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OF THE 1970 CENSUS *

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Nuptiality in Thailand : A Cross-sectional Analysis of
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I Introduction

The problem of population growth in Thailand resulting from a recent and sharp decline in mortality has been a leading concern among demographers and other social scientists. As a result, the role of nuptiality is gaining more interest since it is found to be one of the major responses to the national development and responsible for fertility decline. The study of nuptiality delay will not only give insights into this process of overall fertility, and hopefully marital fertility reduction, but it will also provide useful information in the area of development policy regarding education, manpower and family planning programs. Consideration of nuptiality policy, such as raising minimum age of marriage, in particular, would be premature without knowledge of the close association between the socio-economic development and nuptiality, the relationship proposed for investigation here.

Nuptiality have been gaining more attention from demographers. Davis and Blake (1956) have suggested that the role of marriage be considered as operating on the level of "intermediate variables". That is, nuptiality is viewed as one of the conditions through which social variables must work to affect fertility. In particular nuptiality governs a significant aspect of the "intercourse variables". This includes age of entry into sexual union, permanent celibacy and periods of divorce, separation and widowhood.

The socio-economic factors affecting the change in the nuptiality pattern has also become a focus of interest (Yaukey, 1969). Particularly, the cross national study of Dixon (1971) revealed that the distinction between the traditional and European marriage patterns described by Hajnal

still holds, especially for the female population. However, after the World War II, there has been a pronounced trend toward earlier and more universal marriage in many parts of the Middle East and Asia (Smith, 1976).

The socio-economic explanation for this narrowing gap is that in the West, especially in the most wealthy nations of the West where the economies have become most secure, former financial constraints on early marriage are vanishing. At the same time in some developing countries where early socio-economic development is progressing, constraints on marriage resulting from shortages of land, underemployment in rural areas, crowding and unemployment in cities begin to appear. Moreover, early marriage among the highly educated is becoming less desirable as they are freed from the contractualism of formerly arranged marriages without yet succumbing to the romanticism of the West" (Dixon, 1971:230).

Corresponding to these theoretical considerations, previous studies in Thailand showed that mean age of marriage was highest in the urban and non-agricultural areas and especially in Greater Bangkok (Goldstein, 1971; Prachuabmoh et. al., 1972; Knodel and Prachuabmoh, 1973). Recent analysis of the World Fertility Survey in Thailand reveals further that there is a gradual rise in female age at marriage in recent past (Institute of Population Studies and National Statistical Office, Thailand, 1977). Moreover, among the currently married women, marriage age is shown to be closely related to education (Institute of Population Studies, 1971), rural-urban residence during childhood, family income, work status before first marriage and occupation of husband (Institute of Population Studies and National Statistical Office, Thailand, 1977).

To supplement the above findings, results of the 1970 Population and Housing Census of Thailand are analysed in the report. This includes both the Changwad (province) and Region Series and the Two-percent Sample of the Census. The former will be studied by the cross-provincial approach where development and the sex ratio at the aggregated level will also be examined. Supported by the two-percent sample data, certain socio-economic differentials in nuptiality and fertility outcome of different marital statuses will then be investigated.

II Thai marriage pattern

The percent single by age taken from 1970 census reveals an unusual nuptiality pattern in Thailand. When compared internationally as in Figure 1, one observes that Thai marriage patterns for women can be classified as "intermediate." That is, the female nuptiality pattern of Thailand cannot be regarded as "traditional" as represented by the extreme case of India (1961). At the same time, it is clearly not a modern or a "European" type such as that of Sweden (1965). Interestingly, Thai nuptiality resembles that of the United States (1967). The percent single is even higher for the ages around 17 to 40.

Another unusual feature of the Thai nuptiality pattern can be seen when one considers the dynamic aspects of the nuptiality "transition." Although the percent single at young ages suggests a "moderate" age at marriage, the small percent single population (2.2 percent) at the end of the marriage age, i.e. age 50 to 54, still reveals the "universality" of nuptiality. This contrast between moderately delayed marriage among young and universality of marriage among older persons may reflect a transitional state for Thai nuptiality. On the one hand, if the marriage pattern has been constant or only slightly changed in the last 35 years, the cross-sectional data can be interpreted to suggest that Thai people respond to modernization only by "postponing" marriage but not by an increase in celibacy. On the other hand, it is more likely that these data may indicate an actual moderate change in nuptiality behavior in the previous 35 years before the census. The percent single at younger age groups may represent a more recent and modern type of nuptiality, while those at the older age

groups represent the traditional pattern of the earlier period. The validity of such a conclusion needs to be tested by longitudinal comparisons. A careful investigation of nuptiality patterns, based on the 1960 and 1970 censuses, may provide some insights into the change in marriage behavior over time.

Comparative data are cited here to demonstrate the point that Thailand has an intermediate nuptiality pattern at the younger ages. Table 1 shows percent men and women never married in 57 countries in the period around 1960. The percentages of single men and women in Thailand in 1960 age 20-24 are 68.2 and 38.6 respectively. The more reasonable figures adjusted for half-a-year of age (to be discussed later) are lower, i.e., 64.0 and 36.2. It is interesting to note that the percent single in Thailand at this young age, for females, is higher than many of the countries in the Middle East, Asia, Eastern Europe and the United States. The figure for males is, more or less, at the average compared among countries of the Middle East and Asia and again, higher than that of the United States. At the same time, for both sexes, the figures are considerably lower than those of the rest of the English-speaking overseas and Western Europe. Thai nuptiality at these younger ages, therefore, lies between the "traditional" and the "European" pattern.

Data at the older age on the other hand, show the traditional nuptiality behavior. The percent never married age 40-44 resembles the patterns found in the Middle East and Asia but is considerably lower than in Western nations and especially the United States whose percent never married at young ages is much lower than Thailand's. Between the

two models of nuptiality, one being a universal nuptiality but delayed marriage at young ages, such as in the cases of Japan and the Ryukyu Islands, and another characterized by a high rate of celibacy but young marriage such as the pattern of the United States, Thailand seems to be more in the former pattern. Although there is some delay in marriage at the young ages, especially for females, marriage is still regarded as universal. As previously discussed the contradictory indications between the young and the old ages may reflect the fact that Thailand is in process of going through a "transition" in nuptiality behavior.

As far as marriage age is concerned, Table 2 reveals recent data on singulate mean age of marriage in Asia for men and women. Taking Asian nuptiality around 1970 as standard, male age of marriage in Thailand may be considered as being low. The highest age of marriage for men characterizes Hong Kong (30.2) and the lowest, Indonesia (23.6). Male age of marriage for Thailand which is 24.7 is considered to be below average. However, as discussed earlier, female age of marriage is intermediate compared to other countries. Whereas the lowest age of marriage which characterizes Nepal is 16.6 and the highest which refers to Macau is 25.6, marriage age of Thai Women is 21.9.

III Change in proportion single

To support the point that Thailand is in the process of going through a transition toward a more modern nuptiality pattern, the 1960 and 1970 censuses of Thailand are compared. However the two censuses are not entirely comparable in terms of age reporting. In 1960, age was asked directly by the interviewer. Therefore, it is subjected to, not only the problem of digit preference, but also to the one year round up (in spite of the official attempt to ask for age at last birthday). This is especially true when it is Thai tradition to report the "going-on" age (YANG). In 1970, on the other hand, age was calculated from the year of birth. It then refers to the age at last birthday. Consequently, someone who is age A at his last birthday, is currently six months between age A and age A+1. On the average, age may be recorded between six months to one full year older in 1960 than in 1970. As a consequence, the percent single in 1960 at age 15.0-19.9, which seems to be higher than in 1970 in fact represents the percent single population of age 14.0 or 14.5 to 19.0 or 19.5. Therefore, to solve the problem, percent single by age and sex in 1960 is adjusted. The correction of "six months" is made here. (Chamratrithirong et. al., 1978).

Table 3 presents percent single by age and sex for both 1960 (adjusted and unadjusted figures) and 1970 census. Taking the unadjusted figures, percent single in 1960 is higher than in 1970 for the young age groups. This indication of a reversal in the nuptiality pattern is less likely to be correct, considering the reasons discussed below.

The higher percent single in 1960 (unadjusted figure) than in 1970 is not consistent throughout the older age groups. This is also less likely to result from a reversal of the trend of nuptiality in the past. Rather, it reflects the specific bias of age reporting in young age groups, where marital statistics are most sensitive to age. In Table 3 the percent single age 15-19 to age 25-29, for both sexes, is lower in 1970 than in 1960. The gap is considerable greater for females age 15-19 i.e., 86.2 percent in 1960 and 81.0 percent in 1970; and for males age 20-24 i.e., 68.2 percent in 1960 and 63.8 percent in 1970. This is due to the fact that the slope of nuptiality is especially sharp at these age groups for both females and males. However, at age 30 and over, where marriage is much less sensitive to age, because the nuptiality slope starts to level off quickly and the six month differences in age reporting, for example, affects the marriage risk only slightly, the opposite and probably "real" trend in nuptiality is revealed, i.e., the figures in 1970 are higher for every age groups and for both sexes. The figures for the old age-groups which are not sensitive to bias in age reporting, suggest an actual increase in percent single between the two census periods.

After a correction of six months of age has been made. The comparison of the two census figures becomes more reasonable, and the large difference at age-group 15-19 for females and 20-24 for males between the two censuses are almost totally eliminated. Except for the age groups of 15-19 for females and 20-24 for males where percent single are almost equal for both census (slightly higher in 1960), the figures from all other age-groups reveals a uniformed pattern of increasing delayed marriage in the period 1960-1970.

Table 3 also presents percent single by age and sex in 1975. Data are taken from the World Fertility Survey: Survey of Fertility in Thailand (SOFT) and Survey of Population Change (SPC) 1974-1976. Comparison between the 1970 census and SOFT reveals, again, an increase in percent single for almost all age groups of both sexes. This is especially true for young women age 15-29. Comparing the three points of time: 1960, 1970 and 1975 (SOFT), the increase of percent single of young women seemed to accelerate quickly in the latter period.

However, SPC provides contrasting evidence. Percent single is shown to decrease in certain age groups in the five year period especially for younger age groups of women. The inconsistency is, of course, beyond any firm explanation. However, it is speculated here that the trend toward later age of marriage presented by data from SOFT is more likely to be the case. Migration of young men and women may affect SPC data. Special unpublished tables (personal communication with Chintana Pejarononda, 1979) from SPC show that in-, out- and net out-migration during the survey period (1974-1976) is substantial at age 15-24 and that migrants are predominantly single. Although it cannot be confirmed, the underenumeration of these young and single migrants in the SPC may have been taken place due to the possible failure to complete all "temporary away" population. Yet, by definition, temporary visitors in the destination are not included in the tabulations. Data from SOFT, on the other hand, are based on de facto population (those who slept in the household the night before the interviews). Those who moved away were statistically enumerated in the receiving areas. If these

speculations are correct, and interpretation is based on SOFT¹, the trend toward delay of marriage implied in the 1960's would continue to be true, or even accelerate in the cases of young women, in the 1970-1975 period as well. The cross-sectional analysis which follows will help in the understanding of the socio-economic and modernization impact on nuptiality and consequently, in the implication of the above speculated trend in nuptiality in Thailand.

¹However, sample size of SOFT is much less than SPC and is consequently subjected to a higher sample variability (personal communication with Fred S. Arnold).

IV Rural-urban and regional variation

As far as the rural-urban variation of nuptiality is concerned, Table 4 presents the percent single by municipal and non-municipal areas. At the end of the marriage age, only about two percent of the rural population of both sexes remain single and about four percent of the population in an urban setting have not yet been married. The percent currently single of the total age groups standardized by age, using the standard population of the whole kingdom confirms the same pattern. The nuptiality pattern in the rural areas may be, therefore, characterized by a so-called "universal" marriage. Although the percent single is slightly higher in the urban places, 4 percent, marriage in urban areas is still "very close to being universal."

The data for the young age groups suggest a lower age at marriage in the rural areas, and that the urban-rural differentials in these age groups are much more significant. That is, by the age of 25 to 29, only 13 percent of the female population in the non-municipal areas were still single, compared to 31 percent in the municipal areas. Similar striking evidences are also found in the male population.

Larger variations in nuptiality patterns are observed between Greater Bangkok and the rest of the country. Table 5 shows the female proportion single for Greater Bangkok and the four regions of Thailand. The differences follow the same pattern as the previous rural-urban comparison, that is to say, the per cent single in Greater Bangkok is considerably higher than the rest of the country for every age group and the differences are greatest at younger ages. Not surprisingly, among the four regions, the Central which is the most urbanized region,

V Socio-economic correlates and sex pattern

The correlation coefficients between the SMAM in 1970 and the socio-economic variables for the 69 provinces are presented in Table 7. This measure of nuptiality is highly correlated with the SES index. The correlation coefficient is .78 for men and .51 for women (significant at the .001 level). These associations are also significant at .001 level for all five of the SES variables, with the exception of percent urban and average material possession scores which do not correlate with female nuptiality at any level higher than .01.

