

MARITAL TIMING DECISIONS OF CAGAYAN VALLEY WOMEN: AN APPLICATION OF THE DIXON FRAMEWORK

Eileen M. Sarmiento

ABSTRACT

In societies with no or little control of marital fertility, the pattern of first marriage is an important determinant of fertility. Analysis, using the 1983 NDS data and the Dixon framework of feasibility, availability and desirability, is done on three stages. The first analyzes tables relating the mean age of marriage against each selected variable. The second stage uses Chi-square tests, and the last uses regression analysis. A woman from Cagayan exposed to a higher level of education and with a preference for a small number of children was found to significantly delay her entry into the marriage market. This finding suggests the need to provide educational opportunities for Cagayan women.

INTRODUCTION

Studies have shown that in societies where there is no or even modest control of marital fertility, the pattern of first marriage is an important determinant of fertility. Even in populations in which marital fertility is subject to voluntary control, nuptiality patterns still play a significant role in influencing fertility levels. To achieve a replacement level of fertility, controlling the level of marital fertility must be accompanied by a rise in age at first marriage (Lesthaeghe, 1974).

Aside from its effect of decreasing the fertility of women, delayed marriage may alternately be viewed to represent the increasing contribution of women to the development efforts since by remaining single more women can pursue higher education and/or participate more actively in economic activities. With these positive effects, raising the age at marriage is therefore viewed as an important policy alternative to help achieve the joint objective of fertility reduction and development (de Guzman, 1984). For such a policy change to be plausible, a comprehensive understanding of such factors which influence the age at first marriage is needed.

REVIEW OF LITERATURE

Several studies have tried to explain the variations in nuptiality. In the Philippines, for instance, principal exponents of nuptiality had contributed a lot to the understanding of the country's observed marital trends. Smith (1975), using the 1968 National Demographic Survey (NDS) data, had shown that a trend of a delay in marriage had persisted since 1960. He attributed this delay to the social and economic forces operative throughout the country. Due to this interaction of forces, he was able to pin-

point differences in age at first marriage between subclasses of the population. Smith, (1978) in another study, reviewed data for geographic areas over time and explored the impact of selected social processes by means of cross-sectional differentials. He emphasized the importance of urbanization, education and the diversification of adult roles as important factors in delaying marriage. Smith had also done a paper concerned with ethnic differentials in marriage behavior: the nature and extent of these differentials and the degree to which they are explained by the operation of demographic and socio-economic influences. In general, his study revealed that differentials were substantial for several key language groups and persisted when variations in other factors were controlled.

De Guzman (1980) analyzed the determinants of nuptiality, through the use of a stepwise regression program applied to data from the Republic of the Philippines Fertility Survey (RPFS). Regional residence, education and occupation of the woman were found to be closely associated with age at first marriage, thus, supporting to the findings previously mentioned.

Domingo (1982) had also looked into the variations of nuptiality in the Philippine context. A basic pattern that surfaced in her dissertation was that the delay in marriage or an extended pre-adult independence period was associated with a relatively higher socio-economic background and more modern locale. A recent study by Domingo and de Guzman (1984) on the regional variations in nuptiality used the Dixon framework, showed that of the three sets of intervening variables, namely, availability of mates, feasibility and desirability of marriage, and the desirability of marriage factors appeared to be the most conducive to policy intervention. With increases in the opportunity for education and economic activity and their subsequent rewards becoming more apparent, more women may be encouraged to avail of such opportunities resulting in a delay in their marriage.

Both studies had also introduced a new factor, that of familial influence, in the analysis of nuptiality. The increasing personal autonomy of women in the choice of their husbands and the apparent loosening of familial influence, as manifested by their behavior with respect to elopement, premarital sex, postnuptial residence, and marital rites, appeared to be important facets of a shift toward higher age at marriage.

A more comprehensive account of the cultural determinants of nuptiality (Domingo, 1985) addressed the lack of such studies.

Most studies on Philippine nuptiality, had merely focused on the socio-economic characteristics of women; hence, Domingo further looked into the complex issues of when women marry by considering the effects of customs and traditions on the pattern of marriage.

Two important researches also which focused on specific areas of the Philippines. One was a study by Mariano (1980) of marriage patterns in Bohol. Her findings indicated that Boholano women entered marriage about a year later than the average Filipino women. Mariano attributed this to the marriage squeeze in Bohol, as well as the persistent determinants of marital delay, which always surface in most studies: education, occupation and residence of the women.

The second study, sought to explore the possible reasons for the occurrence of early marriages in Davao del Sur. Results showed that socio-economic factors, such as educational attainment and employment, contributed to delayed marriage, while factors such as social activities participated in and the presence of brothers and sisters contributed to early marriage.

Several international studies have likewise explored the factors influencing the age of the entry into the married state.

Duza and Baldwin (1977) examined the determinants of age at marriage in Tunisia, Sri Lanka and Malaysia. They proposed the importance of including the role of legislative measures in marital postponement. Specifically, raising the status of women's non-familial roles and increasing female autonomy were deemed significant in raising the age at marriage.

Fawcett (1973) provided a micro-framework for the analysis of nuptiality. He stressed the importance of the individual's psychological traits, his perception of the benefits and costs of marriage, as well as the societal milieu, and the immediate situational factors surrounding him, in influencing the decision to marry.

Smith (1980) assessed the Asian marriage patterns in transition and concluded that in the future marriage behavior in Asia will reflect the paths of key modernization processes: educational development, urbanization, and the expansion of non-agricultural employment. He posited that it is highly likely that each of these processes will encourage continued marriage delay and perhaps even the greater prevalence of celibacy in the coming decades.

