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AN INVESTIGATION INTO THE PATTERN OF DELAYED MARRIAGE IN INDIA

Baishali Goswami*

Abstract

Marriage patterns are undergoing discernible change throughout the world, including in several East and South East Asian countries. In India, certain shifts have been observed in the age at marriage. This paper attempts to examine the scenario of delayed marriage in India using data from different rounds of the National Family Health Survey (NFHS). Keeping in view the limitations of census data and age at marriage as an indicator of timing of marriage, the paper also attempts to explore the impact of select predictors on the likelihood of getting married for females in the age groups 20-24 years and 25-29 years. The findings indicate that the reasons underlying delayed marriage with respect to the 20-24 years age group and the 25-29 years age group differ. Multivariate analysis clearly shows that once education is controlled, along with cultural factors, the apparent difference observed in women from Northern India belonging to the age group 20-24 years compared to women from other regions of India in the same age group vanishes. The conventional argument that the cultural milieu of each state decides the timing of marriage may become more prominent only at a latter point of time, perhaps for women belonging to the age group 25-29 years.

Introduction

The pattern of marriage is undergoing some discernible changes throughout the world. It has played a major role in determining the growth rate of population through its linkage to marital fertility. Historically changes in the nuptiality pattern have played very significant roles with respect to demographic transitions in many of the European (Van de Walle, 1972). The experience of several less developed countries where population growth rate has recently slowed down also well demonstrates this aspect (Das et al., 1998). In societies where reproduction is primarily confined within marriage, the changes in respect of marriage age and the resultant reduction in proportion of women remaining in married state are directly linked to fertility and thus determine the future trend of demographic transition.

A complicated individual phenomenon like marriage, with very strong familial and social interlocks can be studied from different angles and at different levels. Numerous studies have found that the process of union formation happens in a systematic way. The most frequently observed pattern with respect to union formation is marriage among similars i.e., unions based on the similarities between partners regarding their social class, level of education, employment, religion, ethnic group, family background etc. India also is not an exception to it. Union formations in India are still a family oriented matter mainly guided by cultural practices. All the same, the above-mentioned factors play a major role in this regard to an extent that these factors collectively determine even the timing of marriage. Marriages get delayed if proper matches are not available. However, it is very difficult to identify the factors that lead to delayed marriages.

From the mid-1980s, It has become increasingly evident that throughout several East and Southeast Asian countries the age at marriage has increased almost up to 25 years for women at their

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first marriage (Leete 1994). It is also believed that if current Western European figures of proportions single were corrected to exclude proportions cohabiting, then several Asian populations would exceed European in proportions 'effectively single' (Jones 2004). Moreover, Japan, South Korea, Taiwan, Hong Kong, and Singapore all have very low period TFRs at present ranging from 1.0 for Hong Kong, 1.1 for Taiwan to 1.15-1.25 for Korea and Japan. The influence of changing social norms, new patterns of lifestyle, economic constraints and differing perceptions of personal freedom with regard to the choice of partners are some of the factors responsible for these changes. Changes are more discernible among men and women with more schooling, employment outside agriculture and other domestic industries, less employment security (Lesthaeghe 2010).

Although till date marriage is universal in the Indian context, there are certain shifts observed in the age at marriage, i.e., a consistent increasing trend in respect of mean and median age at marriage over cohorts born since 1916 for males and since 1921 for females (Goyal, 1988). However, the aggregate figures relating to mean and median age at marriage show only minor changes in the age at marriage. Moreover, an analysis of 2001 census data clearly shows that for those who have been married for the last nine years preceding the census (i.e. married during 1992-2001), marriages remain mainly confined to higher ages as compared to those married for twenty years or more preceding the census. Hence, it is important to look into the pattern of delayed marriages in India. Even though it is almost impossible to come up with a general conclusion regarding the changes in respect of any of the marriage related parameters particularly in the context of a heterogeneous country like India, an attempt has been made in this paper to analyze the patterns of delayed marriages in India across different sections of the female population.

The most conventional indicator used for assessing the timing of marriages is age at marriage. As of now there exist several quantitative studies related to age at marriage in India. Most notable among them include Agarwala (1962, 1972), Basavarajappa and Belvalgidad (1967) and Malaker (1972, 1973, 1975). Unfortunately, all of these research efforts seem hampered by the variety of Indian marriage customs, paucity of data, misreporting of age and recent changes in marriage patterns. Moreover, age at marriage, as an indicator in itself, has certain limitations. The basic limitation is when used at the aggregate level (mean or median age at marriage), it takes all marriages into account rather retrospectively while ignoring the timing of marriage. Besides, it takes into account persons who are already married. For example, while identifying the determinants of age at marriage, what is basically done is to assess the impact of a set of predictors at different levels on age at marriage, for those who are already married, whatever be the age at marriage. Thus it considers those persons also in the larger pool who are married, albeit, at a higher age or in other words, those who have delayed their marriage. Hence, in a country like India, where marriage is universal, age at marriage is not a sufficient indicator for analyzing delayed marriages. Rather it would be logical to examine the impact of certain factors that may explain the likelihood of females remaining unmarried or married at a particular point of time. The present work is an attempt in that direction.

This paper is divided into two sections. In the first section, the aim of the paper is to examine how far the proportion of never married females has changed in India across different sections of the population over time. In the second section, using National Family Health Survey (NFHS) 2004-05, an

attempt has been made to examine the impact of some predictors on the likelihood of getting married for females coming under 20-24 and 25-29 age groups.

