The Ethnic Factor
in the Timing of
Family Formation in Nepal

*Although socio-economic development may be
expected to affect the timing of family formation
more in the future than ethnic differentials, the latter
will remain important factors in nuptiality*

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The notion that the "starting", "spacing" and "stopping" patterns of reproductive behaviour take place within a particular institutional and cultural environment and respond to changes in that environment is a basic sociological orientation to socio-demographic analysis (cf. Davis and Blake,

1956; Freedman, 1961-1962 and 1975; Hawthorn, 1970; McNicoll, 1980; Lesthaeghe, 1980).

Recent years show renewed interest in investigating the role of such institutional arrangements and cultural props for their specific demographic bases. Caldwell's (1982) studies demonstrate that such scrutiny is not only instrumental for understanding the conditions of stable high fertility but also provides clues to the onset of fertility transition. Lesthaeghe points out that "the locus of the preventive checks in the starting, spacing, or stopping pattern of fertility is a function of the institutional arrangements through which parents or kinship groups control the younger generation, including its labor capacity" (1980, p. 543). He further posits that the timing of first marriage is one of the most sensitive parameters revealing the gerontocratic control over the labour resources of children and young adults within a family:

> "It seems plausible that checks dealing with the starting pattern of repro-
> duction are the most robust because they depend more on parental control
> than those connected with the spacing or stoping pattern, which rely
> on communal control for enforcement" (1980, p. 5).

In the same vein, Caldwell argues that high fertility in traditional socie-
ties is not necessarily disadvantageous as long as the older generation (includ-
ing parents) is able to make a net wealth gain (referring to all money, goods
and services) from the appropriation and control of labour of their children,
thereby maintaining the gerontocratic "situational advantage" within the
family (1982, Chapters 4, 5, 7, 11). The situational advantage is ensured by
the "segmentation of the family and society by age, sex, marital status and
relationship" (Caldwell, 1982, p. 209). This "cultural superstructure" is main-
tained, Caldwell argues, to a considerable degree by arranged marriage, which
ensures the gerontocratic control over familial resources.

The pattern of marriage, one of the fundamental institutions of all so-
cieties, is expected to vary by community groups differentiated by culture,
language, social customs and traditions. Therefore, attempts to investigate
the determinants of the timing of marriage must necessarily take into account
these variations among community groups. Ethnic group identification can
be considered a powerful proxy for the varied nuptial, institutional arrange-
ments, especially in pluralistic societies.

Even in such a highly industrialized and urbanized society as the United
States of America, ethnic differentials remain important in all the processes
of family formation, including the timing of marriage (Kobrin and Goldscheider,
1978; especially Chapter V). Kobrin and Goldscheider found significant
differentials in age at first marriage (for males and females) even after con-

trolling for the effects of other relevant socio-economic factors such as education and occupation. They write:

> "Ethnicity cannot be viewed as a marginal phenomenon nor as a vestigial cultural legacy in the evolution toward societal homogeneity. Quite the contrary: some elements of modern society tend to reinforce ethnic continuity and emphasize ethnic differentiation. The conspicuousness of ethnic communities suggests that ethnic institutions and social networks even as they change remain major sources of group identification. Indeed, ethnicity varies and changes over time, reflecting variations and changes in the broader society. Hence, the sociological study of ethnic patterns highlights and reveals in microcosm more general social processes characterizing total societies" (1978, p. 1).

Its implications for fertility change lend the ethnic factor additional significance. The fertility transition in historical Europe followed linguistic, ethnic and cultural boundaries (Coale, 1973; van de Walle and Knodel, 1980; Knodel and van de Walle, 1979). Fertility decline was substantial in regions which shared a common cultural heritage despite considerable variation in socio-economic conditions.

More recently, several studies (Hirschman, 1985; Hirschman and Bindfuss, 1980 and 1982; Rindfuss and Hirschman, 1984; Bindfuss, Parnell and Hirschman, 1983) have focused on the patterns and determinants of family formation in many Asian countries representing diverse socio-economic conditions and cultural settings. The main finding emerging from these studies is that the ethnicity factor has a significant effect on both the timing of marriage and the time of first birth, independent of socio-economic factors, suggesting that these two family formation events are regulated considerably more by institutional norms than subsequent family expansion processes.

The purpose of this article is to analyze the role of the ethnic factor in the timing of family formation in Nepal. Because Nepal is a fully multi-ethnic society (with about 45 ethnic groups), it provides an excellent case study to investigate the importance of the ethnic factor affecting family formation. Although some of the ethnic groups are also correlated with the ecological and geographic regions, there are significant variations among ethnic groups within geographic regions (Bista, 1972).

The article is based on the proposition that ethnic identification represents a sub-system within a society and reflects variations in institutional arrangements concerning the starting pattern of reproduction. The main hypothesis is that ethnicity has a strong effect, idependent of other relevant socio-economic factors, on the timing of family formation. It is surmised,

therefore, that family formation patterns are not randomly distributed among sub-populations but are differentiated by ethnic characteristics.

Throughout the article, the term "family formation" is used interchangeably with "age at first marriage" or with "the timing of entry into marital roles". The levels and trends of age at marriage in Nepal are first reviewed, then the data source and operationalization of variables are discussed. Thereafter the results are presented. The article ends with a discussion of future implications of the findings.

Levels and trends

Age at marriage has been rising in several countries in Asia in recent decades, although there exist differences in the pace of change among the countries (Smith, 1980). In Nepal, a gradual transition towards higher age at marriage seems to be under way.[1/]

An application of Hajnal's (1953) technique to estimate mean age at marriage shows that the female age at marriage increased from 15.2 years in 1961 to 16.7 in 1971, indicating an increase of 1.5 years over the 10-year period (Banister and Thapa, 1981, p. 44). Application of another approach suggested by van de Walle (1968) confirms this increase during the intercensal decade (Goldman, Coale and Weinstein, 1979, p. 19).

Between 1971 and 1976, the female age at marriage increased to 17.2 years (Banister and Thapa, 1981, p. 44). Using Coale's (1971) three-parameter model of nuptiality, Smith (1978; 1980) estimated the following nuptiality figures for Nepal: a_0, the age at which significant numbers of a cohort begin to enter marriage, was 10.0 for females, based on 1971 census data; c, the maximum percentage ever-married in a cohort, was 99.2 for females; and k, an index of the tempo of marriage, was .596, indicating a rather fast tempo of marriage once a cohort begins marrying.

The reasons for the small but significant rise in marriage age in Nepal are not clear. The societal process of modernization, although proceeding at a slow pace in Nepal, would be expected to lead to a gradual increase. In a comparative analysis of several Asian countries, Smith (1980) examined the impact of three parameters of modernization – namely, educational attainment, labour force participation and urbanization – on rising female age at marriage. Each of the factors was found to be closely associated with the changing marriage patterns. Smith noted: "It is highly likely that each of these processes will encourage continued marriage delay and perhaps even greater prevalence of celibacy in the coming decades" (1980, p. 91). Although the pace of transition to higher female age at marriage is slower in Nepal than

in neighbouring countries in the region, the onset of the transition would seem to support Smith's assertion.