The positive relationship between nuptiality delay and socio-economic opportunities found here is consistent with various theoretical explanations. It lends weight to the "relative deprivation thesis" (Davis, 1963) which emphasises that a nuptiality delay is one of the demographic responses to increases in opportunities rather than to poverty. Using the context of price theory another hypothesis can be formulated based on the positive relationship. That is, although the "income effect" may facilitate young marriage, in the course of economic growth, the "price effect" of marriage, which also relatively increases with the new and prevailing opportunities, probably tends to outweigh the former. This price effect involves, among other things, the termination of formal education and female employment in favor of younger age of marriage. In other words, the socio-economic constraints on marriage are increasing relatively with development. These are reflected in the new societal requirements for own residence and higher educational and occupational achievement before marriage. On the whole,

therefore, a positive relationship between nuptiality delay and "increase" in opportunities is found here.

The socio-economic impact was much more significant for males than for females (Table 7). This points to the significance of the traditional sex roles in Thailand. The socio-economic constraints which increase relatively in the course of modernization and development are imposed more strongly on men. This is partly reflected in the Thai traditions such as the payment of "sin-sond" (money paid at the time of marriage), "tong-mun" (money or gold given before the time of marriage) and the construction of "ruen-hor" (new house for the newly-weds built at the expense of men on the women's land), on the part of the groom or the groom's parents, while no specific prerequisites are traditionally imposed on women before marriage (Vanaputi, 1972). Furthermore, it is a Thai tradition that, before marriage a man has to spend a period of three months in the monkhood (Kaufman, 1960).

VI Availability of mates

With regard to the non-socio-economic factors which might influence marriage, it is interesting to investigate the role of the sex ratio in the patterns of regional variation in nuptiality in Thailand. Dixon (1971) hypothesized that the nuptiality pattern could be predicted by three factors, availability, feasibility and desirability for marriage. Availability, is defined by different measures of the sex ratio at the marriageable ages. The masculinity ratio represents the availability of mates, in this case men. It is hypothesized in the study by Dixon that "masculinity ratios (be) positively correlated with marital delays among men and with bachelorhood, and negatively correlated with marital delays among women and with spinsterhood" (Dixon 1971:222).

Following Dixon's study, the role of the masculinity ratio in nuptiality is investigated here for Thailand. Table 8 shows the correlation between sex ratio and the SMAM for the 69 provinces of Thailand. The correlations support Dixon's hypotheses. The sex ratio is negatively and significantly correlated with female SMAM. This suggests that the female behavior in relation to marriage relies heavily on the "availability" of male partners. As for men, sex ratio is positively related to bachelorhood and male age of marriage. Although the direct association of these two variables confirms the previous hypothesis of Dixon, the strength of the relationship is not as significant.

In order to separate out the socio-economic factors and the availability of mates which underly the variation in nuptiality patterns,

the partial correlation coefficients between sex ratio and nuptiality, controlling for SES for the 69 provinces, and the correlation coefficients for each of the four SES groups of provinces are presented. Both statistical procedures confirm that for males, the already weak relationship between the availability of mates and nuptiality discussed earlier, virtually disappears when SES is controlled. For female, by contrast, the effect of the masculinity ratio remains strong and negative,

The fact that male marriage behavior does not depend on the availability of mates as in the case of females may be due to the differential sex roles in the traditional Thai society. Females are more passive in mate selection and therefore depend heavily on the probability of male initiatives. Males, on the other hand, are more active, therefore their nuptiality behavior does not depend on the sheer number of mates available. (See Knodel and Mayneo, 1976, for similar result for nineteenth-century Germany). On the other hand, as shown earlier, male marriage behavior is much more closely related to socio-economic factors than females. This suggests that, in relative terms, male marriage behavior is more complicated and influenced by socio-economic factors; and that, female nuptiality is less influenced by socio-economic considerations, and as a consequence, depends more heavily on the "availability" of mates.

VII Socio-economic and demographic differentials in marriage

In this section, the role of socio-economic and demographic factors on marriage will be investigated. This includes education and literacy, labor force participation and type of economic activity, occupation, major industrial group, work status, religion, citizenship, relationship to household head and migration status. The examination will cover both male and female singulate mean age of marriage, proportion ever-married at young ages and celibacy at older ages.

It should be noted that the socio-economic and demographic characteristics of men and women studied here in relation to their marital status should be interpreted with care. While religion and citizenship and probably education (especially lower levels) probably do not change during the life cycle, statuses such as occupation, economic activity, work status, household and migration status can change continually. The difficulty is that we do not know whether the gaining of such status occurs when men and women studied are still single or after they are married. The interpretation of the "causal" association between these characteristics and marital status should therefore be handled with caution. The explanation should leave room for the fact that when a man or a woman leave one marital status to the other, he or she may change the socio-economic and demographic status for that reason. Speculation of the investigated relationship will therefore be made here, when appropriate, to ascertain all such possibilities.

a) Education

A positive effect of educational attainment and literacy on age at marriage is consistently found in many countries. In Asia there is a difference of approximately five years between age of marriage of women with no schooling and those who attain a high level of education (Smith, 1976: 46). In the same study it is also indicated that the impact of education on age at marriage is greatest at the highest levels of attainment.

In Thailand, Table 9 shows that literate men and women have higher singulate mean age of marriage than their illiterate counterparts. For men singulate mean age of marriage is 24.7 for the literate and 24.3 for the illiterate; for women the figures are 22.1 and 20.0 respectively. The percentages never married at ages 20-24 for both sexes are also higher for the literate than the illiterate groups.

Marriage age by educational attainment follows the same pattern. The singulate mean age of marriage and percentages never married at ages 20-24 rise substantially beyond the primary educational level for both men and women. For men age of marriage rises from 24.5 and 24.3 for those with no education and those with primary education to 26.7 for men with secondary education and 29.5 for those who graduated from a university. For women, age of marriage rises from 20.2 to 21.7, 25.4 and 29.2 respectively for the four educational groups. Slightly less than one third of female university graduates remained single at ages 40-44.

It is worth noting that the gap of nine years between the no education and high education groups of women is very substantial. This is especially striking when compared to evidences from other Asian countries where as mentioned earlier, only approximately five-years difference is generally found. Also, by contrast, the corresponding figure for Thai men is only five years. The difference between men and women in age of marriage decreases gradually from 4.3 years for the no-education group to only 0.3 years for the university graduates. This indicates that education attainment seems to affect female nuptiality more strongly than men's (See Figure 2A and 2B). Female cilibacy especially among the university graduates is also found to be an important factor underlying the difference in the sex pattern.

One should also note that as found in many other countries, the effect of education on age at marriage in Thailand is greatest beyond the primary level which was the compulsory level at the time when this cohort of women were in school.

b) Labor force participation and type of economic activities

Change in the nature of labor force participation, especially that related to non-farm activity, is another aspect of social and economic development that is frequently found to be responsible for change in demographic behavior. It is hypothesized that in modernizing societies, increased participation in the labor force may lead to a delay in marriage.

Table 9 reveals that age of first marriage is higher for economically active women than for women who do not participate in the labor force. The singulate mean age of marriage is 24.3 for economically active women and 21.0 for non-active women, a difference of 3.3 years. For men the opposite is true. The difference is also very pronounced, 25.7 and 32.8 for economically active and non-active men respectively. Besides the singulate mean age of marriage, the percentage never married at ages 20-24, which represents, more specifically, young marriageable adults, is also of interest. Table 9 shows that the percentage never married at ages 20-24 is evidently higher for the economically active women than for their economically inactive counterpart. The corresponding figures are 59.8 and 34.5 respectively. The relationship between labor force participation and delay in marriage is therefore especially confirmed for young women in Thailand. For men, again, the opposite is true. This probably reflects the fact that the small minority of men who cannot work inspite of the fact that in Thai society they are expected to do so, may be selective of those who face financial and probably physical constraints which lead to marriage delay.

Data on labor force participation in 1970 Census of Thailand also differentiate employment status and reasons for not working. Under the

economically active category, three subgroups are presented: those employed, those looking for work (consisting of experienced workers and new workers), and those waiting for the farm season. Out of these three groups, those waiting for the farm season are characterized by the lowest age of marriage and proportion never married among young adults. Age of marriage is 25.2 and 23.2 and the proportion never married at ages 20-24 is 70.9 and 52.3 for men and women respectively. Women who are engaged in farm activities, and especially those who do not take up a secondary job but are waiting for farm season, marry relatively early among the economically active group.

Those looking for work are characterized by the highest proportion never married for both men and women. The data reveal further that new workers looking for work delay marriage to the greatest extent. Experienced workers looking for work, on the other hand, have the lowest proportion never married among economically active men and women. The substantial difference in marriage pattern between the new workers and experienced workers looking for work may be associated with occupational level and other characteristics of the two groups.

It may be speculated that the new workers looking for jobs for the first time at ages 20-24 may be in the higher educational and occupational groups whose work requires a certain amount of training and whose entrance into the labor force is consequently delayed. The experienced workers who are looking for work at ages 20-24 may include those who moved to a new place and had to change job. Many of these moves may be associated with marriage. The proportion never married is therefore very low for these groups of men and women. However, these interrelations are rather speculative. Detailed analyses of marriage patterns by occupation and migration status are needed. These will be pursued in succeeding sections.

As expected, among economically inactive, students are least likely to be married. 94.0 and 99.5 percent of male and female students aged 20-24 are still single. Those unable to work are ranked second, with percentages never married as high as 100.0 for men and 89.9 for women.

The percentage never married at ages 40-44 for those unable to work is also very high. This is true only for men, with 29.2 percent of men and only 6.7 percent of women still not married for the first time. The singulate mean age of marriage is also very high, 33.7 for men and 29.8 for women. These findings suggest that the effect of physical and mental disability in retarding marriage is substantial in Thailand. However, detailed studies on this topic need to be done in the future.

For the economically inactive, female homeworkers are characterized by the lowest age of marriage, 19.1. The proportion remaining single at ages 20-24 is also the lowest, i.e., 20.5. This is not surprising because most of these women are housewives. In contrast, age of marriage and proportion never married for male homeworkers are fairly high. These men married at age 29.1 on the average, and by ages 20-24 about 86 percent were still single. This probably reflects the segregation of sex roles in the Thai society. Young adult males are required to have jobs before they have a family while young females do not have to do so to the same extent.

c) Occupation, major industrial group and work status

Occupation is another important variable in the theoretical considerations as well as empirical investigations of the timing and the extent of marriage. Higher strata of occupation which usually requires prolonged training may consequently lead to delayed marriage. More importantly, occupation reflects social and economic status which is closely associated with nuptiality behavior. Furthermore, certain occupations although not regarded as of high status, may also lead to delayed marriage just because of the specific nature of work where early family building is undesirable.

Table 9 presents marriage pattern by occupation, major industrial groups and work status. The singulate mean age of marriage is lowest for the agricultural group. For women, their marriage age is 21.5. For men, both agricultural and transport workers are characterized by the lowest age of marriage, i.e., 23.9. Men who are categorized in the clerical, administrative and professional groups had the highest age of marriage. The age of marriage of male sale workers, service workers and craftsmen are intermediate. For women, marriage age is highest for service workers and clerk, 26.6. Women who held administrative and professional work also married at high age, 26.4 and 25.7 respectively. Women who were craftsmen and laborers, transport workers and sale workers married at intermediate ages.

In general, the percentages never married at ages 20-24 reveal the same pattern of occupational differentials in marriage found in the investigation of the singulate mean age of marriage. Young women engaged in agricultural work are characterized by the lowest percentage never married, 33.5. The highest percentage never married for young women, 82.5 percent, characterizes clerical workers. Women whose jobs were related to transportation had the second highest percentage never married, i.e., 78.5. This probably reflects the nature of transportation work which might discourages early family formulation for women.

For men, occupational differentials by proportion never married at ages 20-24 is also similar to what is found in the investigation of the singulate mean age of marriage. Contrasting to women, transportation work is not revealed to impede marriage for men. However, 89.5 percent of men who worked as miners and quarrymen were found to be never married at ages 20-24 . This involves, in 1970, 38,776 men for the whole kingdom of Thailand.

Female singulate mean age of marriage is about four to five years higher for administrative, professional and clerical workers than for agricultural workers. The increase is greater than for men's. The gap between male and female SMAM is less than one year for occupational groups other than agriculture and sales.

With regards to celibacy which is roughly measured here by percentages never married at ages 40-44, it is worth noting that women who held administrative, professional and clerical works remained single in great proportions. For instance, 27 percent of women in the administrative level which include those who worked as executive, managerial personnels and government officials were never married. This, of course, reflects a wide range of socio-economic effects on nuptiality for high status women. It probably involves changes in sex roles and greater independency of such women resulting partly from the stability and the prestige of job. The unavailability of mates for this group of women may also be an important factor. The clarification of these issues requires more research.