Data and Method

Although census data has always been considered a major source for the analysis of marriage, the absence of comparable data in different censuses on the proportion of never married females under different age groups limits the scope of this analysis with regard to different social and religious groups. In 2001 Census, the never married population has been classified by their religious status and membership of social groups, whereas with the other censuses such kind of classifications is not available. As a result, it becomes difficult to examine the trends in respect of never married population across these categories based on census data. Hence different rounds (1992-93, 1998-99, 2005-06) of National Family and Health Survey (NFHS) data has been used for carrying out the study. In order to assess the changes in the proportion of never married females, three prime age groups namely, 15-19, 20-24, 25-29 have been selected. It is also important to note here that in the Indian context, even if marriages are getting delayed of late, there is also a possibility that in rare cases females get married beyond age thirty. Hence, the analysis has been purposively confined to the prime age groups like 15-19, 20-24, 25-29 within which most marriages take place. The rationale for choosing the proportion never married female population as an indicator of changing timing of marriage is that if this proportion increases over time across different age groups then, obviously there could be a shift in the timing of marriages or in other words marriages may get delayed. Hence, the percentage of never married population has been tabulated across different categories. For the second section, considering marital status (0 = Currently Married and 1= Never Married) as a dependent variable, a logistic regression has been carried out for females belonging to 20-24 and 25-29 age groups separately. In the multivariate analysis, major states of India (barring north-eastern states and Goa) have been considered as one of the explanatory variables. Further, the three new states namely Uttaranchal, Jharkhand and Chhattisgarh have been merged with Uttar Pradesh, Bihar and Madhya Pradesh respectively in order make the analyses comparable with the other two rounds of NFHS.

Never Married Female Population: Trends over time

Table 1 suggests that the percentage of never married females has increased substantially over time in respect of all the three selected age groups. However, whereas 60 percent of women have remained unmarried under the age group of 15-19 for 1992-93, while the same reaching to as high as 74 percent for 2005-06. The corresponding figures for the age group 20-24 have increased from 17 percent to 24 percent over the same period. However, in respect of the last category, not much improvement is seen which clearly implies that even if marriages are getting delayed, the age at marriage has not gone beyond 30. However, an increment in the proportion of never married females with regard to all age groups is found more between NFHS 1 (1992-93) and NFHS 2 (1998-99) as compared to that between NFHS 2 (1998-99) and NFHS 3 (2005-06).

Table 1: Percentage share of never married females across different age groups

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) & (3)
Female	15-19	59.1 (26761)	67.1 (27015)	74.2 (26747)	2.8	1.8
	20-24	16.9 (26143)	20.5 (25217)	23.8 (25693)	4.2	2.7
	25-29	4.3 (22193)	5.4 (22659)	5.4 (23619)	5.2	0.0

Note: (Absolute Figures are given in parentheses)

The percentage of never married females has remained almost stable (table 2) at around 9-10 percent for urban areas and 3-4 percent for rural areas under 25-29 age group. Major incremental changes have been observed between NFHS 1 and NFHS 2 especially for the rural areas among women belonging to 20-24 and 25-29 age groups. However for the later half (between NFHS 2 and NFHS 3), the growth rate has slowed down while in the rural areas, females coming under 25-29 age group are found to have experienced a negative growth rate (-2.5).

Table 2: Percentage share of never married females by type of place of residence

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) & (3)
Urban	15-19	78.2 (7092)	81.7 (7179)	85.5 (8132)	0.8	0.8
	20-24	29.8 (7138)	34.8 (7069)	37.4 (8341)	3.4	1.2
	25-29	8.5 (6105)	9.4 (6154)	9.8 (7737)	2.2	0.7
Rural	15-19	52.2 (19667)	61.9 (19833)	69.2 (18616)	3.8	2.0
	20-24	12.1 (19005)	15.0 (18148)	17.2 (17351)	4.8	2.5
	25-29	2.7 (16087)	3.9 (16504)	3.3 (15881)	8.8	-2.5

Note: Absolute figures are given in parentheses

A further bifurcation of the urban centres (table 3) provides a picture of changes in the proportion of never married more clearly. Across capital and large cities as well as small cities, the proportion of never married females is found to have remained almost stable at around 11 percent and 9 percent respectively for the 25-29 age group over the period under consideration, while hinting at the possible existence of an upper limit with regard to age at marriage in India. Even if age at marriage has changed over time, unlike in the case of developed countries, it is not likely to cross thirties in the near future.

Table 3: Percentage share of never married females by place of residence

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) &(3)
Capital, Large City	15-19	80.0 (2089)	87.6 (1809)	87.4 (2614)	1.8	0.0
	20-24	33.3 (2281)	40.3 (1845)	41.5 (2879)	4.2	0.5
	25-29	11.0 (2082)	12.2 (1652)	11.0 (2681)	2.2	-1.7
Small City	15-19	81.3 (2597)	81.1 (2086)	88.0 (2249)	0.0	1.5
	20-24	31.7 (2499)	33.0 (2084)	37.6 (2263)	0.8	2.3
	25-29	8.5 (2106)	8.1 (1814)	8.8 (2083)	-1.0	2.5
Town	15-19	73.2 (2407)	78.8 (3284)	82.3 (3268)	1.6	0.7
	20-24	24.4 (2356)	32.8 (3139)	33.7 (3200)	6.8	0.5
	25-29	5.7 (1918)	8.7 (2688)	9.4 (2975)	10.6	1.3
Countryside	15-19	52.2 (19667)	61.9 (19833)	69.2 (18616)	3.8	2.0
	20-24	12.1 (19005)	15.0 (18148)	17.2 (17351)	4.8	2.5
	25-29	2.7 (16087)	3.9 (16504)	3.3 (15881)	8.8	-2.5

Note: Absolute figures are given in parentheses

However, looking at the growth rates of never married female population, it can be said that women aged between 20-24 and 25-29 living in towns have experienced the highest growth rates followed by females in the countryside and capital and large cities under the same age group during the first half of the period under consideration.

