Centre d'Estudis Demogràfics

EDUCATIONAL EXPANSION AND EARLY MARRIAGE IN INDIA: TIME AND REGIONAL TRENDS

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Resum.- *Expansió de l'educació i el matrimoni precoç a l'Índia: El temps i les tendències regionals*

A l'Índia, la prevalença de matrimonis adolescents ha disminuït lleugerament en les últimes dècades. D'altra banda i, pel que fa a l'educació, el país ha fet progressos considerables en la consecució de l'alfabetització universal i en l'augment de l'assistència de nens i nenes a l'escola. A l'article s'examina en quina mesura l'expansió educativa explica el retard a l'edat de la primera unió. Per això: 1) documentem les pautes socials, regionals, i temporals de la prevalença del matrimoni en aquest país, a edats joves, entre 1983 i 2004; 2) es du a terme un anàlisi multinivell amb la finalitat d'investigar les tendències demogràfiques en dos nivells de desagregació: regional i individual. Il·lustrem així la universalitat dels canvis que han tingut lloc, juntament amb la relació entre l'expansió de l'educació i el retard en l'edat a la primera unió. L'anàlisi es basa en les microdades de *l'Enquesta sobre la Força Laboral* per a l'Índia (1983, 1987, 1993, 1999 i 2004) posats a disposició pel *Integrated Public Use of Microdata Series International Project* (IPUMSi). D'acord amb estudis anteriors, no hi ha senyals que indiquin la disminució del matrimoni com a institució social, encara que el que sí que s'observa és un retard en l'edat a la primera unió. Entre les dones, es nota una disminució constant i homogènia i, especialment en la proporció d'alguna vegada casades a edats més joves (15-19). Entre els homes, la caiguda és menys pronunciada i es concentra en el grup d'edat 20-24. En general, l'expansió educativa sembla explicar gran part de la postergació a l'edat al matrimoni a l'Índia.

Paraules clau.- Família, matrimoni, educació, Índia, joves.

Resumen.- *Expansión de la educación y el matrimonio precoz en la India: el tiempo y las tendencias regionales*

En India, la prevalencia de matrimonios adolescentes ha disminuido ligeramente en las últimas décadas. Por otra parte, en lo que respecta a la educación, el país ha hecho progresos considerables hacia la alfabetización universal. En este artículo nos proponemos examinar en qué medida la expansión educativa explica el retraso en la edad a la primera unión. Por ello: 1) documentamos las pautas sociales, regionales, y temporales de la prevalencia del matrimonio indio a edades más jóvenes, entre 1983 y 2004; 2) se realiza un análisis multinivel para investigar las tendencias demográficas en dos niveles de desagregación: regional e individual. Ilustramos así la universalidad de los cambios que han tenido lugar y la relación entre la expansión educativa y el retraso en la edad a la primera unión. El análisis se basa en los microdatos de la encuesta sobre la *Fuerza Laboral para India* (1983, 1987, 1993, 1999 y 2004), puestos a disposición por el *Integrated Public Use of Microdata Series International Project* (IPUMSi). De acuerdo con estudios anteriores, no hay señales que indiquen una disminución del matrimonio como institución social, aunque sí se observa un retraso en la edad a la primera unión. Entre las mujeres, se nota una disminución constante y homogénea espacialmente en la proporción de alguna vez casadas a edades más jóvenes (15-19). Entre los hombres, la caída es menos pronunciada y se concentra en el grupo de edad 20-24. En general, la expansión educativa parece explicar gran parte de la postergación en la edad al matrimonio en India.

Palabras clave.- Familia, matrimonio, educación, India, jóvenes.

Abstract.- *Educational Expansion and Early Marriage in India: Time and Regional Trends*

In India, the prevalence of adolescent marriages has been declining modestly over the last decades. Moreover, with regards to education, the country has made considerable progress towards universal literacy and raising schooling participation. Thus, in this article we aim to examine to what extent educational expansion explains the delay in the age at first marriage. Firstly, we will document social, regional, and time trends of Indian marriage prevalence at younger ages between 1983 and 2004. Secondly, a multilevel analysis will be conducted so as to investigate demographic trends at two levels of disaggregation: regional and individual. Thus, the universality of the changes that have been taking place as well as the relationship between the educational expansion and the delay in the age at first marriage will be illustrated. The analysis is based on Labour force survey microdata for India (1983, 1987, 1993, 1999 and 2004) made available by the *Integrated Public Use of Microdata Series International Project* (IPUMSi). Consistent with previous studies, there is no sign of a retreat from marriage over time, although a delay in the age at first marriage is noted. Among women, we observe a steady and spatially homogenous decline in the proportion of ever married at younger ages (15-19) over time. Among men, the decline is less pronounced and concentrated at the age group 20-24. In general, educational expansion does seem to explain a great deal of the marriage postponement taking place in India.

Keywords.- Family, union formation, marriage, education, India, youth.

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EDUCATIONAL EXPANSION AND EARLY MARRIAGE IN INDIA: TIME AND REGIONAL TRENDS

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1.- Introduction

Across the developing world, women's traditional patterns of early marriage are giving way to later ages at first marriage; nonetheless, the age at which women marry continues to vary widely both across and within countries (Singh & Samara, 1996). As a region, the highest incidence of early marriage is found in South Asia, where 70-75 per cent of women are married by age 18; followed by West Africa and Sub-Saharan Africa, with an incidence of 50-60 percent (Jensen & Thornton, 2003). Other authors consider Sub-Saharan Africa as the region with the greatest proportion of women marrying at young ages, followed by South Central/Eastern Asia, Eastern/Southern Africa, the Caribbean and Central America (Lloyd, ed. 2005; Singh & Samara, 1996). Despite the fact that the policy and programme discourse around child marriage has increased significantly over the last decade in different countries, including India, substantial proportions of young women (and to a lesser extent, men) continue to marry in adolescence (Das Gupta & Pande, 2008; IIPS & Macro International, 2007; Jensen & Thornton, 2003). Hence, different concerns have been pointed out with respect to the human rights of young girls (UNICEF 2005) as it is generally argued that a number of social, economic, and health disadvantages are associated with early marriage (Jain & Kurz 2007; Singh & Samara, 1996). Some of these

include higher health risks as it often leads to early childbearing (Beguy et al. 2011; Mucai-Kattambo et al. 1995; Ikamari, 2005; Ferré, 2009), as well as a tendency to curtail girl's educational opportunities (ICDDRB 2007; Mensch et al. 1998; Lloyd & Mensch 2006).

In the last decades, marriage timing patterns are experiencing changes towards the postponement of first union formations in low-income countries where early marriage used to be the norm. Given that in many countries the increase in the age at marriage has occurred in parallel to the expansion of education (Mensch et al. 2005) both phenomena have usually been linked together. In India, for instance, there is evidence that the prevalence of adolescent marriages has been declining modestly over time (Jejeebhoy, 1998), where the percentage of married girls under the age of 18 dropped from 56% for the cohort of 1950-1954 to 53% for the younger cohort of 1965-70 (Jensen & Thornton, 2003). Nevertheless, according to Jones (2010), there has been an important drop in teenage marriage in India (*ever married females aged 15-19*): from 70.8% in 1960 to 24.9% in the year 2000. However, there is a vast regional as well as a sex differential in the age at entry into marital union in India as the country is in the midst of a demographic transition that exhibits striking spatial differences (Drèze & Murthi, 2001). For example, there are five states where child marriage is extremely common: Andhra Pradesh, Bihar, Jharkhand, Maharashtra and Rajasthan (IIPS & Macro International, 2007). Moreover, with regards to education, India has made considerable progress towards universal literacy and raising schooling participation (Yadava & Chadney, 1994; Kingdon, 2007). According to the 2001 census, the literacy rate for the country is 65.4 percent; thus, recording an impressive jump of 13.17 percentage points from 52.21 in 1991 to 65.38 in 2001; while the gap in males and females literacy rates has decreased from 24.84 in 1991 census to 21.70 percentage point in 2001 (Registrar General India, 2001).

Therefore, in this article we aim to document social, regional, and time trends in marriage prevalence at younger ages between the years 1983-2004 in India, so as to illustrate the universality of the changes that have been taking place during the last two decades. In addition, our second objective is to investigate the relationship between education and marriage timing focusing on differences between and within educational groups, while controlling for other variables (age, urban-rural, region of residence, and time). To do so, the hypotheses in which we base our analysis are the following: (1) If educational expansion is the main driving force of marriage postponement, this should not affect the

differences between educational groups over time; (2) If marriage postponement is beyond educational expansion, then one could expect differences within educational groups over time. In other words, we want to know to what extent educational expansion accounts for the changes in the prevalence of early marriage between the years 1983-2004, given that there are more and more people reaching higher educational levels. Furthermore, we also examine if this relationship within the macro level is actually explaining the delay in the age at first marriage, without ignoring the fact that the internal diversity within the country is noteworthy.

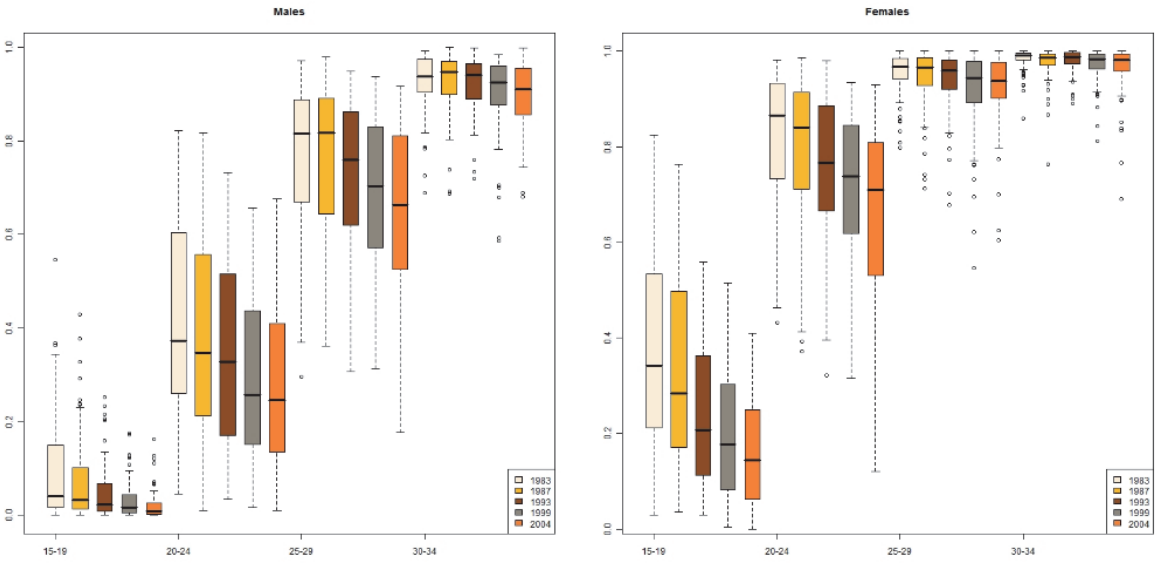
Consequently, in order to address these issues, in this article the analysis will be based on harmonized Socioeconomic surveys for India (1983, 1987, 1993, 1999 and 2004), which were made available by *the Integrated Public Use of Microdata Series International Project* (IPUMSi) database. Our dependant variable will be the proportion of individuals who were "ever married" at a particular age group. In this case, we define "early marriage" in terms of adolescent or teenage marriage of individuals aged 15-19. The analysis is done using transversal data so the indicator calculated corresponds with the prevalence of the phenomena in the moment of observation. As a second level of territorial organization, we use the 77 regions created by the National Sample Survey (NSS), thus giving us the appropriate tools to study the changes that have occurred in India regarding the timing of marriage, taking into account the various regional differences as well as changes over time. Given that the NSS regions do not coincide exactly with the country's administrative division, the maps shown in this article are a result of the district aggregations through the correspondence tables of NSS regions and districts found in Murthi et al. (1999).