The 1970 census also provides information on marriage patterns by major industrial group. The differential appears to be similar to that found in the investigation of occupation. Age of marriage is lowest for the primary sector of industry which includes agriculture, forestry, hunting and fishing. Marriage ages for secondary and tertiary sector of industry are found to be high ranging from 23.4 for women in the transportation group to 26.1 for women in the service sector. For men, the highest age of first marriage, 26.5, is for those involved in electricity, water, and sanitary services and commerce.

Nuptiality patterns can also be investigated by work status. This includes employer, own account worker, government employee, private employee and unpaid family worker. It is revealed that for both men and women, age of marriage is lowest for own account worker.

Government and private employees are characterized by highest age of marriage. Marriage ages of employer and unpaid family worker are intermediate. It should be noted that female government employees aged 40-44 are characterized by a high level of celibacy that is, almost fifteen percent remain single, whereas for private employees the corresponding figure is only 8 percent. In general work status may be closely related to occupation. Own account workers are predominantly in the agricultural sector or are small-scale vendors. Their traditional marriage pattern is therefore not surprising.

d) Religion

Since marriage is an important social institution which is closely related to traditions and customs, investigation of the impact of religion upon timing and extent of marriage and celibacy is therefore essential. The census is the ideal source of information for this issue for Thailand since it contains a large enough number of cases. In this regard, the study of other religions besides Buddhism, which already accounts for 95.3 percent of the Thai population, is therefore possible.

Interest in the influence of religion on nuptiality has involved both cross-national comparison and studies of the subgroups within specific countries (Smith, 1976). One important conclusion from the study of religious orientation and nuptiality in Asia is that "religious differences cannot be readily dismissed as merely the reflection of differences in socio-economic composition" (Smith, 1976:29).

In Thailand, data from the 1970 Census reveal certain nuptiality differences across the three major religions, Buddhism, Islam and Christianity (Including Catholics and other Western churches). The timing and extent of marriage is highest among Moslem whereas Buddhist and Christian nuptiality patterns are more or less similar (Table 9). Buddhist married at the average age of 22.0 for women and 24.7 for men. Christian age of marriage is approximately at the same level, for both sexes, i.e., 21.7 and 24.9 respectively. Moslem age of first marriage is, on the other hand, about 1.5 to 2 years lower than those of the other two religions. Moslem women married on the average at age 19.6

and men at 23.2. The greater extent of marriage for Moslem is also reflected in the percentage never married at ages 20-24 which is the lowest of all three religions.

Furthermore, celibacy which is measured by percentage never married at age 40-44 is shown to be very distinctive for Moslem. Marriage is almost universal for Moslem women, i.e., only 0.8 percent remained never married at age 40-44. Christian women appear to be the most celibate group among the three religions, i.e., 12.6 percent. This is true, however, only for Christian women and not for Christian men where celibacy at age 40-44 is low and about the same level as other religions. In general the impact of religion on nuptiality pattern seems to be more significant for women than for men. This is evident when one considers both the celibacy pattern and the proportion single at younger ages (20-24). Marriage patterns for women differ across religions to a greater extent than for men.

Following the suggestion by Smith (1976) that the effect of religious orientation should be investigated independently of other socio-economic influences, control for educational level is made in this report. As a result, the effect of religion on nuptiality pattern seems to operate, to some degree, independently of educational level.

In general, age of marriage for Buddhist and Moslem increases substantially beyond the secondary level of education. The increase is especially pronounced for the Moslem. The singulate mean age of first marriage of Moslem women increases from 17.0 for the no education group to 28.0

for the secondary and university group combined. Men's age of marriage also rises substantially from a particularly low age of 21.9 for those with no education to 27.0 for the secondary and university group.

Age of first marriage for Christian women, however, remains in the range of 18.7 to 21.6 for different educational levels. The religious orientation is therefore important and remains very influential for Christian women almost regardless of educational level. Marriage age for Christian men however rises moderately with education.

It should be noted further that at the university level, celibacy among Buddhist and especially among Christian women is relatively high, i.e. 28.9 and 62.9 percent respectively. The fact that the proportion of Christian spinsterhood is especially "phenomenal" and is more than twice that of Buddhist women probably reflecting certain Christian characteristics in Thailand. One of these may involve the fact that Christians in Thailand are a minority group (there were 2,279 Christian women age 13-55 in 1970 who attained university education). Consequently, if one can assume that inter-religious marriage between Christian and non-Christian is limited, which is very likely to be true, the high celibacy may be the result of a severely restricted marriage market. Another possible explanation may involve the fact that a portion of these women are Christian nuns who attained high education and remain permanently unmarried as a result of religious dogma. The quantitative evidence for this, however, is not available in these census data.

Overall, the impact of religion on nuptiality pattern seems to remain significant. At the same time its effect also interacts with the educational level. For the low educational level, i.e., no education

and primary education, Moslem nuptiality pattern seems to be the most "traditional", that is, age of marriage is lowest for both men and women and the difference between age of marriage between men and women is among the highest. For the higher educational level, that is, beyond primary education, religion seems to have little effect for men. Male age of marriage is shown to be about the same for the three religious groups. For women, however, the age of marriage of the Christian is substantially lower than those of the other two religions. This report is, therefore able to show that the relationship between religious orientation and nuptiality in Thailand is not negligible but certain interactions with education as well as differences by sex need to be considered.

e) Citizenship

In Thailand as of 1970, there are approximately 311,093 people holding Chinese citizenship. (This does not include people of Chinese ancestry which are much greater in number. The 1970 Census focuses only on current citizenship.) This accounts for 0.9 percent of the total population of Thailand (1970 Census). The figure is 4.3 percent in the municipal areas, the place where the majority of Chinese live. Although population of Chinese citizenship is not great in number, persons of Chinese descent and Thai-Chinese mixtures are the major minority group in Thailand. The investigation of Thai-Chinese marriage patterns is therefore important. Previous studies have shown that citizenship (Chinese and Thai) is one of the significant factors underlying marriage pattern in Thailand regarding age of marriage, mate selection process and post-nuptial residence (Limanonda, 1976).

Tabulation of proportion single by age and by citizenship can be obtained from the 1970 census sample tape. The effect of ethnicity upon marriage behavior can therefore be investigated here. It is revealed that for both males and females, Chinese had, on the average, higher age of marriage than Thais. For men, age of marriage is 24.6 for Thais and 26.2 for Chinese. The corresponding figures are 21.9 and 24.9 for female age of marriage for the two ethnic groups respectively.

In order that the true effect of citizenship upon marriage age can be confirmed, control for educational attainment is made in Table 9 as well. It is revealed that the influence of citizenship on nuptiality pattern interacts with educational level for females but not for males. For men it is consistent that age of marriage is higher for Chinese than Thais for all educational levels. The fact that Chinese men marry later than Thais is therefore related directly to the ethnicity per se and probably not a whole reflection of socio-economic difference. For women, however, the impact of citizenship operates only for those who attained only primary education. The SMAM is 21.5 for Thais and 24.7 for Chinese. Those who completed more than primary education, no matter if they are Chinese or Thais, married at a high age i.e., 26.0 for Thais and 25.8 for Chinese. The effect of higher education therefore seems to outweigh the difference in cultural practice regarding female marriage behavior. In other words, for women, ethnicity and culture are related to each other in terms of their influence on marriage behavior only when women are still in the low educational group and probably not yet going through the modernization process.

f) Relationship to household head

Marriage is the stage of the life cycle that is closely related to change in household status. Post nuptial residence is, for instance, one of the focal areas of interest in Thai marriage pattern (Knodel and Prachuabmoh, 1973; Limanonda, 1976). The 1970 census provides classification of marriage pattern by relationship to household head, son and daughter, relatives and others and servants. Investigation of this tabulation may help in the understanding of the nature of association between marriage, stage of life cycle and consequent household status.

Considering percent single at ages 20-24 and 40-44, those who retain status of son and daughter of the household head, remain single to a greater extent than the national average. That is, for instance, in the rural areas, female percent single at ages 20-24 and 40-44 is 61.1, and 32.2 for daughters (Table 9) as compared to all rural women whose respective figure show only 33.7 and 3.4 percent (Table 4). Higher percent single for daughters is also revealed in the urban areas. The pattern for sons is also similar. This, of course, reflects the selectivity of married persons who leave the parents' home to settle in new houses.

It is revealed further that relatives and other persons residing in the household remain single to a much greater extent than the national average. This does indicate the selectivity of married relatives who leave the household, and also the fact that, in the context of the extended family in Thailand, probably single individuals rather than the couples tend to co-reside with the household head. This pattern is true for both urban and rural places.

Data for servants indicated even more markedly that domestic servants, both males and females, tend to be single persons. The singulate mean age of marriage is fairly high ranging from 29.1 for women to 33.0 for men in the rural areas. The high age of marriage among servants is not uncommon in other communities. For example, quantitative evidence indicating a similar pattern are shown in nineteenth century Germany as well (Knodel and Maynes, 1977).

In Thailand as well as in other developing countries and some of the developed nations in the past, many single young men and women in the rural areas move to work as servants in town. As a result, this typically delays their age of marriage. Although high proportion single among servants may be partly explained by the selectivity of those who get married and give up working as servants at the same time, it does not rule out, however, the fact that the nature of the servant work may have something to do with the infeasibility or the delay of marriage. Knowing that domestic servants are inclined to quit the job if they are married, the household heads tend not to support, if not discourage, their marriage. Servants may also have difficulties in the mate selection process as well due to limited opportunities to meet potential partners. Furthermore, they may have to postpone marriage because of their obvious financial and residential constraints.

g) Migration status

Migration and marriage are related in a number of aspects. Men or women may move to marry and live with spouses who reside in a different location. The move may be initiated soon after marriage when the couple is able to build their own home or may be expected to do so when they have their own offspring. On the one hand, migration may free men and women from traditional constraints and facilitate the mate selection procedure. On the other hand, migration may disrupt the way of living and make marriage more difficult. Furthermore, migration associated with social mobility may result in late marriage since migrants may spend more time in the attainment of their socio-economic and occupational status before marriage.

Differentials in nuptiality by migration status are investigated here. This includes life-time and five-year migration as well as overall migration in Thailand and migration to Greater Bangkok. Table 9 indicates that age of marriage is lower for migrants than non-migrants. It should be noted that in general, the pattern of differential is consistent whether one considers life-time or recent migration and overall migration or rural-urban move. This implies that it is probably the reasons associated with family formation as discussed earlier linking migration and marriage together are dominant. Support for the social mobility thesis is not evident here. One should note further that for migration to Greater Bangkok, the differential may also be due to differences in rural-urban origin. Although link between migration and nuptiality cannot be totally identified for the time being, it is worth reemphasizing that the differential itself is very consistent. Further study following this issue should be encouraged in the future.

IX Socio-economic and demographic differentials in marriage dissolution

Various additional indexes of nuptiality have been calculated from the 1970 census marital status information. The indexes include the proportion married (I_m) (Coale, 1970), proportion single (I_s), proportion divorced (I_d), proportion separated (I_p) and proportion widowed (I_w). (See Hull and Saladi, 1978 and Smith, 1978 for calculation of these indexes.) These indexes indicate "distributions of women of reproductive age of various status (which) are weighted according to a Hutterite schedule of age specific fertility which is meant to represent an approximate weighting for potential fecundity patterns." (Hull and Saladi, 1978:3.) In other words, these indexes reflect not only marriage pattern of women but also their marital status with regard to its potential effect on fertility. For instance, the proportion divorced will be inflated in the index I_d if the divorced women are predominantly young (and presumably fecund). That is to say, we emphasize the extent of divorce in its potentiality in reducing fertility when divorce is among younger than older women.

In this chapter, emphasis will be given to marriage dissolution (with regard to its potential effect on fertility). I_d , I_p and I_w will be discussed cross-sectionally, that is, with respect to different socio-economic groups, religions, citizenship and selected demographic characteristics.

These marital status indexes are given in Table 10 and 11. It is revealed that approximately 65 percent ($I_m = .646$) of the reproductive potential is realized through the present marriage pattern, assuming

illgitimacy is negligible. About 30 percent ($I_s = .302$) of potential fertility is reduced because of the fact that not all women are married but approximately 30 percent are still single. The remaining 5 percent of the reduction is attributed to marriage dissolution which includes divorce, separation and widowhood.

Among the three forms of marital dissolution, divorce and separation combined have a greater impact than widowhood on fertility. Marriage dissolution is lower for the municipal areas than the non-municipal places. Lower educational and occupational groups are also characterized by more marital disruption (Table 11). This is true for all three types of marriage dissolution. Socio-economic differences in widowhood is probably partly explained by the socio-economic mortality differential. Socio-economic differential in mortality investigated from the 1970 census is shown elsewhere (Knodel and Chamratrithirong, 1978).