Coming to the educational attainment aspect of never married females, it is always believed that with improvements in educational status, the proportion of never married females coming under each age group increases over time or in other words, marriages get delayed over time. From table 4 one can observe that for females with no education and those having higher education, the percentage of never married females has increased between NFHS 1 and NFHS 3. However, with respect to the other two categories, the scenario appears slightly different. Women with primary education show a higher marriage rate resulting in a lower percentage of never married females in the age groups of 20-24 and 25-29 years over time. The same holds true for women with secondary education also. However, looking at the growth rate, it becomes clear that it is only during the first half that women with no education reveal the highest as well as positive increments. However, in the later half, women with higher education in age group of 20-24 and 25-29 years reveal highest increments.

Table 4: Percentage Share of Never Married Females by Highest Level of Education

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) & (3)
No Education	15-19	37.6 (11326)	44.1 (8127)	50.3 (5615)	3.5	2.3
	20-24	5.6 (13356)	7.3 (9734)	7.1 (7865)	6.1	-0.5
	25-29	1.7 (12676)	2.1 (10611)	1.7 (9529)	4.7	-3.2
Primary	15-19	62.7 (5898)	63.7 (28472)	64.5 (4015)	0.4	0.2
	20-24	14.2 (4905)	12.8 (3933)	13.2 (3451)	-2.0	0.5
	25-29	3.6 (4072)	3.5 (3634)	2.3 (3175)	-0.6	-6.7
Secondary	15-19	82.2 (8944)	78.3 (11382)	83.8 (16184)	-1.0	1.2
	20-24	30.5 (6062)	22.2 (7324)	26.2 (11204)	-5.4	3.0
	25-29	7.8 (4007)	6.6 (5534)	5.6 (8490)	-3.0	-2.5
Higher	15-19	94.3 (460)	92.7 (2972)	94.5 (913)	-0.3	0.3
	20-24	65.1 (1712)	55.3 (4221)	69.2 (3120)	-3.0	4.2
	25-29	20.0 (1357)	18.2 (2871)	24.1 (2379)	-1.8	5.4

Note: Absolute figures are given in parentheses

Table 5: Percentage Share of Never Married Females by Highest Educational Level Attained

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) & (3)
No Education	15-19	37.6 (11326)	44.1 (8127)	50.3 (5615)	3.5	2.3
	20-24	5.6 (13356)	7.3 (9734)	7.1 (7865)	6.1	-0.5
	25-29	1.7 (12676)	2.1 (10611	1.7 (9529)	4.7	-3.2
Incomplete Primary	15-19	60.1 (4326)	63.8 (2550)	67.3 (1972)	1.2	0.9
	20-24	13.9 (3769)	13.0 (2121)	13.5 (1617)	-1.3	0.6
	25-29	3.6 (3229)	3.5 (2116)	2.7 (1673)	-0.6	-3.8
Complete Primary	15-19	69.7 (1572)	63.7 (1967)	61.7 (2043)	-1.7	-0.5
	20-24	15.2 (1135)	12.7 (1811)	12.9 (1833)	-3.3	0.3
	25-29	3.8 (844)	3.4 (1517)	1.7 (1502)	-2.1	-8.3
Incomplete Secondary	15-19	81.5 (7977)	77.6 (8779)	82.9 (14537)	-1.0	1.1
	20-24	27.2 (4946)	20.9 (5045)	23.4 (9953)	-4.6	2.0
	25-29	6.7 (3392)	6.0 (3789)	5.1 (7243)	-2.1	-2.5
Complete Secondary	15-19	87.9 (966)	80.6 (2601)	91.1 (1648)	-1.7	2.2
	20-24	45.0 (1116)	25.2 (2279)	40.5 (1851)	-8.8	10.1
	25-29	13.5 (615)	7.9 (1744)	8.5 (1247)	-8.3	1.3
Higher	15-19	94.3 (460)	92.7 (2972)	94.5 (913)	-0.3	0.3
	20-24	65.1 (1712)	55.3 (4221)	69.2 (3120)	-3.0	4.2
	25-29	20.0 (1357)	18.2 (2871)	24.1 (2379)	-1.8	5.4

Note: Absolute figures are given in parentheses

A further bifurcation of primary and secondary educational levels (table 5) into incomplete primary and complete primary as well as incomplete secondary and complete secondary shows that for women with incomplete primary education, the percentage of never married females remains almost stable across all the age groups over the stipulated time period, whereas in the case of females with complete primary and incomplete or complete secondary education, this proportion decreases especially in the age groups of 20-24 and 25-29 years.

However by looking at the changes, it becomes evident that during the first half, females belonging to most of the age groups exhibit a negative growth rate , whereas in the later half, females coming under 20-24 age group with secondary education completed experience highest incremental changes. On the whole, very nominal increments have been observed across different categories of education.

