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NUPTIALITY PATTERNS IN THAILAND

BHASSORN LIMANONDA

A Joint Publication of

INSTITUTE OF POPULATION STUDIES
CHULALONGKORN UNIVERSITY

POPULATION SURVEY DIVISION
NATIONAL STATISTICAL OFFICE

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PREFACE

The Survey of Fertility in Thailand (SOFT), a joint project of the Institute of Population Studies, Chulalongkorn University, and the National Statistical Office, was conducted in 1975 as part of the World Fertility Survey, an international population research program in human fertility behavior. The Survey was undertaken with the financial support of the United Nations Fund for Population Activities and the technical assistance of the World Fertility Survey staff.

The basic results of the Survey have been published in the Country Report, issued in two volumes. In addition, two other reports based on the analysis of SOFT data have been published as part of the Survey report series. This report, Nuptiality Patterns in Thailand, is the fourth publication under the program of basic and second stage analysis which has been planned in order to more fully utilize the data collected in the Survey.

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INTRODUCTION

In many developing countries,family planning programs have been adopted as part of national population policies. But many of these have not yet succeeded significantly in reducing the rates of rapid population growth. This situation requires further research on the determinants of fertility, including attention to the extent of differentials in use of family planning and fertility levels. The differentials in human fertility reflect the effect on attitudes and behavior of a veriety of biological, socio-cultural-economic and psychological factors. Knowledge of the influences of these factors may be useful in shaping policies directed toward reducing fertility other than family planning programs.

One of the most important among these factors is marriage or nuptiality. Across the world, marriage is relatively universal even though its concepts and practices are diverse from one culture to another. Marriage is among the most important social institutions in any society. Its primary function is procreation and the maintenance of the family. Particularly, within the kinship system, marriage serves as a mechanism for the extension of kingroup size and maintenance of the clan prosperity.

Marriage and its functions have become the focus of anthropological, sociological and demographic research although based on different theoretical approaches. Cultural anthropologists and sociologists have devoted their maximum attention to marriage and kinship as element in human social organization. Some have studied sexual behavior and attitudes, but little attempt has been made to relate them to human reproductive behavior, particularly, fertility. (Nag,1975) By contrast, considerable attention by demographers in recent years has been paid to marriage patterns of nuptiality.

Nuptiality, from a demographic perspective, cover three main events : entry into marital life (age at first marriage), dissolution of marital union by death, seperation or divorce and remarriage. Most demographic research on nuptiality has focused on proportions single, number or rates of marriages and age at first marriage. Most often, these elements are always assessed in relation to fertility.. It has long been recognized that age at first marriage and duration of marriage (in terms of period of exposure to the risk of conception) are major determinants affecting fertility.

This paper attempts to explore the patterns of nuptiality practiced in developed and other developing countries. In particular, attention focuses on nuptiality patterns in Thailand and their determinants. The relationship and the impact of nuptiality ; age at first marriage and marriage duration on fertility among Thai women will be examined and discussed. The analysis will also devote attention to the likelihood that a change in the Thai government policies directed at increasing the age at first marriage will have the impact of reducing fertility among Thai women.

However, there is one main difficulty encountered by the study of the impact of age at first marriage on fertility. In developing countries particularly, the concept of marriage is often different from that followed in the developed world. This circumstance presents a problem especially when the comparison are to be made. This problem is well described by Nag : "It would becomes a problem as to which particular event should be recognized as marriage in order to study the relationship between age at marriage and fertility. Obviously, if we use the definition of marriage given by particular study then the average age at first marriage for various societies will not be comparable because they will mean different things." (Nag,1962) This statement is supported by Hajnal (1953) who, when has faced the difficulty of comparing marriage statistics in his study, observed : "It is not possible to define'marriage' in a unique way for statistical purposes in all countries. .Marital status data from the Latin America and in Carribean areas have been largely useless because so many people who, in our type of definition, ought to be counted as married, have been treated in the statistics as unmarried."

Being aware of this problem, marriage in this study is defined as any sexual union involving cohabitation. This definition is distinct from religious or legal definitions, for the start of such a union need not coincide with religious or legal marriage ceremonies nor with the first sexual experience. Though reliable data on illegimate births are not available, it appears that in Thailand childbearing takes place largely within marriage and there are strong social sanctions that function to discourage illegitimacy. (SOFT preliminary report, 1977)

NUPTIALITY PATTERNS : DEVELOPED vs. DEVELOPING COUNTRIES.

While leaving the details, a brief overview of nuptiality studies done by reseachers during the past decades are presented here in order to provide a general overview of nuptiality patterns in the different regions across the world.

Based on censuses taken in the period between 1929 to 1961, Bourgeois-Pichat (1965) has distinguished 5 types of marriage* providing a rough but interesting picture representing variations in marriage patterns throughout the world. By making no allowance for mortality before the end of the fecund period, Bourgeois-Pichat also calculated a married life expectancy of women from the first to the fifth types of marriage that showed the difference between these regions.

Out of these 5 types of marriage, one prevalent historical marriage pattern known as 'European Marriage' discussed by Hajnal (1964) has been frequently mentioned. The distinctive features of the European pattern are :

1) a high age at marriage and
2) high proportion of people who never marry at all.

The European pattern pervaded the whole of Europe except for the eastern and south-eastern portions. In Eastern and Central Europe, on the other hand, marriage customarily occured earlier and was more nearly universal. These two contrasting patterns can be seen from the following table :

Types of Society	Areas	Proportions married in each age group								Married Life Expectancy
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
1	5 countries from Africa South of the Sahara	60	92	95	95	95	87	83	70	33.9
2	4 countries from North Africa	30	75	88	88	86	78	70	50	30.3
3	9 countries in Asia	53	80	92	92	90	85	72	60	27.8
4	21 countries In Latin America and Carribean	20	55	70	75	75	70	65	60	25.0
5	21 countries European, Australia, New Zealand, U.S.A. and USSR.	5	45	70	80	80	80	75	70	24.5

Source: Bourgeois-Pichat (1965) cited in Hawthorn, 1970 pp. 19-20. Details discussed in Bourgeois-Pichat, Les factures de la fecondité non dirigée, POPULATION 20: 383-424.