2.- Early marriage in India

The presence of early and near universal marriage are remarkable characteristics of the Indian nuptial system (Das and Dey 1998; Sudha and Rajan 2003), which has drawn special attention to social researchers around the globe (Banerjee 1999; Haub and Sharma 2006; Mathur, Greene and Malhotra 2003; Mensch et al. 2005). Although marriage rules for women have been relaxed in recent decades and prepubescent marriage has become socially unacceptable, women still experience considerable pressure to marry sooner rather than later (Banerjee, 1999). In the Indian marriage market there are strong demands for women to be married within an "acceptable age range", as an unmarried older daughter can be a severe economic and social liability to her family (Rao 1993). Therefore, unmarried

women -including widows, divorcees, separated, etc.- face greater socio-economic vulnerability than married women, especially if they don't have any male kin willing and able to support them (Sudha and Rajan 2003). In addition, the persistence of early marriage reinforces women's low status and social isolation and, given that they usually have to end their education prematurely so as to assume household responsibilities, altogether, it may reduce women's employment prospects as well (Moore et al, 2009). Early marriage in India has been a phenomenon which is mostly typical among girls as for the proportions of ever married at younger ages (15-19) whereas for boys it is a relatively low (figure 1). In South India for instance, a general consensus was found that the ideal or preferable age to marry for men is around 25 (Caldwell et al. 1983).

Figure 1.- Region variability in the proportion of ever married by age, year and sex



Source: India National Survey. IPUMS-International

Under pressure from social reformers, several legislations were passed to limit child marriage, although there was a difficulty from the Governmental part to enforce it, especially among the Indian rural population[1] (Bhadra, 2000), which could be due to weak

[1] The Child marriage Act III of 1872 abolished child marriage and fixed the minimum age at marriage at 14 years for girls and 18 years for boys, permitted widow remarriage and intercaste marriage (Bhadra, 2000). An effort was also made in 1891 to prevent early consummation by the Age of Consent Act which prohibited

implementation and lack of awareness of these national policies (Das Gupta et al. 2008). In this sense, despite several initiatives and laws stipulating the legal age at marriage as 18 for females[2], early marriage continued to be the norm even in the 1990s, and substantial proportions of girls keep on marrying in adolescence (Das Gupta and Pande 2008; Jejeebhoy, 1998; IIPS and Macro International 2007). Nonetheless, in terms of community attitudes, a point of great significance is that the proper time for a girl to marry has been slowly rising above the age of menarche (Caldwell et al. 1983). With respect to the main religions in India, there are no major differences between the nuptiality calendars among Hindus and Muslims, with singulate mean ages at marriage (SMAM) in 2001 of 20.0 and 20.3, respectively (Dommaraju, 2010). In fact, the country's age at marriage has undergone a gradual but steady increase where its SMAM has increased from 16.8 to 20.2 years for women between 1961 and 2001 (Registrar General, India, 2001). For men, the increase has been from 22.7 in 1971 to 24.8 in 2001 (Jones, 2010).

Using data from the India National Survey (IPUMS), we note that the proportions of ever married[3] by age have been declining throughout the period consisting from 1983 to 2004. However, marriage still remains important and virtually almost universal, especially for women at the ages 30 to 34, and we can also see high proportions of women are already married at the ages of 20-24 (figure 1). For women, a great deal of the decline over time on the age at first marriage has occurred at the younger ages (15-19) as well as in the

consummation before 12 years through the Age of Consent Bill (1891), however, due to lack of publicity and propaganda there was little impact of this provision; later on, during the late 1920s there were parents who rushed to marry off their daughters before the passing of the Child Marriage Restraint Act of 1929 (marriageable age of girls to 14 years), also known as the Sarda Act (Caldwell et al, 1983), which was also ineffective among the rural population; then, in 1978, the Child Marriage Restraint Act was further amended prohibiting marriages below 18 years for females and 21 years of age for males (Bhadra, 2000).

[2] In countries in which, at least officially, early marriage violates newly passed legislation, observed declines in the proportion married at or by a particular age may simply reflect increases in deliberate misreporting, leading to either exaggerate or underestimate the decline in early marriage over time (Lloyd, 2005). In addition, India is a nation in which large numbers of people do not know their exact age (Bloom and Reddy; 1986) and detailed data from the census highlight that many Indians often report an approximate age rounded to "0" or "5" (Haub and Sharma; 2006).

[3] Our dependent variable is 'ever married', that is, if the individual is married or has ever been married (1) or never has been married (0). Marital status is the source variable. We do not include cohabitation, since it is not widely practiced and marriage continues to be the main institution with regards to union formation in India, especially for women (see figure 1). In more detail, the 'Ever married' variable consists of those individuals whose marital status was: married, separated, divorced or widowed at the time of the survey. We will focus on young individuals in two age groups 15-19 and 20-24 mainly for three reasons. First, by using a five year age group we avoid overlapping cohorts from survey to survey. Second, the risk of union dissolution and remarriage is lower at younger ages. Third, we are interested in examining the prevalence of marriage at younger ages. All in all, we think that these are illustrative age-groups that also allow us to investigate the impact of education. Although some university students may have not finished their studies at these ages, some may have or were currently attending them.

following age group (20-24); while for men, the ages by which most of them get in union are from 25 to 29, and the largest declines have been in the age groups 20-24 and 25-29.

Thus, if we consider that the increase in the age at marriage has been mostly due to the decrease of early marriages, it is necessary to acknowledge the reasons why this early marriage pattern persisted in India in the first place. There have been several reasons that have been identified and used to explain early marriage in India. Throughout the early 20th Century rules against widow remarriage resulted in the push down of the female marriage age to the early teenage years, all due to their exclusion from the marriage market at childbearing ages and the consequent intensification on the competition for never-married women who tended to be young[4] (Banerjee, 1999). In fact, also religion had an important function on justifying early marriage. Hindu religious texts prescribed the utilization of all of the fertility period of girls from the very beginning; while among Muslims early marriage was preferable because of the pre-requisition of virginity and chastity of a girl (Bhadra 2000). It is also argued that, marrying off a daughter early ensures the continuation of the family lineage in cultures where maternal and infant mortality rates are high; thus securing critical social, economic, and political alliances for the family, particularly because parents view daughters as an economic burden that can be eased by marrying them off; in fact, dowries create additional incentives for parents to arrange for early marriages for their daughters (Cohen 2004; Mathur et al. 2003). To some extent, they are deterred by the prospect of rising dowry, but their overwhelming fear is that no husband may be found at all (Caldwell et al. 1983).

Therefore, when studying the changes in female marriage patterns one should acknowledge the effects of gender and social stratification on the functioning of the marriage market, where "the stratification of the traditional marriage market by caste, region and gender produced unequal marriage opportunities that depended on the availability of partners within a narrow marriage circle, regardless of the number of individuals in the marriageable ages" (Banerjee, 1999). In addition to this particular stratification, in India the so called "marriage squeeze[5]" (Caldwell et al. 1983) has also been considered as a

[4] "The prohibition against marrying widows intensified the competition for never-married women who tended to be young, and the marriage age of women fell. Therefore, the scarcity of brides was not simply a function of demographic events – it had its roots in the prohibition against widow remarriage, which led to young widows being excluded from the marriage market" (Banerjee, 1999).

[5] In a population with declining mortality younger cohorts are larger than older cohorts, and if women tend to marry older men, this implies that there will be a surplus of women over men in the marriage market. The

phenomenon that has led to an escalation in dowries, which in combination with a strong preference for early, universal and monogamous marriage has resulted in higher competition for eligible grooms (Rao, 1993).

Because of the rapid social, economic, cultural, and gender role changes, the various Asian interpretations of the institution of marriage are undergoing major transformation (Huang 2005). Nevertheless, for Indians, marriage is a process that everyone has to go through eventually. Grooms and brides are matched not only by individual traits but, consistent with India's arranged marriage system, by household characteristics as well (Rao 1993). Socially, marriage in India tends to confer added status on both parents and children because it signals the completion of a religious duty and suggests preservation of the family line (Bloom and Reddy 1986). Most scholars agree that, for the majority of Indians, family connections and concomitant life events (marriage and birth) are viewed as supreme and sacred points of convergence between the spiritual and earthly realms, with an element of divine guidance (Jauregui and McGuinness 2003; Caldwell et al. 1983). The importance of religion and tradition is manifested in India's deeply rooted caste system, which continues to play a key role in the organization and stratification of Indian society (Haub and Sharma 2006). Yet, the move towards later marriage among women has been general and not primarily a feature of only one sector of society (Caldwell et al. 1983). In fact, when comparing between Hindus and Muslims, differences in the timing of first marriage by religion are minor (Dommaraju, 2010). In addition, almost all marriages are arranged by the elders in the family. Traditionally, Asian marriages are not the union of two individuals, but two families (Huang 2005), because parents are assumed to have the knowledge and wisdom to make a choice better suited for their child (Medora 2003), thus providing greater stability and security (Abraham 2001).

Indeed, marriage patterns and educational attainment vary not only between regions and countries, but also within a same country, which provides useful information to situate estates geographically and contextually (Moore et al. 2009). It is noteworthy that there is a vast regional as well as a sex differential in the age at entry into marital union in India (figure 1). Region variability in the ages at first union is remarkable in the age groups 20-29 for men and 15-24 for women (figure 1). Indians identify themselves not only with a particular religion but also with a specific geographical region or state (Medora 2003).

severity of the squeeze depends upon the rate of population growth, the average age difference between spouses, and differences in sex-specific mortality schedules (Caldwell et al. 1983; Rao, 1993).