However, the lower proportions divorced and separated for the higher socio-economic groups of women may be explained in a number of ways. First, women of higher socio-economic status may tend to conceal their marriage dissolution by reporting their marital status as being single or still married. Second, age of marriage is lower for women of lower socio-economic group, they are therefore, exposed to a longer period of risk of divorce and separation. Third, women of higher socio-economic status may remarry more than their lower socio-economic counterparts. Fourth, marriage stability may be related to financial stability. In general, the traditional pattern of young age of marriage and probably quasi-arranged marriage among the lower social and economic

classes may lead to less stable marriages than the modern pattern of higher age of marriage and probably where mate selection is more carefully processed by both spouses and their parents. Unfortunately, verification of these speculations is not possible insofar as the census data is concerned.

Besides the socio-economic variation, census data also permit differentiation by religion. Although the difference is not great, in general Moslem women seem to experience the greatest incidence of separation and divorce. For those with no education, Moslem and Buddhist women are not very different in the extent of separation and divorce combined. For the higher educational levels, however, Moslem women are characterized by greater incidence of separation than the Buddhist. This is with the exception of the university level where Moslem marriage dissolution is not evidenced at all. In general and almost for all educational levels, Christian women separate and divorce least of the three religious groups.

As far as citizenships is concerned, census data reveal that Chinese experience more separation than Thais. This is especially true for higher educational levels. Whereas separation declines with higher educational levels for Thais, the opposite is true for Chinese. For them, the proportion separated (I_p) rises from 0.023 for no education group, to 0.061 for primary education and 0.034 for the secondary education and as high as 0.301 for the university level. Divorce is almost negligible for both Thai and Chinese for the high educational level. For Chinese, it virtually disappears for educational levels

higher than primary education where, interestingly enough, separation begins to increase sharply. Either there is a behavioral switch from divorce to separation among highly educated Chinese or it merely reflects the difference in the use of terms (using separation in place of divorce) is beyond the examination here.

Selected demographic characteristics are investigated here in relation to nuptial behavior. Marriage behavior is found to be quite different for various household statuses of women. Women who are household heads, which account for 9 percent of total female household heads and wives of household heads, are unsurprisingly predominantly of broken marriages. Widowhood is substantial among these groups of women ($I_w = .351$). Separation and divorce are also at high level ($I_p = .196$ and $I_d = .075$). Female household heads remain either currently married or single at a level much lower than the national average. In sum, the fertility potential of female heads of household is reduced by more than half through either divorce, separation or death of husbands.

Women who are daughters of household heads remain predominantly single. The level is far above national average, that is, $I_s = .622$. Marriage dissolution by separation and divorce among these women is slightly higher than the figure derived from total women. This probably reflects the return to parents' home after marriage is broken. Marriage pattern of relatives and other persons residing in the household is also peculiar. They are mostly single (almost 70 percent). Their proportion married is much smaller than all women. The proportion of broken families with regard to divorce, separation and widowhood is also higher than the national average. Servants' nuptiality pattern is most distorted. About

85 percent are single. Proportion married is very low. The incidence of separation is also much higher than the national average, that is, I_p is .048 as compared to .020.

It is suspected that female migrants may have a higher proportion of broken families. Goldstein et al. (1973) speculated that the high portion of women without spouse present in Greater Bangkok may be the result of migration. Goldstein's interest in this regard concerns temporary separation. Marriage patterns including permanent dissolution by migration status is a topic of investigation here. The data reveal that there is an insignificant difference regarding the extent of marriage dissolution between female migrants and non-migrants. This refers to both life-time and five-year migration and migration throughout Thailand as well as migration to Greater Bangkok. However, data for male's marriage dissolution shown separately in Appendix C1 and C2 reveal that the extent of separation is obviously higher for five-year migrants than non-migrants. This is true for all age-groups of men 20-24 to 50-54. Proportion divorced is also higher although the differences is not as clear as in the case of separation. Data on migration to Greater Bangkok show a similar pattern but are less consistent. As a whole migration among broken families seems to be more true for males than females reflecting the pattern of husbands leaving wives rather than the other way around.

IX The effect of marital stability on fertility.

Nuptiality patterns are known to be an important factor affecting fertility. Not only the timing and tempo of first marriage and celibacy discussed earlier but also the extent of broken marriages from widowhood divorce and separation are among the significant intermediate variables determining the time span of the reproductive process (Davis and Blake, 1956). In Thailand Goldstein et.al. (1973), in their analysis of a one-percent sample from the 1960 census, found that cumulative fertility of married women with spouse present far exceeds that of women whose marriage was disrupted by divorce or temporary absence of spouse. Similar findings were found in the Longitudinal Study of Social, Economic and Demographic Change in Thailand (Knodel and Prachuabmoh, 1973 : 28). Currently married women have the highest cumulative fertility. Divorced and separated women have the lowest fertility, and widows fall inbetween. Fertility differentials by marital status are found to be more pronounced in rural areas, a fact probably relates to rural-urban differentials in the adoption of contraception. (Knodel and Prachuabmoh, 1973:28). This is because birth control is more prevalent in urban areas. "Thus differences in the length of exposure to the risk of childbearing beyond the point where the desired family size is achieved may be less consequential for the cumulative fertility of urban women" than for their rural counterparts (Knodel and Prachuabmoh, 1973:28).

An attempt is made here to examine the extent of such effects of marital status on "ever-marital" fertility in Thailand. This will be carried out for both cumulative and current aspects of the reproductive

behavior. Table 12 and 13 present number of children ever born alive (cumulative fertility) and own children 0-4 (current fertility¹) per 1,000 ever-married women by age and marital status. For the children ever born data, fertility is found to differ markedly by marital status. The fertility of currently married women aged 15-49 is much higher than that of women whose marriage was disrupted by widowhood, divorce, or separation. This pattern is similar for all age groups. The age-standardized figures² show that women who were currently married had borne an average of 4.4 children whereas the widowed, divorced and separated had averaged 3.5, 2.3 and 2.9 children respectively. At the end of the reproductive period, women whose marriage was currently stable had an average completed family size of 6.8 children as compared to 5.8, 3.3 and 4.8 children for the three respective groups of women whose marriages were broken.

¹ Own children 0-4 reflects "current" fertility of women because it refers to current number of children under five living with mothers. In other words, it represents fertility level over the five years preceeding the census (1965-1970), unadjusted for child mortality.

² The total unstandardized figures show a higher fertility among widows than among currently married. This is due to the fact that a great majority of the widows are of older age groups who naturally have higher cumulative fertility simply because of the longer exposure to child-bearing. Interpretation of the total-age figures should therefore be made only after age standardization.

Among these three groups, fertility of widows is highest. This is for all age groups and for both total and total standardized figures. This is probably due to the fact that there is a longer time exposure to childbearing before widowhood than before the incidence of divorce and separation which usually happens during the earlier years of the reproductive period (Goldstein et. al., 1973 : 24). The higher level of fertility among the separated than among the divorced may be interpreted as follows. On the one hand, separation probably implies a weaker disunion of spouses than divorce. Relatively speaking, the separation may not be as absolute as in the case of divorce. On the other hand, couples of larger family may find it more difficult to divorce than to simply live apart from each other. Husbands and wives who have fewer children are more able to afford divorce than those with many children.

Data from "own children" reveal the same pattern of fertility difference by marital status. The average number of own children 0-4 for the currently married women is approximately twice those of widows, divorced and separated women. That is, the standardized own children ratios vary from 1,075.8 for the currently stable marriage to 577.6, 438.5 and 545.8 for the three broken-marriage groups respectively. It is interesting to note further that although marriage is disrupted, these women still average only a child under five living with them. Among the three groups of women whose marriage was broken, again, fertility is highest for widows and lowest for the divorced.

The impact of marital status on marital fertility of both cumulative and current measures appear to be quite significant here. However, fuller assessment of this influence can be gained if one could control for certain socio-economic characteristics. This is to assure the fact that marital stability is the direct cause underlying the fertility differences and not just the reflection of the outside influence of other socio-economic factors. Table 14 and 15 and summary Table 16 therefore present fertility by marital status controlling for educational attainment of women.

Table 16 shows that at any level of educational attainment, fertility is still higher among women whose marriage was currently stable than among those women who were widows, divorced or separated. Among these three groups of women whose marriage was disrupted, cumulative fertility is highest for widows and lowest for the divorced. Fertility of the separated is intermediate. This pattern is found to be uniform for all educational levels. The explanation underlying this probably concerns the time exposure to childbearing discussed earlier. However, for the own children data, there is no consistent pattern pertaining to the fertility of these three groups of women when one considers each of the educational attainment levels. This is because fertility as measured by own children is "current" in nature i.e., within the five year period prior to the census. It is therefore not totally influenced by the time exposure to childbearing.

For both cumulative and current fertility, the differentials by marital status seem to be more pronounced for the lower educational groups of women. This probably corresponds to findings from the study of Knodel and Prachuabmoh (1973) revealing a more pronounced differentiation in the

rural areas than in the urban places. Their speculation concerning the difference in contraceptive practice among the rural and urban women is probably applicable to the finding from this study regarding educational differences as well.

It should be noted also from this Table that regardless of marital status, both cumulative and current fertility drop markedly after women had attained the educational level higher than the primary school.¹ Both education and marital status, therefore, have significant influence on fertility. The interaction between them, however, is not investigated here.

Overall, the results from this investigation support previous findings discussed earlier. It helps to confirm that marriage dissolution affects fertility outcomes in Thailand to a very large extent. In previous section it is shown that socio-economic characteristics are significantly related to the degree of marital stability. The dissolution of marriage among the lower status of women is probably crucial in the reduction of their fertility. Marriage disruption among the higher status, on the other hand, may have less effect on fertility of this group of women whose reproductive behavior is more a function of the complexity of socio-economic

¹Analyses of the 1970 population and housing census of Thailand (two percent sample) concerning socio-economic differentials (including education) in fertility is presented elsewhere. See Apichat Chamratrithirong and Supani Boonpratuang, Fertility: Report #3 from the 1970 Population and Housing Census, National Statistical Office, Bangkok, 1978.

development and family planning practice. In the course of development, the role of marriage and marriage dissolution as well as the extent of remarriage and their interrelation with contraceptive practice is a topic of relevance for future study if we wish to gain a full understanding of process of fertility decline in Thailand.

X Conclusion

Nuptiality patterns in Thailand lie between the "traditional," i.e., young age of marriage and universality of nuptiality, and the "modern" or "European" type characterized by marriage postponement and a relatively high proportion of celibacy. The singular mean age of marriage (SMAM) of 24.7 for males and 21.9 for females are considered "intermediate." At the same time, only two to three percent of the population remain single at age 50 indicating a universal marriage pattern. Investigating the percent single at younger and older ages in 1970 and comparing the 1970 census and the adjusted figures in 1960, a slight increase in age of marriage is indicated for both sexes. This is especially true in Greater Bangkok and the central region. Data from SOFT 1975 support the increase in percent single for both men and women. It even pointed to the acceleration of marriage delay among young women during 1970-1975. Data from SPC 1975, on the other hand, provide opposite results. Speculation but not firm interpretation is made in favor of SOFT data. In general, this suggests that Thai nuptiality is probably in a transition period towards a more modern pattern, particularly in the more developed areas of the country.

The underlying socio-economic impact on the change in nuptiality during the last decade is supported by cross-sectional observation in 1970. Age of marriage varies greatly across the rural-urban areas and the four regions of Thailand. Greater Bangkok is of course, characterized by the highest age of marriage. A cross-provincial analysis of the relationship between nuptiality and socio-economic measures among the other

69 provinces of Thailand is carried out. Age of marriage and percent single is positively related to a range of socio-economic characteristics especially for men.

The "availability of mates" also generates an impact on nuptiality patterns, particularly for females. The masculinity ratio is negatively and significantly correlated with spinsterhood and female age of marriage. This relationship still holds controlling for SES. For males, the relationship is weak and virtually disappears when SES is controlled. These findings point to the differential sex roles in traditional Thai society. Women are more passive in mate selection and therefore depend heavily on the probability of male initiatives. By contrast, marriage behavior of men is much more closely related to socio-economic factor and, therefore, does not depend strongly on the sheer number of mates available.

With the availability of the two percent sample of the 1970 Population and Housing Census, this study is able to present socio-economic and demographic differentials in marriage patterns. The impact of education, labor force participation and occupation are shown to be quite significant. Certain differences in marriage behavior by religions and citizenship are evident even after educational level is controlled. Selected demographic characteristics, household status and migration status are revealed to have close association with nuptiality in Thailand as well.

The extent of marriage dissolution in relation to its potential fertility reduction is shown in terms of Coale's and Hull and Saladi's indexes. Marriage dissolution is found to be lower for urban than rural areas and inversely related to educational and occupational statuses. The differential

in widowhood is probably due to socio-economic pattern of mortality. The difference in the extent of divorce and separation is suspected to be the result from a number of factors speculated in this study. Certain relationships between religion and citizenships and marriage dissolution is also shown. Substantial differences in marriage pattern are found for different household statuses. The association between migration of men, but not of women, and the extent of their marriage disruption is lastly implied by the data.