Van Elm and Hirschman (1979) analyzed the socio-economic determinants of the average age at first marriage among women, aged 25-44 years in 1966-67, who were interviewed in a cross-sectional fertility survey of currently married women in Peninsular Malaysia. They found that substantial differentials in age at first marriage were associated with ethnicity, years of formal schooling, and premarital work experience, while lesser differences were observed for social and geographic origins. Most significantly, post-primary schooling and working before marriage were considered as the strongest variables that delay age at first marriage.

Lastly, Dixon's framework (1970), which is employed by this study, isolated three sets of factors to explain age at marriage cross-culturally: the availability of mates, the feasibility of marriage, and the desirability of marriage. Salaff (1975) had also utilized Dixon's framework to study the social factors contributing to delayed marriage based on the responses of 28 unmarried women in Hongkong. The results of her research showed that: (1) working women found early marriage economically difficult; (2) the emerging peer and dating institutions with a lengthy dating period contributed to the delayed marriage pattern, and (3) the women who appreciate the opportunity to enjoy various peer and club activities felt it would be wrong to cut them off too early. In effect, Salaff showed that all the factors of availability, feasibility and desirability contrived to delay marriage. The factors relative to the size of endogamous groups, economic responsibilities, and social opportunities for Hongkong women of marriageable age coexisted and interacted to influence the women to delay marriage.

OBJECTIVE OF THE STUDY

The previously mentioned studies on Philippine nuptiality, had dealt mainly with the socio-economic characteristics of women to explain the differences in age at marriage. Though significant findings had resulted from such attempts, it is recognized that background characteristics and indicators of achievement and activities do not sufficiently explain the complex issue of the decision to marry. In fact, de Guzman pointed out the low proportion of variance explained in age at marriage by the socio-economic variables which implies that a great amount of variation in age at marriage is attributable to factors other than those he examined. For example, he mentioned that there are other cultural and certain psychological and physical factors that impinge on the decision on when to marry or whether to marry at all. He further stressed the significance of the incorporation of such factors in future analyses together with associated socio-economic variables to deepen one's knowledge on the determinants of age at marriage in the Philippines.

The present study addresses itself to such a need. It analyzes the factors which influence nuptiality, on the basis of the 1983 NDS data, utilizing both socio-economic as well as certain cultural traits of the women concerned. The Dixon framework is used since it is broad enough to encompass both the socio-economic and cultural variables. Moreover, the model is also flexible. Though this framework is designed primarily for a macro-level analysis, a different approach was tried whereby the Dixon model was applied on an individual perspective. This micro-level approach using the Dixon framework had likewise been done by Salaff in her review of 28 unmarried women respondents in Hongkong.

The analysis was applied to the Cagayan Valley (Region 2) which had been neglected as an area of concern for comprehensive nuptiality studies. Moreover, it was also foreseen that such a study on the behavior of women in the area can ultimately shed light on the

policy directives which can increase the region's potentials for development. It had been mentioned, for example, that by remaining single, more women can increase their contributions to development efforts through the pursuit of higher education and participation in economic activities.

DATA AND METHODOLOGY

One can easily summarize nuptiality behavior by computing the average age at which a woman first marries. Derivation of the mean age at marriage from a survey, however, requires some degree of caution. By its very nature, a survey provides data only up to survey date, and therefore prevents further observations from being made. It is this "truncation" of data which poses an analytical constraint. Specifically, the experience of the younger women would only be partial and given the cross-sectional nature of the data, they would largely be represented by young women who had necessarily gotten married early. Moreover, the sample may also be composed of older women who married late. In both instances, a selection bias may result when computing for the mean age at marriage. To reduce such bias, some studies had resorted to the limitation of the sample to be subjected to analysis. For instance, the Republic of the Philippines Fertility Survey (RPFS) restricted its analysis to women who had married before the age of 25 and who were 25 years of age or older at the time of the interview. This was done to ensure homogeneity in terms of exposure to the risk of marriage.

For purposes of this study which similarly utilized the mean age at marriage, analysis was based on a representative sample as has been done by the RPFS.

The sample was drawn from data provided by the 1983 National Demographic Survey (NDS) of the Philippines by the University of the Philippines Population Institute together with the Bureau of Census and Statistics. The study will focus on the ever-married women in the Cagayan Valley region, who were aged 25 years old and over at the interview date, and who got married before the age of 25.

The study utilized information on the socio-economic background of the ever-married (education, labor force participation, residence before marriage) and, most importantly, information from the Nuptiality block. This block seeks to gather information about marriage on four aspects. The questions asked -- information on current marriage, previous marriage, background information on the respondent's first marriage and attitudinal questions about marriage -- will contribute to the knowledge of nuptiality determinants. Questions on the flow of wealth incorporated in this block was also used.

In retrospect, the first part of the analyses of this study is explanatory in nature. Essentially, it is an analysis of tables relating the mean age at marriage against each chosen variable.