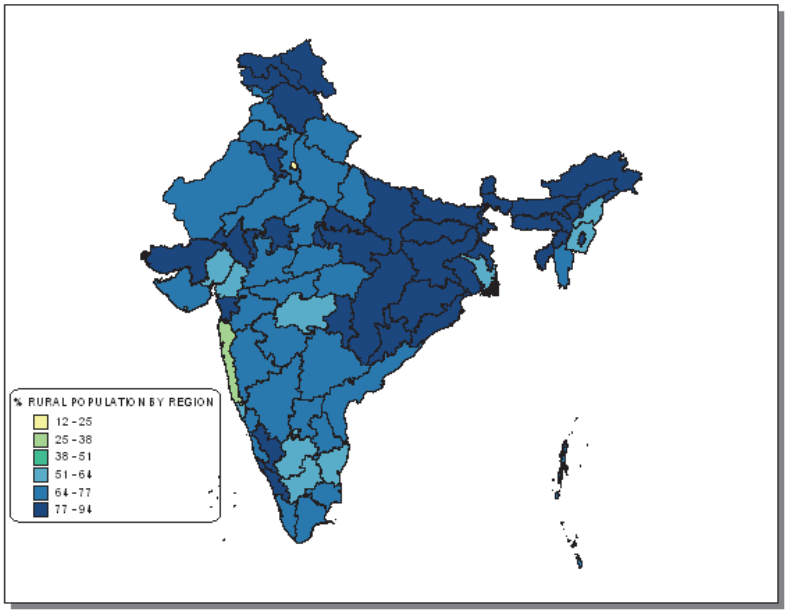
India is a "secular and ethnically-diverse society with religious, regional, cultural, social, and educational variations in structural and functional patterns of family life"; which makes it difficult to "generalize values, behaviours, practices, attitudes, norms, traditions, and beliefs about family life from one community to all Indian communities" (Medora, 2007). When it comes to union formation, for instance in India, at least until recently, there was a significant regional divide in the custom of marriage transactions (Bhat et al; 1999). Moreover, the north/south division also marks enormous socioeconomic differences: Indian population is heavily concentrated in the broad fertile northern plains (with states, such as Haryana, Delhi, Uttaranchal, Uttar Pradesh, Bihar, Jharkhand, and West Bengal) where there is high illiteracy, rapid population growth, and poor health common; in contrast, the southern states of Kerala, Karnataka, and Tamil Nadu are known for high literacy levels, long life expectancy, and low birth rates (Haub and Sharma 2006).

Therefore, when describing marriage patterns in India, it is essential to take a look into regional differences. The characteristics that influence the likelihood of becoming a wife at a young age, such as individual goals, family values or socioeconomic status, which can be shaped by their educational attainment and exposure to the mass media, vary substantially whether they live in urban or rural areas and also where they reside in the country (Moore et al, 2009). At a national level, the general decline of early marriage over time is observed (figure 3); nonetheless, the decrease on the incidence of marriage at younger ages is also regionally located. Certainly, India is in the midst of a demographic transition that exhibits striking spatial differences (Drèze and Murthi 2001).

Taking into account that the incidence of early marriage is found to be much higher in rural areas rather than in urban ones (Das and Dey 1998; Das Gupta et al. 2008), there are five states where child marriage is extremely common: Andhra Pradesh, Bihar, Jharkhand, Maharashtra and Rajasthan; while states like Kerala, Punjab, and Himachal Pradesh have lower incidences of marriage at younger ages (IIPS and Macro International, 2007). Nevertheless, despite similarities in child marriage levels, these mentioned five states differ in many respects: Andhra Pradesh and Maharashtra are among the more economically progressive states in the country, accounting for 7-13% each of the national Gross Domestic Product, while Bihar, Jharkhand and Rajasthan are among the lesser developed states, accounting for 2-4% each (Ministry of Statistics and Programme Implementation, 2008: in Ram et al. 2009). In addition, the coastal region of Maharashtra is one of the most urbanised states, right after both the capital area of Delhi and the Union

territory of Chandigarh, with approximately 28% of its populations living in rural environments (figure 2); in contrast, Bihar, Jharkhand and Rajasthan are characterised by large rural populations, with just one-tenth to one-fifth of their populations living in urban areas (Office of the Registrar General and Census Commissioner, 2001).

Figure 2.- Proportion of rural population (total % by region for the period 1983-2004)

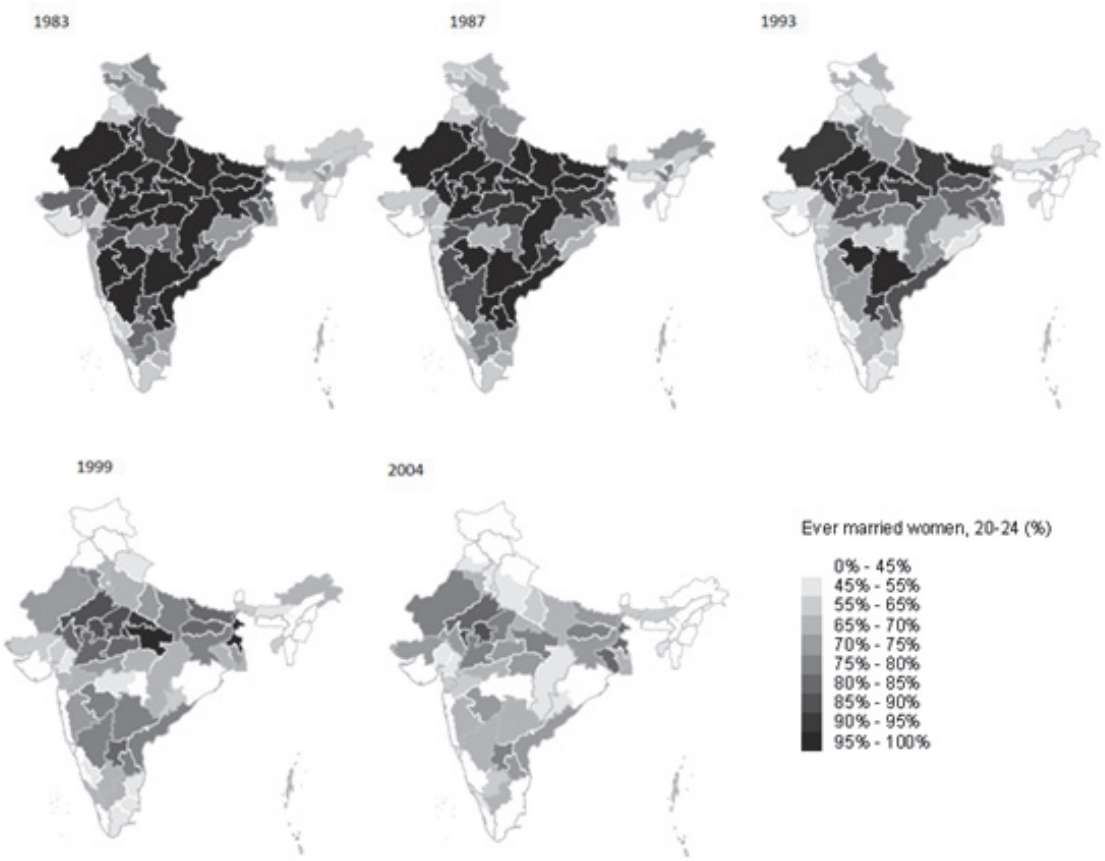


Source: India National Survey (IPUMS-International) and National Sample survey (NSS)

Moreover, except Andhra Pradesh, later entries into first union seem to be located in regions bordering the coast (figure 3). Additionally, in figure 3 it is also observed that even within a same state where early marriage is common, there are differences within the region with examples such as Maharashtra and, to a lesser extent, Andhra Pradesh. In 2004, for instance, the regions where the proportions of ever married at the ages of 15-19 are still relatively high (40% approximately) are North and South Eastern Rajasthan, and the Eastern Plains of West Bengal; followed by Western Plains in West Bengal (36%), three regions from Madhya Pradesh (Malwa, Northern and Vindhya) with percentages around 34%, Western Rajasthan and Central Bihar (both with 33%), and South-Western Andhra Pradesh and Jharkhand (30%), among others (see table 1. Appendix A).

Figure 3.- Ever married women by region, age and year

Females aged 15-19



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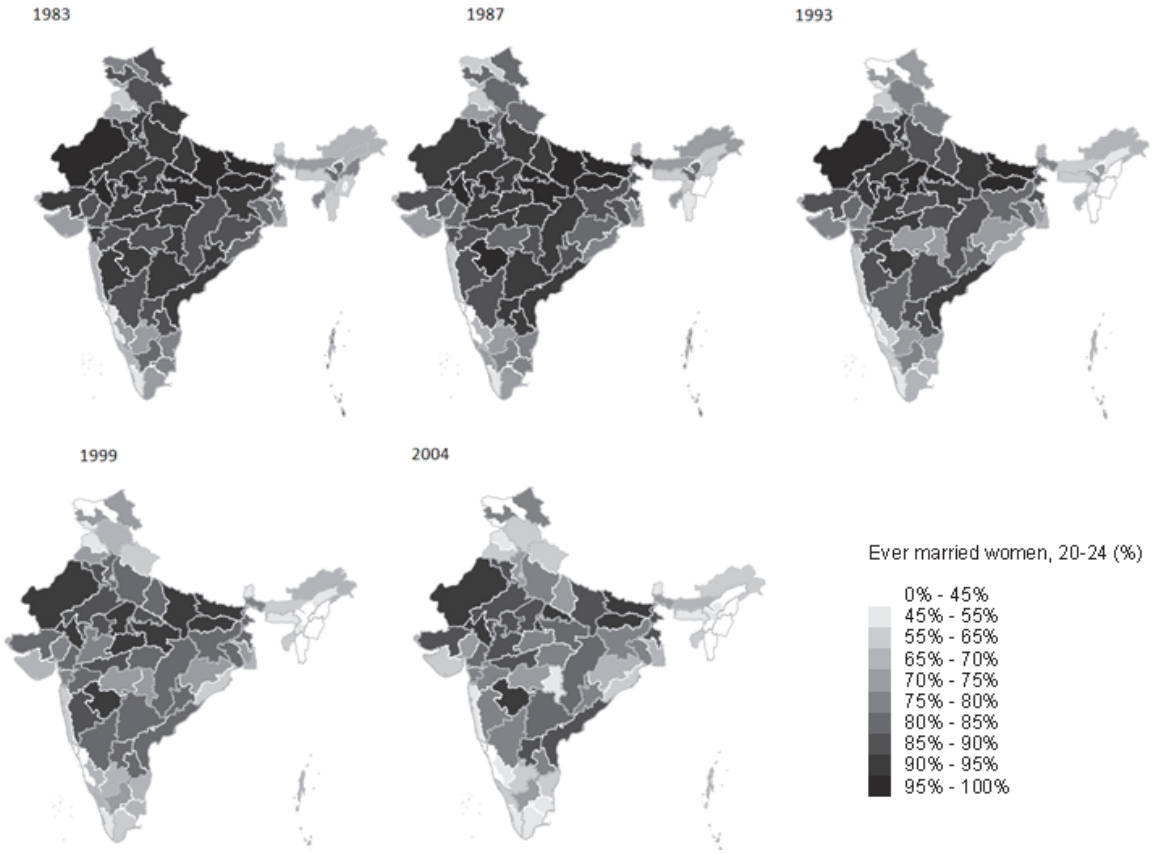
Females aged 20-24