Selected European Countries in 1900 : Percentage Single at Selected Ages.
(Single Population as Percent Total Population in Age Group)

Countries	Men			Women		
	20-24.	25-29	45-49	20-24	25-29	40-49
European Patterns						
Belgium	85	50	16	71	41	17
Sweden	92	61	13	80	52	19
Eastern Europe Patterns						
Bulgaria	58	23	3	24	3	1
Serbia	50	18	3	16	2	1

Note: Figures relate to territories as of 1900.
Source: Hajnal, J. 'European Marriage Pattern in Perspective.' POPULATION IN HISTORY, 1964. p.101

This table shows that in the European pattern (represented by Belgium and Sweden) A substantial proportion remained single throughout life while in Eastern European countries almost none. The proportion single at 20-24 and 25-29 are indications of the age at first marriage. It is obvious from the same table, some three-quarters of women age 20-24 are still single in the European pattern while in the Eastern-Europe, Three-quarters are marrying in the same age group. According to the European pattern, the mean age for the marriages of single women must be above 23, and has in general been above 24 (Hajnal,1964) In the European historical experience, this marriage pattern played a significant role in the development of lower fertility. (Wrigley, 1966 ; Lesthaeghe, 1971)

Many factors are considered as contributors to this phenomenon :..."The distribution of their population by marital status is influenced not only by their marriage habits but also by migration. European cities in particular have frequently shown signs of this by having a surplus of unmarried persons and especially women....a high proportion of single women in a city is often not so much that urban life discourages marriage but that cities provide opportunities for single women to earn a living and single women, therefore go to live there".. or "The reason why four women out of six do not bear children every year is that they cannot marry because of the discouragement and difficulties in their way." (Richard Cartillion, 1795)..... "The unmarried Ladies and Gentlemen in this city (London), of moderate Fortunes, which are the great Bulk, are unable to support the Expence of the Family with any Magnificence...they, therefore, acquiesce in Celibacy..." (Corbyn Morris, 1751) (Quoted from Hajnal, 1964)

The extreme example of the European marriage pattern is found among the Irish population, but this resulted from religious practices and unfavorable economic conditions. (Walsh, 1970) In England and Wales, nuptiality followed a pattern of late marriage and high proportion remaining single up to the early 1930's. Thereafter, there was a significant shift toward earlier marriage and a rapid rise in nuptiality among males and females, associated with increase in the proportions ever married particularly among females (Farid,nd.)

Compared to the other developed countries, the U.S.A. has been characterized by early marriage and a high pro-

portion marrying. This country's marriage rate reached a peak of 11:1,000 population in 1972 but has declined in each subsequent year. (Glick and Norton, 1977) The proportion not married by ages 20-24 increased from 28 percent in 1960 to 43 percent by 1976, but there is a sign of increasing proportions of unmarried couples living together (Westoff, 1978)

When the observation on nuptiality patterns shift from Europe and other developed countries to the less developed, mainly Asian,African and Latin American countries, the reverse patterns are found.

The population of developing countries commonly exhibit nuptiality patterns characterized by a still higher incidence of marriage and a considerably younger age pattern of marriage than even the earlier observed schedule from Eastern Europe and have a longer married life expectancy (Lesthaeghe, 1971, Bourgeios-Pichat, 1965) In these countries, percentages single are very low by the European standard.Very few women remain single throughout life. (Hajnal, 1964) Dixon (1971) in her study on cross-cultural variations in age at marriage also points out the phenomena of marrying at younger ages among male and female population in the developing countries. For the average age at first marriage, women in Pakistan, India and Libya have the average age at marriage about 16 years compared to 25 years of Irish women. In the same study, she found that in South Korea, India, Libya and Pakistan fewer than 1% of women remain spinsters throughout their reproductive years, while one-fifth of women aged 40-44 are still spinsters in Irland, Malta and Gozo.

The explanation for early marriage among the population in these 'traditional' societies lies in the culture and customs that have long been practiced. The desirability of marriage is determined by social institutions such as family, and kingroup rather than by individual choice.Marriage is often arranged, strong values have been placed on marriage and motherhood as well as the subordination of women in the societies. Moreover, the presence of clan or lineage system in the agricultural societies encourage youngsters to marry earlier. The joint family may be able to provide both accommodation and economic justifications for new couples for a period of time which enables them to accumulate saving and later to establish their own residence.

As in other societies, marriage is among the most important social institutions in Thailand, changes brought about by the modernization is expected. The following parts are concerned with the investigation on nuptiality patterns practiced among the Thai women. Trends and changes will be closely observed as well as to examine the relationship between nuptiality and fertility among Thai women.

DATA SOURCE :

Data used in the analysis are taken from the most recent fertility survey in Thailand "The Survey of Fertility in Thailand" (known as SOFT Survey) conducted jointly by the Institute of Population Studies, Chulalongkorn University and the Population Survey Division, the National Statistical Office in 1975. The SOFT Survey is part of the World Fertility Survey (WFS) under the coordination of International Statistical Institute (ISI) in 1974. The participation in the World Fertility Survey was both timely and consonant with the needs and requirements of the Thai government for accurate and up-to-date information on demographic variables particularly for the mid-censal period

Four separate Surveys and questionnaires were used as part of the Survey. These include :

1) Household Survey
2) Husband's Survey
3) Community Survey
4) Fertility Survey on which this analysis is based.

This Survey provides comprehensive information on fertility levels and factors influencing fertility behavior. The Fertility Survey was the primary instrument used to obtain the factual and attitudinal aspects of wives' fertility behavior.

THE DESIGN OF THE SURVEY :

The sample for SOFT/WFS Survey consisted of 4,465 households which selected from 267 clusters. It was based on a subsample of listing of households prepared for round 3 of Survey of Population Change (SPC) and was approximately an equal probability national samples.

A schedule was used to list members of every household and to select the women eligible for the fertility interview. To be eligible, a respondent had to be an *ever married woman* aged *under* 50, who had slept in the household

last night. The sample identified 4,002 eligible women. Any adult who was a usual resident of the household could answer the household schedule. The Fertility questionnaire, however, had to be answered by an eligible woman.

The household questionnaire was also used to select men eligible for the husband's interview.* (even though the information obtained from the husband's interview is not used in this analysis) The sample consisted of 3,438 males whose wives would be eligible for the fertility interview. The purpose was to match the two interviews case-by-case so that fertility could be studied in relation to the hushand fertility preferences and attitude toward fertility and child raising.