Another factor at work is the public policy intervention through legislation affecting minimum age at marriage. Age at marriage has been an area of public policy-making and implementation in most developing countries for over two decades (cf. Henry and Piotrow, 1979). In Nepal, a 1962 law set minimum marriageable ages at 14 years for females and 18 years for males; revised legislation in 1966 changed the ages to 16 and 18 years, respectively, provided there is parental consent. In cases where parental consent is absent, the ages were set at 18 for females and 21 for males. To some degree, the laws may have effected the rising trend. But because of the lack of registration of vital events, the marriage law has probably not been fully enforceable.

The vital registration system, which has recently been introduced in selected areas in the country, is at an early stage of implementation. If fully implemented, the registration system could play a significant role in increasing the pace of transition to a higher age at marriage.

At the aggregate level, the marriage variable has only secondary effects on fertility differentials in Nepal; approximately 15 per cent of the total fecundity is reduced by marriage patterns (Thapa, 1987). This is so because marriage in this population is universal and the proportion married rises rapidly with age: nearly two thirds of the women are married before their twentieth birthday and the proportion marrying reaches 94 per cent by age 24 (table 1). Furthermore, the incidence of widowhood (up to age 35) is negligible (CBS, 1977, pp. 101-107); the same holds true for spousal separation. Nepal can therefore be characterized as a "high nuptiality" (i.e., low age at marriage and high proportion married) country. However, the aggregate level analysis conceals the variations at the individual level. At the individual level, age at marriage has considerably larger variation than contraception or breast-feeding, two other major approximate determinants of fertility (Thapa, 1987). Furthermore, as is typical of the early stage of demographic transition, an increase in age at marriage is most likely to be the primary source of transition towards lower fertility in Nepal.

Data

The data for analysis come from the Nepal Fertility Survey (NFS) which was undertaken in 1976 as part of the World Fertility Survey. It was the first successfully executed national fertility survey in the country.

A multi-stage, self-weighting probability sample was employed (Nepal

Table 1: Age-specific proportion of ever-married women in Nepal and its comparison with selected Asian countries and areas, circa mid-1970s

Age group (years)	Nepal	Hong Kong	Indo-nesia	Malay-sia	Philip-pines	Republic of Korea	Sri Lanka	Taiwan province of People's Republic of China	Thailand
15-19	63	.06	.59	.25	.11	.05	.17	.10	.30
20-24	94	.34	.86	.61	.43	.46	.50	.47	.66
25-29	98	.76	.97	.88	.72	.92	.77	.86	.86
30-34	99	.94	.99	.95	.87	1.00	.90	.96	.93
35-39	100	.97	.99	.97	.91	1.00	.94	.97	.95
40-44	100	.98	.99	.98	.95	1.00	.95	.98	.96
45-49	100	.97	.99	.98	.94	1.00	.96	.97	.97

Note: Figures for Nepal refer to the percentage of ever-married women in each age-group, based on Household and Individual Survey of the Nepal Fertility Survey, 1976. Values for other countries and areas in the table refer to the ratio of age-specific proportion of ever-married women in each country/area to age-specific proportion of ever-married women in Nepal. Data for computation for these countries and areas are from Rindfuss, Parnell and Hirschman, (1983, p. 259).

FP/MCH Project, 1977). The survey collected data at both the household and individual level. The latter was confined to ever-married women between the ages of 15 and 19 years at the time of the survey. The questionnaires were in the three major languages of the country: Nepali, Bhojpuri and Maithili. Of the total number of 6,076 eligible women, 98 per cent were successfully interviewed. The survey included the three major ecological regions – the *terai* (plains, a grain-producing belt stretching east to west in the south of the country), hill and mountain – in proportion to their respective population sizes. It also represented rural and urban sector populations proportionately. However, since only 5 per cent of the total population lived in the urban areas, the data representing urban Nepal need to be interpreted with caution.

An evaluation of the NFS data quality by Goldman, Coale and Weinstein (1979) showed the data to be significantly better than those hitherto available for Nepal. The data showed only "negligible error" in reporting of events in the recent time period, and most of the defects were found to be confined to at least five or ten years before the survey.

Operationalization of variables

Table 2 lists the variables considered in this analysis. (Only those variables that were collected by the NFS are shown.) While some of the variables and their respective categories are obvious, a few require explanation.

Table 2: Variables and their categories+

Dependent variable

  Age at first marriage

Independent variables

  Ethnicity
    Brahmin
    Chetri and Thakuri
    Newar
    Tamang
    Kirate
    Muslim
    Tharu, Satar and Mosar
    Gurung and Magar
    Other

+   Variables and their categories shown in the table refer to ever-married women's own characteristics except where indicated specifically as "husband's".

Table 2: (continued)

Time period/Marriage cohort[++]
    Before 1956
    1956-1966
    1966-1976

Ecological region
    Mountain
    Hill
    terai

Childhood residence/Social origins
    Village
    Town or city

Literacy
    Illiterate
    Literate

Pre-marital work pattern
    Did not work
    Did family farm work
    Worked outside family

Pre-marital duration of work
    None
    1-5 years
    6 or more years

Husband's education
    None
    1-5 years
    6-10 years
    11 or more years

Husband's occupation
    Farming
    Technical
    Sales
    Services
    Worker
    Unemployed

[++]   The NFS was completed in early June 1976. Hence, the actual time period refers to mid-year. For example, the period 1966-1976 refers to mid-1966 to mid-1976.

The timing of entry into marital roles is the dependent variable. This variable is "operationalized" as the age of the respondent at first marriage,[2] and is measured on a continuous scale. Because of the prevalence of child marriage among certain segments of the population in Nepal, there is generally a delay between ceremonial age at marriage and actual cohabitation, the former occurring earlier. In view of this, an adjustment was made in the standard NFS data file. For women who reported their age at marriage as earlier than their age at cohabitation, the age at marriage was increased to age at cohabitation. Furthermore, for women who reported their age at menarche as later than their age at cohabitation, the cohabitation age was treated as equal to age at menarche.[3] Hence, a composite variable indicating "effective" age at marriage was created. Throughout this analysis, the timing of family formation refers to the composite variable — effective age at first marriage.

The reporting of the date of marriage may be inaccurate, given the absence of marriage registration in Nepal. The problem is further confounded by low literacy, particularly among women. Furthermore, in Nepal an average person rarely needs to recall and use the dates of vital events. Even official documents often depend on guess-work. Birthdays and ether similar events are considered private family matters, and anniversaries are generally not observed. Hence, a great majority of the Nepalese (both sexes) are not culturally oriented to handle questions about the dates of their birth or marriage.