Source: India National Survey. IPUMS-International and National Sample survey (NSS)

3.- Education and marriage timing in India

3.1.- Descriptive analysis

A considerable body of literature on the timing of marriage in low-income countries suggests the importance of political, socio-cultural, and structural factors (Casterline et al. 1986; Malhotra and Tsui 1996; Das and Dey 1998; Mensch et al. 2005), changes in age structure (Banerjee 1999; Low et al. 2002); as well as ideological shifts (changes in policy,

increases in the legal age at marriage, expansion of education, changes in social norms, values, and ideas, etc.), and changes in the economic production systems; i.e. access to wage employment (Bhadra, 2000; Lloyd, ed. 2005; Mathur et al. 2003). Furthermore, Goode's (1963) modernization theory emphasized the impact of industrialisation on marriage patterns. Similarly, it is argued that social changes driven primarily by media and new technologies are producing substantial similarities in family patterns and attitudes around the world (Arnett, 2002; Larson, 2003; Jayakody et al. 2008). Nevertheless, due to this changing pattern, one main question arises: Why is the postponement of marriage really taking place? There are two main forces that are usually given to explain the delay of marriage -education and labour force participation.

Without any doubt, one can find strong empirical associations between education and marriage in recent literature, indicating a complex network of reciprocal causal forces linking family formation and school domains (Thornton, Axinn, and Teachman 1995; Lloyd and Mensch, 1999, 2006; Bongaarts, 2003; Marini, 1978). Education is widely seen as the primary engine, transforming society and improving economic and social well-being (Macaulay, 1974: in Jayakody et al. 2008). For instance, at schools boys and girls can acquire ideas or values that may influence their socio-demographic behaviour. Although education levels still vary greatly by country and sex, educational attainment has expanded in all regions of the world and among both males and females (Jayakody et al. 2008). In addition, due to the fact that in many countries the increase in the age at marriage has occurred in parallel to the expansion of education (Mensch et al. 2005), both phenomena have usually been linked together[6].

Therefore and, taking into account that our main objective is to address one of these forces in particular, and it being education, in this article we intend to study, in close detail, the relationship between education and marriage in India, given the fact that it is the second most populated country in the world, where marriage rates have been remarkably stable for more than a century and literacy rates have increased dramatically among young people (Registrar General India, 2001). We do not intend to study the effect of education on the

[6] Regarding differences by sex, for women, the literature singles out three factors that are especially relevant to their age at first marriage: female labour force participation, women's acquisition of formal education, and urbanization (Singh and Samara 1996). On the contrary, there is little research that examines the reasons behind the changes in marriage timing for men. It is argued that the extended educational path taken by men in recent years may contribute to the rise in their age of marriage (Hertrich 2002). Yet the primary reasons

age at marriage but just the relationship between both (with the available data it is difficult to isolate the specific mechanisms by which education has a direct effect on marriage postponement).

Indeed, a positive relation between educational attainment and age at marriage has been found for both sexes, but because women marry earlier than men, the relationship is stronger for women (Marini, 1978). If girls go to school for a longer period, the marriage delay is a "strictly mechanical response" and, therefore one can establish the hypothesis that a direct relationship exists between the length of schooling and the age at marriage (Hatti and Ohlsson, 1985). Traditionally it is assumed that education postpones the entry into union formation as well as it diminishes the nuptial intensity. That is to say, education slows down marriage, but after people get out of school, it actually speeds up marriage (Thornton et al. 1995). In those countries where marriage at certain ages can become incompatible with schooling, taking into account differences by sex can be revealing. For women, schooling and union formation can be conflicting during the early ages, although this does not really apply for men at those same ages since they usually marry when they are slightly older. In general, marriage is a barrier to education for girls, since they are expected to leave school in order to devote their time to assume household responsibilities, which also reduces their employment prospects (Jensen and Thornton 2003; Moore et al. 2009). Consequently, it seems likely that education would have an impact on age at marriage "only if a schooling threshold has been crossed", that is when schooling for girls is beyond 10 years (Hatti and Ohlsson 1985) due to the conflict between going to school and the timing of marriage. On the other hand, it is also suggested that education lengthens the marriage search process because of a general tendency for women to marry higher status men (Lloyd and Mensch, 1999).

The country has had not only several economic reforms over the last decades, producing an increase in the wealth for many citizens, but also, national policy has been directed towards the increase of educational and economic opportunities for women (Raj et al. 2009; World Bank 2008). India has made encouraging recent progress in raising schooling participation (Kingdon, 2007), but still more efforts are needed to reach residents living in the rural communities (Medora 2007). In fact, free and compulsory education through age 14 is perceived as a goal in the Indian constitution (Sharma and Haub 2006). Nevertheless,

that are commonly invoked for the delay in union formation for men are the economic ones (Lloyd, ed. 2005).

policy has not succeeded in making the former right to elementary education effective and equitable for all of its population (Subrahmanian 2002). Despite India's emerging economic power, life remains largely rooted in its villages, and only small fractions of Indians are benefiting from the country's industrial expansion (Haub and Sharma 2006).

Furthermore, post-independent India inherited a system of education characterized by large regional imbalances (see figure 4). According to the 2001 census, the literacy rate for the country is 65.4 per cent (the corresponding figures for males and females are 75.85 and 54.16 percent respectively); thus, the literacy recorded an impressive jump of 13.17 percentage points from 52.21 in 1991 to 65.38 in 2001, while the gap in males and females literacy rates has decreased from 24.84 in 1991 census to 21.70 percentage point in 2001 (Registrar General India, 2001). At a regional level, there are nine states (Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu, and West Bengal) that have literacy rates above the national average, varying from 90.9 per cent in Kerala to 67.0 per cent in Karnataka; while on the other hand, some of the other states that have literacy rates below the national average vary from 64.3 per cent in Assam to as low as 47.5 in Bihar (Gupta, 2009). In general, 93.4 per cent of all elementary school age children (6-14 years old) were enrolled in school, which can be considered as an encouraging statistic when compared to the early 1990s; and among 15-16 years old, their out-school figures rose steeply to 22.7% and 20.2% respectively for girls and boys (Pratham, 2007-08; Kingdon, 2007).

Certainly, education could play a key role in social and gender equity, especially in a context where familial decisions and priorities with regards to the education of their children reflects a certain gender bias. In India, even basic literacy for females lags behind males' in the sense that parents treat sons and daughters differently by investing more or less in their education, depending on from whom they expect more returns – sons are usually withdrawn from household labour and sent to school, while their sisters[7] focus on housework (Sudha and Rajan, 2003; Kingdon, 2002). Nevertheless, the alarm arises when considering the issue of "India's missing women" (Sudha and Rajan, 2003). Earlier research on the abnormal female deficit on the Indian population sex ratio debated accuracy of census coverage as an explanation, e g, double counting migrant men or undercounting women (Krishnaji, 2000). However, recent research shows that the

[7] The in-laws are the ones who largely benefit from the returns to girls' education (Kingdon 2002).

phenomenon is mostly due to persistent female mortality disadvantage in infancy and childhood (Griffiths et al, 2000), which is not due to greater natural frailty of girl children, but results from parents' practices discouraging the life chances of unwanted daughters by "weeding them out" – either through prenatal sex selection, infanticide, or under-reporting female births – denying them physical or social existence (Sudha and Rajan, 2003). As Sharma and Haub (2008) state:

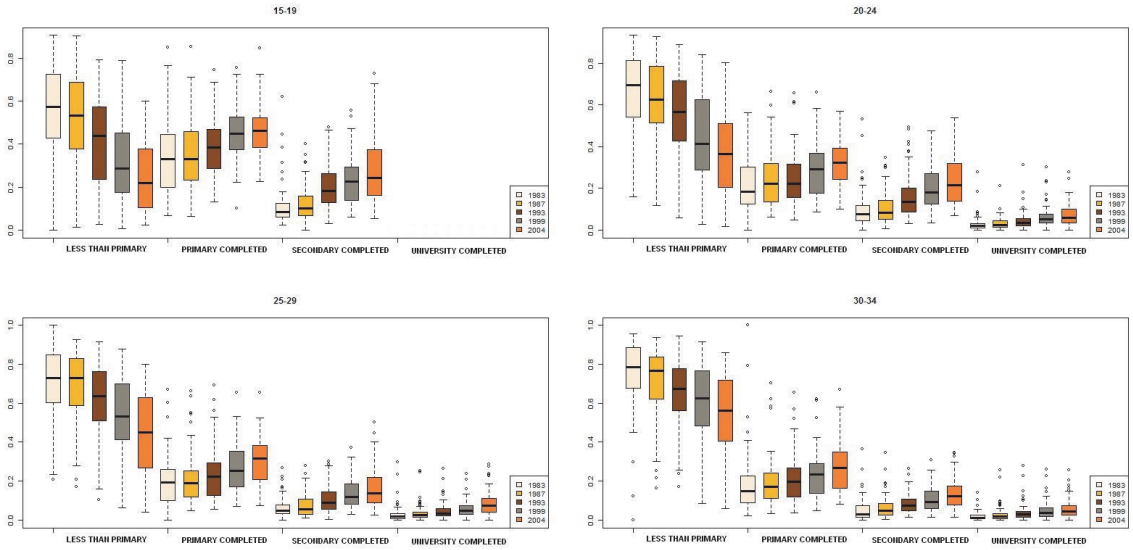
> "*The preference for sons has deep roots in India for cultural and economic reasons. Once a daughter marries, she leaves the parental home to live with her in-laws. She is perceived to be of little economic benefit to her parents and will not support them in their old age. Having a girl is like "watering your neighbour's garden," according to a common Indian saying. A daughter's wedding can be a financial drain for parents: The payment of a sometimes extravagant dowry to a groom's parents remains virtually universal despite laws against dowry that date to 1961. Now-banned advertisements for sex determination tests, such as 'Invest only Rs. 500 now and save your precious Rs. 50,000 later,' reminded parents of the future expense a daughter would bring*."