MARITAL TIMING DECISIONS

Since the first part of the methodology, as mentioned above, is only descriptive in nature, Part II consists of Chi-square (X^2) tests to establish if a definite relationship between the selected variables and the age at first marriage does exist. To facilitate the use of such tests, the proportion of ever-married women was categorized according to the chosen variables and their age at first marriage. The ever-married women

Table 1. Frequency Distribution of Ever-Married Women by Age at First Marriage (AFM)

Age at First Marriage	Absolute Frequency	Relative Frequency (Percent)	Adjusted Frequency (Percent)	Cumulative Adj. Freq. (Percent)
12	3	0.5	0.5	0.5
13	10	1.6	1.6	2.1
14	27	4.4	4.4	6.5
15	50	8.1	8.2	14.7
16	62	10.0	10.0	24.8
17	75	12.1	12.2	37.0
18	77	12.4	12.6	49.6
19	70	11.3	11.4	61.0
20	51	8.2	8.3	69.3
21	65	10.5	10.6	79.9
22	48	7.8	7.3	87.8
23	44	7.1	7.2	94.9
24	31	5.0	5.1	100.0
Out of range	6	1.0	Missing	100.0
Total	619	100.0	100.0	

were classified into those who married "early" and "late" which, as dictated by the nature of the sample, were defined as those who married below 20 or 20-24 years old, respectively.

A preliminary analysis of the marginal distribution according to age at marriage (Table 1) of the sample to be studied shows that a large proportion (61%) of the EMW had already married by the age of 19. Hence, attributing ages 20-24 as "late" may be valid. Moreover, a similar scheme was adopted by Mariano (1980) in her study of the marriage patterns in Bohol which, like Cagayan, is basically an agricultural area.

Part III of the methodology consists of using regression analysis including all explanatory variables using a stepwise regression program. The stepwise approach was employed because, as mentioned by de Guzman (1984), the common method of including all relevant variables in a single regression and then assessing the effect of individual variables by their coefficients in the regression can yield misleading results when the regressor variables are highly correlated. The stepwise procedure calculates for every predictor a set of regressions with other variables added in hierarchical fashion, a flexible way of ordering controls. The aim is to monitor the effects of a regressor at each step and hence determine the impact of correlated factors and covariates.

Non-metric variables were introduced by means of a set of dichotomous dummy or indicator variables. The indicator variables took on the value of either 0 or 1.

THE THEORETICAL FRAMEWORK

Availability of Mates

The availability of mates is primarily determined by the sex ratio (SR) of persons of marriageable age within endogamous groups and by the method of mate selection. In this micro-level analysis, this category is represented by two variables: (1) the number of suitors other than spouse and (2) the person who chose respondent's husband.

The first variable is viewed as a counterpart of the sex ratio which was used by Dixon in her macro approach. Since the sex ratio is the number of males per female, this micro-variable may be seen as the SR's representative since it denotes the number of potential spouses (suitors) to a female. Moreover, inherent to this variable is its association with the socialization process. The more suitors there are, the longer the mate search process and the later the age at marriage. A female courted by several members of the opposite sex and thus faced with several choices can take her time in searching and eventually choosing the best potential mate.

The aforementioned study of why women marry early in Davao del Sur seem to support such an assumption. The women who married early were those with limited social

activities -- activities which often expose them to the company of the opposite sex, such as benefit dances and other social gatherings. Domingo (1982) mentioned a study by Cheung who analyzed data from the 1978 Asian Marriage Survey. Cheung and others found some direct relationship between the number of suitors and the age at marriage for Thailand and the Philippines. From the 1983 NDS study, data for the whole of Luzon revealed that women reported as having been courted by two or more men in Metropolitan Manila, Central Luzon and Southern Tagalog exhibited relatively high age at marriage.

The method of mate selection is another component of the process of entry to marriage. Several studies had examined the significance of such variable. De Guzman (1984), for instance, stated that the highly autonomous decision of whom to marry involves more time than those wherein parents or other persons intervened. Dixon further stated that where young people are left to search for and attract their own partners in a free courtship situation, marriages should occur later on the average, and with smaller frequency than where elders take charge of arranging a match for their children. In Dixon's framework, however, her adoption of several masculinity ratios was not able to take into account the method of mate selection in different societies. For this study, the specific question on the survey regarding the choice of husband allowed making inferences on the process of selecting the woman's future spouse.

Feasibility of Marriage

Feasibility is determined by expectations regarding the financial and residential independence of the newly-married couple and by the availability of resources for meeting marital obligations.

Financial independence in this research study is represented by the variable on support to parents and/or siblings. This was similarly used by Salaff in her analysis of unmarried Hongkong women. She had incorporated the daughter's economic obligation to their families, likewise using the Dixon framework.

The significance of this variable has been recognized by several research studies.

Castillo (1965) mentioned a study by Foster whereby he stated that reciprocal obligations and expectations are inhibitors to change. This is so because individuals are faced with the dilemma of continuing to divide their income in the fashion expected of them or of risking censure and sanctions for failure to do so. Moreover, it had been hypothesized and empirically supported by Domingo and de Guzman (1984) that in families where daughters are valued for their productive input, delay in marriage would be economically rational for the household.

Marriage can have adverse effects on the support flow from daughters to parents and siblings and therefore a shortened period of singlehood would be to the family's disadvantage. This was further supported by Domingo's research on the cultural determinants of nuptiality. The proportion who reported support to parents increased with increases in age at marriage.

Janet Salaff had, as mentioned, used economic obligations of young adults to their parents as an indicator of the feasibility of marriage in Hongkong. The anticipated decrease in married daughter's economic contribution, she asserted, was the main reason why parents delay the marriage of their daughters. She further stated that one factor that contributed to the later marriage of the higher status women was that the longer period of study necessary to attain semi-professional qualification was still seem as a family cost that must be repaid. The families in Salaff's research expected that the girls would work for a period after graduation to repay the cost of their education and this delayed marriage well past the age at which the average worker married. Similarly, Salaff noted a study by Aline Ross which significantly found that upper class Indian parents delayed arranging their employed daughter's marriages to prolong the period during which the women contributed to the family.