Complete and correctly matched interviews were achieved for 2,967 couples.

(An eligible male was a usual resident of the household who had a wife under 50 years of age who was also a usual resident of the household. Generally, the husband was interviewed about a month before the wife, though in some cases the difference was as much as three or four months. The majority of husbands' interview were conducted over a three week period in March and April, 1975 and the wife interview over a six-week period in April-May 1975, although some follow-up cases were interviewed as late as June 1975)

TYPES OF INFORMATION USED IN THE ANALYSIS :

The information used in this present analysis is mainly based on 3 main sections of female questionnaire. Questions asked cover information on marriage history of female respondents, fertility regulations and also the work history before and after marriage of women. The other necessary information from other sections which are selected as background variables (ie. education, rural-urban background, age) are also included.

THAI MARRIAGE PATTERNS :

According to Dixon's typology of age at first marriage and proportions of men and women never married[1], Thai female age at marriage is classified into the medium level, Compared to the extreme 'traditional' case of India, for example the proportion of Thai female never married (at age 20-24) is higher but less marked than the modern or European type which is represented by countries in West Europe.

An investigation on nuptiality pattern practiced among Thai population from various sources of work[2] provides a picture of the general pattern and of the changes that have occured in marriage behavior over time.

Young (1898) in describing the marriage age of Thai population during the past generations, stated that ;

"Although marriage does not follow immediately after the shaving of the top knot,yet after the important event has taken place both boys and girls are legally entitled to marry. In case of girls.marriage takes place about 14 but the men defer their entrance into matrimonial condition until/they are about twenty. Every girl gets married sooner or later so that old maids do not exist."

A number of socio-anthropological and demographic research have reported on the Thai marriage patterns and age at wich Thai population usually married. Blanchard (1958) notes that in rural areas, as children approach the end of primary schooling (by age 13-14) most assume a

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1) Dixon, Ruth B. 'Cross-Cultural Variations in Age at Marriage' POPULATION STUDIES, 1971
The typology is based on censuses taken around 1960 from 57 countries. These countries are classified according to their average age at marriage and proportions never married. All cases are put into diagonal cells from upper left (for traditional type) and lower right (for modern type). There are 3 levels of celibacy (percentage of female never married at age 40-444) that is; low (0-4%), medium (5-9%) and high (10-23%) level of celibacy. The average age at first marriage (or percentage of female never married at 20-24) is also classified into 3 groups; namely low (2-29%), medium (30-49%) and high (50-78%)

Based on these classifications, countries in Asia and Middle East appear as 'traditional societies' (in the upper left) while Eastern and south Eastern Europe are in the 'intermediate' group (in the center) and Western Europe and English-speaking nations appear in 'European societies!' (in the lower right)

2) This part of analysis is taken from 'Mate Selection and Post Nuptial Residence in Thailand.' Bhassorn Limanonda, M.A. Thesis, Cornell University, 1976.

full load of adult work. At the same time, flirtation begins with adolescence and eventually leads to the selection of potential marriage partners. At age twenty, boys may spend a short period in the priesthood or two years in military service before marriage, while girls tend to marry quite young, but some may not marry until late twenties if their families are poor and need their help at home. However, spinsters of bachelors are rare in the village. (de Young, 1966) This fact is supported by the findings from the national Longitudinal Study which revealed that for both sexes in the rural population and for males in urban areas well over 95% of the population over age 50 claim to have been married at least once. (IPS Research Report No.8,p.13)

From his intensive study on Thai marriage patterns based on data from two censuses (1960 and 1970), Chamratrithrong (1978) has concluded that the Thai marriage pattern is in the 'transitional period'. This interpretation is confirmed by the indication of higher percentage of single among younger age groups (for instance, 81.5% of population ages 15-19 or 36.2% of population ages 20-24 in 1960) contrast to the small percent single (2.3%) among women age group 50-54 years old, representing the universality of marriage during the last 35 years. (table 1) However, he points out that this transitional pattern can be explained only in terms of 'postponing marriage' which is the response to modernization, but not to an 'increasing celibacy'. In the 1970 census, except for age groups 15-19 for females and 20-24 for males, the figures show a slight increase in percentages single for all age groups.

In the same table, the finding from the most recent national fertility survey, SOFT, 1975 also confirm the gradual tendency toward later marriage,* the proportion of women who remain single during childbearing years has some increased.

By comparising the data from different sources coverage almost 30 years period, table 1 shows the very interesting trend changes in nuptiality, practiced among the Thai population. The figures confirm the gradual tendency toward later marriage. (again in terms of postponing marriage not increasing celibacy) It is obvious for female population, particularly among women ages 20-24 and 25-29. The percent single among women ages 20-24 increased from 30.0 in 1947 to 41.5 in 1975 and for those of ages 25-29, percent single increased from 11.0 in 1947 to 19.1 in 1975. This change in nuptiality pattern from younger to later marriage among the Thai population, of course, are resulted from many factors; some of those will be discussed in the latter part of this analysis.

** Available only for females*

Table 1. Percent Single by Age and Sex, Thailand. Censuses 1947, 1960 (adjusted), 1970 and Survey 1975

Age	Percent Single						
	1947[1]		1960 (adjusted)[2]		1970[3]		1975[4]
	Male	Female	Male	Female	Male	Female	Female
10-14	-	-	99.6	98.5	100.0	99.5	99.5
15-19	-	-	94.5	81.5	96.2	81.0	84.7
20-24	61.0	30.0	64.0	36.2	63.8	37.9	41.5
25-29	24.0	11.0	24.1	13.4	24.0	15.6	19.1
30-34	-	-	8.5	6.5	9.9	8.1	10.1
35-39	-	-	4.4	4.1	5.2	5.3	6.4
40-44	-	-	2.9	3.1	3.1	3.9	3.9
45-49	4.0	3.0	2.3	2.6	2.3	3.0	3.2
50-54	-	-	2.1	2.3	1.9	2.5	-
TOTAL			49.3	41.4	51.4	44.3	

Sources: 1) Hajnal, John (1964) Percentages single at selected ages (Single population as percent of total population in age group)
2) and 3) Chamratrithirong, A. THAI MARRIAGE PATTERN: AN ANALYSIS OF THE 1970 CENSUS DATA (1978)
2) Adjusted for half-a-year of age.
4) The Survey of Fertility in Thailand: Country Report vol.1 no.1 (based on data of never married women from the household schedule.)