Among all age groups, both for males and females, the proportions of people in the educational level of "Less than primary" has declined over time; while, on the other extreme, the category of "University completed", has been slightly increasing between 1983-2004, although the proportion of people in this category is remarkably smaller than in the other schooling levels (figure 4). The educational expansion is specially observed for women as there has also been an increase in the average of girls completing primary and secondary schooling levels, for all age groups and over the years taken into consideration (figure 4). However, for men the picture is slightly different: for primary schooling, the average of boys at the age group 15-19 completing it has remained rather constant over time; while for the ages comprised between 20-29, the average is noticeably constant between 1983 and 1993 with an increase from 1999 onwards; similarly, for the age group 30-34, primary completion average remained fairly constant between 1983 and 1999, with a jump happening in 2004; For secondary schooling, on the other hand, there have been gradual increases for boys among all age groups, except for the group 20-24, where the bigger increase was between 1987-1993 and since it has remained constant (figure 4).

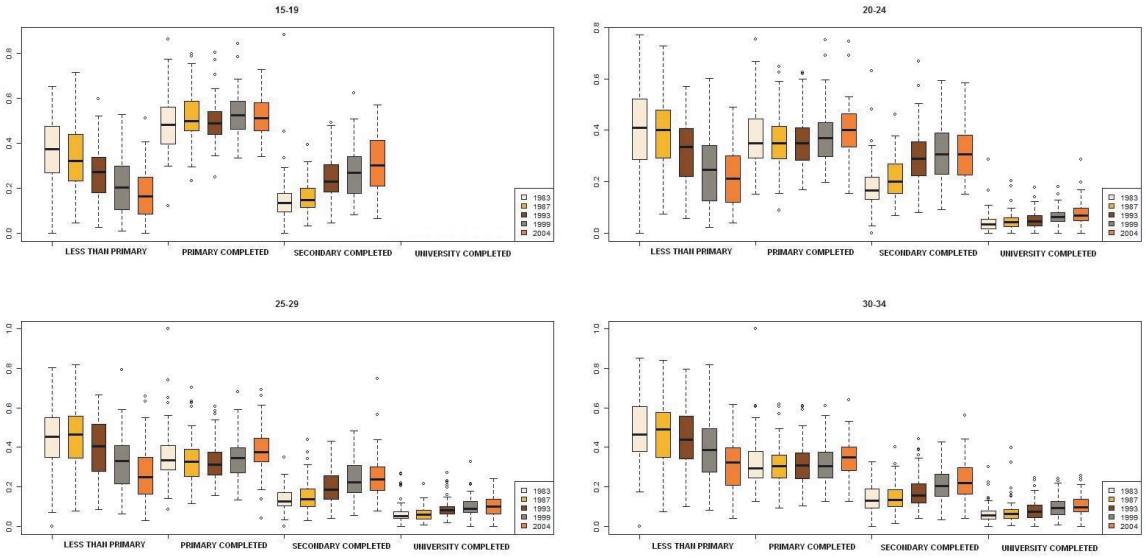
Nonetheless, as stated before, it is important to take into account the regional variability when talking about educational expansion.

Figure 4.- Educational expansion in India and its regional variability (by sex and years)

Females



Males



Source: India National Survey. IPUMS-International.

The results from the Box-plots in figure 4 and the proportions of men and women by educational level attained by regions[8], reveals that an educational expansion has been observed at all educational levels and for both sexes. The proportions are slightly different depending on sex, although regional patterns are very similar. With regards to females, for the age group 30-34 the average of women with less than primary education was around 80% in 1983 (the exception is found in those regions located in the south of the country, the northern eastern part too, as well as those in the west coast, some parts of Madhya Pradesh, the Northern Punjab and Himachal Pradesh), which dropped to levels of 60% approximately for the same age group in 2004 (mostly located in areas such as Bihar, Madhya Pradesh, Andhra Pradesh, the south of Orissa, Rajasthan and Gujarat). If we continue our focus on the educational level of "less than primary", the average of girls aged 25-29 in 1983 is approximately 72% and starts decreasing in 1993 reaching a bit more than 40% in 2004, with high regional variability. The age groups 15-19 and 20-24 also follow a similar pattern with a gradual decrease of girls in the less than primary category from levels around 60% and 70% respectively in 1983 (particularly higher in Rajasthan and Bihar) to levels of 20% and 35% in 2004, also with high regional variability (with the example of Bihar which still has high proportions of girls aged 20-24 with less than primary education in 2004). As to Primary completed education there is less regional variability if we compare it to that of the less than primary level. For all age groups there has been an increase in the average proportion of girls with completed primary education from 1983 to 2004 (20% approx. in 1983 at ages 20-34 doubling to a bit more than 40% in 2004 for the youngest generation in our data, 15-19). On the other hand, at all age groups, a slight increase has occurred with secondary schooling, small at the ages 25-34 (less than 20%) and a bit more remarkable at the ages 15-24 (around 20%). Nonetheless, regional variability has increased among those 15-19, especially for the year 2004 (especially in the southern and northern parts of India with better educational levels). Finally, it is worth mentioning that the average proportion of girls with secondary education completed is considerably lower than those with primary education only. This difference is amplified if we compare it with university education which, even though it has slightly increased over

[8] The results for the educational expansion of both men and women by region are not included in this article due to space limits (it consists of 60 maps on educational expansion in India over time - 1983 to 2004 - for each sex and by educational level). The data used is from the India National Survey (IPUMS) and the National Sample survey (NSS). Details of the regional differences in the text of this article has been highlighted only for women, since for men it is quite similar.

time, the average (even in 2004) does not reach 10%, with regional differences also increasing over time. There are more girls with university education in southern India (Kerala, Tamil Nadu, coastal Karnataka), coastal Maharashtra (probably due to universities located in Mumbai), northern India (Punjab, Himachal Pradesh, Haryana) as well as the National Capital of Delhi.

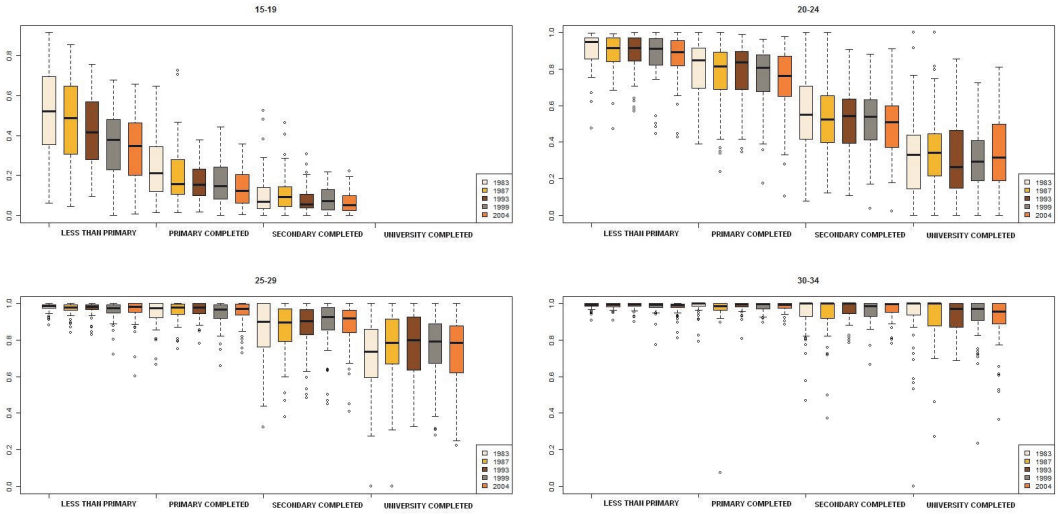
With regards to males, the proportion of boys aged 15-19 with only less than primary education has been declining over time, from an average of almost 40% in 1983 to a bit less than 20% in 2004, with regional variability also declining in the last three years taken into consideration. The age groups 20-24 and 25-29 also follow similar patterns, with the only difference of a certain continuity between 1983-1987; while with those aged 30-34 the decrease in the average has been smaller than that of the other age groups. When considering primary education completed, with those aged 15-19 a stability around 50% can be observed throughout the whole period with some regional variability; while for the 20-29 age group there is a minor increase with an average close to 40%; and for those aged 30-34 the stability is around 30-35%. As to secondary schooling, the average has increased from 15% in 1983 to 30% in 2004 for those aged 15-24, with some regional differences; while for the age groups 25-34 there has been a very small increase (less than 10%) with an average proportion of men with secondary studies stable at around 20%, with less regional variability than for younger age groups. Finally, when university studies are concerned, for the ages 20-34 there has been a certain stability and a slight positive increase in the average proportion of men completing this higher level of education, arriving at 10%, with a slight increase in regional variability.

Given that in this article we intend to study the relationship between educational expansion and the age at first marriage, figure 5 shows that for women, aged 15-19 with less than primary education, the proportions of ever married have declined over time not only in average but also in regional variability (from approximately 55% in 1983 to 37% in 2004); while for the group with primary completed the drop is observed during the period 1983 to 1987, remaining then more or less constant over time and also for the girls with secondary schooling. With regards to the age group 20-24, there are high proportions (average around 90%) of married women with less than primary education, with some regional variability; while for those with primary completed the proportions of ever married are around 80%, with slightly more regional differences than in the previous educational group; for

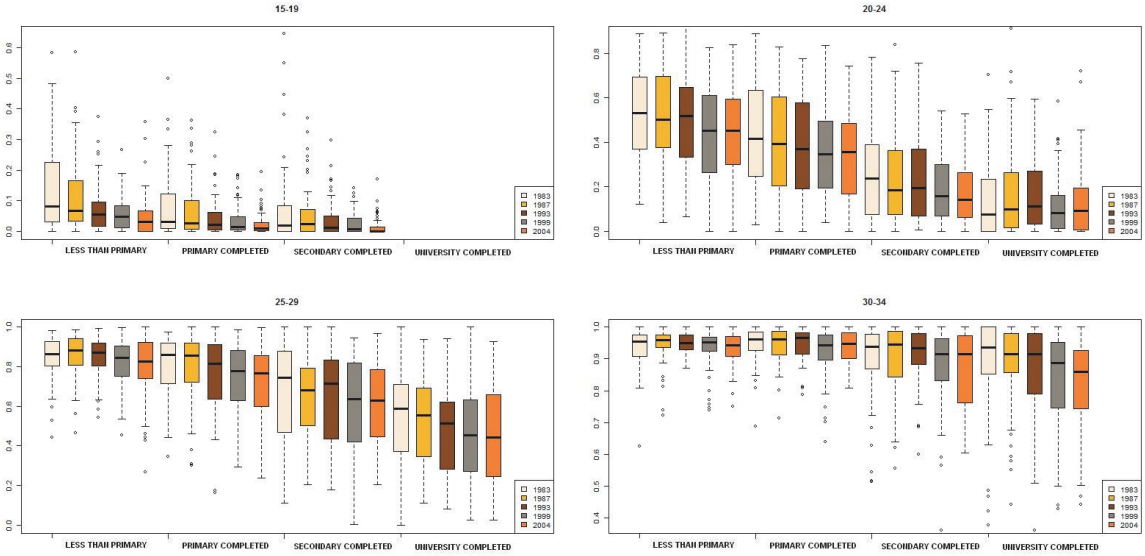
secondary schooling and university education, the proportions lay around 55% and 35% respectively, with higher regional variation in both cases.