Postnuptial residence may also be linked to the feasibility of marriage. In fact, Dixon avers that in societies where the young couple are ordinarily incorporated into the existing household of an extended family, financial considerations play a less important role. Dixon similarly claimed that in societies where the joint family is the norm, marriage would be more feasible and therefore occur earlier and more universally than when independent residence is the norm. Unfortunately, in Dixon's macro-level analysis, a measure indicating the proportion of all households containing only nuclear families was not available for most countries and hence, she focused on more subjective data regarding household composition for comparison. For this analysis on an individual perspective, on the other hand, data on the immediate residence of the female provided information on the household composition after her marriage (particularly if it is uxori-local (with wife's family) or virilocal (with husband's family) or (separate from parents) which in itself is an effective indicator of family extension.

Though this variable, however, necessarily refers to an event after marriage, it is conceivable that the decision on where the couple should reside after marriage had been made prior to the union and therefore forms part of the consideration affecting the timing of marriage. As pointed out by Domingo and de Guzman, residential independence tended to have a delaying effect on entry to marriage. In fact, empirical evidence for the women of Luzon showed that the average age of those who lived separately from their parents right after marriage was about a year and a half more than the rest who have been accommodated by their parents.

To further examine the feasibility of marriage, Dixon in her macro-level approach had utilized several indicators on the economic status of the population. One such variable was the gross national product per head. More specifically, she further examined the percentage of the male labor force employed in agriculture (assuming marriage is more feasible among farmers) and the percentage of males who are economically active at ages 20-24. These last two variables are indicative of the economic capacity of the male population.

Consequently, to suit a micro-level analysis as in this study, use of data on the occupation of first husband's father at the time of the woman's marriage may be justifiable in similarly assessing the economic capability, this time, of the individual male. For instance, the first variable (occupation of first husband's father) was used by Domingo (1982) as an indicator of the husband's socio-economic background. She further noted that with a low socio-economic background of the husband as evidenced by his father's occupation, it is possible that a delay in marriage is necessary as economic preparations have to be made. In the wedding preparation itself, the burden of the wedding costs usually falls on the males. In the Philippine society, it is the boy's family who takes the greater responsibility in handling the expenses since it is embarrassing for the groom's family if they do not spend for the wedding. Hence, the female may delay her marriage while her fiance is saving for the expenses for the wedding (Mendez 1974). Moreover, it may also be indicative of a man's ability to support a wife. A delay in marriage is likely if the future son-in-law takes a longer time to convince the woman's parents of his capacity to support their daughter.

Desirability of Marriage

The desirability of marriage, or the strength of the motivation to marry, may be explained by the availability of social and institutional alternatives to marriage and childbearing and by the extent to which these alternatives are considered rewarding.

The study of the desirability of marriage should also include an assessment of the penalties of marrying late or never, in particular the penalties of childlessness, social isolation and stigma and the loss of opportunities for economic support and social mobility.

In Dixon's macro-framework, the penalties of childlessness was very roughly indicated by a measure of marital fertility: the higher the marital fertility, the more desirable are children and the more penalized are those who remain childless.

In conformance to the above approach, the study also employed a variable which could similarly determine the desirability of children: the number of children preferred. Indeed one of the values attached to high fertility is the economic contribution of children including security for the parents in old age. Parents may find it rational to have as

many children as possible in order to maximize such benefit in later years. Relating this issue of support to nuptiality stems from the view that if a woman believes that a larger number of children increases the possibility of having old age security, then a way to maximize this possibility is to marry early.

Dixon had also observed the degree of isolation and stigma experienced by those who never marry, determined primarily by the level of celibacy in each society. Where celibacy is more common, unmarried adults can associate with one another and develop a social life relatively independent of their married counterparts. In societies where celibacy is rare, however, the degree of isolation can be extreme.

Unfortunately, a representative variable from the NDS data cannot readily assess such condition which may surround an unmarried individual. Hence, it was excluded from the framework.

With regard to opportunities for economic support and social mobility, the macro-approach used, as indicators, the percentage of all females gainfully employed at ages 20-24 (assuming that paid employment provides an attractive alternative to marriage) and the percentage of females aged 15-19 who are literate (assuming again that high literacy improves potential alternative to marriage).

For purposes of following Dixon's framework closely, gainful employment shall be represented by the woman's participation in the labor force and literacy by data on the woman's level of education.

On the issue of female labor force participation, there is evidence which suggests that women who worked prior to marriage tended to delay their marriages more, compared with those who did not. Such delay is reflective of their reluctance to marry not so much as a question of lost income but of lost opportunity and a host of unquantifiable factors such as a sense of satisfaction and fulfillment and the feeling of independence derived from that goal. Smith (1975) found out that relatively late marriage occurred for women employed as wage and salary earners or in non-family enterprise. Women in such modern monetized employment were to delay their marriage by one year more than other females. A previously mentioned study of Domingo (1982) emphasized that relatively late marriages occurred for white collar workers. Agricultural workers tended to marry earliest, blue-collar workers were in the middle-level nuptiality category, although they showed a slight tendency to approximate the delayed marriage experience of higher status workers.