A very brief summary is provided here on nuptiality changes among Thai women, based mainly on the preliminary analysis of the 1975 SOFT Study* Table 2 gives the age by which half and three-quarters of women in each age cohort were married, (cols. 1 and 2) confirm the upward trend in age at marriage. However, the findings revealed that the gradual rise in age at marriage result not from the change in age at marriage of those married by age 25 but from the growing proportions of women still single at that age. This is shown by the fact that when the analysis is limited to women first married before 25 years of age, no trend toward later marriage is discernible. (Table 2, col. 3)

**See report in detail from section 4.4 'Nuptiality and Exposure to Childbearing.' The Survey of Fertility in Thailand. vol. 1 no. 1 (1977)*

Table 2: Percent of Women Married by Age and Mean Age at First Marriage.

Age Group	Age at Which		Mean age at Marriage (of women who married before aged 25) (3)
	50 per cent married (1)	75 per cent married (2)	
20-24	21.4	-	-
25-29	20.5	24.7	18.7
30-34	20.1	23.9	18.7
35-39	19.8	23.4	18.7
40-44	19.5	22.3	18.4
45-49	19.8	22.3	18.8

Source: The Survey of Fertility in Thailand (1977)

DETERMINANTS OF AGE AT MARRIAGE:

Generally, age at first marriage of women (as well as of men) varies widely from one society to another. This variation is due to a number of factors, including socio-economic variables, cultural structure, traditional practices, values on marriage and family, belief as well as ethnic or religion.

There are number of analytical frameworks that have been proposed to explain the determinants of age at marriage. Dixon (1970), for instance, has proposed 3 variables intervening between social structure and marriage patterns.

1) Availability of mates, determined essentially by sex ratios in marriage market, by methods of mate selection (arranged or free choice)

2) Feasibility of marriage conditioned by financial or residential constraint and

3) Desirability of marriage or strength of the motivation to marry defined largely in terms of the relative rewards and the penalties of marriage or non marriage.

Fawcett presents a social-psychological taxonomy; benefit, costs, facilitators and barriers relating to three kinds of marital decisions; whether to marry, when to marry and whom to marry, as factors affecting age at marriage. (Source; Duza and Baldwin, 1977)

Studying the Chinese community in Thailand, Landon (1941) and Skinner (1958) noted that...."Among Chinese, there are marriages which take place earlier. In case of girls, it is usually from 16-20 and boys from 18-20..In general, Chinese homes favor earlier union for both sexes because of the age-old Chinese desire to perpetuate the family and because of fear of irregular union and venereal disease."

Cross cultural studies on nuptiality in Tunisia, Sri Lanka and in Malaysia by Duza and Baldwin (1977) have shed some light on the determinants of age at first marriage practiced among population in these societies. Age at first marriage among women in Sri Lanka is determined by five fundamental and rigid criteria supplemented by three variables and balancing factors which together composed the detail requirements of spouse selected and marriage; that is membership in the same ethnic community, identity of cast, bride younger than groom, bride a virgin (at first marriage) and horoscope closely matched, girl's family dowry power, security and occupational prestige of boy and status of the family line. In Malaysia... "In previous times, girl was an economic burden to a large family, so there was a pressure to get rid of her in marriage as fast as possible."

In Thailand, even though there were no rigid prohibitions or prescriptions regarding marriage in the past, there

were series of cultural practices concerning this matter that people followed as guidelines of "When they should marry." Traditionally, after spending some years as pupil in the monestery, a boy left his 'alma mater' and followed the profession of his father as cultivator or other kinds of occupations. A man only marries after a period of priesthood as in most cases parents are reluctant to give away their daughter to a man whom they lable as a 'raw man'. (Anuman Rajadhone, 1954)

Arranged marriage (which was always accompanied by younger age at marriage) was quite rarely practiced among the Thai population in general. It was found more often among well-to-do families. Marriage might be arranged through formal negotiation and by the use of a go-between but the girl herself had a final say. The majority of Thai women selected mates themselves with or without parental approval. (Limanonda, 1976)*

Marriage payments are common in many societies. They are treated as a way to guarantee the good intentions of the party that pays. Their functions usually are to stabilize the union rather than as an actual purchase price. This is certainly true in Thailand. However, unlike the situations in Sri Lanka or in India, marriage payments are not a powerful factor determines marriage age of Thai women. Findings from the national Longitudinal Study (1969-70) revealed the large percentage of women aged 15-19 living in Bangkok-Thonburi who were involved in marriage that did not require payments. (Institute of Population Studies, 1970) During the past decades, the increasing modernization and importance of education, however, have brought about changes in many respects regarding marriage. A number of traditional customs such as use of match-maker and arranged marriages are not at all practiced. Changes and differentials in age at marriage found among Thai women are determined mainly by socio-economic factors. In rural areas, women enter into marriage at younger ages than in the provincial urban places, they wait longest to marry in Bangkok. (23.7 years for rural, 24.6 and 25.1 for women in provincial urban and in Bangkok respectively) (Institute of Population Studies, Research Report,no.8) Certainly, in cities competition for a better life is much greater and the availability of educational facilities encourage people to seek higher education. Therefore, it is not surprising at all to find out that higher level of education and experience in working outside the home before marriage have a positive relationship with higher age at marriage. The accumulation of certain signs of wealth and economic security such as a piece of land, a steady job and house tend to be required and are considered especially important among cities population. (Stycos and Back, 1964) Besides the impact of education and occupation, age at marriage is also influenced by other factors. Rural and urban residence of women prior to their marriage seems to have some bearing as well as ethnicity. More than half of the respondents (53%) in rural areas who have lived since birth in the place where they were interviewed married at age under 20, by contrast, only 38% of those who have lived in Bangkok-Thonburi since birth married at age under 20. Ethnicity, particularly Chinese and Thai, also has an impact on age at marrige.* For instance, among ever married first generation Chinese women, more than half married before age 20, while Thais and the second generation Chinese women married at about ages 20-24. This could be explained by the Chinese tradition that favors younger age at marriage, particularly among females (Limanonda, 1976)