Figure 5.- Between region variability in the proportion of ever married men and women by age, year and educational attainment

Females



Males



Source: India National Survey. IPUMS-International

Finally, with the age groups of 25-29 and, especially 30-34, one can observe the universality of marriage for women throughout our time period, in particular for those with less education (less than primary and primary completed), with little regional variability, but also for those with secondary schooling as well as for university education (years 1983 and 1987), with no outstanding regional differences (except some outliers). However, the pattern in the proportion of ever married for educated women in the age group 25-29 is not the same as in the oldest age group, where regional differences are remarkably higher and the averages are close to 90% for secondary schooling and 80% for university education.

On the other hand, for boys aged 15-19, the proportions of ever married for those with less than primary schooling do not reach 10% in the time period taken into consideration, and even though the proportions have slightly declined, the most important observation is the steady decline in the regional variability. Even though the majority of Indian men tend to marry at the ages 25 to 29, it is observed that most of the decline in the proportions of "ever married" is in the age groups 20-24 and 25-29. In fact, the pattern observed for women at older age groups with almost universal marriage is not so clear for men. That is to say, in the case of men aged 30-34 with less than primary and primary completed education the proportions married are close to 90% but not the 100% as found for women. Given that men marry later than women and that we are only considering the oldest age groups as those reaching 34, it is possible that if we performed this analysis for men aged 35-39 and elder we could possibly find a similar pattern as with women. However, another possible explanation would be the existence of cohabitation, especially among higher educated Indians. Most of the delay on the timing of marriage for men is seen in those aged 20-24 with secondary schooling, as well as those aged 25-29 with secondary and university education, and 30-34 with university completed, with high regional variability.

3.2.- Multilevel model

We use multilevel analysis to work simultaneously at two levels of analysis: individual and regional. Multilevel or random effects models are able to exploit hierarchically arranged data to differentiate the contextual effects from background effects for individuals. In other words, they allow us to study the relationships and variations within and between the levels of a system. In this sense, social and many other systems, and education in particular, typically have a hierarchical organization in which "units" at one "level" are grouped

within units at the next higher level (Goldstein, 1987). This will allow us to observe variability levels between regions and educational attainment, and also to assess how much of the total variation in family formation can be attributed to differences between individuals and regions.

In table 1 we show the results for the multilevel logistic regression model, distinguishing for both females and males, as well as focusing on the differences according to the age groups established in this paper. Given that the objective in this study is to investigate the effect of education on marriage prevalence by focusing on differences between and within educational groups, while controlling for other variables (age, urban-rural, region of residence and time), the hypotheses used here are the following: a) If educational expansion is the main driving force of marriage postponement, this should not affect the differences between educational groups over time, and b) if marriage postponement is beyond educational expansion, then one could expect differences within educational groups over time. To do so, in our analysis what we include are three models:

1. Model 1 shows the evolution over time in the probability of getting married.
2. In Model 2 we introduce education as a way to control for compositional effects (educational structure)
3. In Model 3 the Interactions are included as a means to check the effects over time taking educational levels into account.

Our results, if compared between the three models, show that: for instance, with females aged 15-19 the first model indicates a strong decrease in the probabilities of being married over time for this particular age group, while the second model attenuates the fall when controlling for education. With the third model, the fall of those girls with less than primary and primary education is remarkable. On the other hand, for females aged 25-29 the drop in the likelihood of ever married practically disappears when controlling for education (model 2). For males, the drop in the likelihood of being ever married is significantly important for the age group 15-19 in model 1 and also in model 2 when education is introduced. While for males aged 20-24 the drop in the first model is less notable in comparison to the younger age group, in the second model this fall is attenuated when taking education into account (model 2).

Table 1.- Multilevel model of change, by age and sex

	Female 15-19	Female 15-19	Female 15-19	Female 20-24	Female 20-24	Female 20-24	Female 25-29	Female 25-29	Female 25-29	Female 30-34	Female 30-34	Female 30-34
Fixed effects	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
Constant	-0,284 ***	0.059 (.097)	0.082	1,737 ***	2.170 ***	2.248	3,147 ***	3.418 ***	3.672 ***	4.289	4.382 ***	4.437 ***
Year												
1983	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
1987	-0,201 ***	-0.142 ***	-0.142 ***	-0,111 ***	-0.043	-0.051	-0.055	-0.017	-0.279 ***	-0,409 ***	-0.362 ***	-0.203 *
1993	-0,663 ***	-0.492 ***	-0.507 ***	-0,323 ***	-0.128 ***	-0.206 ***	-0,134 ***	-0.004	-0.259 ***	-0,234 **	-0.144	-0.174
1999	-0,924 ***	-0.661 ***	-0.751 ***	-0,532 ***	-0.188 ***	-0.332 ***	-0,302 ***	-0.062	-0.467 ***	-0,432 ***	-0.295 ***	-0.377 ***
2004	-1,223 ***	-0.840 ***	-0.901 ***	-0,718 ***	-0.311 ***	-0.528 ***	-0,393 ***	-0.032	-0.428 ***	-0,459 ***	-0.268 ***	-0.581 ***
Education												
Less primary		Ref	Ref		Ref	Ref		Ref	Ref		Ref	Ref
Primary		-1.069 ***	-1.121 ***		-0.790 ***	-0.902 ***		-0.489 ***	-0.891 ***		-0.237 *	-0.141
Secondary		-1.768 ***	-2.054 ***		-1.819 ***	-2.002 ***		-1.338 ***	-1.808 ***		-0.907 ***	-1.340 ***
Universitary		---	---		-2.613 ***	-2.788 ***		-2.193 ***	-2.564 ***		-1.386 ***	-1.492 ***
Interactions												
1987*Primary			0.030			-0.023			0.495 ***			-0.438 **
1993*Primary			0.018			0.157 **			0.507 ***			-0.169
1999*Primary			0.186 ***			0.214 ***			0.441 ***			-0.096
2004*Primary			0.126			0.261 ***			0.607 ***			0.251
1987*Secondary			0.229 *			0.049			0.428 ***			-0.131
1993*Secondary			0.278 **			0.156			0.330 **			0.450 **
1999*Secondary			0.480 ***			0.264 **			0.787 ***			0.486 ***
2004*Secondary			0.350			0.387 ***			0.673 ***			1.009 ***
1987*Universitary			---			0.153			0.301 **			-0.125
1993* Universitary			---			0.063			0.391 ***			-0.012
1999* Universitary			---			0.226			0.624 ***			0.184
2004*Universitary			---			0.388 **			0.481 ***			0.351
Urban												
Rural	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Urban	-0,925 ***	-0.552 ***	-0.546 ***	-0,965 ***	-0.435 ***	-0.428 ***	-0,948 ***	-0.392 ***	-0.385 ***	-0,825 ***	-0.467 ***	0.458 ***
Random intercept												
(cross-regional variance)	0,661***	0.491 ***	0.491 ***	0.719 ***	0.638 ***	0.641 ***	1.124 ***	1.073 ***	1.091 ***	1.025 ***	0.925 ***	0.847 ***

	Male 15-19	Male 15-19	Male 15-19	Male 20-24	Male 20-24	Male 20-24	Male 25-29	Male 25-29	Male 25-29	Male 30-34	Male 30-34	Male 30-34
Fixed effects	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
Constant	-2.093	-1.856 ***	-1.874 ***	-0.109	0.183 *	0.114	1,395 ***	1.732 ***	1.638 ***	2,661 ***	2.753 ***	2.596 ***
Year												
1983	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
1987	-0,216 *	-0.194 *	-0.187 *	-0,143 ***	-0.102 **	-0.018	-0.008	-0.003	0.131 ***	0.038	0.044	0.166 ***
1993	-0,735 ***	-0.685 ***	-0.686 ***	-0,338 ***	-0.229 ***	-0.156 ***	-0,232 ***	-0.167 ***	0.010	-0,052 ***	-0.027	0.192 ***
1999	-1,108 ***	-1.021 ***	-0.956 ***	-0,521 ***	-0.380 ***	-0.289 ***	-0,381 ***	-0.266 ***	-0.202 ***	-0,226 ***	-0.168 ***	0.097 *
2004	-1,485 ***	-1.368 ***	-1.228 ***	-0,627 ***	-0.474 ***	-0.335 ***	-0,485 ***	-0.349 ***	-0.248 ***	0,300 ***	-0.230 ***	-0.020
Education												
Less primary		Ref	Ref		Ref	Ref		Ref	Ref		Ref	Ref
Primary		-0.470 ***	-0.464 ***		-0.338 ***	-0.206 ***		-0.359 ***	-0.213 ***		0.034	0.349 ***
Secondary		-0.572 ***	-0.412 *		-1.032 ***	-0.899 ***		-0.887 ***	-0.794 ***		-0.478 ***	-0.321 **
Universitary		---	---		-1.387 ***	-1.338 ***		-1.481 ***	-1.262 ***		-0.783 ***	-0.406 ***
Interactions												
1987*Primary			0.010			-0.165 ***			-0.189 ***			-0.280 ***
1993*Primary			0.027			-0.171 ***			-0.187 ***			-0.423 ***
1999*Primary			-0.072			-0.174 ***			-0.135 ***			-0.579 ***
2004*Primary			-0.103			-0.197 ***			-0.206 ***			-0.295 ***
1987*Secondary			-0.116			-0.150 **			-0.196 ***			-0.186 *
1993*Secondary			-0.118			-0.109			-0.242 ***			-0.191 *
1999*Secondary			-0.263			-0.145 *			-0.006			-0.207 *
2004*Secondary			-0.568 *			-0.282 **			-0.065			-0.237 *
1987*Universitary			---			-0.031			-0.253 ***			-0.118
1993* Universitary			---			0.061			-0.451 ***			-0.517 ***
1999* Universitary			---			-0.095			-0.204 *			-0.510 ***
2004*Universitary			---			-0.197			-0.169			-0.558 ***
Urban												
Rural	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Urban	-0,949***	-0.846 ***	-0.851 ***	-0,906 ***	-0.704 ***	0.707 ***	-0,729 ***	-0.470 **	-0.471 ***	-0,588 ***	-0.405 ***	-0.407 ***
Random intercept												
(cross-regional variance)	1.491 ***	1.445 ***	1.456 ***	0.652 ***	0.641 ***	0.641 ***	0.609 ***	0.612 ***	0.613 ***	0,603 ***	0.601 ***	0.603 ***

Source: India National Survey. IPUMS-International (own calculations)

With regards to the differences in the probability of being married depending on the urban-rural factor, for women it seems that in the first model being urban reduces the chances of being married at an earlier age, however this situation changes when introducing educational attainment as a controlling factor given that the estimates significantly reduce.