In the NFS, the two thirds of the respondents (table 3) who were

Table 3: Mean delay between date of formal marriage and onset of cohabitation, by age at time of survey

Age at survey (years)	Number of women	Number of women with delay	Percentage with delay	Mean delay (months)
15-19	741	175	23.6	33.4
20-24	1 226	276	22.5	36.7
25-29	1 146	240	20.9	37.5
30-34	855	200	23.4	37.3
35-39	736	160	21.7	42.6
40-44	720	155	21.5	43.0
45-49	516	117	22.7	46.0

Source: Nepal Fertility Survey, as reported in Goldman, Coale and Weinstein, (1979, p. 12).

unable to supply the date of their marriage were asked to estimate the duration of their marriage. Failing to supply that, they were asked to estimate their age at marriage. Then, the duration of age at marriage was estimated by the interviewer. As expected, better quality data were obtained from respondents who were able to supply their age at marriage than those who were not (Goldman, Coale and Weinstein, 1979, pp. 13-15).

In some cases, reporting may have been influenced by the passage of the legislation prescribing minimum age at marriage as mentioned earlier. The law may have induced some respondents to overstate intentionally their age at marriage, if they feared that they might be punished for marrying early. These potential problems should caution one against making precise inferences from the results. Consequently, only those relationships that are large enough to be of substantive interest will be discussed. Similarly, only those coefficients that are statistically significant at the 0.001 level or better will be considered for drawing substantive inferences.

Since the NFS included only ever-married women aged 15-49 years at the time of the survey, the experience of young women who had postponed marriage was not included in the survey. Consequently, the young women included in the survey over-represent the subset of those at an early stage of exposure to the risk of pregnancy and child-bearing. Hence, the levels of age at marriage based on the survey are potentially subject to upward biases.[4/] The bias would be of greater magnitude if the population were experiencing rapid socio-economic changes. In the case of Nepal, the structure of age-specific proportions of ever-married women aged 20 years or over has remained essentially unchanged for at least the last 25 years (Banister and Thapa, 1981, p. 44).

The 15-19 age group experienced most of the change. During the period 1961-1976, the proportion married in this age group decreased from 74 to 63 per cent — a nine percentage point decline over a 16-year period. This would somewhat affect (upwardly bias) the "true" mean age at marriage of the population.

One strategy for minimizing the potential bias would be to restrict the analysis to ever-married women above certain ages beyond which the majority of women would have been married. Several studies (Hirschman, 1985; Hirschman and Rindfuss, 1982; Rindfuss and Hirschman, 1984; Rindfuss, Parnell and Hirschman, 1983) have employed the cut-off age of 30 years. However, unlike several other populations in Asia, the patterns of the proportion marrying at ages 15-19 or 20-24 is considerably higher for Nepal's population, as shown in table 1. In a preliminary analysis, the age group 15-19 was excluded, but the results did not differ substantively. Therefore, the analysis that follows includes ever-married women of ages 15-49.

Ethnicity is the major explanatory variable in this analysis. Although there are several ethnic groups, some of these groups constitute small proportions of the total population. Furthermore, ethnographic information is not available for many of the groups. The censuses of Nepal have not collected information on ethnicity.[5/] The NFS asked questions on subjective identification of ethnicity, and reported 22 such ethnic groups. Such self-identified ethnic membership implied a combination of three dimensions: a) traditionally stratified caste categories, b) religious affiliation and c) neither of these two groups. Anthropologist Bista (1972) correctly points out that stratifying Nepalese society into a well-defined caste system is misleading because a significant portion of the people do not fit into a well-defined caste structure. Self-identification of community membership is, therefore, a more meaningful classification for it embraces the respondent's perception regarding the respondent's ethnic identity.

For the present analysis, ethnicity is defined by self-identification. This method of operationalization is analogous to the method used by Korbrin and Goldscheider (1978). Of the 20 self-identified and additional residual groups in the NFS, nine groups (including a "residual" group) were identified through a reclassification. Two main criteria were used for reclassification: a) size of the ethnic group represented in the NFS and b) the similarities among ethnic groups in terms of their respective attitudes towards pre-marital sexual relations, cultural norms regarding divorce, separation and remarriage, and socially sanctioned acceptability of interethnic marriages. The purpose was to reduce the number of ethnic groups so that they would fit into major categories, while maintaining cultural and marital variances.

Table 4: Ethnic composition of respondents

Ethnic group	%	N
Brahmin	11.1	659
Chetri and Thakuri	20.5	1 217
Newar	4.5	267
Kirate	3.1	186
Tamang	3.1	187
Muslim	4.1	242
Tharu, Satar and Mosar	7.8	462
Gurung and Magar	16.6	986
Other	29.1	1 734
All	100.0	5 940

Table 4 shows the percentage distribution of the nine reclassified groups used in the present analysis. The largest category of ethnic group in the sample is Chetri and Thakuri (hereafter referred to as Chetri) followed by Gurung and Magar. The third largest category is Brahmin. The residual category constitutes 29 per cent of the sample. A brief description of these ethnic groups is in order. For obvious reasons, focus is given to factors pertinent to nuptiality.

Brahmins and Chetris

The Brahmins and Chetris traditionally have played the dominant role in the formation of modern Nepal in all socio-economic, religious and political spheres (Bista, 1972, pp. l-14; Berreman, 1972). The Brahmins and Chetris belong to the traditional caste hierarchy. Not only do they belong "among the wealthiest groups", but they are also the most widely distributed group in the country. Village exogamy is observed. Although marriages among these two groups are monogamous, until the recent past, polygamy also existed.

Among the Chetris, full adulthood is considered appropriate timing for marriage. In contrast, childhood marriage is common among the Brahmins:

"Tradition maintains that the sixth year is the most holy age for a Brahmin girl's marriage and her parents achieve the greatest amount of *Punya,* "merit", (if) they give her in marriage then. *Punya* is so important that sometimes a rich Chetri couple will adopt a Brahmin girl up to the age of eight or ten, never older than eleven years, to give her away to a Brahmin boy in marriage simply with the intention of accumulating *punya.* This acquisition of *punya* is believed to help the couple have a son, to win prosperity, and eventually to reach *swarga,* (heaven) when they die" (Bista, 1972, p. 7).

The Brahmins and Chetris have a totally different perspective on marriage compared with other ethnic communities in Nepal. For them, the institution of marriage has as strong a spiritual dimension as biological, social or economic need.

Newars

The Newars form an indigenous group the customs of which may differ from one community to another. Further, in terms of religion, Newars may be Hindu or Buddhist. Conventionally, the Newars represent a distinct group of people specializing in the arts and crafts, trade and services. Newar marriage is patrilocal and monogamous. Divorce or remarriage, particularly among the Buddhist Newar, is not considered a taboo (Bista, 1972, pp. 16-31; Furer-Haimendorf, 1956; Nepali, 1965).