The relationship between education and the timing of marriage has likewise been documented. Education's impact includes attendance at school as an alternative to marriage, as well as its importance on women's perceptions. Education introduces new ideals and skills which affect the woman's values and preferences. It is then quite pos-

sible that as the woman's education increases, she gains a sense of liberalism, a wider perspective of her role in society and sees beyond the traditional norms within the limited framework of the home. These expose her to specific role alternatives to early marriage. Domingo (1982) also stated the possibility that the acquired educational status of the woman may make her impose higher standards on what she considers as acceptable spouses. At the same time, it is also possible that the sense of independence that she exudes may be "threatening" to some men and, hence, may be judged as an unsuitable partner for a harmonious family life by those who believe in a docile wife as ideal.

THE VARIABLES

On the basis of the framework and available information from the NDS, the following variables shall be used:

A. Availability of Mates

- V1 - number of suitors other than spouse
- V2 - person who chose respondent's husband

B. Feasibility of Marriage

1.) financial independence

- V3 - support to parents and/or siblings

2.) residential independence

- V4 - postnuptial residence

3.) availability of resources for meeting marital obligations

- V5 - occupation of first husband's father

C. Desirability of Marriage

1.) desirability of children

- V6 - number of children preferred
- V7 - acceptance/expectation of support from children

2.) degree of isolation and stigma (A representative variable could not be found; hence, it will be excluded from the framework.)

3.) opportunities for economic support and social mobility

- V8 - occupation of respondent at the time of her first marriage
- V9 - educational attainment of respondent at the time of her first marriage

HYPOTHESES

Based on the relationships previously implied, the general hypothesis of this study is directly related to the three categories specified by Dixon's framework. Earlier

age at marriage occurs when marriage is perceived as being both feasible and desirable and where potential mates are readily available. A later age at marriage is likely in the absence of these conditions.

More specifically, the following hypotheses are proposed:

Availability:

A female who is free to choose among a greater number of suitors would opt to delay her marriage.

Feasibility:

A female who is obligated to support her family and whose prospective spouse belongs to the lower socio-economic bracket would be economically unprepared to establish an independent household: hence, her marriage would be delayed.

Desirability:

A female who chooses to work or attain a higher educational level rather than have children would delay her entry into marriage.

Analysis of Results

In the first part of this section, age at first marriage (AFM) is related to several chosen variables. This attempt, as mentioned, simply utilized estimates of the mean age at marriage for women categorized according to the different indicators of the variables in the framework. Hence, this stage of the analysis is only exploratory in nature and the estimates shall represent patterns for the whole Cagayan Valley.

Table 2. Mean AFM Classified by Number of Suitors

No. of Suitors	Mean AFM
0	18.8
1	18.2
2 or more	19.0
Total	18.7
(N)	(612)

Most women claimed that they had suitors other than their husbands (91 per cent) which suggests a highly active search process. It seemed reasonable to hypothesize that the more suitors the longer the mate search process and the later the age at marriage. However, no clear differential exists between AFM of those courted by 2 or more men other than her husband and those courted by no other man besides her husband. The difference is only .2 of a year.

Table 3. Mean AFM Classified by Sibling Support

Sibling support	Mean AFM
Did not support sibling	18.4
Supported sibling	19.1
Total	18.5
(N)	(301)

Table 4. Mean AFM Classified by Parental Support

Parental support	Mean AFM
Did not support parents	18.3
Supported parents	19.3
Total	18.5
(N)	(301)

Two variables, sibling support and parental support are discussed together as they both reflect the contributions of the daughter to the family welfare. Both variables, when related with AFM, show that a higher age at marriage are exhibited by those who lent support to their parents or siblings. Those who provided for her brothers and sisters married about .7 of a year later than those who did not. In families where daughters are valued for their productive input into the households, delay in marriage would be economically rational for the household. Similarly, the data on the flow of support for daughters to parents brought out differentials in age at marriage. An average delay of a year is exhibited by those who supported their parents prior to marriage compared

to the others who did not assume such responsibility. One can thus deduce from these observations the effect on the age at marriage of the support flow from daughters to parents and siblings. A shortened period of singlehood for these women would be to the family's disadvantage: hence, marital delay is likely to occur. More findings support the above observations. If the AFM is computed according to birth order controlling for the total number of siblings, important results may be inferred. For instance eldest daughters with 6 or more siblings exhibit an AFM of around one year older than those who were not the eldest. This may be supportive of the aforementioned fact (flow of support) that the eldest daughter may be expected to render her services perhaps in the form of financial assistance to alleviate the relatively poor economic conditions characteristic of large households. This situation may lead to the necessity to delay marriage in fulfillment of the eldest daughter's responsibility.

Table 5. Mean age at First Marriage Classified by Number of Siblings and Birth Order

Birth Order	No. of Siblings	
	1-5	6 and over
First	18.4	19.0
Second and over	19.0	18.2
Total	18.8	18.3
(N)	(137)	(158)

The occupation of first husband's father is an indicator of the husband's socio-economic status at the time of the woman's marriage. When this variable was related to the mean age of woman's marriage, a higher AFM is exhibited for the higher occupational level (in this case, a non-agricultural occupation) than for agricultural and related occupation. A woman whose first husband's father belonged to the non-agricultural category married .5 of a year later than those whose father-in-law's occupations was basically agricultural in nature. This observation does not conform with the earlier assumption that a higher level of occupation of the husband's father, indicative of the husband's economic status would result in a lower age at marriage because the husband would be economically ready to support a wife. It therefore seems that this variable is indicative of the social status or social circle within which the woman moves. Hence, socialization within those not engaged in more traditional work such as farming where family and kinship arrangements tend to dominate, may have encouraged her to first engage in other alternatives besides marriage.