Findings from the SOFT Survey on differentials in mean age at marriage also stress the importance of selected variables which serve as both intermediate and explanatory factors for age at marriage of women. These are shown in table 3

**See details about questions asked and methodology in Limanonda, B. 'Mate Selection and Post Nuptial Residence in Thailand.' M.A. Thesis, Cornell University, March, 1976.*

Table 3 : Mean Age at Marriage of Women who Married before Aged 25 with Selected Variables

Variables	Mean Age at marriage
Education	
No schooling	17.9
1-4 years	18.7
5-10 years	20.4
11 years or more	22.4
Residence Background	
Rural	18.5
Urban	19.9
Employment before Marriage	
Never worked	18.2
Were employed	19.0

Source: The Survey of Fertility in Thailand: Country Report vol. 1 no. 1, 1977

There is a strong relationship between level of education and age at first marriage. Among women who married before aged 25, those with no schooling had a mean age at marriage of 17.9 years compared to 18.7 for those with 1-4 years of school, 20.4 years for those with 5-10 years of schooling and 22.4 for women with 11 or more years of school.

For women raised in rural areas and still living there, mean age at marriage was 18.5 years, while for women raised and residing in urban areas, the mean was 19.9 years. The nature of employment before marriage influences mean age at marriage; the mean age at marriage of those who never worked was 18.2 compared to 19.0 for those who were employed.

From general knowledge, it is found that education and age at marriage are closely related to both fertility and employment. (Goldstein and Tirasawat, 1972) Age at marriage and education are assumed to be causally antecedent to the employment variable. The causal ordering may sometimes be otherwise, most notably when career aspiration gives rise to higher education and delayed marriage. (Ryder and Westoff, 1977) Based on this knowledge, it is also assumed that education and occupation should bear a very similar impact on the differences in age at marriage since occupation is, generally, determined by level of education of individuals. However, the results obtained in this study indicate that the differences in age at first marriage of women who worked and of those who never worked before marriage is not as sharp as the differences according to educational levels. (that is, 18.2 for those who never worked and 19.0 for those who worked compared to the difference of 4.5 years in age at marriage between those with no schooling and those with 11 or more years of education) This might due to the fact that unlike the developed countries, education in Thailand which averages quite low for the majority of Thai population is not found to be a major determinant of the employment of women or types of jobs that they held before marriage. Women who were the majority of the sample, born and had resided in rural areas, have lower average education than those who are urbanites. And also, reflecting Thailand's highly agricultural character, the large number of them still engaged in farming and labor work (by examining the percentage distribution of the sample) both of which require neither higher education nor skill to perform the work. Therefore, the nature of jobs or types of occupa-

tions that the majority of women held before marriage, may not obstruct their earlier marriage, unlike those who have engaged in professional work or government official that require more years of schooling and indirectly prolonged their marriage. Studying marriage pattern in any society, it has to be borne in mind that age at first marriage of women is actually determined by a large number of factors including socio-economic, cultural or psychological factors. However, many of these factors cannot be easily quantified and expressed or measured in terms of statistics. (Chojnacka, 1976) For instance, customs or values related to marriage, social institutions, the impact of family and kingroup all affect the decision to marry and the age at marriage of women in the society.

Using an anthropological approach (ie. closely observation, the approaches that are effective at community level in order to understand functions and the operation of cultural settings related to marriage) might help to explore the other determinants of age at first marriage of population, particularly among women. The findings from both approaches, namely demographic and anthropological could be of value in facilitating the formation of the government policy related to this issue.

NUPTIALITY AND FERTILITY :

More recently, greater attention in demographic research has been given to nuptiality as a variable having a strong impact on fertility in both developed and developing countries. That age at which a woman marries has a direct impact bearing on her reproductive performance. (van de Wall cited in Knodel and Prachuabmoh, 1973, p.23) seems to be virtually accepted as a general law explaning differentials in fertility among women in less developed countries. The importance of age at first marriage on fertility is clear. However, caution should be exercised in interpreting such relations. Age at first marriage itself, in fact, is not the direct factor determines fertility, rather it is the other factor that result from age at marriage, that is duration of marriage.

To illustrate, age at marriage ordinarily indicates the onset of exposure to sexual intercourse. (Davis and Blake, 1956) One would expect the simple and straightforward relationship between age at marriage and fertility. Other things being equal, the younger the age at marriage, the longer the reproductive period spent within union, and the result, the more children that are eventually born to the woman. (van de Wall, 1973)

Preliminary findings from the SOFT Survey revealed that a slight negative association between age at first marriage and fertility is discernible. This negative association tends to become more pronounced with increasing marital duration. That childbearing continues at a substantial rate through later years of marriage was indicated by the increase in the mean number of children ever born to women married 25-29 years compared to those married 20-24 years (table 4) This held for all age at marriage cohort although more so for younger ones.

Women who married at younger or older ages also have different characteristics. Such characteristics are certainly related to fertility behavior as well. For instance, lower education, employment, married earlier, less likely to use contraception to prevent births or use inefficient methods and have more children.

Table 4 Mean Number of Childran Ever Born to Women Ever Married, by Age at First Marriage and Years Since First Marriage.

Years Since First Marriage	Total	Age at First Marriage					
		Under 15	15–17	18–19	20–21	22–24	24 and over
Total	3.9	4.6	4.4	4.1	3.8	3.3	2.5
Less than 5	1.0	0.8	1.0	1.0	0.9	0.8	0.9
5–9	2.5	2.6	2.6	2.6	2.6	2.4	2.3
10–14	3.8	3.5	4.0	3.9	3.8	3.7	3.1
15–19	5.0	4.6	5.3	5.1	5.4	4.4	4.6
20–24	6.1	5.5	6.5	6.1	5.8	6.1	*
25–29	7.2	7.2	7.7	7.1	6.6	6.8	..
30 and over	7.5	7.0	7.2	9.3	..	..	..