Tamangs

Tamangs, who constitute about 3 per cent of the population in the NFS, are "distinguished from other ethnic groups by language and customs and they do not occupy a territory clearly set apart from the habitat of other populations" (Furer-Haimendorf, 1955-56, p. 166). Among the Tamangs, cross-cousin marriage is preferred. Furer-Haimendorf (1955-56) notes that in recent decades polyandrous marriages have not prevailed among the Tamangs. The prevalent types of marriage are by: arrangement, mutual agreement and capture. Marriage by arrangement is practised to secure marriages between cross-cousins. Marriage by mutual agreement is consummated upon the consent of the elders. Tamangs are relatively tolerant towards premarital sexuality. Divorce and separation are not always condemned, while no social prejudices exist against the remarriage of widows (Furer-Haimendorf, 1955-56; Bista, 1972, pp. 52-61).

Kirates

Kirates are located mainly in the eastern part of Nepal. Rai and Limbu are the two major sub-groups of these people. All marriages are monogamous. Marriages occur in three different forms: by arrangement, capture and elopment. Among some Kirate people, the leviratic system of widow remarriage is also practised. Divorce is not necessarily a social taboo. Pre-marital pregnancy among the Kirate people, unlike the Brahmins and Chetris, is acceptable (Srivastava, 1958; Bista, 1972, pp. 34-51). The Kirates observe a mixed form of religious practice, i.e., Buddhist and Hindu. Households headed by females are not uncommon among the Kirate; this is mainly because men out-migrate for long periods to serve in the army (including Gurkha regiments of the United Kingdom of Great Britain and Northern Ireland, and India) (cf. Jones and Jones, 1976).

Muslims

Muslims are an ethno-religious group. They constitute 4 per cent of the population in the sample. Most of the Muslims live in the southern ecological region (the *terai*) and in towns in the hill region. The main occupation of those living in towns and bazaars is selling bangles, glass beads and leather goods. Muslim marriage is sharply distinct from the customs of the other ethnic groups in that Muslims can marry any Muslim except a sibling (specifically one who has suckled the same breasts). Muslim marriages are usually arranged by parents and occur at an early age. There is no stigma attached to remarriage by a widow, to separation or a second marriage (Bista, 1972, pp. 150-158).

Tharu, Satar and Mosar

These groups are concentrated in the *terai* region and they are indigenous to this region (Bista, 1972, pp. 118-133, 138-141). Marriages occur early. They are arranged by parents, and are typically within the same tribe (Barnouw, 1955). Particularly among families of modest economic means, exchange marriages of sons and daughters between households are also common. The brides of these ethnic groups are generally a few years older than the groom, in contrast to the practices of other groups. "The main consideration is the wealth and the social status of the families concerned" (Bista, 1972, p. 121). The joint family institution is a characteristic of these ethnic groups. The patriarch assumes the full authority.

Gurungs and Magars

The Gurungs and Magars are mostly hill-dwellers (mainly in the central and eastern parts of Nepal). Both of these groups are patriarchal and monogamous. Although Gurungs and Magars are ethnically related, inter-ethnic marriage between them is not common. It is also uncommon for them to exchange in marriage with other ethnic groups. Through a unique social institution known as *rodi* (which is similar to a club under the supervision of a responsible older member of the community), Gurung boys and girls — usually of the same age, approaching adulthood — socialize together. They may later engage in courtship (cf. Hitchcock, 1966; MacFarlane, 1976). This relationship may pave the way to marriage by mutual agreement with parental consent. In most other cases, marriage by arrangement is common to both Gurungs and Magars. Neither group condemns remarriage and there is no stigma attached to it. The households of both groups are often characterized by male migrant labourers. The male members of these groups have, for several decades, been enlisting in the British and Indian armies as "Gurkhas".[6/] This phenomenon has been one of the most important influences on several other aspects of the formation of Gurung and Tamang families (cf. FP/MCH Project, n.d.). These populations have higher age at marriage than many other groups. Several researchers (Jones, 1976; Bista, 1972, pp. 62-68, 75-85; Messerschmidt, 1976) have observed that Gurungs and Magars have increasingly been influenced by Brahmin and Chetri customs. This phenomenon is described as "Sanskritization",[7/] which is effectively similar to the process of "acculturation" or, alternately, "cultural assimilation" of the ethnic groups to the culture of the dominant society (cf. Kobrin and Goldscheider, 1978).

Others

The "other" category of the ethnicity variable includes those not specified above, namely, Thakali, Chepang and Sherpa, among others. Any genera-

lization across these groups would be hazardous, as they cannot necessarily be considered ethnically related to each other.

Thakalis come from the central hill and mountainous regions. Bista points out that "the Thakalis have developed into one of the most successful long-distance trading groups in Nepal..." (1972, pp. 86-95). They are a mixture of Buddhists and Hindus. Polyandry is not practised; most marriage is by capture. Like the Gurungs and Magars, the Thakalis practise cross-cousin marriage (Siheru, 1960).

Marriage among the Chepangs is similar, in some respects, to that of the Tamangs. Marriage by elopement is the "most frequent" type of marriage among them (Bista, 1972, pp. 98-108). Sherpas live mostly in the eastern mountain region (Furer-Haimendorf, 1964 and 1975). Although they have much in common with the Tibetan cultural and religious practices, they "feel as much Nepali as any other people" (Bista, 1972, pp. 160-168). The Sherpa economy is directly related to their mountainous environment (involving animal husbandry, trade and mountaineering). Unlike many other groups, fraternal polyandry (that is, two brothers marrying one joint wife) occurs among them.

"Their attitude toward sex is very relaxed in general, except where it violates the clan restriction. Since only two brothers, and no more than two, can marry one wife, parents of three sons usually make a celibate monk of the middle child. . . . Normally Sherpas choose their own marriage partners although occasionally parents arrange partners for their sons and daughters if they are to be married very young" (Bista, 1972: 163-164).

Results

The figures on pages 18 and 19 show variation in women's age at marriage by their background and individual characteristics. The levels of variation are shown by time period or marriage cohort. For reasons relating to the possibility of bias in the data, especially for the period immediately before the survey, the patterns shown are largely for illustrative purposes. The purpose is to examine whether the overall trend towards increasing age at marriage is confined to any particular sub-population.

Of more interest, therefore, is the relative level of variation between categories of a particular variable rather than the absolute level itself. The main pattern discerned from the figures is that generally all the sub-populations have experienced increasing age at marriage.