Marital stability is revealed to be significantly related to fertility outcome. Data show that fertility measured by children ever born is lowest among the divorced, followed by the separated and widowed respectively. Currently married women are, of course, characterized by the highest fertility. Own children data show a similar pattern. It is further found that for the cumulative fertility, the pattern is consistent for all educational groups. The differentials are more pronounced for the lower educational strata reflecting the difference in contraceptive practice in favor of the higher educated women.

This study is able to show that socio-economic development, marriage patterns, marriage dissolution and fertility outcomes are factors closely related to each other. In the course of development marriage is delayed and the stability of marriage increased. Duration of marriage disrupted by divorce, separation and widowhood is still an important influence on fertility in a developing country such as Thailand. Significant association between nuptiality and development suggests that government policy regarding the fostering of female status could be very

effective in increasing age of marriage. It could probably be more effective than legal measures on minimum age of marriage. This will not only be beneficial in terms of the fertility reduction objective but the stability of marital life of women as well. Lastly, from a demographic viewpoint, it will be interesting to see in the future, whether linkages between development and marriage and between marriage and fertility weakens as family planning becomes widespread as seems to be the case in many developed countries today.

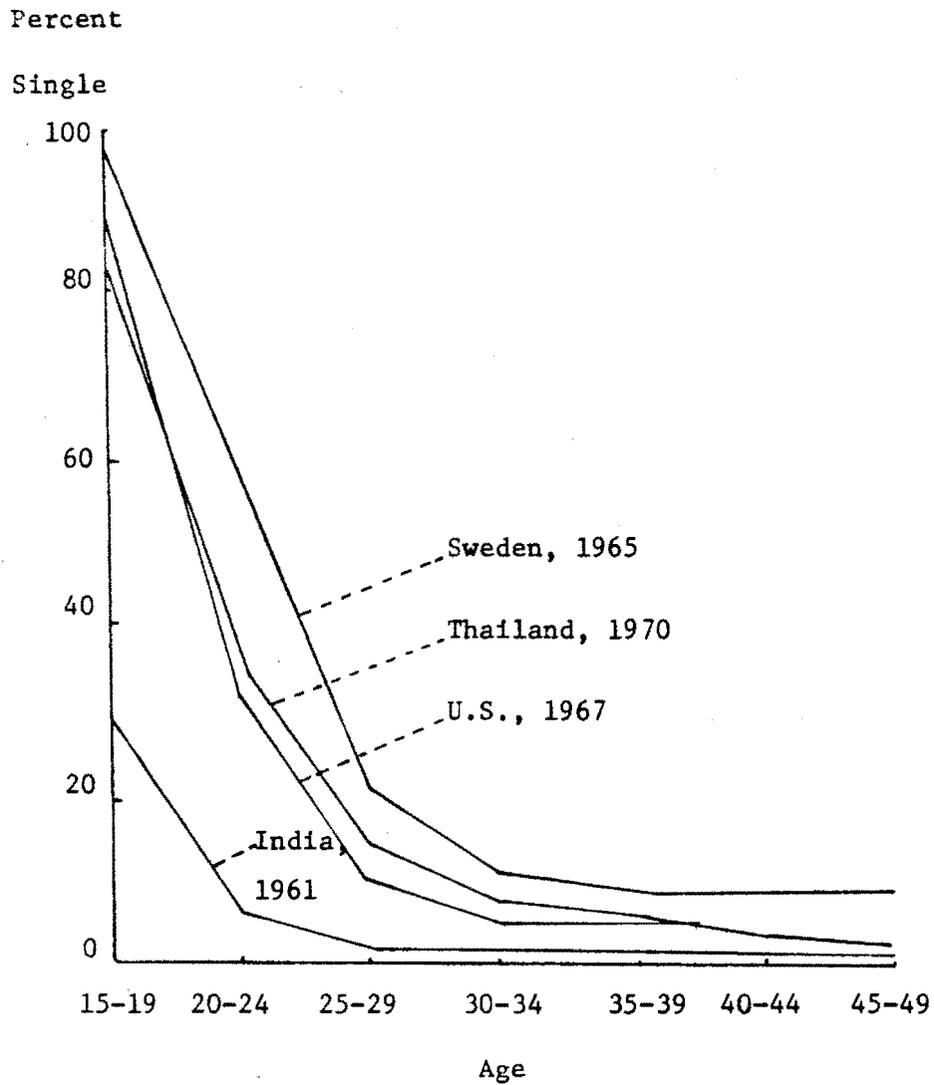


Figure 1 : Percent single females by age, figures for India, United States, Thailand and Sweden.

Sources: David Yaukey, Marriage Reduction and Fertility 1973, D.C. Health and Company, Table 6-1 and Figure 6-1. pp. 72-73; and Thailand Population and Housing Census 1970.

Table 1 : Percentage of men and women never married age 20 - 24 and 40 - 44 in 57 countries, around 1960.*

Region and country	census date	Percent never married				
		Male		Female		
		20 - 24	40 - 44	20 - 24	40 - 44	
<u>Middle East (11 countries)</u>						
	Unweighted mean	66.6	4.9	22.4	2.5	
	Weighted mean	64.6	4.0	18.2	1.9	
<u>Asia (14 countries)</u>						
	South Korea	1960	79.2	0.3	31.7	0.1
	India	1961	43.9	3.9	6.0	0.6
	Pakistan	1961	51.2	3.5	5.8	1.0

(continued)

* Source: Dixon, 1971: Table 1 and 1970 Population and Housing Census of Thailand.

Table 1 : (Continued)

Region and country	Census date	Percent never married			
		Male		Female	
		20 - 24	40 - 44	20 - 24	40 - 44
Taiwan	1956	64.2	7.9	29.3	1.3
Malaya	1957	62.3	6.2	21.4	1.4
Ryukyu Islands	1960	87.6	2.5	68.5	1.8
Sabah	1960	61.7	4.4	20.8	1.9
Sarawak	1960	57.9	4.2	25.5	2.7
Japan	1960	91.8	2.0	68.4	3.0
Thailand	1960	68.2	3.0	38.6	3.1
	(1960) ¹	(64.0)	(2.9)	(36.2)	(3.1)
	1970	63.8	3.1	37.9	3.9
Ceylon	1963	85.0	10.4	41.4	4.2
Singapore	1957	77.7	7.5	33.0	4.9
Hong Kong	1961	86.2	7.4	48.6	5.9
Philippines	1960	65.5	4.1	44.3	7.6
	Unweighted mean ²	70.1	4.8	34.5	2.8
	Weighted mean ²	55.3	3.6	18.9	1.4

Eastern Europe (8 Countries)

¹Adjusted for half-a-year of age report.

(continued)

²Thailand 1960 (adjusted figure) and 1970 are not included.

Table 1 : (Continued)

Region and country	Census date	Percent never married			
		Male		Female	
		20 - 24	40 - 44	20 - 24	40 - 44
Unweighted mean		71.7	5.1	37.1	5.8
Weighted mean		71.3	4.8	38.5	6.6
<u>English-speaking</u>					
<u>Overseas (4 countries)</u>					
United States	1960	53.1	7.3	28.5	6.1
New Zealand	1961	73.0	9.8	40.5	7.5
Canada	1961	69.5	10.9	40.5	8.9
Australia	1954	74.1	12.2	40.9	9.1
Unweighted mean		67.3	10.1	37.6	7.9
Weighted mean		55.4	7.8	30.1	6.6
<u>Western Europe (20 countries)</u>					
Unweighted mean		81.3	13.2	58.3	14.1
Weighted mean		80.8	9.8	55.3	11.9
<u>All countries (57 countries)</u>					
Unweighted mean (M)		73.4	8.4	41.1	7.5
Standard deviation (SD)		11.0	5.9	18.5	5.9

Table 2 : Singulate mean age of marriage for countries of Asia by sex for most recent available data.

	Date	Male	Female	M-F
South Asia				
Pakistan	1971	-	19.2	-
India	1971	24.7	17.1	7.6
Sri Lanka	1971	28.0	24.1	3.9
Nepal	1971	-	16.6	-
Bangladesh	1965	-	14.8	-
Southeast Asia				
Burma	1953	-	19.3	-
Thailand	1970	24.7	21.9	2.8
Cambodia	1962	24.3	21.3	3.0
Sabah	1970	25.3	20.2	5.1
Sarawak	1970	24.1	21.1	3.0
Brunei	1960	25.7	19.5	6.2
Singapore	1970	-	24.4	-
Indonesia	1971	23.6	19.0	4.6
Philippines	1970	-	22.9	-
East Asia				
Taiwan	1974	24.7	23.1	1.6
Hongkong	1971	30.2	23.8	6.4
Macau	1970	29.0	25.6	3.4
Korea	1970	27.2	23.3	3.9
Rykuyu Islands	1965	27.9	25.5	2.4
Japan	1970	27.6	24.7	2.9

Source : P. C. Smith, "Asian Nuptiality in Transition" paper presented at the Seventh Summer Seminar in Population, East-West Population Institute, Honolulu, June 1976 : Appendix Table 1. See also P. C. Smith, Indexes of Nuptiality for the Countries of Asia and the Pacific, "Asian and Pacific Census Forum Vol. 5, No. 2, East-West Population Institute, Nov. 1978.

Table 3 : Percent single by age and sex, Thailand, 1960, 1960 adjusted, 1970 and 1975.

Age	Percent Single									
	1960		1960 (adjusted) ¹		1970		1975 ² (SPC)		1975 ³ (SOFT)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
10-14	99.8	99.9	99.6	98.5	100.0	99.5	-	-	-	-
15-19	97.4	86.2	94.5	81.5	96.2	81.0	95.6	78.6	96.9	84.7
20-24	68.2	38.7	64.0	36.2	63.8	37.9	59.6	35.9	63.9	41.4
25-29	25.8	14.1	24.1	13.4	24.0	15.6	24.5	15.7	25.9	19.2
30-34	8.9	6.7	8.5	6.5	9.9	8.1	8.9	8.2	8.1	10.1
35-39	4.6	4.2	4.4	4.1	5.2	5.3	5.2	4.8	5.9	6.3
40-44	3.0	3.1	2.9	3.1	3.1	3.9	3.3	3.2	2.8	3.8
45-49	2.4	2.6	2.3	2.6	2.3	3.0	2.2	1.6	2.4	3.3
50-54	2.1	2.3	2.1	2.3	1.9	2.5	2.1	1.6	1.8	3.8
Total	49.3	41.5	49.3	41.4	51.4	44.3	-	-	-	-

¹Adjusted for half-a-year of age.

²Source: National Statistical Office, Report: The Survey of Population Change 1974-1976, Bangkok, 1979.

³Source: Institute of Population Studies, Chulalongkorn University and Population Survey Division, National Statistical Office, The Survey of Fertility in Thailand: Country Report Volume I, Bangkok, 1977.

Table 4 : Percent single by age, sex and urban-rural areas,
Thailand, 1970.

Age	Percent Single			
	Municipal Areas (Urban)		Non-municipal Areas (Rural)	
	Male	Female	Male	Female
10-14	100.0	99.7	100.0	99.5
15-19	98.1	89.2	95.8	79.5
20-24	80.8	59.2	60.4	33.7
25-29	43.8	30.8	20.4	12.8
30-34	20.2	16.3	8.1	6.7
35-39	10.3	10.1	4.4	4.5
40-44	6.1	7.1	2.7	3.4
45-49	4.8	5.5	2.0	2.7
50-54	3.9	4.2	1.6	2.3
Total				
standardized				
by age	58.0	51.9	50.2	42.8

Table 5 : Female percent single by age, and region, Thailand,
1970.

Age	Percent Single				
	Greater Bangkok	¹ Central	Northeast	North	South
10-14	99.7	99.6	99.6	99.5	99.2
15-19	90.1	84.2	80.2	78.2	74.2
20-24	62.1	44.8	31.0	31.4	33.9
25-29	32.6	19.5	11.6	11.1	13.0
30-34	17.3	10.5	6.1	5.4	6.0
35-39	10.5	7.1	4.3	3.7	3.6
40-44	7.5	5.1	3.3	3.0	2.3
45-49	5.7	4.0	2.6	2.5	1.5
50-49	4.4	3.3	2.3	2.1	1.0
50-54					
Total					
standardized					
by age	52.8	46.7	42.4	41.9	41.5

¹Excluding Greater Bangkok.

Table 6 : Singulate mean age of marriage by sex, urban-rural area, and the four regions of Thailand, 1960 and 1970.

	1			
	1960		1970	
	Male	Female	Male	Female
Whole kingdom	24.5	21.6	24.7	21.9
Municipal area	-	-	27.2	24.7
Non municipal area	-	-	24.2	21.4
Greater Bangkok	26.7	23.4	27.5	25.0
Central ²	24.9	22.2	25.5	22.7
Northeast	23.9	21.5	23.7	21.2
North	23.9	21.0	24.2	21.1
South	24.5	21.0	24.7	21.3

¹ Adjusted for half-a-year of age.

