schooling on postponing the onset of fertility, often by three or more years. The difference in age at first birth between those with no education and those with some primary schooling is much smaller.

In India, Reddy and Bloom (1986) explained that women with higher education tended to delay birth of their first child relative to less educated women. According to Hirschman (1985), education is a powerful factor in explaining delays in family formation. Women with no schooling tended to have their first birth about 6

years earlier than those with more than 10 years of schooling. The difference in the timing of first birth between those with no schooling compared to those with some primary schooling is only about one and a half year.

Interestingly, there has been a trend toward shorter birth intervals among highly educated women. Hirschman (1985) found that higher levels of education tended to be associated with a more rapid pace of childbearing after marriage. Most of the effects on earlier childbearing among highly educated women are mediated through later age at marriage. The inclusion of husband's education had insignificant effect on wife's age at first birth (Hirschman and Rindfuss, 1980).

1.3.5 Differentials in Age At First Birth By Place of Origin

Hirschman (1985) hypothesized that growing up in an urban area tended to be associated with birth postponement. Urban origins were posited to have an important influence on the timing of first birth, because of the broader range of ideas and roles that are open to young urban women. Overall, women who grew up in the urban areas tended to marry and have their first child about a year later than those with a rural background. In Malaysia, Malay women whose fathers were white-collar workers tended to have their first child somewhat later than those whose fathers were agricultural or blue-collar workers. Chinese women from rural background tended to begin childbearing about a year earlier than those who grew up in towns or cities.

1.3.6 Effects Of Spousal Age Differences on Age at First Birth

Tan et al. (1988b) found that Malay women whose husbands were much older than themselves generally married younger, controlling for education, degrees of freedom in mate selection, work status prior to marriage and childhood/current residence. Since age at marriage and age at first birth are closely related, further analysis would be carried out to examine the effects of age difference between spouses on age at first birth.

1.4 FERTILITY TRANSITION AND FACTORS AFFECTING FERTILITY IN PENINSULAR MALAYSIA

Fertility trends in Peninsular Malaysia can be divided into two phases, i.e. the period of high fertility before Independence (1957) and the period of sharp fertility decline from 1958 onwards. Fertility transition which began in the 1960s and 1970s tapered off since the 1990s, with a CBR (crude birth rate) of around 26 per thousand population and a TFR (total fertility rate) to 3.3 (refer to Table 1.6). Today, women in Peninsular Malaysia have an average of about 3.3 children, and this is just about half the number in 1960 (6.2 children per woman).

Table 1.6: Crude Birth Rate and Total Fertility Rate by Ethnicity for Selected Years, Peninsular Malaysia

Year	Crude Birth Rate(Peninsular Malaysia)				Total Fertility Rate (Peninsular Malaysia)			
	Total	Malays	Chinese	Indians	Total	Malays	Chinese	Indians
1947	43.1	41.6	44.3	49.1	-	-	-	-
1960	40.5	42.6	36.9	48.3	6.2	5.9	6.5	7.2
1970	32.5	34.2	30.5	31.8	5.0	5.0	4.6	5.0
1980	30.3	33.6	25.2	29.8	3.9	4.5	3.1	3.4
1990	27.3	32.0	19.7	23.7	3.3	4.1	2.3	2.6
1996	25.9	29.8	20.4	23.4	3.3	3.9	2.5	2.7