Source : The Survey of Fertility in Thailand : Country Report vol. I, no. I P. 49

However, since there are various factors involved during the marital process, therefore, it is not necessary for women who have started married life at the same time to have the same duration of marriage or to end with the same number of children ever born. Other variables can influence, including those related to the use or non-use of contraceptions. This is well explained by the classic "theory" of "Intermediate Variables" by Davis and Blake (1956) which needs no detailed discussion here. At the present time, a large number of women end up their marriage by divorce, seperation or death of spouses before they reach the end of their reproductive period. A number of demographic research projects have regarded marriage disruption as a causal factor resulting the lower fertility. (Goldstein 1974; Cohen and Others 1974; Rindfuss and Bumpass 1977 and Thornton 1978) This can be explained by various reasons. If the disruption occurs within the reproductive period (15–44 or 49), women are removed from exposure status, marital discord may cause couples to consciously or unconsciously restrict their fertility. Although women are transferred back into reproductive life by remarrying, still due to the time loss may low the average family size compared to those women who remain in intact first marriages.

During the past decades, contraception has become a prevalent factor contributing to the differentials in fertility of wemen and has played a very significant role in fertility reduction among women in the developing countries at the present time. Davis (1963) in his famous 'Theory of Multiphasic Responses' includes the use of available means of fertility control within marriage (including abortion, sterilization and contraception) as one of the other responses (out migration and delayed marriage) for dealing with natural increase and population pressure in the areas. Contraception if used effectively and continuously helps reduce or space the number of children. Higher parity is usually associated with less likelihood of contraceptive use.

This analysis fully recognized that the rise or decline in fertility cannot be explained by a single determinant or any one set of variables. In his examination of the two leading fertility theories (Davis' Theory of Multiphasic Response and Coale's Revision of Transition Theory) with respect to their policy implications, Burch (1975) concluded that.... "all models of fertility decline involve assertions of multiple causation, that is the several different factors make at least a nontrivial contribution to the

process." And there is a *necessary condition* in the process. "If the condition is absent, the fertility decline process simply won't occur...If the contribution of one of the key variables is zero, the fertility decline function is zero as well." But such attempts to include all important factors to explain fertility vatiation are beyond the scope of this paper. The attempt which is made here is only to examine the importance of set of *intermediate variables* including age at first marriage, marriage duration, marital stability and contraceptive use and to observe their causal relationship to fertility of women. Such relations are examined by using the bivariate and multivariate analysis and Path diagram developed by Duncan (1966) These methods enable us to construct a quantitative model and to estimate coefficients which indicate more exactly the relationship and influence among the variables in the equation.

According to the hypothesis set up as follow, the relationship of these 5 variables is examined by multiple regression and the model of the relationship is diagrammed in the Path diagram (Duncan, 1966) (figure 1) The variables are related to each other in the causal sequence, that is;

The total number of children ever born is determined by age at first marriage, duration of marriage, marriage stability and contraceptive use. As a corollary of the first hypothesis, in the same model, it is assumed that:

Whether or not women use contraception, depends upon duration of marriage and age at first marriage. Because the period of exposure to the risk of conception is longer, women who marrying younger are more likely to use the contraception. and

Duration of marriage is determined by the two exogeneous variables, age at marriage and the stability of marriage. They may marry younger but marriage duration might be shorter because of marriage dissolution.

The causal relations can be translated into the structural equation as follows:

$$X_5 = P_{54}X_4 + P_{53}X_3 + P_{52}X_2 + P_{51}X_1 + P_{5u}R_u$$

$$X_4 = P_{43}X_3 + P_{41}X_1 + P_{4v}R_v$$

$$X_3 = P_{32}X_2 + P_{31}X_1 + P_{3y}R_y$$

Where:

X_1 = Age at marriage (AGEMAR) (measured in number of years)

X_2 = Marital stability (MARSTAB) (number of times women married due to death of spouse, seperation or divorce)

X_3 = Duration of marriage (DURMAR) (measured in number of years)

X_4 = Contraceptive use (CONTRAUSE) ('ever used' or 'never used')

X_5 = Total number of children ever born to women (TOTCHILD) (number of children at the time women were interviewed)

R = Residual effects.

The relationship among 5 variables specified in the model, however, are assumed to be absent of reciprocal causation and the residual effects of each equation are independent of each other.

To obtain the path coefficients, the 3 hypotheses set up above can be solved by 3 ordinary least-square multiple regressions. (Therefore, path coefficients obtained in this model will be equal to standardized regression coefficients or Beta coefficients)

Table 5 gives the correlation matrix among variables entering into the model. It is clear that among these 5 veriables, as expected, duration of marriage showed the highest correlation with the total number of children, exceeding .6 (.661). Age at first marriage showed a smaller and negative correlation of -.203, while marital stability and contraceptive use showed almost no correlation with number of children ever born to women (.067 and .016 respectively.) Age at marriage showed a stronger but negative relationship with duration of marriage (-.172). Marital stability showed a smaller correlation with duration of marriage (.127) Almost no correlation is found between age at marriage and contraceptive use (.006) but higher correlation are found between duration of marriage (.080), marital stability (.051) and contraceptive use.

Table 5 : Correlation Matrix (Zero Order Correlation) of Variables Entering the Model.

Variables	Age at Marriage (X_1)	Total Number of children (X_5)	Contracep-* tive use (X_4)	Marital** Stability (X_2)	Duration of marriage (X_3)
Age at marriage (X_2)	-	-	-	-	-
Total number of children (X_5)	-.203	-	-	-	-
Contraceptive Use (X_4)	.006	.016	-	-	-
Marital Stability (X_2)	.126	.067	.051	-	-
Duration of Marriage (X_3)	.172	.661	.080	-.127	-
Mean	19.78	4.10	1.50	1.10	13.86
Standard Deviation	3.67	2.92	.500	.306	10.09

**Dichotomous variable with never used = 1, ever used = 2*
***Dichotomous variable with married once = 1, married more than once=2 Number of cases: 3,136*

Figure 1 Path Diagram of Intermediate Variables and Fertility.