Figure: Trends in female age at first marriage by the respondent's and husband's selected background characteristics

Ethnic group

Region

Childhood residence

Literacy
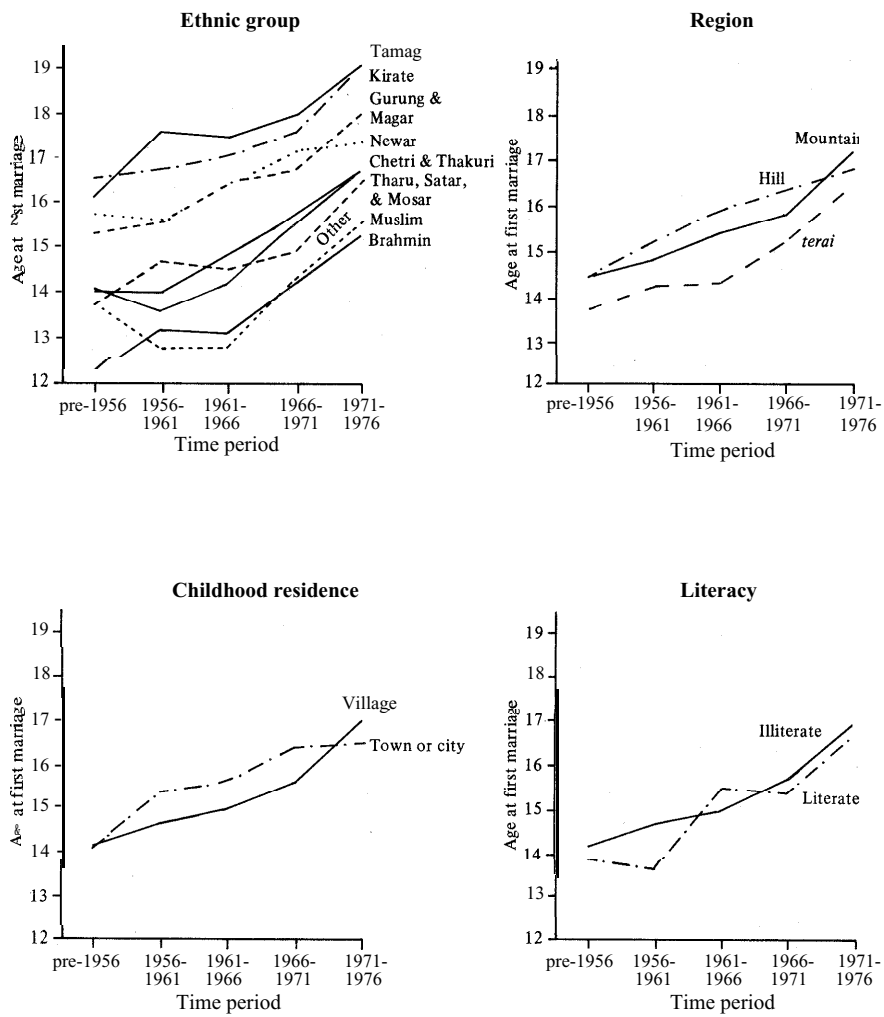
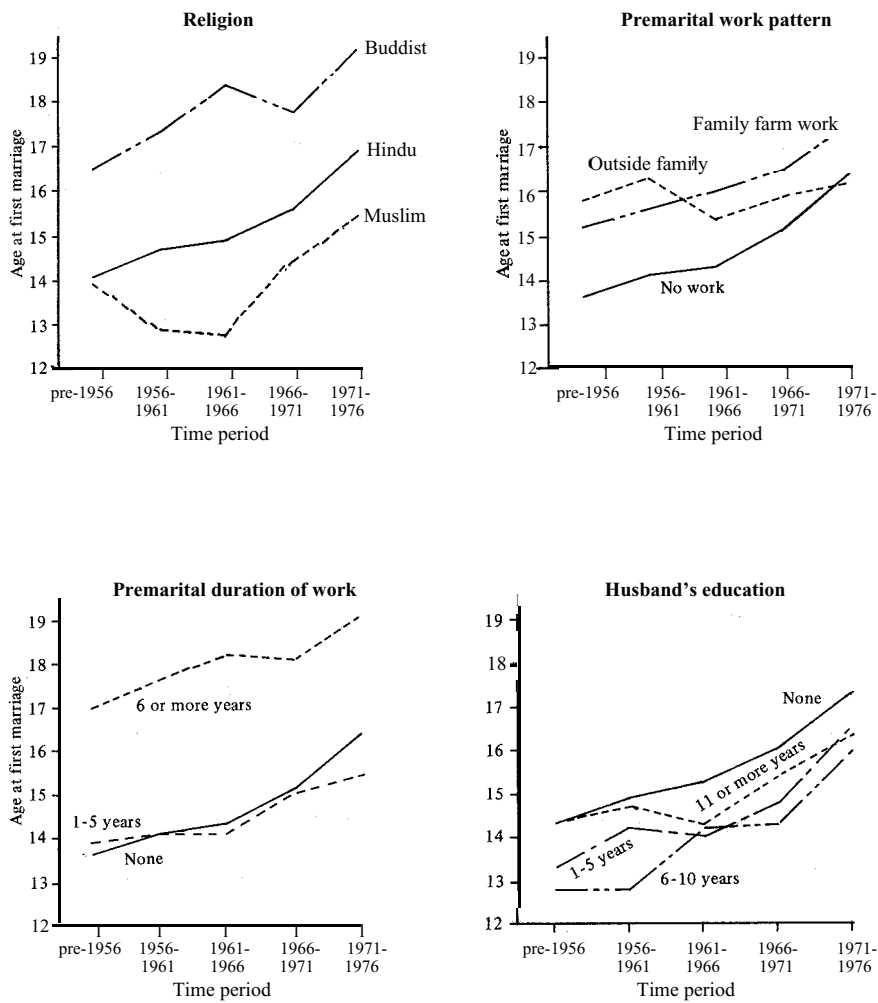*Note:* Year refers to mid-year.

Figure: Trends in female age at first marriage by the respondent's and husband's selected background characteristics

Note: Year refers to mid-year.

There exists, however, considerable variation between categories within a given variable. Particularly notable are variations among the ethnic groups, region of residence, religion and pre-marital duration of work. No appreciable variations are discerned among the literacy status, social origins (or childhood residence) and husband's education attainment as well as husband's occupation (not shown).

Table 5 gives the summary statistics of the data. The nine reclassified ethnic groups seem to be identifiable by four distinct levels of age at first marriage, ranging from 14 to 18 years (see also the figures). Brahmins and Muslims (comprising 15 per cent of the sample) have the lowest age at marriage, i.e. 14 years; Kirates and Tamangs (comprising a little over 6 per cent of the sample) have the highest age at marriage, i.e. about 18 years. The age at marriage for Chetris and Thakuris, Tharu, Satar and Mosar, and the "others" (comprising 58 per cent of the sample) is 15 years, while for Newars, Gurungs and Magars (comprising 21 per cent of the sample), it is 16 years.