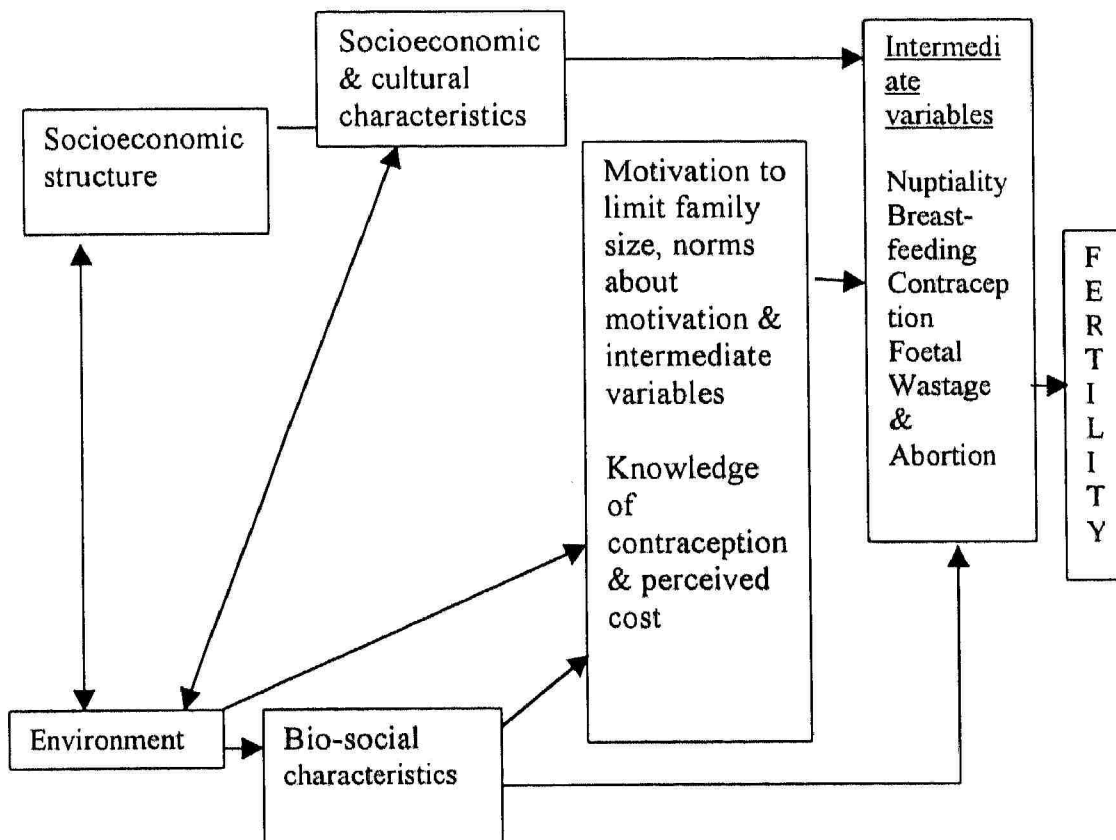
Source: Department of Statistics, Malaysia – Vital Statistics Malaysia 1970, 1980 & 1997

While the Indians started out with higher fertility than the Chinese and the Malays, they have experienced the sharpest decline in fertility rate. In contrast, the decline in Malays fertility rate has been most gradual. By 1980, Malays had the highest total fertility rate of the three ethnic groups, while Indians fertility has been slightly above that of the Chinese.

Using a framework of fertility analysis introduced by Davis and Blake in 1956 (see Figure 1.1), many researchers have attempted to examine factors affecting fertility in different populations. According to Saw (1967), the relatively low level of Malay fertility in the early post war years up to 1957 was due to their exceptionally high rate of divorce, negating the effects of early marriage. The relatively lower fertility among the Chinese compared to the Indians was due mainly to their lower marriage rate and higher marriage age. By using the 1974 Malaysian Fertility and Family Survey data, Tan (1981) showed that the strong variant of the 'minority group status' hypothesis was supported in the non-metropolitan area where the minority

Chinese and Indians had higher fertility than the majority Malays at the lowest socioeconomic status, but lower fertility at the highest status.

Figure 1.1: A Simplified Framework for Analysis of Fertility Differentials



Source: Tey et al., 1988

Researchers have also analyzed the contribution of changes in the age structure, marital pattern and marital fertility in accounting for fertility decline. Hamid and co-researchers (undated) found that between 1970 and 1980 changes in marital fertility was an important factor in the decline in crude birth rate (CBR) of the

Chinese only. The decline in the CBR among the Malays and Indians was due to changes in marital structure, on account of a continuing rise in age at marriage.