Table 6. Mean AFM Classified by Occupation of First Husband's Father

Occupation of First Husband Father	Mean AFM
Agriculture and other related occupation	18.5
Non-agricultural occupation	19.0
Total (N)	18.6 (520)

A distinct difference of 1.3 years is clearly seen between the AFM of those who prefer to have 0-5 children as contrasted to those who prefer 6 or more children. This observation is a reflection of the view that parents who find it rational to have as many children as possible because of their potential economic contribution as well as security in old age may want to maximize this possibility by marrying early.

Table 7. Mean AFM Classified by Preferred Number of Children

No. of children preferred	Mean AFM
0 - 5	19.1
6 and over	17.8
Total (N)	18.7 (529)

As expected, those who were members of the labor force married at a later age (19.4) than those who were not engaged in any economic activity (18.4). The delayed timing of the marriages of those women with occupations may have been out of voluntary choice for some, as early marriage would deprive them of the advantages of engaging in non-familial activities, such as earning income from work and the feeling of personal achievement. Hence, one might posit that increased opportunity cost is a deterrent to early marriage for these women especially if the woman feels that marriage would affect her work activity. Moreover, the reluctance may be more than just a question of

Table 8. Mean AFM Classified by Engagement in Economic Activity

Economic Activity	Mean AFM
Engaged in economic activity	19.4
Did not engaged in economic activity	18.4
Total (N)	18.6 (617)

It may also be possible that the nature of economic activities in certain types of employment may also be such that generally, workers are left with or given very little time for non-work activities, including opportunities for socialization with workmates and the opposite sex.

The data also indicate that a significantly large proportion (88%) of the Cagayan Valley women were non-participants in the labor force. This goes to show that women in Cagayan may still be wanting with regard to opportunities for employment.

The importance of education as a delaying factor in the timing of marriage is clearly seen in the data. As one moves from a lower to a higher level of education, the AFM correspondingly increases. Women who graduated from high school or went on to further their studies show the strongest propensity to delay their marriage relative to the other groups of women with lower educational attainment. This may be due to the fact that an increase in the level of education is often associated with changes in taste

Table 9. Mean AFM Classified by Educational Level

Economic Level	Mean AFM
No schooling	17.3
Elementary	18.1
High School	18.9
College and over	21.0
Total (N)	18.7 (611)

and preference and in opportunity for personal mobility. Hence, it is quite possible that as the woman's education increases, she gains a wider perspective of her role in society and sees beyond the limited framework of the home. To a lesser extent, the time spent in school may be an influencing factor of marital delay. As long as the woman is enrolled, the possibility of adoption of another demanding role is minimized.

While it has been recognized that residential independence tends to have a delaying effect on entry to marriage, no clear indication from the data supports this claim. No significant differential in the mean ages at marriage exists between those who lived separately from their parents and those who did not. It is worthwhile to note, however, that it seems more likely that couples live with the husband's family than the wife's family. Around 47 per cent of the couples lived with the husband's family as compared to only 28 per cent who lived with the wife's family.

Cross tabulation of the selected variables against age at first marriage was also done using the same sample. Hence, the age at first marriage was categorized into those who married "early" and "late" defined as those who married at ages below 20, or 20-24, respectively. These categories were determined by the necessity to focus on those who married below 25 and those who were at least 25 years of age at interview date. Moreover, the age cut-offs employed differentiates those who married during their "teens" (below 20) and those who opted for a more delayed entry into marriage (20-24). Examination of frequencies of the age at marriage further lends support to the classification. The sample is almost equally divided with 61 per cent comprising those who married below age 20 and 39 per cent representing those whose AFM is 20-24 years old (Table 1). This observation is beneficial for the subsequent Chi-square tests conducted between AFM and the selected variables.

Preliminary observations involving the breakdown procedure have hinted at probable relationships between AFM and the selected variables. Cross tabulations are now examined as well as their corresponding Chi-Square tests to determine existing relationships.

It is worthwhile to note that apparent relationships using the breakdown procedure may have been due only to sampling variation. Hence, Chi-Square tests were used.

In general, analysis of the Chi-Square tests reveal the significance of the following relationships:

1. AFM with Highest Educational Level of Woman at Time of Her First Marriage = highly significant at .0000 level.
2. AFM with Support of Parents Before Time of First Marriage = significant at .0126 level.
3. AFM with Who Chose Respondent's Husband = significant at .0002 level.

4. AFM with Number of Suitors Other Than Spouse = significant at .0139 level.
5. AFM with Number of Children Preferred = highly significant at .0000 level.
6. AFM with Residence After Marriage = significant at .0141 level.

The significance of the variables associated with AFM can, in fact, be further determined from the examination of the cross tabular presentations.

Analysis of the table of AFM against educational level at time of first marriage relationship which was deemed significant at 0.0000 level indeed show that among those respondents with no schooling at the time of their marriage, 75 per cent were below age 20 while only 25 per cent were 20-24 years of age. Similarly, respondents in the elementary level yielded 71 per cent for those below 20 and 29 per cent for those aged 20-24. An examination of those in the high school category showed percentages of 56.6 per cent and 43.4 per cent for age 20 and 20-24, respectively. This shows a relatively equal distribution among the two age brackets for those in the high school category. Analysis of the highest level, that of college and over, show only a small proportion (25.9%) of those below 20, in contrast to 74.1 per cent of those classified under the 20-24 age group. What is significant in the above observations is the apparent trend exhibited. As one goes from the lowest (no schooling) to the highest level, percentages for the "below 29" category decreases from 75 per cent to 25.9 per cent. In contrast, the proportion for the other age group (20-24) increases (from 25% to 74%) as one progresses from the lowest to the highest level.