² Excluding Greater Bangkok.

Table 7 : The pearson correlation coefficients between the singulate mean age of marriage and the socio-economic characteristics of the 69 provinces of Thailand, 1970.

Socio-economic characteristics	SMAM	
	Male	Female
Percent urban ¹	.62***	.30*
Percent non-primary industry ²	.81***	.48***
Housing index ³	.57***	.56***
Material possession scores ⁴	.66***	.30*
Percent higher education ⁵	.72***	.46***
SES index ⁶	.78***	.51***

*p < .01

***p < .001

¹ Percent population in the municipal areas.

² Percent employed population in the secondary and tertiary industry.

³ Total T scores of percent private household with strong construction, modern source of water, electric lighting, modern toilet facilities and modern cooking fuel.

⁴ Average scores pertaining to the possession of modern household materials.

⁵ Percent population 21 years of age and over who attained grade 5 and over.

⁶ Total T scores of the five socio-economic variables.

Table 8 : The pearson correlation coefficients between masculinity ratio and singulate mean age of marriage, by SES, for the 69 provinces of Thailand, 1970.

SES	SMAM 1970
<u>Male</u>	
Total provinces (n=69)	.26*
Low SES (n=20)	.34
Medium SES (n=21)	-.05
High SES (n=21)	.33
Very high SES (n=7)	-.13
Partial correlation coefficients (n=69)	.13
<u>Female</u>	
Total provinces (n=69)	-.39****
Low SES (n=20)	-.74****
Medium SES (n=21)	-.55***
High SES (n=21)	-.61***
Very high SES (n=7)	-.82*
Partial correlation coefficients (n=69)	-.61***

*p < .05

**p < .01

***p < .005

****p < .001

Table 9 : Proportion of men and women never married and singulate mean age of first marriage by selected socio-economic and demographic characteristics, religion and citizenship.

Characteristics	Percentage never married				Singulate mean age of first marriage		
	Male		Female		Male		Female M-F
	20-24	40-44	20-24	40-44	Male	Female	M-F
<u>Education attainment</u>							
No education	55.9	5.4	27.2	3.9	24.5	20.2	4.3
Primary level	60.0	2.2	35.3	3.5	24.3	21.7	2.6
Secondary level	80.0	5.4	70.0	11.1	26.7	25.4	1.3
University level	97.6	3.6	95.0	31.7	29.5	29.2	0.3
<u>Literacy</u>							
Literate	63.4	2.5	39.4	4.0	24.7	22.1	2.6
Illiterate	54.5	6.0	25.4	3.8	24.3	20.0	4.3
<u>Economic activity</u>							
Economically Active	70.8	3.2	59.8	6.6	25.7	24.3	1.4
Employed	70.7	3.7	63.3	7.6	25.8	24.9	0.9
Looking for work	71.7	2.9	71.4	21.6	29.0	28.7	0.3
Experienced worker	46.1	0.0	25.3	33.2	23.8	19.1	4.7
New worker	81.3	9.5	83.1	8.1	30.4	30.7	0.3
Waiting for farm season	70.9	1.7	52.3	4.7	25.2	23.2	2.0
Non-economically active	96.0	29.0	34.5	3.0	32.8	21.0	11.8
House-wife/homemaker	85.5	13.4	20.5	2.4	29.1	19.1	10.0
Student	94.0	a	99.5	a	a	a	a
Unable to work	100.0	29.2	(89.9) ^b	6.7	33.7	29.8	3.9
Other	83.4	21.4	77.6	35.0	31.4	31.3	0.1

^a Data are not available.

^b Base population is less than 500.

(continued)

Table 9: (Continued)

Characteristics	Percentage never married				Singulate mean age of first marriage		
	Male		Female				
	20-24	40-44	20-24	40-44	Male	Female	M-F
<u>Occupation</u>							
Professional, technical and related workers	74.1	2.8	76.4	17.5	26.6	25.7	0.9
Administrative, executive, managerial workers and government officials	86.0	2.8	73.1	27.3	27.1	26.4	0.7
Clerical and related workers	76.0	7.0	82.5	18.5	27.2	26.6	0.6
Sales workers	74.5	3.4	53.9	5.2	26.2	23.6	2.6
Agricultural workers	57.0	2.0	33.5	3.2	23.9	21.5	2.4
Miners and quarrymen	89.5	4.5	72.0	1.7	a	a	a
Transport workers	57.9	3.7	78.5	11.6	23.9	23.7	0.2
Craftmen and laborers	67.7	5.7	61.9	9.1	25.4	25.0	0.4
Service workers	74.7	3.3	72.8	7.0	25.7	26.6	0.9
<u>Major industrial group</u>							
Agriculture, forestry, hunting and fishing	57.0	2.0	33.5	3.2	23.9	21.5	2.4
Mining and quarrying	74.7	7.8	29.6	1.8	25.4	a	a
Manufacturing	72.4	6.3	69.6	10.3	26.1	26.0	0.1
Construction, repair and demolition	66.4	4.0	41.0	1.9	24.9	a	a

^a Data are not available.

(continued)

Table 9 : (Continued)

Characteristics	Percentage never				Singulate mean age			
	married				of first			
	Male		Female		marriage			
	20-24	40-44	20-24	40-44	Male	Female	M-F	
<u>Major industrial Group (cont.)</u>								
Electricity, water and sanitary services	67.0	6.9	56.6	11.8	26.5	a	a	
Commerce	75.4	4.1	57.3	5.7	26.5	24.0	2.5	
Transport, Storage and communication	61.9	4.2	69.3	9.9	24.3	23.4	0.9	
Services	76.3	3.2	71.7	11.2	26.1	26.1	0.1	
<u>Work status</u>								
Employer	43.9	1.3	(44.7) ^b	6.1	24.0	a	a	
Own account worker	28.1	0.7	52.5	8.6	20.9	22.4	-1.5	
Government employee	76.2	4.1	75.0	14.9	26.1	24.2	1.9	
Private employee	70.6	7.5	69.0	8.0	26.0	25.7	0.3	
Unpaid family worker	80.0	25.8	54.9	4.7	25.8	23.8	2.0	

^a Data are not available.

^b Base population is less than 500.

(continued)

Table 9: (Continued)

Characteristics	Percentage never married				Singulate mean age of first marriage		
	Male		Female		Male	Female	M-F
	20-24	40-44	20-24	40-44			
<u>Religion and education</u>							
Total kingdom							
Buddhism ¹	63.4	2.9	38.4	4.0	24.7	22.0	2.7
Islam	52.2	1.8	25.9	0.8	23.3	19.6	3.7
Christianity	60.6	2.6	50.8	12.9	24.9	21.7	3.2
No education							
Buddhism	60.6	5.9	29.2	4.2	25.1	20.6	4.5
Islam	37.6	2.0	7.5	0.3	21.9	17.0	4.9
Christianity	45.9	1.0	31.3	5.9	23.6	18.7	4.9
Primary level							
Buddhism	60.6	2.2	35.3	3.5	24.3	21.7	2.6
Islam	55.1	1.3	32.6	1.8	23.6	20.0	3.6
Christianity	53.5	2.1	46.4	8.7	24.0	21.7	2.3
Secondary level							
Buddhism	79.3	5.4	69.6	11.3	26.7	25.7	1.0
Islam	88.0	7.3	65.6	5.9	26.6	a	a
Christianity	82.0	3.1	80.5	5.0	a	17.6	a
University level							
Buddhism	97.8	3.5	95.4	28.9	29.6	30.0	0.4
Islam	(93.9) ^b	a	(76.1) ^b	8.6	a	a	a
Christianity	(83.7) ^b	8.5	(84.1) ^b	62.9	26.6	21.6	5.0

^a Data are not available.

^b Base population is less than 500.

(continued)

Table 9: (Continued)

Characteristics	Percentage never married				Singulate mean age of first marriage		
	Male		Female		Male	Female	M-F
	20-24	40-44	20-24	40-44			
<u>Religion and education (cont.)</u>							
Secondary and university level							
Buddhism	61.2	5.0	74.1	15.0	27.1	26.5	0.6
Islam	88.5	6.3	66.6	7.0	27.0	28.7	1.7
Christianity	82.1	5.9	81.3	34.4	27.5	20.1	7.4
<u>Citizenship and education</u>							
Total kingdom							
Thai	62.8	2.9	38.0	4.0	24.6	21.9	2.7
Chinese	79.2	3.3	77.6	1.2	26.2	24.9	1.3
No education and primary level							
Thai	59.9	2.7	34.3	3.7	24.3	21.5	2.8
Chinese	77.5	3.2	77.2 ^b	1.3	26.0	24.7	1.3
Secondary and university level							
Thai	81.4	5.1	74.1	16.2	27.1	26.0	1.1
Chinese	(93.4) ^b	4.2	(79.8) ^b	a	28.6	25.8	2.8

^a Data are not available.

(continued)

^b Base population is less than 500.

Table 9 : (Continued)

Characteristics	Percentage never married				Singulate mean age of first marriage		
	Male		Female		Male	Female	M-F
	20-24	40-44	20-24	40-44			
<u>Relationship to head of household</u>							
Municipal areas							
Head	38.0	2.1	67.2	11.1	21.7	26.7	-5.0
Son	90.1	31.3	-	-	28.7	-	-
Daughter	-	-	85.5	46.2	-	28.9	-
Relative and other	90.4	36.3	81.2	31.6	30.0	31.0	-1.0
Servant	89.1	48.3	91.3	26.5	30.8	31.6	-0.8
Non-municipal areas							
Head	9.3	0.6	39.9	4.9	17.2	21.9	-4.7
Son	87.6	40.0	-	-	30.5	-	-
Daughter	-	-	61.1	32.3	-	21.3	-
Relative and other	81.5	35.5	63.2	33.0	28.9	28.1	0.8
Servant	95.3	(0.0) ^b	84.0	(0.0) ^b	33.0	29.1	3.9

^b Base population is less than 500

(continued)

Table 9: (Continued)

Characteristics	Percentage never				Singulate mean age		
	married				of first		
	Male		Female		marriage		
	20-24	40-44	20-24	40-44	Male	Female	M-F
<u>Migration status</u>							
<u>Life-time migration</u>							
Total internal migration							
migrant	66.9	2.9	35.9	3.1	25.0	21.5	3.5
non-migrant	61.9	2.9	38.4	4.1	24.6	22.5	2.1
Migration to Greater Bangkok							
migrant	82.3	5.0	57.0	7.1	27.1	24.5	2.6
Greater Bangkok born	84.9	9.8	70.4	9.6	28.0	26.0	2.0
<u>Five-year migration</u>							
Total internal migration							
migrant	53.5	3.7	26.6	3.2	23.7	20.2	3.5
non-migrant	65.4	2.8	40.2	4.0	24.9	22.2	2.7
Migration to Greater Bangkok							
migrant	82.2	7.9	54.1	7.5	27.0	24.3	2.7
Greater Bangkok resident	84.5	7.1	68.4	8.5	27.8	25.8	2.0