Sex of the heads of households has also a role to play in determining the age at marriage of individuals. It has been found that in male headed households, females get married earlier as compared to those households headed by females across all the three age groups (table 6). The common reason being that as most of the female headed households tend to be poverty stricken, and also the fact that daughters' marriage involves huge expenses (particularly in the form of dowry) in the Indian society, these households may not be able to arrange the provisions for marriage at the proper time and hence marriages get delayed. However a closer look into the incremental changes show that the incremental increase in respect of never married females is more prominent among male headed households.

Table 6: Percentage share of never married females by sex of household head

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) & (2)	Growth rate over (2) & (3)
Male	15-19	58.4 (24514)	66.7 (24622)	74.0 (23274)	2.8	1.8
	20-24	15.8 (24134)	19.4 (23094)	23.1 (22679)	4.6	3.2
	25-29	3.6 (20579)	4.8 (20843)	5.0 (20875)	6.6	0.7
Female	15-19	67.1 (2247)	71.9 (2391)	75.1 (3472)	1.4	0.7
	20-24	29.8 (2006)	32.7 (2122)	29.2 (3013)	2.0	-1.8
	25-29	12.8 (1607)	12.4 (1816)	8.4 (2745)	-0.6	-5.3

Note: Absolute figures are given in parentheses

Table 7 shows percentage share of never married females by caste of the heads of households across three different periods. Despite an increase over time, the proportional changes are found higher between NFHS 1 and 2 as compared to those between NFHS 2 and 3. High increments are seen among women belonging to scheduled castes, scheduled tribes and other castes across 20-24 and 25-29 age groups during the first half of the stipulated period. For the second half, women aged between 25-29 among scheduled tribes and other backward classes have exhibit negative increments.

Table 7: Percentage share of never married females by household caste

	Age group	1992-93 (1)	1998-99 (2)	2005-06 (3)	Growth rate over (1) &(2)	Growth rate over (2) &(3)
Scheduled Caste	15-19	48.9 (3246)	60.8 (4865)	70.4 (5252)	4.8	2.7
	20-24	9.7 (2989)	17.1 (4531)	18.5 (4939)	15.2	1.3
	25-29	1.8 (2593)	4.1 (3990)	4.7 (4331)	25.6	2.5
Scheduled Tribe	15-19	52.6 (2258)	62.8 (2232)	68.1 (2341)	3.8	1.3
	20-24	14.2 (2365)	18.6 (2144)	18.7 (2070)	6.2	0.2
	25-29	4.3 (2044)	6.2 (2052)	5.2 (1865)	8.8	-2.7
Other Backward Classes	15-19		64.7 (8748)	72.7 (10737)		2.0
	20-24	NA	18.1 (8280)	20.2 (10146)	NA	2.0
	25-29		4.6 (7402)	4.1 (9545)		-1.8
Other	15-19	61.4 (21255)	74.0 (9448)	81.7 (7508)	4.2	1.7
	20-24	18.2 (20790)	25.2 (8909)	32.8 (7693)	7.6	5.0
	25-29	4.6 (17554)	6.6 (7996)	7.0 (7153)	8.6	1.0

Note: Absolute figures are given in parentheses

Information on religion of the heads of households is available from NFHS 2 onwards. Table 8 shows the percentage shares of never married females by religion of the household head. As per NFHS 2 and 3, Christians reveal relatively higher percentages of never married population under each age group.

Table 8: Percentage share of never married females by household religion

	Age group	NFHS 2	NFHS 3	Growth
Hindu	15-19	65.8 (21366)	73.3 (20844)	1.8
	20-24	19.1 (20168)	22.6 (20557)	3.0
	25-29	5.0 (18399)	5.1 (19096)	0.3
Muslim	15-19	67.9 (4051)	74.2 (4450)	1.5
	20-24	20.7 (3557)	23.2 (3718)	2.0
	25-29	5.7 (2858)	4.9 (3251)	-2.3
Christian	15-19	80.0 (711)	86.1 (577)	1.3
	20-24	43.7 (661)	47.2 (568)	1.3
	25-29	15.6 (662)	15.4 (512)	-0.2
Sikh	15-19	89.8 (432)	92.1 (443)	0.5
	20-24	38.0 (445)	41.0 (468)	1.3
	25-29	6.3 (366)	9.1 (384)	7.3
Others	15-19	80.1 (453)	82.4 (431)	0.5
	20-24	34.2 (407)	35.4 (381)	0.7
	25-29	7.3 (372)	9.3 (376)	4.5

Note: Absolute figures are given in parentheses

However, the incremental changes are more visible among Sikh women and women belonging to other religions, especially for those coming under 25-29 age group.

Table 9 provides the percentage shares of never married female population in different states across three selected age groups. It is very interesting to see that the percentage shares of never married female population have increased over time across all the age groups in Jammu and Kashmir, Himachal Pradesh, Delhi, Rajasthan, Uttar Pradesh (including Uttaranchal for 2005-06), Maharashtra and Tamil Nadu. For states like Punjab, Haryana, Bihar (including Jharkhand for 2005-06), Orissa, Madhya Pradesh (including Chhattisgarh for 2005-06), Gujarat and Karnataka incremental increases for the first half are more evident, whereas for the second half, in respect of certain age groups, negative growth rates have been observed. Surprisingly, in a state like Kerala, the percentage shares of never married females across all the age groups have exhibit almost no change or negative increments.