**Table 10. Proportion of Ever-Married Women
by AFM and Education Level at Time of
First Marriage**

Educational Level	AFM		Total	(N)
	Below 20	20-24		
No schooling	75.0	25.0	100.0	12
Elementary	71.0	29.0	100.0	362
High School	56.6	43.4	100.0	152
College and over	25.9	74.1	100.0	86

It may be noted in the table that a greater proportion (50.8%) of those who rendered support to their parents married at a later age than those who were spared from such a responsibility. The crosstabular presentation also shows that a higher proportion (67.2%) of those who did not support their parents married at an age below 20 than those who gave support (49.2%).

Table 11. Proportion of Ever-Married Women by AFM and Parental Support

Parental Support	AFM		Total	(N)
	:Below 20	: 20-24		
Did not support parents	67.2	32.8	100.0	238
Supported parents	49.2	50.8	100.0	63

It is apparent from Table 12 that a larger percentage of women who opted to delay their marriage chose their husbands independently rather than those whose husbands were chosen by other people. For instance, 42.1 per cent of those who had a free hand in selecting their spouses married at ages above 20 years compared to lower proportions of late marriages among those whose husbands were chosen by others. It is rather clear that a free choice indicates a later age at marriage.

Table 12. Proportion of Ever-Married Women by AFM and by Person Who Chose Respondent's (R's) Husband

Person who chose R's Husband	AFM		Total	(N)
	:Below 20	: 20-24		
Self	57.9	42.1	100.0	530
Parents	81.3	18.8	100.0	80
Others	100.0	0.0	100.0	2

It can also be seen from Table 13 that larger proportions among those who had only one or no suitor at all besides her husband exhibited a low age at marriage (below 20) than those who had two or more suitors.

**Table 13. Proportion of Ever-Married Women
by AFM**

No. of Suitors	AFM		Total	(N)
	Below 20	20-24		
0	66.1	33.9	100.0	56
1	68.8	31.2	100.0	186
2 or more	56.5	43.5	100.0	370

The relationship exhibited is quite clear. Among those who prefer less children, a higher percentage, 46.3 per cent, married at ages 20-24 than those who preferred more (21.1 per cent).

**Table 14. Proportion of Ever-married Women
by AFM and by Preferred Number of Children**

No. of children preferred	AFM		Total	(N)
	Below 20	20-24		
0-5	53.7	46.3	100.0	382
6 and over	78.9	21.1	100.0	147

As in the analysis of the computed mean AFM according to residence after marriage categories, the assumed relationship between AFM and postnuptial residence represented by this variable is not readily seen in the crosstabular presentation. A more sophisticated approach using dummy regression analysis was subsequently used dividing residence after marriage into two categories: those who lived separately from her parents and those who did not.

It may be worthwhile at this point to assess why an apparently significant variable as labor force participation of the woman did not yield a significant X^2 at least in the .05 level. The rather obvious relationship using comparison of mean AFM across categories, discussed earlier, may have only been due to sampling variation. Moreover,

the relationship may not be clearly seen since a large proportion of Cagayan women were unemployed at the time of their first marriage. The few who were employed were engaged in occupations which were agricultural in nature.

The foregoing discussion only permitted the derivation of broad patterns and the establishment of limited linkages among variables. Subsequent analyses utilizing the SPSS regression program yielded a more comprehensive treatment of the interrelationships between age at first marriage and the selected variables in the framework. Specifically, since the independent variables were categorical in nature, dummy regression analysis was resorted to. Moreover, owing to the characteristic of dummy variables, analysis of the correlation R and R² values may not be meaningful. Hence, analysis was concentrated on the B values or the regression coefficients.

The regression results showed that all the variables (Table 15) were entered into the model denoting the importance of the variables chosen. Since no parameters were specified, the default option was used with F=.01 and T=.001. The F values indicate the significance of the regression coefficients and, since all the variables were

Table 15. List of Variables and Their Dummy Values

Category	Dummy Variable
COURT (Number of Suitors Other Than Spouse)	
0	reference category
1	D1 = 1
2 or more	D2 = 1
CHOICEH (Who Chose Respondent's Husband)	
Self	D3 = 1
Parents and Others	reference category
PSUPRT (Support of Parents)	
Supported Parents	D12 = 1
Did Not Support Parents	reference category
SUPRT (Support of Siblings)	
Supported Siblings	D4 = 1
Did Not Support Siblings	reference category

Category	Dummy Variable
RESAM (Residence After Marriage)	
Lived separate from parents	D5 = 1
Did not live separate from parents	reference category
OCCUPHFA (Occupation of Husband's Father)	
Agri & Related Occupation	reference category
Non-agri and Related Occupation	D6 = 1
PREFCHIL (Number of Children Preferred)	
0-5	D7 = 1
6 or more	reference category
ECOACT2 (Economic Activity)	
Engaged in Economic Activity at Time of Marriage	D11 = 1
Was not engaged in Economic Activity at Time of Marriage	reference category
HGRADWTH (Educational Attainment at Time of Marriage)	
No. of schooling	reference category
Elementary	D8 = 1
High School	D9 = 1
College and over	D10 = 1

entered, the specific criterion of variable denotes the proportion of the variance already in the regression equation. The variables in the list similarly met the tolerance level criterion and thus were all considered in the regression model.