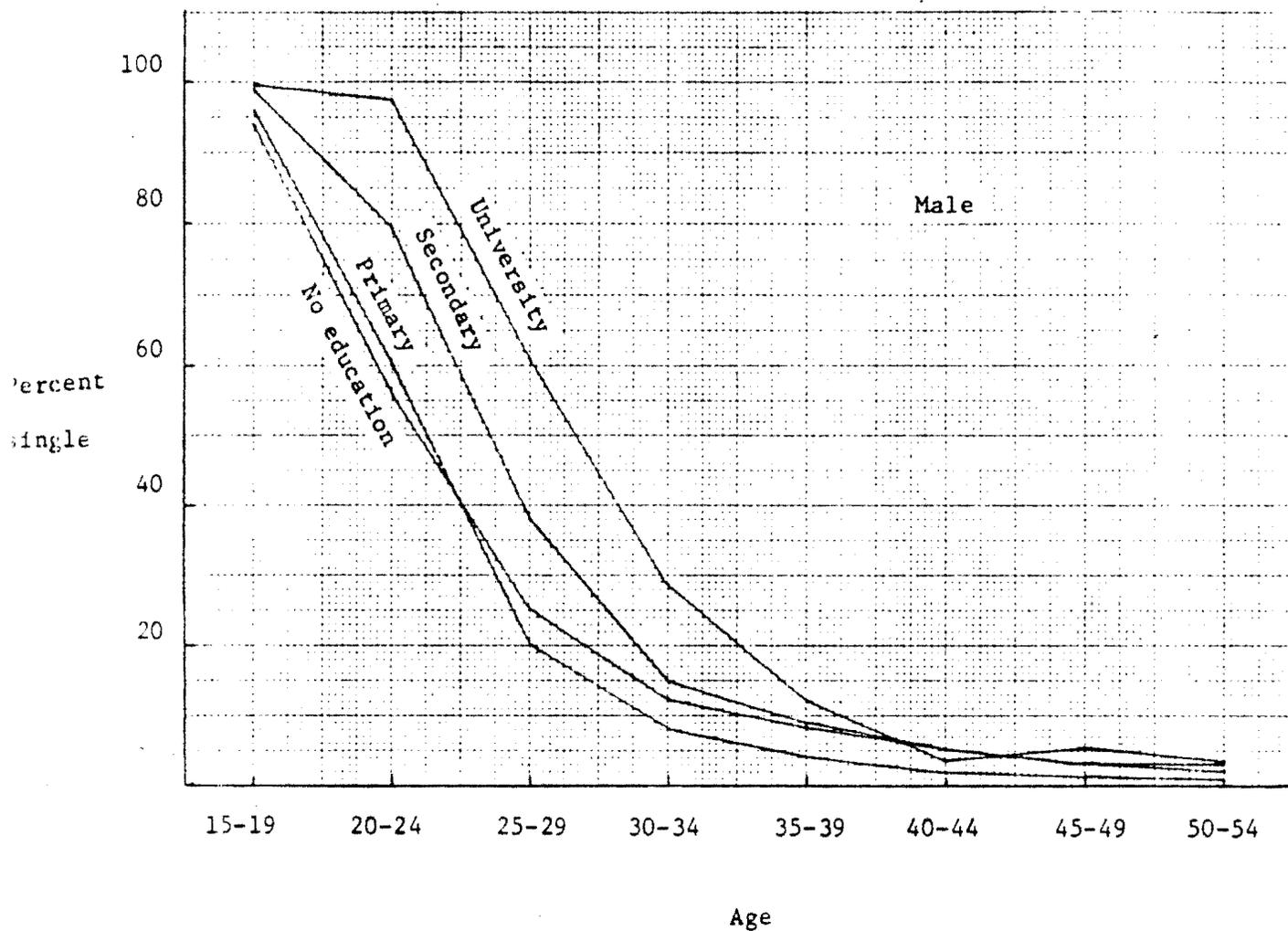


Figure 2A : Male percent single by age-group for the four educational levels, Thailand, 1970 census.

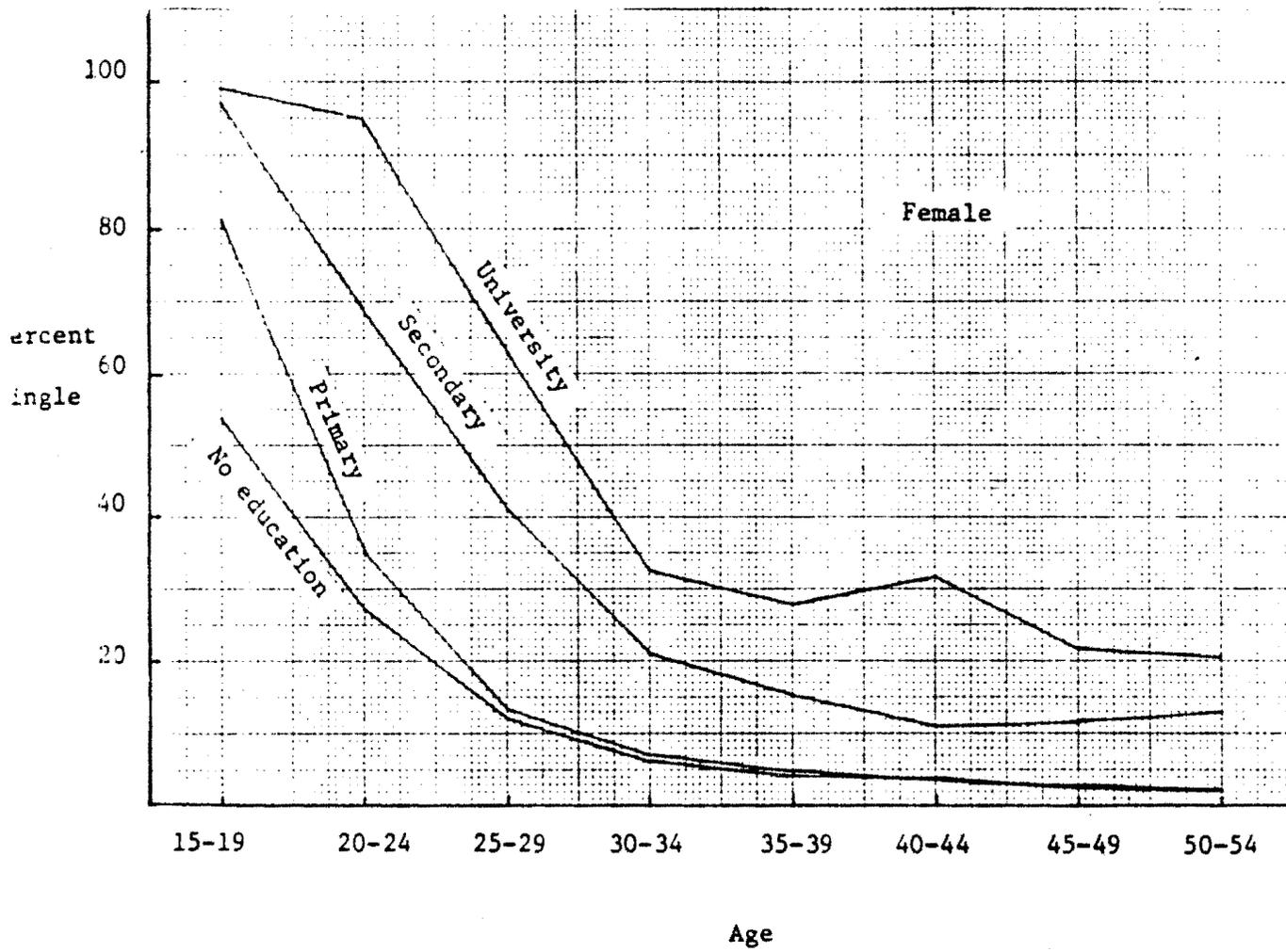


Figure 2 B : Female percent single by age-group for the four educational levels, Thailand, 1970 census.

Table 10 : Marital status indexes for the whole kingdom, by region and by municipal and non-municipal areas, 1970 census.

Region and Municipal Areas	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Whole kingdom</u>	0.646	0.302	0.011	0.020	0.021
(M.A.)	0.523	0.452	0.009	0.001	0.015
(non-M.A.)	0.669	0.278	0.011	0.019	0.022
<u>Region</u>					
Bangkok-Thailand	0.486	0.471	0.007	0.023	0.013
(M.A.)	0.477	0.482	0.006	0.021	0.014
(non-M.A.)	0.526	0.419	0.011	0.034	0.009
Central ¹	0.631	0.324	0.003	0.023	0.019
(M.A.)	0.561	0.396	0.006	0.024	0.012
(non-M.A.)	0.638	0.317	0.002	0.023	0.019
North	0.669	0.278	0.012	0.017	0.023
(M.A.)	0.553	0.394	0.015	0.019	0.018
(non-M.A.)	0.677	0.270	0.012	0.017	0.024
North-east	0.671	0.270	0.018	0.018	0.022
(M.A.)	0.569	0.373	0.023	0.019	0.017
(non-M.A.)	0.675	0.266	0.018	0.018	0.023
South	0.699	0.251	0.007	0.019	0.025
(M.A.)	0.566	0.385	0.010	0.019	0.020
(non-M.A.)	0.716	0.233	0.007	0.019	0.025

¹ Excluding Greater Bangkok.

Table II : Marital status indexes for Thai women by selected socio-economic and demographic characteristics, religion and citizenship.

Characteristics	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Education attainment</u>					
No education	0.770	0.148	0.016	0.021	0.044
Primary level	0.646	0.305	0.011	0.020	0.018
Secondary level	0.317	0.661	0.004	0.013	0.004
University level	0.291	0.689	0.002	0.014	0.004
<u>Literacy</u>					
Literate	0.622	0.332	0.010	0.019	0.017
Illiterate	0.775	0.142	0.017	0.021	0.044
<u>Economic activity</u>					
Economically Active	0.545	0.401	0.005	0.028	0.021
Employed	0.505	0.430	0.006	0.033	0.025
Looking for work	0.269	0.680	0.008	0.015	0.028
Experience workers	0.523	0.341	0.005	0.032	0.099
New worker	0.206	0.764	0.008	0.011	0.011
Waiting for farm season	0.626	0.337	0.003	0.020	0.014
Non-economically active	0.678	0.295	0.003	0.018	0.007
House wife	0.814	0.156	0.002	0.020	0.008
Student	0.003	0.997	-	-	-
Unable to work	0.245	0.539	0.078	0.075	0.063
Other	0.207	0.740	0.007	0.045	0.001

(continued)

Table 11 : (Continued)

Characteristics	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Occupation</u>					
Professional, technical and related workers	0.444	0.526	0.005	0.018	0.007
Administrative, executive, man- gerial workers and government officials	0.482	0.473	0.006	0.016	0.023
Clerical and related workers	0.335	0.639	0.005	0.014	0.007
Sales workers	0.603	0.314	0.013	0.035	0.035
Agricultural workers	0.670	0.276	0.012	0.018	0.023
Miners and quarrymen	0.661	0.266	0.000	0.042	0.032
Transport workers	0.679	0.303	0.003	0.005	0.010
Craftmen and laborers	0.448	0.476	0.012	0.037	0.026
Service workers	0.358	0.559	0.022	0.036	0.025

(continued)

Table 11 : (continued)

Characteristics	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Major industry group</u>					
Agriculture, forestry, Hunting and fishing	0.622	0.257	0.011	0.017	0.021
Mining and quarrying	0.695	0.226	0.014	0.045	0.020
Manufacturing	0.408	0.530	0.010	0.029	0.024
Construction, repair and demolition	0.544	0.371	0.014	0.049	0.021
Electricity, water and sanitary services	0.552	0.426	0.006	0.012	0.005
Commerce	0.586	0.334	0.012	0.034	0.034
Transport, storage and communication	0.594	0.367	0.006	0.017	0.015
Services	0.358	0.571	0.016	0.034	0.022
<u>Work Status</u>					
Employer	0.508	0.238	0.013	0.072	0.169
Own account worker	0.599	0.214	0.015	0.071	0.101
Government employee	0.491	0.480	0.003	0.019	0.007
Private employee	0.406	0.510	0.008	0.053	0.023
Unpaid family worker	0.597	0.382	0.002	0.013	0.006

(continued)

Table 11 : (Continued)

Characteristics	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Religion and education</u>					
Total kingdom	0.646	0.302	0.011	0.020	0.021
Buddhism	0.654	0.313	0.011	0.001	0.021
Islam	0.739	0.196	0.013	0.023	0.028
Christianity	0.585	0.372	0.010	0.008	0.025
<u>No education</u>					
Buddhism	0.762	0.155	0.015	0.023	0.045
Islam	0.856	0.065	0.019	0.019	0.041
Christianity	0.766	0.179	0.011	0.004	0.040
<u>Primary level</u>					
Buddhism	0.646	0.306	0.011	0.020	0.017
Islam	0.650	0.298	0.008	0.027	0.016
Christianity	0.595	0.355	0.011	0.012	0.027
<u>Secondary level</u>					
Buddhism	0.317	0.661	0.004	0.013	0.004
Islam	0.317	0.654	0.004	0.022	0.003
Christianity	0.309	0.681	0.002	0.004	0.004
<u>University level</u>					
Buddhism	0.283	0.696	0.002	0.015	0.004
Islam	0.334	0.666	0.000	0.000	0.000
Christianity	0.447	0.539	0.000	0.008	0.006

(continued)

Table 11 : (Continued)

Characteristics	Marital status indexes				
	Proportions	Proportions	Proportions	Proportions	Proportions
	married I_m	single I_s	divorced I_d	separated I_p	widowed I_w
<u>Religion and education (cont.)</u>					
Secondary and University level					
Buddhism	0.312	0.666	0.004	0.014	0.004
Islam	0.319	0.655	0.003	0.021	0.002
Christianity	0.342	0.647	0.001	0.005	0.004
<u>Citizenship and Education</u>					
Total Kingdom					
Thai	0.645	0.303	0.011	0.020	0.021
Chinese	0.752	0.148	0.006	0.036	0.058
No education					
Thai	0.771	0.147	0.016	0.022	0.044
Chinese	0.836	0.055	0.005	0.023	0.081
Primary level					
Thai	0.646	0.306	0.011	0.020	0.018
Chinese	0.599	0.317	0.009	0.061	0.014
Secondary level					
Thai	0.315	0.663	0.004	0.013	0.004
Chinese	0.511	0.444		0.034	0.012

(continued)

Table 11 : (Continued)

Characteristics	Marital status indexes				
	Proportions married	Proportions single	Proportions divorced	Proportions separated	Proportions widowed
	I_m	I_s	I_d	I_p	I_w
<u>Citizenship and Education (cont.)</u>					
University level					
Thai	0.282	0.697	0.002	0.014	0.004
Chinese	0.366	0.334	0.000	0.301	0.000
Secondary and University level					
Thai	0.311	0.668	0.004	0.014	0.004
Chinese	0.500	0.436	0.000	0.053	0.011
<u>Relationship to head of household</u>					
Household head	0.190	0.189	0.075	0.196	0.351
Daughter	0.319	0.622	0.018	0.026	0.015
Relatives and others	0.211	0.698	0.021	0.034	0.036
Servants	0.063	0.849	0.020	0.048	0.020
<u>Migration Status</u>					
<u>Life-time migration</u>					
Total internal migration					
migrant	0.694	0.259	0.009	0.019	0.019
non-migrant	0.638	0.310	0.011	0.020	0.021
Migration to Greater Bangkok					
migrant	0.551	0.403	0.007	0.025	0.015
non-migrant	0.434	0.525	0.007	0.021	0.011

(continued)

Table 11 : (Continued)

Characteristics	Marital status indexes				
	Proportions	Proportions	Proportions	Proportions	Proportions
	married I_m	single I_s	divorced I_d	separated I_p	widowed I_w
<u>Five-year migration</u>					
Total internal migration					
migrant	0.709	0.247	0.010	0.017	0.016
non-migrant	0.637	0.310	0.011	0.020	0.022
Migration to Greater Bangkok					
migrant	0.485	0.473	0.006	0.025	0.011
non-migrant	0.486	0.471	0.007	0.023	0.013

Table 12 : Number of children ever born alive per 1,000 ever-married women by age and marital status.