Again a state like Andhra Pradesh, which has experienced very nominal changes for the first half, reveals a sign of improvement for the second half, especially for those coming under 20-24 age group. It has to be kept in mind that once the proportion of never married females reaches a certain level, chances of further increments become rare, given the cultural landscape of India. Hence with regard to states like Kerala, where the proportion of never married females were 43 percent and 12 percent for 20-24 and 25-29 age groups respectively (which are relatively higher as compared to a majority of the Indian States) as early as in 1992-93, chances for further increments are few. What is interesting to note here is the decline observed in the proportion of never married females across 20-24 and 25-29 age groups in Kerala over time.

Table 9: Percentage of never married females by major states, India

States		1992-93 (1)	1998-99 (2)	2005-06 (3)	growth (1) & (2)	growth (2) & (3)
Jammu and Kashmir	15-19	82.8(1009)	91.0(1072)	93.4(787)	2	0.43
	20-24	34.3(947)	47.9(889)	62.6(688)	7.93	5.12
	25-29	6.1(834)	14.0(878)	19.1(679)	25.82	6.11
Himachal Pradesh	15-19	83.6(1026)	94.2(873)	94.6(629)	2.52	0.08
	20-24	22.4(964)	39.2(911)	41.4(677)	14.98	0.92
	25-29	3.2(793)	5.1(790)	9.3(581)	12.12	13.93
Punjab	15-19	87.3(935)	91.6(813)	89.6(721)	1	-0.37
	20-24	32.2(894)	41.0(813)	39.3(866)	5.43	-0.69
	25-29	5.4(766)	7.7(672)	8.1(668)	8.91	0.74
Haryana	15-19	56.9(905)	75.4(776)	77.9(634)	6.5	0.56
	20-24	9.7(868)	20.1(713)	17.6(580)	21.45	-2.05
	25-29	0.8(717)	2.5(681)	2.3(520)	39.66	-1.26
Delhi	15-19	83.1(830)	89.7(726)	91.0(657)	1.57	0.25
	20-24	28.7(970)	39.9(765)	45.4(736)	7.82	2.3
	25-29	6.1(946)	6.9(648)	10.7(663)	2.65	9.03
Rajasthan	15-19	45.5(1499)	55.7(2153)	65.0(913)	4.5	2.76
	20-24	9.0(1349)	9.6(1918)	13.5(845)	1.22	6.77
	25-29	1.0(1218)	1.5(1622)	1.8(709)	10.04	3.99
Uttar Pradesh	15-19	60.4(3297)	64.8(3083)	79.7(3818)[@]	1.45	3.84
	20-24	10.2(3154)	13.1(2609)	22.5(3120)[@]	5.83	11.82
	25-29	1.1(2602)	2.2(2227)	3.6(2885)[@]	20.29	9.84
Bihar	15-19	41.9(1542)	60.0(1973)	58.8(1626)[#]	8.62	-0.32
	20-24	8.5(1522)	12.4(1885)	14.1(1407)[#]	9.17	2.4
	25-29	2.2(1300)	2.4(1701)	2.1(1296)[#]	1.84	-1.9

Assam	15-19	72.4(1028)	75.8(1031)	76.1(762)	0.93	0.08
	20-24	37.8(917)	35.0(977)	36.1(846)	-1.5	0.5
	25-29	13.2(842)	15.9(904)	15.9(769)	4.17	-0.07
West Bengal	15-19	56.6(1307)	61.3(1237)	61.3(1457)	1.65	0
	20-24	18.7(1155)	19.3(1178)	18.1(1407)	0.61	-1.05
	25-29	7.0(1066)	7.3(1115)	5.9(1215)	0.65	-3.07
Orissa	15-19	76.8(1302)	81.1(1278)	78.2(974)	1.11	-0.58
	20-24	27.0(1320)	30.7(1153)	34.3(956)	2.77	1.96
	25-29	5.6(1122)	7.0(1228)	8.3(856)	4.94	3.07
Madhya Pradesh	15-19	38.1(1721)	58.3(1845)	74.9(2202)[$]	10.65	4.75
	20-24	7.7(1772)	14.5(1791)	16.3(1981)[$]	17.55	2.05
	25-29	2.1(1434)	3.9(1653)	3.2(1851)[$]	17.01	-2.95
Gujarat	15-19	73.3(1094)	76.7(1119)	77.6(749)	0.92	0.19
	20-24	19.1(1207)	21.9(1053)	27.0(795)	2.92	3.88
	25-29	3.6(883)	4.4(815)	3.8(682)	4.38	-2.28
Maharashtra	15-19	62.7(1132)	69.4(1645)	82.6(1797)	2.14	3.17
	20-24	17.2(1222)	21.1(1530)	28.0(1923)	4.57	5.46
	25-29	4.5(994)	5.8(1404)	6.5(1802)	5.8	2.02
Andhra Pradesh	15-19	45.9(1217)	52.0(1053)	67.2(1304)	2.7	4.85
	20-24	11.0(1112)	10.8(991)	18.2(1381)	-0.32	11.5
	25-29	2.6(1015)	2.6(884)	3.0(1368)	0.31	2.53
Karnataka	15-19	61.3(1403)	66.4(1356)	76.6(1267)	1.66	2.56
	20-24	22.7(1345)	25.4(1244)	27.2(1301)	2.4	1.19
	25-29	6.0(1132)	7.6(1107)	7.2(1321)	5.26	-0.87
Kerala	15-19	84.1(1286)	84.4(813)	87.4(579)	0.06	0.6
	20-24	43.3(1356)	36.6(792)	36.9(621)	-3.08	0.12
	25-29	12.4(1151)	10.3(775)	8.9(607)	-3.38	-2.3
Tamil Nadu	15-19	74.3(1137)	75.7(1112)	87.9(900)	0.38	2.68
	20-24	24.6(1084)	31.6(1226)	37.0(1106)	5.7	2.81
	25-29	7.0(951)	8.2(1106)	9.9(1042)	3.36	3.36

Note: Absolute figures are given in parentheses; [@] includes Uttaranchal; [#] includes Jharkhand; [$] includes Chhattisgarh

Multivariate Analysis

In this section an attempt has been made to identify some of the predictors that may have implications in terms of determining marital status in India. In what follows is a discussion on the plausible explanatory variables and their linkages to marital status.