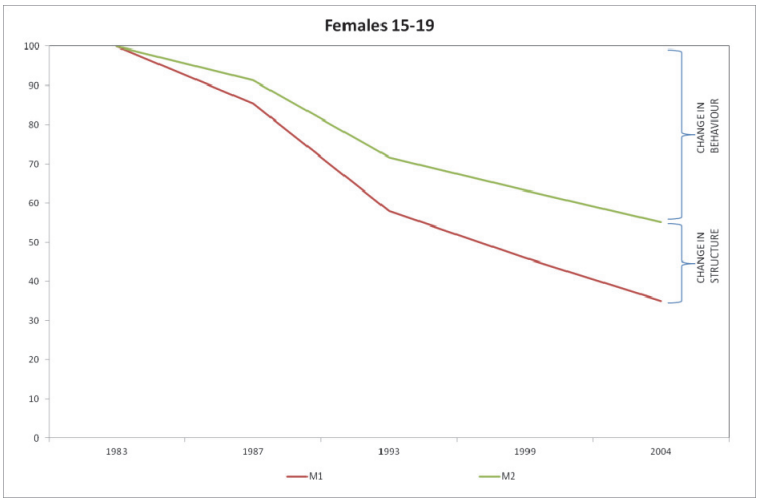
With men, introducing education in the second model slightly decreases the estimates from the first model.

If we take a look at the random intercept and its cross-regional variance in Table 1, these estimates give us the magnitude of the differences between regions (the bigger the number of the estimate, the more variance between regions). In general, when including the control of the variable of education in models 2 and 3, in comparison to model 1, the value of the cross-regional estimate does not change substantially. In fact, for girls aged 15-19, differences between regions drop slightly and there is still a net effect of time on the probability of being married with independence of the change in the educational structure. The first benchmark model for this particular age group, which takes into account the prevalence of ever-married over time, has a cross-regional variance of 0.661 and, after introducing education as an explanatory variable in models 2 and 3, this variance reduces to 0.491 (a reduction of 25%), with statistically significant coefficients. Moreover, in the case of men the values of the cross-variance are practically the same for all three models. Thus, it seems that for women the regional differences on the likelihood of being ever married are slightly reduced when controlling for education (for the age group 15-19), but not for men. Therefore, these regional differences are not completely explained through education and there must be other factors involved. A rather fair guess could be differences in the marriage market, taking into account the inner social stratification of this pool of available single men and women; imbalances in the sex ratio; socio-economic regional differences that, together with the access to female labour participation, as well as the increase in the autonomy of women over sexual and reproductive decisions might affect the timing of marriage; or maybe it could also be due to the regional distribution of the population by religion, among other possible factors.

Therefore, when trying to assess if marriage postponement is beyond educational expansion or not, at a national level, it would be interesting to see if the changes in the proportions of ever married for the different age groups have dropped with independence of educational expansion. That is to say, we intend to know to what extent educational expansion accounts for the changes in the prevalence of early marriage between the years 1983-2004, as more and more people reach higher levels of education. In figures 6 we accomplish this goal by checking the drop in the expected proportions of being ever married in model 2 by maintaining the same educational structure and also by assuming that the change over time is the same (the effect of time as being constant: using the year 1983 as a Base 100). Hence, it is able to distinguish between changes in the structure (M1)

versus changes in the behaviour (M2). Results show that, for both men and women, most of the change occurs among the younger age groups (15-19 and to a lesser extent 20-24), which can also be observed in figure 8. For girls aged 15-19, most of the change explaining marriage postponement seems to be due to changes in both the structure (education) and behaviour, although it is the latter the one that accounts for more of the variation. In this case, from figure 6 we see that the total drop in the expected marriages is around 64%, and from this fall 30% is due to changes in the structure, while the resting 69% is for changes in the behaviour. For women, as age increases the intensity of the fall decreases and we see that changes have to do more with structure than with behaviour: for instance, girls aged 20-24 the total drop gets reduced to 25% and from this figure we get around 79% of the change due to structure and 20% due to behaviour. Hence, there seem to be differences between the youngest age group of women (15-19), with respect to elder women (20-34) in the sense that for young girls the postponement of marriage has to do more with changes in behaviour, while for the elder cohorts of women the increase in the age at first marriage had to do more with changes in structure. These findings imply that educational expansion does seem to explain a great deal of the decrease in early marriage for elder generations of women.

Figure 6.- Multilevel logistic regression results; Example of the change in the expected proportions of being ever married between model 1 and 2, for females aged 15-19 (1983 as Base 100)

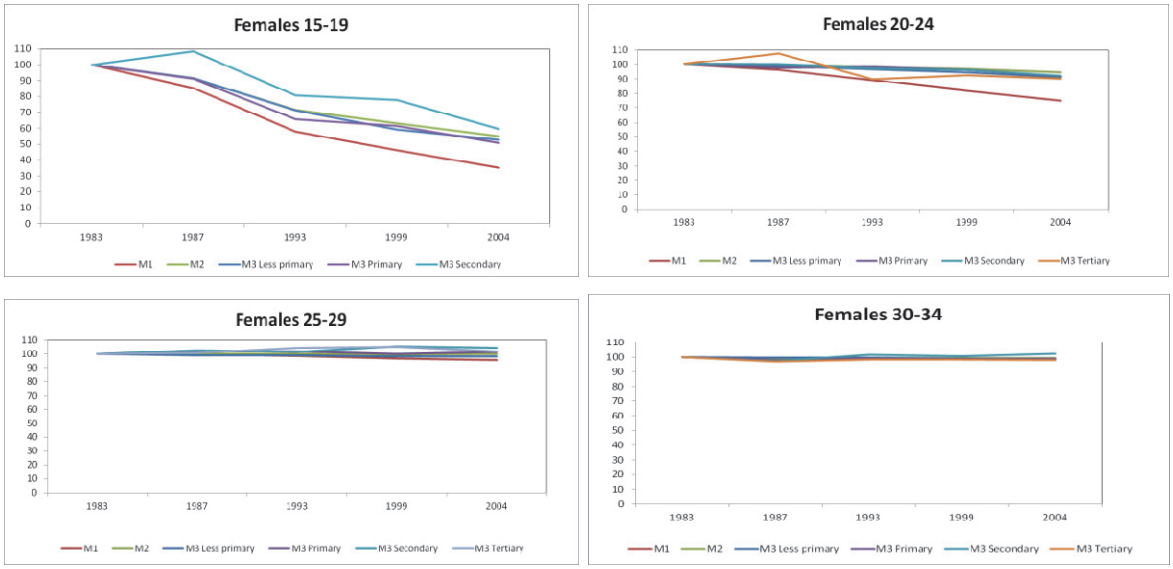


Source: India National Survey. IPUMS-International (own calculations)

For men, the youngest age group (15-19) and, to a lesser extent, the following one (20-24) also experience the same fall in the expected proportions of ever married as with the youngest women in the sense that it is more a change in the behaviour than in structure. For males aged 15-19, the total drop is of 76 percentage points, where 95% accounts for changes in behaviour while only 4% is for changes in structure due to educational expansion. For the age group 20-24, the fall is less steep (39%) and the changes due to behaviour vs. structure are similar as for women from the same age group (in this case 70% for behaviour and 29% for structure). An interesting observation is for men aged 25-29, where the fall is even less steeper (17%), but changes in behaviour and structure account for 48% and 51% respectively. Finally, if we take a look at older age groups, there are no major differences between the models M1 to M3 with respect to women, although for men having university education does seem to increase the likelihood of marrying later.

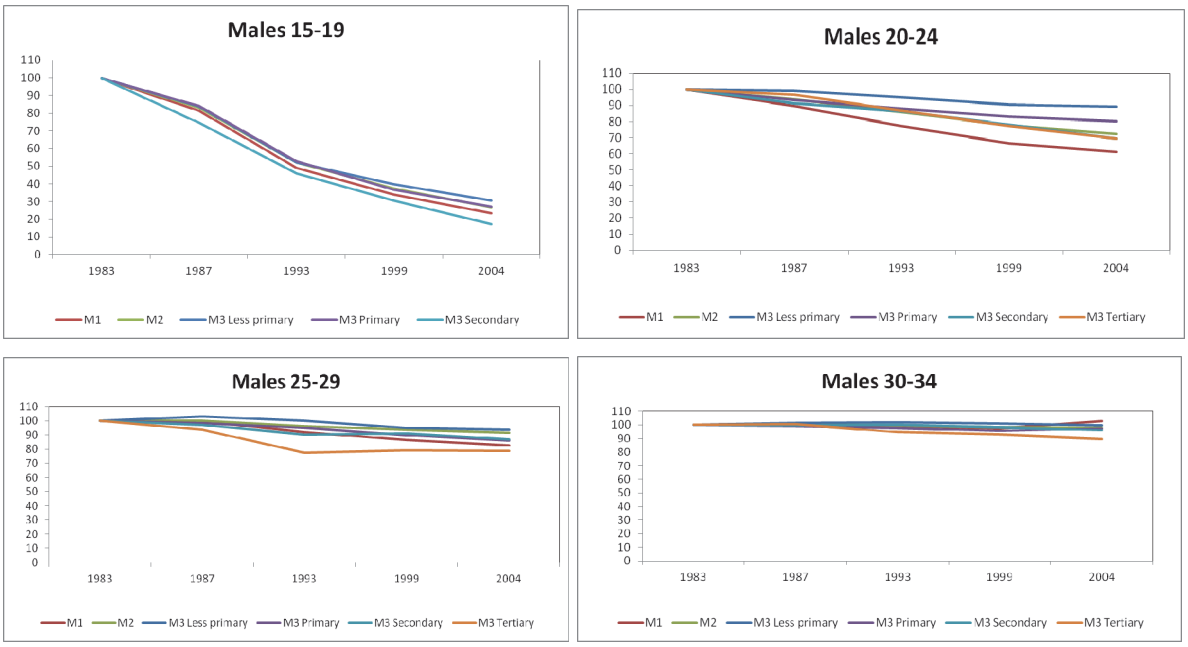
Figure 7.- Multilevel logistic regression results; Change in the expected proportions of being ever married between models 1 to 3, by age and sex (1983 as Base 100)