Of the three religious groups – Hindus, Buddhists and Muslims – Buddhist women have the highest age at marriage; Muslim women, the lowest. By ecological region, women from the hill and mountainous regions have slightly higher age at marriage compared with women in the *terai*. Women's age at first marriage does not vary much between the urban and rural populations, nor does it vary by literacy among women. Women with husbands in farm occupations have higher age at marriage compared with women married to men in non-farm occupations. Similarly, those whose husbands have no schooling have a slightly higher age at marriage than those whose husbands have some schooling.

The variable, marriage cohorts/time period, has been categorized into three groups for the analysis. The cut-off point for each is made to reflect proximate changes in societal levels in Nepal. In the early 1950s, Nepal opened its doors to the outside world; a century of self-imposed isolationism ended in 1951. During the period 1956-1966, the country experienced its first efforts towards modernization. The decade of 1966-1976 was marked by heightened attempts to modernize the country. Women who were married before the mid-1950s have (expectedly) a lower age at first marriage than those married during the period 1955/56. The age at marriage continued to rise for the period 1966-1976, although the "true" mean value for this period may be somewhat lower than observed.[8]

Women who reported that they had worked before marriage have a higher age at marriage than those who did not work at all. When the duration of work is considered,[9] women with six years of pre-marital work experience have considerably higher (by about three years) age at marriage compared with women

Table 5: Mean and standard deviation (SD) of women's age at marriage for selected characteristics

Variables	Mean	SD	%	N
Time period[a]				
Before 1955	14.2	3.4	29.6	1 760
1956-1965	14.9	4.0	32.5	1 927
1966-1976	16.3	3.9	37.9	2 251
Ethnicity				
Chetri and Thakuri	15.1	3.6	20.5	1 217
Newar	16.4	4.0	4.5	267
Brahmin	13.5	3.3	11.1	659
Muslim	14.0	3.5	4.1	242
Kirate	17.3	3.5	3.1	186
Tharu, Satar and Mosar	14.9	3.8	7.8	462
Gurung and Magar	16.4	3.9	16.6	985
Tamang	17.8	4.7	3.2	187
Other	14.8	3.8	29.2	1 733
Religion				
Hindu	15.1	3.8	91.4	5 428
Buddhist	17.9	4.7	4.2	251
Muslim	13.9	3.4	4.3	254
Ecological region				
Mountain	15.7	3.8	7.6	449
Hill	15.5	4.0	50.2	2 982
terai	14.8	3.7	41.2	2 444
Childhood residence				
Village	15.2	3.9	95.6	5 678
Town or city	15.4	3.7	3.9	233
Literacy				
Illiterate	15.2	3.9	93.8	5 571
Literate	15.4	3.5	6.2	367

Table 5: (continued)

Variables	Mean	SD	%	N
Pre-marital work status				
Did not work	14.5	3.7	57.9	3 437
Did family farm work	15.9	3.2	1.9	110
Worked outside family	16.2	3.9	40.3	2 391
Pre-marital duration of work				
None	14.5	3.7	57.9	3 437
1-5 years	14.5	2.8	22.1	1 312
6-10 years	18.1	4.0	20.0	1 189
Husband's occupation				
Farming	14.5	4.3	2.4	143
Technical	15.0	3.8	4.2	250
Sales	14.6	3.1	3.5	208
Service	15.4	3.5	4.5	267
Farming	15.3	4.0	74.8	4 442
Worker	14.9	3.7	7.9	470
Unstated	14.6	3.3	2.7	158
Husband's education				
None	15.4	4.0	70.3	4 176
1-5 years	14.9	3.3	9.2	547
6-10 years	14.5	3.8	8.5	504
11 or more years	15.3	3.4	3.3	197
Unstated	15.0	3.7	8.7	514
All	15.2	3.9	100.0	5 938

Notes: a/   The survey was completed in early June 1976. Hence, the actual time period refers to mid-year. The NFS individual data tape used for this analysis has two fewer cases; they were omitted because of incomplete information. Percentages may not add up to 100 because of rounding.

with pre-marital work experience of fewer than six years or those without any work experience.

The relative importance and the direction of the bi-variate relationships can be better ascertained by considering all the variables simultaneously. Table 6 presents the results of a multiple regression analysis with two equation

Table 6: Unstandardized (metric) multiple regression (B) co-efficients of ethnicity of work pattern and other selected variables on women's age at first marriage

Variables and categories	Equation 1		Equation 2	
	B	**SE**	**B**	**SE**
Time period[a/]				
(1955-1966)				
Before 1956	-0.63***	0.12	-0.63***	0.11
1966-1976	1.46***	0.11	1.33***	0.11
Ethnicity				
(Brahmin)				
Chetri and Thakuri	1.28***	0.18	1.19***	0.17
Newar	2.86***	0.26	2.53***	0.25
Muslim	0.48	0.29	0.29	0.28
Kirate	3.69***	0.30	3.24***	0.29
Tharu, Satar and Mosar	1.09***	0.24	0.90***	0.23
Gurung and Magar	2.32***	0.19	1.81***	0.18
Tamang	3.29***	0.31	1.89***	0.30
Other	1.27***	0.18	1.07***	0.17
Region				
(Hill)				
Mountain	0.31	0.19	0.38	0.18
terai	-0.34*	0.13	-0.42***	0.12
Childhood residence				
(Village)				
Town or city	0.54*	0.25	0.55*	0.24
Literacy				
(Illiterate)				
Literate	0.68*	0.23	0.68**	0.22
Pre-marital work status				
(Did not work)				
Did family farm work	1.26***	0.12	ni	ni
Worked outside family	0.91*	0.35	ni	ni

Variables categories	Equation 1		Equation 2	
	B	SE	B	SE
Pre-marital duration of work				
(None)				
1-5 years	ni	ni	-0.87	0.16
6-10 years	ni	ni	-0.92***	0.18
11 or more years	ni	ni	-0.17	0.30
Unstated	ni	ni	-0.07	0.17
Husband's education				
(None)				
1-5 years	-0.98***	0.17	-0.88***	0.16
6-10 years	-1.05***	0.19	-0.92***	0.78
11 or more years	-0.28	0.32	-0.17	0.30
Unstated	-0.12	0.17	-0.08	0.17
Husband's occupation				
(Farming)				
Unemployed	-0.39	0.31	-0.42	0.30
Technical	-0.13	0.24	-0.17	0.23
Sales	-0.16	0.26	-0.12	0.25
Service	-0.08	0.24	-0.10	0.23
Worker	-0.11	0.18	-0.10	0.17
Unstated	-0.77*	0.30	-0.59*	0.28
Intercept	12.9		13.0	
Adjusted R^2	.148		.212	
F	40.56***		62.60***	

Notes: a/ The survey was completed in early June 1976; hence, the actual time period refers to mid-year.