Issues and Hypotheses

The purpose of this section is to discuss certain basic personal (educational attainment), familial (place of residence, sex of the head of the household) and socio-cultural (social composition of the population, state) characteristics and their impact on female marriage in India.

Female Education and Transition to Marriage

A positive association is expected to be seen between educational attainment of females and their transition to marriage. A woman with higher education is always more likely to remain unmarried at a given point of time as compared to a woman with no education at the same given point of time. The explanation can be twofold. First, the continuation of education delays the entry of a woman into the marriage market. Second, education is often related to greater autonomy and opening up of new

avenues for women besides their familial and reproductive roles. They are expected to gain more control over household resources and personal behaviour (Dyson et al., 1983; Cain et al.,1979) so that they can achieve better bargaining power in deciding the timing of their marriage as well as the selection of their spouses.

However, the causality is not as simple as it apparently seems to be. Even though part of the association between education and late marriage is explained with reference to a greater female autonomy in the marriage process (Cochrane 1979), it ultimately depends on the social and cultural contexts within which these variables operate. For example, studies suggest that throughout South Asia, education may serve to raise the value of daughters in transactions between households (Caldwell et al., 1983); to make them more effective wives and mothers (Culpan et al., 1982) and hence, not capable enough to alter the parents' role in their daughter's marriage (Fricke et al., 1986).

Familial factors

Place of residence impacts demographic outcomes. In diffusion theory, it has been argued that any change in the demographic parameters starts from developed urban centres. Slowly the new behaviours diffuse small cities, towns and ultimately the countryside. Even though there exist exceptions to this theoretical proposition, in the present work, the type of place of residence has been factored in as one of the explanatory variables. Sex of the head of the household also may decide the transition to marriage. Most of the female headed households tend to be poverty stricken and thus face difficulties in arranging the provisions for daughters' marriage. Hence marriages sometimes get delayed for women in female headed households.

Cultural parameters and marriage

In most of the developing contexts, marriage is more of a cultural phenomenon rather than an individual one in that personal happiness is generally given much lesser weight at the time of union formation. However, as we know, it is not easy to capture cultural aspects quantitatively. Culture reflects itself through other variables, for example, religion, caste etc. It has been well recognised in the demographic literature that as part of culture, religion, in some special contexts, can influence a wide range of social behaviours. Religious precepts could affect fertility, autonomy of women, their decision making, access to economic resources and so on. For example, in India, several studies, by applying multivariate techniques on secondary data, have found that Muslim population has a strong, independent and positive effect on fertility (Bhat et al., 1990; Dreze et al., 2001; Chattopadhyay et al, 2004; Kulkarni et al., 2005). Coming to age at marriage, in India, it has been found that historically Hindus and Muslims have had lower ages at marriage as compared to Christians. Keeping in view these causations, religion has been considered as a proxy variable for culture. Again in almost all parts of India marriages are caste endogamous. In the caste hierarchy, those who belong to the upper end have a tendency to marry off their daughters early, sometimes even before they reach their puberty. Even among scheduled castes, this trend is found. However, among certain tribes, pre-puberty marriages are culturally uncommon. Even though things are changing, caste still plays a role in determining the timing of marriages and hence included in the model as another proxy for culture. Lastly, the state which the

respondents belong to, also shapes their cultural orientation. For instance, it has been found in the literature that sometimes indicators like education can not explain the demographic outcomes the way a state can. Researches reveal that the acceptance of family planning methods is more visible among the least educated women of Kerala as compared to the highly educated women of Uttar Pradesh (McNay et al, 2003). There may be some other dimensions of culture, but keeping in view the constraints of data, the analysis has been confined within these three culture related parameters.

There are numerous other factors that we have not been able to capture in the present study. For example, physical distance may represent a major constraint in terms of finding a suitable partner and thereby leading to late marriages. It has been found in a French survey that spatial mobility plays a central role in understanding the process of union formation. However, for estimating marriage market from a spatial point of view, both the place of birth and place of residence of married couples are not sufficient. Place of birth does not reflect the real pool of potential partners while the latter represents a successive moment. Basically, information on the residence of each partner at each significant point in time of their life cycle would be useful, but that is not available in the dataset.

Characteristics of local marriage markets influence the marriage timings both for men and women. In the present work I could not include any explanatory variable as a proxy for the local marriage market. Sex ratio of men and women at marriageable age is a very crude measure in this regard and also which area can come under the local marriage market also is a debateable issue.

Several changes in marriage timing patterns depend, both cross-sectionally as well as lontgitudinally, on exogenous factors like changes occurring in labour market, individual preferences for career development, duration of economic crises and so on. directly affect marriage conditions. However, keeping in view the limitations of the data, these factors could not be included in the model.