Age	Total	CEB per ever-married women			
		Currently married	Widowed	Divorced	Separated
15-19	731.3	731.3	700.0	832.5	677.5
20-24	1,842.5	1,875.7	1,441.9	1,380.1	1,350.4
25-29	3,093.1	3,146.7	2,660.6	1,730.9	2,207.5
30-34	4,389.8	4,479.5	3,532.9	2,371.8	2,913.5
35-39	5,628.0	5,780.2	4,434.8	2,759.3	3,609.1
40-44	6,447.6	6,659.2	5,291.8	3,388.0	4,470.9
45-49	6,587.0	6,843.5	5,797.9	3,253.9	4,781.1
Total	4,287.5	4,343.2	4,706.2	2,199.0	2,904.4
Total standardized ¹	4,243.8	4,357.4	3,498.6	2,299.2	2,925.9

¹ Standard population is given in Appendix B.

Table 13 : Number of own-children 0-4 per 1,000 ever married women by age and marital status.

Age	Own children per 1,000 ever married women				
	Total	Currently married	Widowed	Divorced	Separated
15-19	594.7	598.6	465.1	621.9	502.9
20-24	1,260.3	1,286.0	936.4	868.0	892.8
25-29	1,453.3	1,494.9	872.7	673.5	859.6
30-34	1,280.5	1,329.9	652.3	416.6	571.2
35-39	1,060.7	1,120.1	461.4	245.0	411.4
40-44	692.5	754.3	276.4	100.7	252.3
45-49	230.7	266.6	69.1	79.8	84.6
Total	1,032.8	1,090.4	355.8	476.1	548.3
Total standardized ¹	1,032.6	1,075.8	577.6	438.5	545.8

¹ Standard population is given in Appendix B.

Table 14: Number of children ever born alive per 1,000 ever-married women by age, marital status and education attainment.

Age and education	CEB per ever-married women				
	Total	Currently married	Widowed	Diverced	Separated
<u>No education</u>					
15-19	939.4	955.9	551.0	799.9	761.9
20-24	2,128.3	2,189.7	1,361.7	1,423.5	1,655.6
25-29	3,409.5	3,473.2	2,947.8	1,517.6	2,612.8
30-34	4,626.7	4,714.6	3,636.5	3,103.0	3,193.3
35-39	5,713.2	5,918.2	4,167.2	2,453.9	3,715.3
40-44	6,547.2	6,771.5	5,300.6	4,191.2	5,340.7
45-49	6,636.6	6,929.3	5,770.2	3,409.2	4,888.7
Total	5,217.9	5,316.5	5,056.2	2,718.7	3,925.1
Total standardized ¹	4,436.1	4,571.3	3,499.9	2,475.1	3,252.0

(continued)

Table 14 (Continued)

Age and education	CEB per ever-married women				
	Total	Currently married	Widowed	Divorced	Separated
<u>Primary education</u>					
15-19	694.9	692.4	745.2	834.9	669.5
20-24	1,821.8	1,851.9	1,452.5	1,392.2	1,323.4
25-29	3,091.5	3,146.9	2,579.8	1,791.6	2,168.1
30-34	4,382.4	4,475.3	3,519.9	2,098.6	2,901.5
35-39	5,666.7	5,804.7	4,602.6	2,891.6	3,612.1
40-44	6,477.1	6,685.5	5,341.6	2,954.7	3,961.8
45-49	6,612.1	6,828.3	5,957.4	3,035.2	4,592.4
Total	4,026.1	4,084.7	4,461.2	2,002.7	2,612.1
Total standardized ¹	4,249.8	4,356.5	3,538.7	2,201.3	2,822.5
<u>Secondary education and higher</u>					
15-19	710.8	717.8	2,464.3	1,217.4	227.0
20-24	1,409.2	1,440.8	1,976.5	1,068.1	937.2
25-29	1,973.0	1,985.8	2,054.1	1,404.4	1,693.2
30-34	3,406.4	2,768.3	1,831.3	2,098.7	1,776.2
35-39	3,344.2	3,420.1	2,696.8	2,333.3	2,401.3
40-44	4,122.2	4,279.8	3,512.9	2,123.2	3,066.1
45-49	4,589.3	4,756.4	3,631.7	2,450.2	4,557.0
Total	2,525.5	2,551.4	3,038.8	1,797.1	1,909.9
Total standardized ¹	2,873.1	2,815.4	2,505.7	1,835.4	2,108.9

¹ Standard population is given in Appendix B.

Table 15 : Number of own-children 0-4 per 1,000 ever married women by age and marital status and education attainment.

Age and education	CEB per 1,000 ever-married women				
	Total	Currently married	Widowed	Divorced	Separated
<u>No education</u>					
15-19	706.9	726.0	347.3	474.9	581.6
20-24	1,260.0	1,302.2	508.0	797.9	1,069.0
25-29	1,378.4	1,425.1	836.9	535.7	820.9
30-34	1,256.3	1,298.5	603.4	617.4	761.4
35-39	1,034.0	1,113.1	351.6	323.2	300.7
40-44	636.4	699.8	292.6	130.8	246.3
45-49	209.6	245.7	66.7	100.5	55.5
Total	837.0	912.9	236.5	392.4	411.7
Total standardized ¹	1,067.6	1,057.6	470.7	449.7	584.1

(continued)

Table 15 : (Continued)

Age and education	CEB per 1,000 ever-married women				
	Total	Currently married	Widowed	Divorced	Separated
<u>Primary education</u>					
15-19	577.4	579.4	520.9	655.5	491.4
20-24	1,272.8	1,295.8	1,059.5	900.5	880.4
25-29	1,492.6	1,534.9	889.5	721.1	876.8
30-34	1,302.4	1,354.3	678.4	347.1	546.0
35-39	1,090.0	1,143.7	530.6	224.4	448.2
40-44	745.7	805.8	281.7	83.9	262.6
45-49	261.3	295.9	75.6	46.1	112.1
Total	1,112.6	1,151.5	463.7	517.1	595.9
Total standardized ¹	1,060.0	1,101.9	621.5	432.1	552.1
<u>Secondary education and higher</u>					
15-19	501.0	513.6	392.9	478.3	227.0
20-24	1,014.0	1,043.3	1,129.4	599.6	609.0
25-29	1,101.8	1,121.6	593.1	357.7	733.3
30-34	939.9	968.1	478.8	218.0	540.7
35-39	493.1	508.8	33.4	85.0	473.8
40-44	228.8	251.8	52.1	77.5	128.2
45-49	158.2	179.6	41.8	94.4	39.7
Total	813.2	847.6	187.8	276.9	502.9
Total standardized ¹	694.7	717.0	414.8	265.0	443.7

¹ Standard population is given in Appendix B.

Table 16: Number of children ever born alive and own children 0-4 per 1,000 ever-married women 15-49 standardized by age, by marital status and education : a summary table.

Age	CEB per 1,000 ever-married women				
	Total	Currently married	Widowed	Divorced	Separated
CEB					
Total ²	4,243.8	4,357.4	3,498.6	2,299.2	2,925.9
No education	4,436.1	4,571.3	3,499.9	2,475.1	3,252.0
Primary education	4,249.8	4,356.5	3,538.7	2,201.3	2,822.5
Secondary and higher education	2,873.1	2,815.4	2,505.7	1,835.4	2,108.9
Own children 0-4					
Total ²	1,032.6	1,075.8	577.6	438.5	545.8
No education	1,007.6	1,057.6	470.7	449.7	584.1
Primary education	1,060.0	1,101.9	621.5	432.1	552.1
Secondary and higher education	694.7	717.0	414.8	265.0	443.7

¹ Standard population is given in Appendix B.

² Unknown education is included in the calculation.

Appendix A

Proportion of men and women never married and singulate mean age of first marriage for the whole kingdom, by region and by municipal and non-municipal areas.

Region and Municipal Areas	Percentage never married				Singulate mean age of first marriage		
	Male		Female		Male	Female	M-F
	20-24	40-44	20-24	40-44			
<u>Whole kingdom</u>	62.9	2.9	38.0	3.9	24.7	21.9	2.8
(M.A.)	81.9	6.6	59.5	7.5	27.3	24.8	2.5
(non-M.A.)	59.3	2.4	33.9	3.4	24.2	21.4	2.8
<u>Region</u>							
<u>Bangkok-Thonburi</u>	83.7	7.2	64.5	8.3	27.6	25.4	2.2
(M.A.)	85.1	7.1	64.9	14.1	27.8	25.9	1.9
(non-M.A.)	76.9	7.7	62.8	7.4	26.8	24.8	2.0
<u>Central¹</u>	68.4	3.0	44.9	5.0	25.2	22.4	2.8
(M.A.)	75.2	7.0	52.6	7.9	26.5	23.8	2.7
(non-M.A.)	67.6	2.5	44.0	4.7	25.1	22.2	2.9
<u>North</u>	61.3	3.6	33.0	3.1	24.5	21.3	3.2
(M.A.)	85.3	6.4	52.8	4.9	26.9	23.8	3.1
(non-M.A.)	59.6	3.4	31.6	3.0	24.3	21.3	3.0
<u>North-East</u>	54.5	1.3	30.0	3.3	23.6	21.2	2.4
(M.A.)	70.6	3.2	46.9	4.7	25.7	22.9	2.8
(non-M.A.)	53.8	1.2	29.3	3.2	23.5	21.2	2.3
<u>South</u>	61.4	2.8	33.0	2.3	24.4	21.2	3.2
(M.A.)	79.4	6.1	51.5	5.8	27.0	23.9	3.1
(non-M.A.)	59.3	2.4	30.5	1.9	24.1	21.1	3.0

¹ Excluding Greater Bangkok.

Appendix B

Standard population : total ever-married women in Thailand by age group, 1970.

Age	Ever-married women (in thousand)
15 - 19	355.4
20 - 24	841.5
25 - 29	965.9
30 - 34	993.4
35 - 39	909.5
40 - 44	735.2
45 - 49	578.8
Total	5,379.7

Appendix C1

Percentage of men who are widowed, divorced and separated to total men by five-year migration status and age.

Age	Migrant			Non-migrant		
	Percent widowed	Percent divorced	Percent separated	Percent widowed	Percent divorced	Percent separated
15-19	.05	.01	.01	.02	.06	.05
20-24	.17	.06	.53	.20	.27	.46
25-29	.31	.37	1.26	.63	.56	.63
30-34	.23	.51	2.07	.60	.48	.60
35-39	1.27	.81	2.78	1.29	.40	.73
40-44	1.79	1.24	2.30	1.65	.50	.89
45-49	2.92	1.06	4.09	2.93	.30	.88
50-54	6.21	.75	3.66	4.73	.36	.36
Total	0.74	0.40	1.42	1.05	0.33	0.57

Appendix C2

Percentage of men who are widowed, divorced and separated to total men by status of five-year migration to Greater Bangkok and by age.

Age	Migrant			Non-migrant		
	Percent	Percent	Percent	Percent	Percent	Percent
	widowed	divorced	separated	widowed	divorced	separated
15-19	.00	.00	.00	.01	.01	.04
20-24	.00	.04	.21	.02	.02	.21
25-29	.04	.08	1.46	.37	.60	1.34
30-34	.12	.23	4.22	.50	.34	1.12
35-39	.64	.55	2.57	.67	.31	1.49
40-44	1.02	.29	1.60	.67	.45	1.77
45-49	.90	.22	2.92	1.20	.75	1.67
50-54	2.22	.49	3.95	2.92	.63	2.42
Total	0.21	0.13	1.27	0.52	0.30	0.98

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