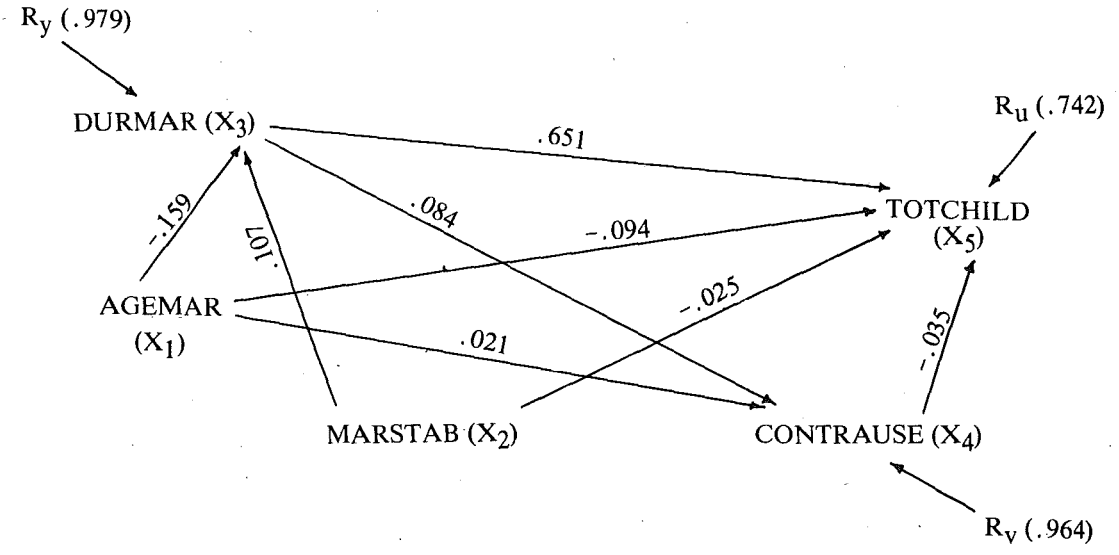

Table 6 : Standardized Regression Coefficients (BETA) for Specified Set of Variables

Dependent Variables	Independent Varibles				
	CONTRAUSE (X_4)	DURMAR (X_3)	MARSTAB (X_2)	AGEMAR (X_1)	R^2
Total no. of children (X_5)	-.035	.651	-.025	-.094	.45
Contraceptive Use (X_4)	-	.084	-	.021	.07
Duration of Marriage (X_3)	-	-	.107	-.159	.04

***F ratios for each set of variable is significant at .001 level.*

The multivariate analysis in Table 8 and the Path diagram (figure 1) shown above indicate that the full model accounts for 45 percent of the variation (R^2) in total number of children, explained by duration of marriage, marital stability, age at marriage and contraceptive use. However, when standardized regression coefficients (BETA Coefficient) are observed, it is clear that duration of marriage alone had the largest direct effect on total number of children (about 65%), age at marriage itself had no significant or direct impact on total number of children (only about 9%) but rather exert its influence indirectly through duration of marriage (as already discussed initially) Contraceptive use and marital stability had very slight and negative effect on total number of children (-.035 and -.025)

The assumption on the relationship between the use of contraception and age at marriage or duration of marriage is not confirmed by the statistics in this model. Duration of marriage and age at first marriage bear very little impact on contraceptive use. Almost about 99% of variation in contraceptive use remains unexplained by these two causal variables explicitly included in the model. The relationship among these three variables in the model is found similar to that found in many developing countries, with percentage of ever-used relatively low among the younger and older age groups and among women with very small and very large families. (SOFT, 1975; p.78) Therefore, contraceptive use among women seems to be less dependent on their duration of marriage or age at marriage.

For the last row in the table, both independent variables; marital stability and age at marriage showed a very slight impact on duration of marriage (only 4 percent explained variation with R_y.979) However, age at marriage had a slightly higher effect on duration of marriage compared to that of marital stability (-.159 vs. .107)

The unsatisfactory results (obtained from both bivariate and multivariate analysis) of this model can be explained with the same reasons provided by Hermalin and others (1979) who have conducted a similar study on fertility in Taiwan, namely:

1) Misspecification of the model. As already discussed, the variations in dependent variables; total number of children (X_5), contraceptive use (X_4) and duration of marriage (X_3) are certainly the consequence of influences of other variables than those included in the model. The higher residuals (particularly residuals of X_3 and X_4 are almost unity) indicate the incompleteness of the model.

2) The model does not allow for interaction effects.

3) Use of dichotomous dependent variables in the ordinary least-square regression may effect the statistical inference.

4) Inappropriate selected variables entering the model. For instance, the result obtained from using contraception as a predictor seems not to conform with general knowledge on relationship between contraceptive use and fertility. (The preliminary tabulation from the same study suggests strongly that contraception is being

practiced by Thai couples with sufficient efficiency to have a marked effect on birth intervals and thus on completed fertility. SOFT, 1977; p.87) This may due to the fact that measurement of the effects of contraception on the timing and number of births experienced by the couples is not available in the Survey so that such an attempt is prevented. Since there is no duration of using contraception available, the category of 'ever used' or 'never used' contraception is therefore, used in the model. This variable may obscure the true relationship between contraceptive use and fertility differentails of women.

To conclude, the multivariate analysis revealed that duration of marriage was the most important single factor determined total number of children ever born to women. In order to reduce number of children ever born, (in other words, fertility) duration of marriage has to be reduced which implied the increasing in age at marriage of women. Especially in developing country like Thailand where marriage dissolution caused by divorce or seperation is quite uncommon, majority of women are in intact first marriage till they reach the end of their reproductive period unless death breaks up marriage. Contraceptions are not widely or intensively practiced or if practiced but still inefficienly or practiced only after the number of children exceed the number they want. Therefore, raising age at marriage of women through changes in many institutions (this will be discussed later) should be the first target and means to reduce fertility eventually. (Lesthaeghe, 1971)

NUPTIALITY AND POLICY IMPLICATIONS:

More recently, the policy of increasing the minimum age at marriage (thereby reducing the duration of marriage) as a key of expediting the downward trend of fertility has recieved increasingly greater attention by both demographers and policy makers. As already discussed, the relationship between age at first marriage and fertility is clear. The study done by Tsui and Bogue (1978) found that rising in age at marriage in many regions of Africa, Asia and Latin America, has played a significant role in the decline of age specific birth rates among women under age 30 because early contraception practice for child spacing is relatively infrequent. Mauldin and Berelson (1978) viewed rising age at marriage as an intermediate variable rather than explanatory variable for fertility reduction. They believe that the increase in delayed marriage is influenced by a complex of factors including socioeconomic development, cultural variations and also the spread of concept of planning one's family.