Results of Multivariate analysis

Table 10 presents the coefficients of the logistic regression categorising females into two selected age groups 20-24 and 25-29. As compared to Hindus, women belonging to all other religious groups are found to be significantly more likely to remain unmarried by age 20-24 years. Coming to caste, females belonging Scheduled tribes and other castes have less chances to get married as compared to scheduled caste females. However, women belonging to other backward classes do not reveal any statistically significant relationship as far as chances of their getting married by age 20-24 are concerned. As compared to women with no education, women coming under all other educational categories have significantly lesser chances of getting married by age 20-24. As expected women belonging to urban areas have fewer chances of getting married as compared to their rural counterparts. Chances of getting married by age 20-24 are relatively lower for women belonging to female headed households as compared to their counterparts in male headed households.

Coming to 25-29 age group, in relation to Hindu females, all women belonging to other religious groups have fewer chances of getting married, albeit at a lower degree (excepting Muslim women). Interestingly, as compared to women belonging to scheduled castes, females belonging to other backward classes and other castes are significantly less likely to remain unmarried. However, women belonging to scheduled tribes do not reveal any statistically significant relationship as far as

chances of getting married by age 25-29 are concerned. Under this age group, women with primary education do not exhibit any statistically significant relationship as compared to women with no education, as far as the likelihood of getting married is concerned.

Table 10: Coefficients of Logistic Regression model

	20-24		25-29	
	Coefficient	**Std. Error**	**Coefficient**	**Std. Error**
Religion (Ref: Hindu)				
Muslim	.199***	.056	.304***	.101
Christian	.681***	.127	.401**	.186
Sikh	.520***	.136	.442**	.213
Others	.591***	.134	.448**	.187
Caste (Ref: Scheduled Caste)				
Scheduled Tribe	.220**	.088	.054	.157
OBC	-.063	.055	-.339***	.098
Others	.153***	.054	-.360***	.093
Educational attainment (Ref: No Education)				
Primary	.689***	.079	.218	.159
Secondary	1.448***	.061	.972***	.108
Higher	3.344***	.074	2.620***	.114
Place of Residence (Ref: Rural)				
Urban	.551***	.041	.565***	.075
Sex of Household Head (Ref: Male)				
Female	.456***	.054	.610***	.083
Age	-.478***	.014	-.313***	.024
Constant	7.366***	.318	4.108***	.652

Dependent Variable: Marital Status (0- Currently Married; 1- Never Married)

*** 1 % level of significance; ** 5 % level of significance

However, in respect of other categories, the chances of women remaining unmarried are significantly higher in relation to women with no education. Women residing in urban areas experience fewer chances of getting married as compared to their rural counterparts. Under 25-29 age group also, women hailing from female headed households reveal fewer chances of getting married as compared to their counterparts belonging to male headed households.

It is already mentioned that state also has been considered as one of the explanatory variables in order to capture different cultural milieu of each state. Table 11 presents the coefficients of state in the same regression model for two age groups separately. Considering Kerala as the reference state, it has been found that females in states like Jammu and Kashmir, Himachal Pradesh, Assam, Orissa, Tamil

Nadu are less prone to getting married under both models. There are some states which demonstrate a significant relationship with respect to one age group but not the other. For example, under 20-24 age group, females in Punjab, Delhi and Karnataka (at a lower degree) are less likely to get married as compared to females belonging to the reference state. However, in respect of 25-29 age group, no statistically significant relationship has been found. Women in Haryana and Rajasthan are significantly less likely to remain unmarried under both models. Women in states like Bihar (including Jharkhand), Madhya Pradesh (including Chhattisgarh) and Andhra Pradesh are also less likely to remain unmarried as compared to those belonging to the reference state. However, for Bihar (including Jharkhand) the coefficient is not significant in respect of 20-24 age group, for Madhya Pradesh (including Chhattisgarh) under 25-29 age group and for Andhra Pradesh under both the age groups. With respect to states like Uttar Pradesh (including Uttaranchal), Gujarat and Maharashtra, the coefficients are statistically insignificant under both the models.

Table 11: Coefficients of state under Logistic Regression model

	20-24		25-29	
States	**Coefficient**	**Std. Error**	**Coefficient**	**Std. Error**
Kerala	Ref		Ref	
Jammu and Kashmir	1.444***	.163	1.111***	.235
Himachal Pradesh	.783***	.141	.609***	.224
Punjab	.523***	.154	.232	.258
Haryana	-.563***	.163	-.892***	.358
Delhi	.342**	.139	.224	.224
Rajasthan	-.451***	.156	-.715**	.316
Uttar Pradesh[@]	.110	.115	-.203	.195
Bihar[#]	-.212	.131	-.660***	.248
Assam	.968***	.140	1.635***	.209
West Bengal	.207	.129	.618***	.209
Orissa	.894***	.132	.982***	.214
Madhya Pradesh[$]	-.239*	.124	-.335	.214
Gujarat	.180	.140	-.322	.271
Maharashtra	.060	.120	.193	.195
Andhra Pradesh	-.189	.124	-.001	.206
Karnataka	.220*	.129	.313	.209
Tamil Nadu	.406***	.127	.420**	.209

Dependent Variable: Marital Status (0- Currently Married; 1- Never Married)