However, an examination of the regression coefficients showed that inclusion of all the variables considered in the theoretical framework resulted in doubtful relationships between AFM and some particular variables. For instance, D6, which represents the occupation of the husband's father, exhibited a negative sign. Though this conforms to the earlier assumption embodied in the theoretical framework, it is inconsistent with the association between AFM and OCCUPFHA derived earlier. Apparently, D6 is correlated with another independent variable which resulted in the reverse of the expected direction of relationship. This is readily proven by the fact that if a X^2 test is done to test the relationship between a woman's educational attainment and the occupation of her husband's father, a highly significant relationship resulted, the level being .0000. Furthermore, a regression equation run for all the variables in the framework excluding those represented by the woman's education resulted in a positive B value for D6. This occurrence may then be a case of multicollinearity; hence, D6 was excluded from the regression model. Moreover, D4 which is significantly related to D12 was, as in the above case, similarly excluded. Another variable deleted from the framework is the variable ECOACT2 which represents the labor force participation of the woman at the time of her marriage. It was likewise removed as it exhibited a high relationship with the female's level of education. Hence, the model was reduced to²:

$$E(Y) = 1.778110D3 + 6.863807D10 + .7328371D7 + .9168711D2 + 5.194008D9 + 4.576449D8 + -.5136973D12 + .5247602D1 + .05263294-01D5 + 11.17117$$

Examination of the coefficients in the reduced model reveals the following observations:

1) The first variable D3 represents the category "Self" for the variable CHOICEH (Who Chose Husband). This means that a female who independently chose her husband would exhibit a higher age at marriage, about 1.8 years higher than a female whose husband was chosen by other people, such as her parents.

2) A female who reached elementary, high school or college level would delay her marriage by 4.6, 5.2 and 6.8 years than those with no schooling, respectively. This result has once more confirmed the influence of education on AFM. Apparently, as one goes to a higher educational level, the difference increases.

3) Those with two or more suitors other than her husband would have an AFM .9 of a year higher than those with no suitors other than her husband. Those with one suitor other than her husband would choose to forego her marriage by .5 of a year later than those who have no suitors. These results suggest that the more choices (in terms of males) a female has in looking for a potential mate, the longer it takes for her to pick the "right" one.

4) Women who prefer to have from 0-5 children show values of AFM higher by .7 of a year than those who opt to have more children. It is thus obvious that a woman who desires more children would marry early to maximize this possibility.

5) The negative value of D12 is unexpected as it was previously assumed that a woman who supported her parents before her marriage would delay her marriage since her economic contribution would be invaluable to her family. Apparently, a Cagayan woman would have an AFM with a value of -.5 of a year than a female who did not support her parents. This result may be explained by the possibility that the female's parents may have encouraged their daughter to marry early so that her husband's earnings can add to the family's income. Then again, this may be due to the categorical nature of the variables and the possible effects of multicollinearity.

6) The negative value of D5 was likewise unforeseen as it was previously assumed that postnuptial residence is an indicator of a late entry into marriage. Nevertheless, the regression coefficient denotes a negative value of -.05 which is quite small as it is interpreted as, in terms of AFM, .05 of a year. Moreover, since it was the last variable to be included in the model, its relationship with AFM may not be that significant.

The order of entry of the variables shows that the most important variable in terms of its relationship with AFM concerns the matter of whether the husband was chosen by the woman herself or by other people. This variable is followed by the attainment of a college or over level of education which is, as has been consistently observed, related to a high age at marriage. The third variable to enter the regression equation is the factor concerning the number of desired children. As has been reiterated, a woman who prefers less children would exhibit a later entry into marriage than those who desire more. The fourth variable, COURT, is similarly influential in determining the AFM. As mentioned, the greater the number of suitors, the later would be a woman's age at marriage. The other variables in the equation are but categories of the chosen variables such as HGRADWTM and COURT which have been partly explained. The remaining variables yield doubtful results which may have been the effect of multicorrelations.

SUMMARY AND CONCLUSIONS

This paper is an assessment of several factors which were assumed to influence the decision of a woman from Cagayan to enter the married state. The choice of the variables were based on the FAD (feasibility, availability and desirability) framework developed by Ruth B. Dixon. Preliminary observations only permitted broad patterns but tests of significance using Chi-Square analysis provided linkages, albeit limited, between AFM and the chosen variables. A more comprehensive examination of the associations was provided for by the use of the dummy regression programs. This procedure confirmed some of the previous results obtained.

In general, the significance of the availability and desirability factors surface as essential determinants of the age at first marriage. The results of the feasibility factors, on the other hand, were not so distinct or definite as that of the availability and desirability aspects of marriage.

In summary, analysis of the marital behavior of Cagayan women has shown that a female from this region who is free to choose among a greater number of suitors would opt to delay her marriage. Moreover, her exposure to a higher level of education and preference for a small number of children would also significantly delay her entry into the marriage market.

Based on the foregoing observations, it becomes essential, in view of policy considerations, to provide opportunities, especially in the area of education, for Cagayan women. Such exposure could broaden their perspective with regard to available alternatives to marriage. It would also redefine the conventional value that a woman's place is only at home where she would eventually take care of her children. Moreover, education could provide a means of widening a woman's social circle which could readily expose her to more members of the opposite sex therefore affording a longer mate search process.

In the above instances, the effect of education, directly or indirectly (in relation to the other variables), would lead to a later age at marriage, and, hopefully, to lower fertility.

NOTES

¹The formula for the Chi-square test is as follows:

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

where O_i = observed frequency
 E_i = expected frequency
 n = number of observations

Test Statistics: $X^2 \mathcal{L}, (n-1)$

where \mathcal{L} = level of significance.

²It may be noted that the variables in the reduced model have previously yielded high X^2 values when related with AFM; hence, the results are somewhat consistent.

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