SE   =   Standard error of B.

–   =   Not included in the question.

*** = $p \leq .001$; ** = $p \leq .01$; * = $p \leq .05$.

Categories shown in parentheses refer to reference groups.

models. The basic difference between the two models is that equation 1 includes pre-marital work patterns, while equation 2 includes pre-marital duration of work. This enables an investigation of the relative importance of different measurements of the pre-marital work pattern. Both equations include all relevant variables listed in table 2. The reference group (category) for each variable is indicated in parentheses.

Overall, ethnicity, time period/marriage cohort, pre-marital work pattern, pre-marital work duration and husband's education are found to be the most significant variables affecting the timing of family formation. The effects of other variables in the equation are small or insignificant. For both of the equation models, ethnicity holds the widest range of variation. Brahmins and Muslims have the earliest timing of family formation, (the differences between these two groups are not significant.)

The effect of ethnicity remains strong and independent of other variables in the equation model. Hence, the observed large differentials in bivariate results are not necessarily due to differentials in other relevant socio-economic variables. The timing of family formation among the ethnic groups follows the pattern discerned in the bivariate relationship. They are, in ascending order :   a) Brahmin and Muslim,   b) Chetri, Tharu, Satar and Mosar, and "others",   c) Newars, Gurung and Magar; and   d) Kirate and Tamang.

Women who worked on family farms before marriage have a significantly higher age at marriage than those who did not work at all or who worked outside the family. Further, the effect of pre-marital duration of work on age at marriage, as estimated in equation model 2, is most interesting. The timing of family formation for those women who worked pre-maritally for 1 - 5 years is not significantly different from that of those who did not work before marriage. It seems, therefore, that a few years of work before marriage does not significantly delay the timing of marriage in Nepal.

Only those who worked relatively longer are most likely to have a higher age at marriage. When the pre-marital duration of work is included in estimating the model, the relative differences in age at marriage, particularly for two ethnic groups (the Gurung and Magar, and the Tamang), are reduced appreciably. This suggests that, especially for those groups, the timing of age at marriage is mediated largely through pre-marital duration of work.

The total amount of variance in the timing of first marriage by the estimation of equation model 1 is 15 per cent. With the substitution of pre-marital work duration in equation 2, it increases to 21 per cent. This suggests

Table 7: Change in R^2 owing to pre-marital work patterns and selected socio-demographic, individual and background characteristics

Variables	R^2 change	F
Ethnicity	.073	58.25***
Time period	.049	165.14***
Childhood residence and region	.001	3.32**
Pre-marital work status, literacy, husband's occupation and husband's education	.027	26.81***

Notes: *** = $p \leq .001$; ** = $p \leq .01$.

the importance of the duration of work variable. Table 7 shows change in R^2 owing to various variables. As expected, ethnicity appears to be the single most important variable; about 7 per cent of the variance is explained by this factor alone. Other variables, except for time period/marriage cohort, do not show similarly high accountability. When the duration of pre-marital work is included in the equation, R^2 changes significantly to over 9 per cent (table 8). However, the relative importance of ethnicity remains intact. In table 9 the net effect of religion, among other factors, is shown. The findings suggest that religion does not show as much variation as does ethnicity. This is consistent with the expectation that religion cuts across all ethnic groups in Nepal. Hence, sharper differentials are expected for ethnicity, not necessarily religion.

Discussion and conclusion

This article focused on one main feature of nuptiality that directly affects fertility: the timing of entry into marital roles, or the timing of first marriage. Since pre-marital child-bearing is generally uncommon for the majority of women in Nepal, marriage marks the beginning of exposure to the risk of pregnancy and it sets the course for subsequent child-bearing.

Drawing upon theoretical and empirical studies, the specific research hypothesis examined is that ethnic group identification has a strong independent effect on the timing of family formation, or age at first marriage. The independent effects of ethnicity, as a major determinant of the timing of family formation, held even after controlling for other socio-demographic

Table 8: Change in R^2 owing to pre-marital work duration and selected socio-demographic, individual and background characteristics

Variables	R^2 change	F
Ethnicity	.073	58.25***
Time period	.049	165.14***
Childhood residence and region	.001	3.22*
Pre-marital work status, literacy, husband's occupation and husband's education	.093	53.74***

Notes: *** = p ≤ .001; * = p ≤ .05.

Table 9: Changes in R^2 owing to religion and other selected socio-demographic characteristics

Variables	R^2 change	
	Equation 1	Equation 2
Religion	.026	.026
Time period	.050	.050
Region	.004	.004
Pre-marital work	.024	ni
Pre-marital work duration	ni	.101

Notes: All values shown are significant at least at the .05 level;

ni = not included.

factors. The result supports the findings for other countries in Asia (Hirschman, 1985; Hirschman and Rindfuss, 1980 and 1982; Rindfuss and Hirschman, 1984; Rindfuss, Parnell and Hirschman, 1983).

Of the two slightly different measures of pre-marital work experience, namely work pattern and duration of work, the latter was found to be more important. Interestingly, only those women who worked for more than five years had a higher probability of being married later. Some of the variations in ethnic differentials of the age at marriage were mediated through duration of work experience before marriage. Despite this, the independence of the effects of pre-marital duration of work remained strong.

The finding that the pre-marital work pattern of females – particularly when disaggregated by the duration of work – affects positively the female age at marriage suggests the need to scrutinize the relevance of this factor in the timing of family formation. The explanation for this finding is not obvious, however. According to the perspectives developed by Caldwell (1982, especially Chapters 4, 5, 7 and 11) and Lesthaeghe (1980), the timing of family formation in traditional, peasant societies is strongly influenced by the nature of parental control and authority over the labour resources of the children and young adults.

To the extent that the parental authority operates, it may be argued that the age at marriage may have been intentionally delayed by the parents, particularly in the case of those women who were providing significant economic labour resources to the family, thereby maximizing the "wealth flow". Since it is not possible to test this explanation with the NFS data, it must remain propositional. The relatively stronger mediating role of pre-marital work duration for the Gurung and Magar, and the Tamang, is not unexpected, because these groups tend to favour nuclear families, hence the need for economic independence. Furthermore, arranged marriage is less common among these than other ethnic groups, such as the Brahmin and Chetri.

The question of causality between pre-marital work and age at first marriage may also be raised. Are the women married relatively late because of parental authority over family formation or because they were too poor to get married? Also because of data limitations, this proposition cannot be tested directly. No information relating to land holding was collected by the survey; nevertheless, the confounding effects are controlled to some degree by the inclusion of education, literacy and husband's occupation. A great majority of the women included in the sample lived in rural areas; only 4 per cent of them lived in urban Nepal (table 5). Furthermore, the effects of ecological regions and population density are also approximated by inclusion of "region" as a variable. These variables could reduce the problem of causality to some degree.