*** 1 % level of significance; ** 5% level of significance; * 10% level of significance

[@] includes Uttaranchal; [#]includes Jharkhand; [$] includes Chhattisgarh

Discussion

These findings provide an indication of the pattern of delayed marriages in India. As expected, that section of the population educated beyond a threshold level, has been found delaying marriage even at age 25-29. Coming to religious identities, it has been found that religious identity plays an important role in determining the marital status in respect of both the age groups. However, identities related to ethnic groups exhibit different trends under the two models. Women belonging to other castes are significantly more likely to remain unmarried at age 20-24, whereas under 25-29 age group, they are significantly less likely to remain unmarried as compared to women belonging to scheduled castes. It hints towards the fact that the reasons underlying delayed marriages with respect to 20-24 and 25-29 age groups might be different. Higher chances of women remaining unmarried in female-headed households in respect of both the age groups, once again reconfirms the fact that female heads are unable to make provisions for daughters' marriage at the proper time perhaps due to the widely prevalent system of dowry. Moreover, sometimes, even though enough resources are available the absence of father-figures might hamper the initiatives in terms of arranging marriages of eligible unmarried girls in the families.

Although state has been considered as one of the explanatory variables in the logistic regression framework, it is very difficult to say anything precisely based on these coefficients. It is evident from the bivariate analysis that in Kerala, the percentage of never married female population has declined over time. Based on the multivariate analysis, females in the bordering states show greater chances of remaining unmarried under both the models as compared to women in Kerala. Females from states like Haryana and Rajasthan have reveal greater chances of getting married, perhaps owing to their very traditional and patriarchal environment. The reason for some of state coefficients being significant under the first model and insignificant under the second (e.g., Punjab, Delhi, Karnataka and Madhya Pradesh (including Chhattisgarh)) might be a reduction in the number of cases with regard to that particular age group. In a country like India, where marriage is universal, we rarely come across women remaining unmarried throughout their life. By age 25-29, only a small proportion of women remain unmarried rendering the predictors insignificant sometimes.

Furthermore, the coefficient for West Bengal is insignificant under the first model, whereas it is significantly positive under the second model. Similarly, the coefficient for Bihar (including Jharkhand) also is insignificant under the first model and significantly negative under the second model. It hints towards the fact that once a factor like education is controlled, the apparent disadvantages observed of the northern states may vanish at least with respect to 20-24 age group. Moreover, the conventional argument that the cultural factors of different states decide the timing of marriages may become applicable at a later stage. That is why for females in Bihar (including Jharkhand) the chances of remaining unmarried at age 25-29 is significantly lower as compared to Kerala. However, it remains difficult to say anything precisely with regard to the coefficient of West Bengal. It may be the urban female population which makes a difference, as according to 2001 census, urban fertility is the lowest in West Bengal.

What appears more difficult to determine is why females in Assam and Orissa reveal significantly higher chances of remaining unmarried across both the age groups. In the case of Orissa,

the same argument, in line with female headed households can be put forth. This is one of the poorest states in India where the social environment is still very traditional and the prevalence of dowry evil is rampant. Hence, it may so happen that marriages get delayed because of the inability to attract partners from the same social classes of the population. However, it is difficult to test this proposition.

Conclusion

From the above findings it can be safely asserted that even at the country level, marriages get delayed in respect of the upper section of the population in the context of education, the pattern of delayed marriages at the state level might have taken a different route altogether. It is very difficult to draw any definitive conclusions with respect to the states based on the present analysis, as the socio-economic environments differ substantially from one state to another. Some states are economically progressive, while some others have achieved remarkable improvements with regard to social indicators. In some states, the cultural environment is still very traditional, whereas, some have adapted to new lifestyles even while holding on to traditional values. Moreover, in some states, changes in socio-demographic indicators are very fast and drastic and some are moving steadily towards better positions. Each of the predictors may work differently in each state depending on the cultural set-up as well as the transitional process they are passing through. Given this scenario, it is almost impossible to come up with a general conclusion.

However, one major conclusion of this exercise may run against the conventional notion that marriage timing is a cultural phenomenon in the Indian context. It has been found that once education is controlled along with cultural factors, women in states like Bihar (including Jharkhand), Uttar Pradesh (including Uttaranchal) in the northern region, Gujarat, Maharashtra in the western region and Karnataka in the southern region are statistically not different from women in Kerala. It paves the way for arguing that the spread of education does make a contribution towards delaying marriages at least in the case of females belonging to 20-24 age group. Culture may be the prime explanatory factor at a later stage, may be for women belonging to 25-29 age groups.

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Appendix

Wealth Index has been found to be an important indicator in explaining the likelihood of marriage. For the 20-24 age group, females across all the categories of wealth index reveal higher chances of remaining unmarried as compared to females belonging to the poorest category. Under the 25-29 age group also, the same result has been found, however, the coefficients are not significant. But this particular indicator cannot be included in the model because of its high correlation with educational attainment of females. Moreover, a majority of females with no education come from households belonging to the poorest categories. Similarly a large number of the highly educated women are found in the upper wealth quintiles. In that way, different categories of these two indicators e.g., educational attainment and wealth index just replace each other. The following table provides an impression to this effect. Given this scenario, wealth index has been dropped from the analysis.

	No Education	Primary	Secondary	Higher	Total
Poorest	**72.4**	**15.1**	**12.2**	**0.2**	**5415**
Poorer	**50.7**	**20.6**	**28.1**	**0.6**	**6821**
Middle	**33.4**	**18.4**	**45.3**	**2.9**	**9305**
Richer	**16.4**	**13.1**	**61.6**	**8.8**	**12344**
Richest	**4.3**	**3.8**	**51.6**	**40.3**	**15626**

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