How Age at Marriage Can Be Raised?

Various approaches (legal, social and economical) related to raising age at marriage as well as status of women in the society have been discussed widely among concerned individuals. These approaches have been suggested as tools to exclude women from entering the 'marriage market' as long as possible and also to prevent the younger marriage pattern that has long been practiced in the developing societies.

The United Nations (1973) has declared that child marriage and the betrothal of young girls before puberty is to be prohibited. Minimum standard for age at marriage are to be set in every country as not less than 15 years, with all marriages being officially registered.

Legal minimum ages for the first marraige of girls range across countries from about 12 to 20 years, while actual averages range somewhat higher from about 14 or 15 years to 24 or 25 years. (Dixon, 1971; Agarwala, 1971)

Duza and Baldwin (1977) suggested that.... "With other legislative and non legislative efforts directed at accelerating change in general and enhance the status of women in the society in particular should have a considerable impact". They further note that.... "The role of top political leadership can be the most important in establishing and maintaining a salient against the traditional values that act particularyly as constraint on female participation in society."

Yaukey (1973) in his study on "Marriage Reduction and Fertility" has proposed policies concerning marriages with respect to fertility reduction. These policies include decreasing the proportioned married by decreasing and also delaying first marriage, by decreasing remarriage, by increasing widowhood and divorce (through reducing female mortality than male mortality with the context of a general mortality reduction policy) and some other policies which are believed to have a major impact on changes in marriage pattern.

In suggesting the policy approaches to fertility reduction, Simmons and Saunder (1975) proposed a variety of measures to make entrance into marriage more difficult. Some of these are: premarital means tests; compulsory

premarital examinations on population and contraceptive knowledge; easier divorce (if accompanied by satisfactory arrangement for caring for children); special emphasis on jobs for single women; educational programs for teenage girls etc.

Dixon (1975) who has been greatly concerned about women's right provides distinguished ideas toward this subject through her article on "Women's Right and Fertility" that the status of women in the areas of education, employment, family, public life and decision making can be considered as both a determinant and consequence of variations in timing and number of marriages and births.

These suggestive policies are regarded as the most desirable measure that will initiate changes in marriage pattern, particularly age at first marriage of women in the society.

In Thailand, as in many developing societies, laws enforcing the minimum age at first marriage, without other supporting policies, seems to be crippled. Accomplishments in increasing age at marriage, according to Lesthaeghe (1971) is more dependent upon the psychological reaction of population rather than upon law enforcement. In order to acheive this end, therefore, government action and effort in encouraging the following supplemented policies are recommended:

Policies on Formal and Informal Education, Female Participation in Labor Force and Status of Women:

Delaying the onset of childbearing, either by postponing marriage or de facto unions, or by postponing the first birth within marriage, is the aspect of fertility regulation most relevant to the issue of equal right in education (Dixon, 1975) Lack of knowledge of alternative socially acceptable roles push women into an early marriage in the first place. A large number of women in Thailand, especially in rural areas, assume the role of wife and mother by marrying right after four years of compusory primary education (six years at present) which enforce children between ages of 7-14 years to attend school.

The enforcement of law requiring adolescents to receive more education in secondary level or in high school seems to be impossible in Thailand at the present time, due to many reasons such as lack of necessary educational facilities etc. which no need to discuss here. Therefore, the informal educational programs that already have been established in some areas such as out-of-school, adult education, vocational training, women development projects, young women training programs and the like should be encouraged and expanded in as many different places as possible, especially at the district or village lavels. The purposes of programs should bc to promote knowledge in social and economic aspects, to enhance the status of women which enable them to help themselves in terms of vocations and their future plans. These training courses should be designed to benefit and create an appropriate the skill for women to modern technique in both industry and agriculture. Implicitly, these program should help keep women out of the marriage market for a while. At the same time, where it is appropriate or where resource are available, home industry should be developed within or nearby areas as to create jobs and improve the economic conditions of the communities simultanously.

These kind of programs might help delay marriage at least for 2 or 3 years for young women who have completed their formal education in the school. Why? In this respect, one would expect the connection between education (both formal and informal) and the chance of participating in labor force by those women to delay marriage. Labor force participation before marriage is regarded as an important socializing experience providing young women with additional skill and role definitions which compete with the mother role. Even though there is the ambiguity in the causal ordering of female labor force participation and fertility but the relationship between education, delayed marriage and fertility is clear. (Ryder and Westoff, 1977) Female labor force participation or working outside the home of women, according to Davis (1967) is a means for limiting reproduction within marriage as well as postponing marriage. He believes that the inclusion of women in labor force has a negative effect on reproduction. He notes that. "If at the same time, women were paid as well as men and given equal educational and occupational opportunities, and if the social life was organized around the place of work rather than around the home or neighborhood, many women would develop interest that would compete with family interest..."

The greater knowledge and skill obtained from these special training programs provide women with the opportunities to join the work markets within their own communities or out of their hometowns where job opportuni-

ties are available and greater such as in the Greater Bàngkok where the majority of factories are located. This movement might encourage higher rates of out migration from villages. But it should be 'traded off' with the development and improvement of quality of life of women. To look at the brighter side, out-migration sometimes has its own rewards. Migration either before or after marriage has been found to have a negative impact on fertility by a number of demographic researchers. (for instance, Goldberg 1960; Goldstein 1973) It is interesting that Martine (1975) has found a relationship between age at arrival of migrants and lower fertility. That is, the earlier the age at arrival, the more socialized the migrants were into urban life and thereby the more similar the fertility level of migrants are to those of native urbanites. Therefore, not only the employment these young migrants of marriageable age obtained as a direct purpose of their moves to big cities, but also as by product, they have more opportunities to involve their peer activities which are important. More important, they could have learned or assimilated more about how city-women live as working women at the same time that they carry out their roles as wife and/or mother.

Higher education and ability to participate in labor force of women should be promoted as mean to raise their statuses in a society. This also would have a direct effect on increasing age at marriage.

Participation in the labor force and working away from home are means of giving women new independence. In such substitutions, women feel less obligated to marry as soon as possible due to insecurity in both social and economic statuses.

More time spent in school postpones matrimony of women. Education provides women with the ability to manage their own lives, provides better opportunities as well as assigns new roles for women beyond the roles of wife and mother.

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