An alternative explanation to the observed relationship between the timing of first marriage and pre-marital work duration relates to the measurement problem that the timing of marriage itself potentially truncates the pre-marital duration of work. That is, those women who are married at a relatively early age could not have experienced longer duration of work pre-maritally. Alternatively, women who are married late are more likely to end up working longer.

Women whose husbands have some educational attainment have a lower age at marriage than those whose husbands have no education. This appears to be an anomaly at first, but we believe the results are not necessarily without possible explanation. Women with no education are most likely to be those who reside in more traditional, farm households. If a woman's net contribution to the household elders' economic gain is positive, Caldwell would argue, then she is more likely to be married at a higher age.

At the same time, the age at marriage of women whose husbands have more than 10 years of education (which constituted about 5 per cent of the total sample) is not statistically significant compared with those whose husbands do not have this amount of education. It is quite possible that these women represent modern households, where the structure of control of familial resources would conceivably be different from rural, more traditional households.

At the same time, it is also possible that a household which is relatively well-to-do and can afford to educate the children (or at least the sons) is in a better position to attract younger brides. Besides, the potential bride's parents conceivably would find it attractive to form an alliance with well-off families. Plausibly, these families are guided by a common notion that "a young bride is preferred, so that her personality can be molded by both her husband and his parents" (Caldwell *et al.,* 1983, p. 345).

Although this study did not find any appreaciable effect of socio-economic factors (such as education, literacy and occupation), sharper differentials along these characteristics are likely to emerge as the pace of societal modernization quickens. Similarly, urbanization is also likely to produce greater differentials in the timing of the age at marriage.[10/] A relevant question that may be raised here is: Will the observed ethnic differentials disappear when the socio-economic differentials become greater?   The answer to this question can probably be found by considering the three alternative theoretical propositions: "characteristics" hypothesis, "minority status" hypothesis and "particularized ideology" hypothesis.

According to the characteristics hypothesis, the observed differences among the different strata of people in a society are a function of the social,

economic and demographic attributes that characterize the various ethnic groups (cf. Henripin, 1968, pp. 185-191; Sly, 1970; Goldscheider, 1971, p. 270-273). The findings of several studies (Hirschman, 1984; Rindfuss, Parnell and Hirschman, 1983) focusing on many Asian countries with diverse socio-economic conditions clearly suggest that the socio-economic and demographic characteristics do not fully account for the ethnic differences in the timing of family formation.

The second proposition, the minority status hypothesis, is based on the dynamics of minority relations. According to this theory, the minority group adjusts its fertility behaviour (in the present context, the timing of family formation) subject to the availability or unavailability of social mobility (Lorimer, 1954, pp. 198-200; Day, 1968; Goldscheider and Uhlenberg, 1969; Marcum and Bean, 1976; Ritchey, 1975).

In the case of Nepal, the minority status may be at work with regard to certain aspects of reproductive behaviour, as reflected by the phenomenon of "Sanskritization." This phenomenon does not, however, explain the differentials in the timing of family formation, since most minority groups such as the Tamang, Kirate, Gurung and Magar have higher age at marriage than the more dominant groups such as the Chetri or Brahmin.

The third proposition, the particularized ideology hypothesis, holds that fertility behaviour relates to values, norms and institutional arrangements that are specific to given groups (Goldscheider, 1971, pp. 272-275; Yaukey, 1961). This proposition also reflects group-specific social and cultural orientations. Studies show that even in more advanced industrial societies (Sly, 1970; Roberts and Lee, 1974; Kobrin and Goldscheider, 1978) ethnic differences persist, net of socio-economic characteristics. Thus, they point to the importance of group-specific cultural and institutional arrangements in demographic analyses.

In view of the present findings, the role of the particularized ideology hypothesis in the context of a family formation pattern in Nepal appears to be the most relevant proposition. Furthermore, previous findings from several other Asian countries with divergent socio-economic and demographic conditions also strongly indicate that the ethnicity factor will continue to play an important independent role in nuptiality.

With the increased pace of modernization, the socio-economic differentials in the timing of family formation in Nepal may be expected to be sharper, and ethnic differentials may be somewhat reduced over time, but it is improbable that the differentials will disappear.

Footnotes

1. The gradual rise in age at marriage holds true for both the male and female populations in Nepal. However, in view of the focus of this study, only female age at marriage is considered here.

2. The overall incidence of remarriage in Nepal is negligible (cf. CBS 1977, pp. 101-103). The NFS did not elicit marriage history. The respondents were not asked whether they had been married more than once, on the grounds that such a question might be offensive to women. The reported age at marriage was considered to be, by default, the first marriage. It is possible that, in some cases, where remarriage occurred, the respondents reported their most recent marriage. But the overall effect of such an occurrence can be assumed to be negligible. It should be noted that a 1962 law eliminated legal restrictions on remarriage. Though this may also have had some effect on marriage patterns, it is unlikely that the norms would have changed significantly.

3. About 22 per cent of the respondents across all age categories (15-49 years) reported a delay of 39.5 months (table 3).

4. The child-bearing experience of young women is, then, somewhat incomplete. This would affect the pattern of child-bearing, which is not directly related to the present analysis.

5. The censuses have used linguistic criteria to classify the different strata. Linguistic classifications used in the census are rather "ambiguous" (CBS, 1977, p. 43). Apparently, no distinctions were made between a language and a dialect. This has resulted in discrepancies between censuses. For example, the 1952/54 census reported 24 languages, the 1961 and 1971 census reported 36 and 17 languages, respectively (CBS, 1977, pp. 43-45).

6. The importance of this characteristic is reflected by the estimated one million (about 7 per cent of the total population) returned soldiers currently living in Nepal.

7. The concept is used to describe a process by which a lower caste or non-Hindu ethnic group gradually adopts the socio-cultural values and ideology of Hinduism in an attempt to raise its status in the caste hierarchy and in the socio-cultural milieu (Srinivas, 1952).

8. Because of a slight selectivity bias in the survey design discussed previously, the data referring to the most recent cohort may be somewhat upwardly biased. Nevertheless, the inclusion of the time-period variable in a multi-variate analysis would minimize this possible confounding effect.

9. In a preliminary analysis, a different cut-off time for the variable pre-marital work duration was analyzed. The cut-off durations 1-5 years and six or more years were chosen on the basis that the variance seemed considerably larger between those who reported that they had worked 1-5 years and those with more than five years of work experience.

10. Note that the differential effects of these factors are different from that of legislation which prescribes the minimum age at marriage. Such legislative steps do not necessarily eliminate the variation along socio-economic characteristics, although the overall age at marriage may move higher, and the expected deviation around the average may be somewhat reduced.

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