Females



Continues

Males

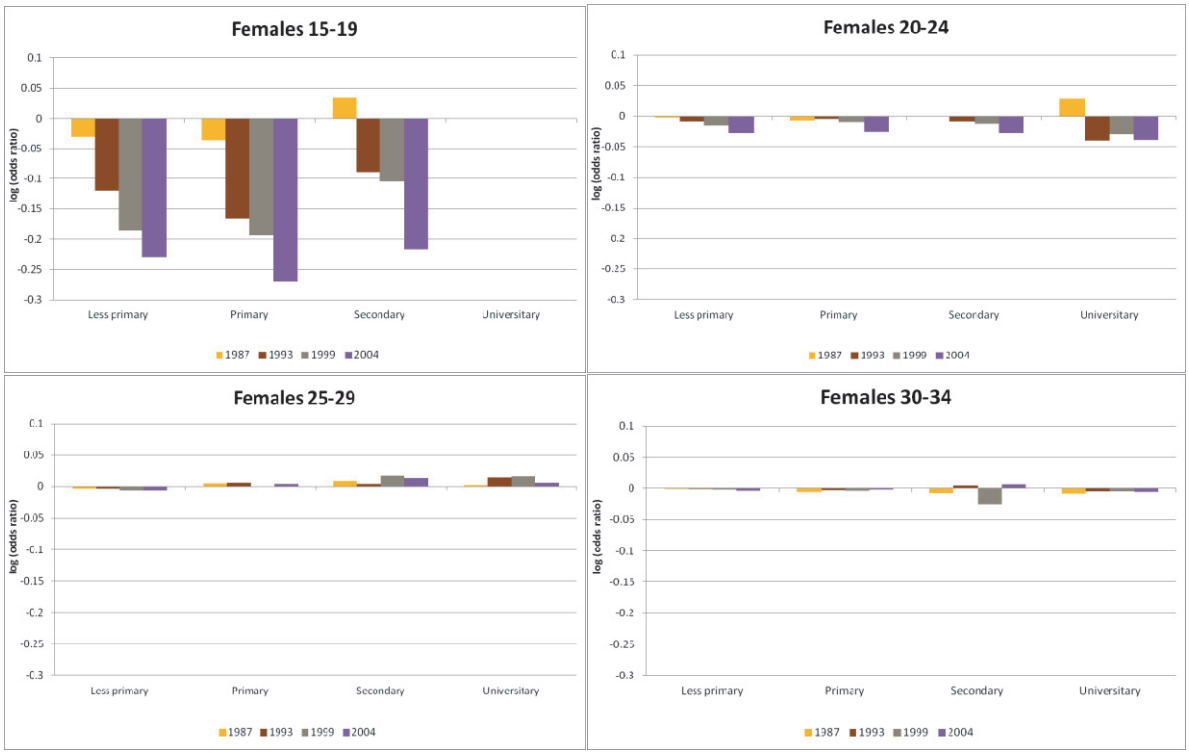


Source: India National Survey. IPUMS-International (own calculations)

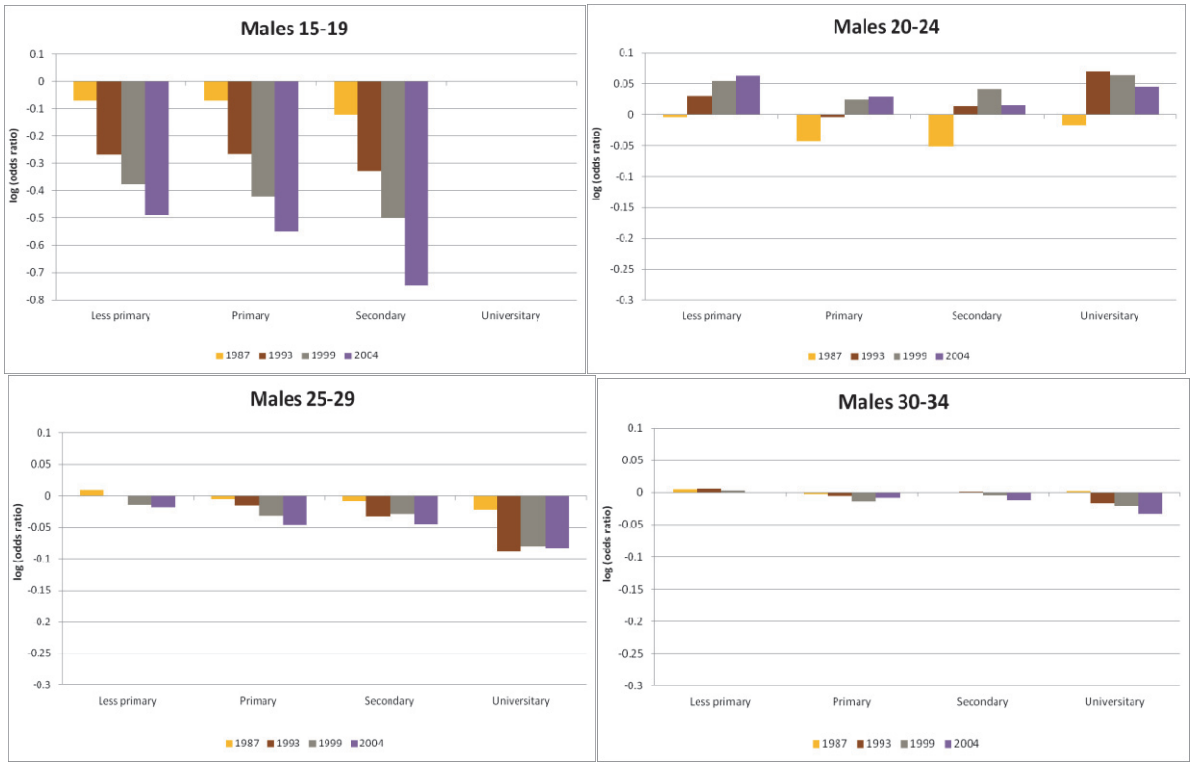
Finally, figure 8 reinforces the idea that the most important contribution to marriage postponement has been made by the youngest age groups and the two lowest segments of the educational hierarchy. Therefore, it is possible to assume that educational expansion is one of the forces behind the decrease in early marriage due to changes in the structure. However, it is noteworthy that there has also been a change in the behaviour among the lowest educated women and men. For the females aged 25-34 the probabilities of being married remain relatively constant over time and for all educational levels, which highlights the universality of marriage for women in the Indian society. For men there are some changes in the predicted probabilities that indicate a tendency towards postponement of marriage as the level of educational attainment rises for the age groups 25-29, and the contrary for those aged 20-24. Altogether, it does not seem that there is any sign of a retreat from marriage over time, especially for women.

Figure 8.- Multilevel logistic regression results; Change in the predicted probabilities of being married by age, sex and educational attainment (1983 as reference)

Females



Males



Source: India National Survey. IPUMS-International (own calculations)

4.- Conclusions

Around the world, and specifically in contexts where early marriage existed, marriage timing patterns are experiencing changes towards postponement of first union formations. We used Indian socio-economic surveys (integrated into IPUMS) to examine the prevalence of ever married young men and women in India from 1983 to 2004, at a regional level. Taking into account that there has been a decrease in the proportion of girls over time who only reached less than primary education, and that the average of women completing primary and secondary schooling levels has raised, in this article we intend to acknowledge the extent of this educational expansion on the delay on the timing of first unions. Our aim is not to draw the causality between marriage postponement and education, but rather illustrate the universality of the changes that have been taking place in the marriage calendar, for both men and women, and its relationship with regard to the fact that more people are reaching higher educational levels.

Despite large regional imbalances, there has been some encouraging progress in the educational front in India. Between 1983-2004, for all age groups and for both males and females, the proportions of Indians with less than primary education have declined over time. The educational expansion is specially observed for women as there has been also an increase in the average of girls completing primary and secondary schooling levels (for all age groups); while for men, primary schooling has been rather constant over time for those aged 15-19, with gradual increases in the completion of secondary level among almost all age groups. Finally, a slight augment in the proportion of men and women with university education has been noted.

If we take a look at the broad picture, the proportions of ever married by age have been declining throughout the period of study (1983 to 2004) however, marriage still remains important and almost universal, especially for women (even if they have secondary and university education). For men, even though the common age for first union has been around 25-29, the largest declines in their nuptial calendar have been on the age groups 20-24 as well as 25-29. Nevertheless, marriage patterns within the country are diverse, where its variability is particularly relevant in the age groups 20-29 for men and 15-24 for women. For instance, later entries into first union for women seem to be located in regions bordering the coast, as well as the South of the country (Kerala or Tamil Nadu) and the North/West of India (Punjab and Himachal Pradesh); while the regions where the

proportions of ever married girls aged 15-19, in the year 2004, are still relatively high are Rajasthan, West Bengal, Bihar, Madhya Pradesh, Andhra Pradesh and Jharkhand, among others.

Hence, if we compare the nuptial calendar through the proportions of ever married at the ages of 15-19 by educational level, the results show a steady decline in both the average of girls who are married at that age and regional variability if they have less than primary education. In other words, the incidence of early marriage seems to be declining among the lower educated portion of the female population. While for the group of primary completed the drop is observed during the period 1983-1987, remaining then relatively constant over time, as with secondary schooling levels. On the other hand, among men, the decline is less pronounced and concentrated at the age group 20-24. Furthermore, the results from the multilevel logistic regression indicate a strong decrease in the probabilities of being married over time for girls and boys aged 15-19, although this fall is attenuated when controlling for education (especially in the case of girls aged 15-19 and for men in the age group 20-24). A similar pattern occurs when taking into account the type of place of residence, in the sense that being urban seems to reduce the chances of being married at an earlier age for girls, but once we control for education, the estimates significantly reduce for women and slightly for men. Finally, it seems that for women the regional differences on the likelihood of being ever married are slightly reduced also when controlling for education (for the age group 15-19), but not for men.

In this study we intend to outline the extent by which the educational expansion accounts for the changes in the prevalence of early marriage between the years 1983-2004. Given that the most important contribution to marriage postponement for women has been made by the youngest age groups, as well as the two lowest segments of the educational hierarchy, it is rather plausible to assume that there have been changes not only in the educational structure of the population but also in its behaviour. The findings in the present article indicate that educational expansion does seem to explain a great deal of the decrease in early marriage for elder generation of Indian women, although for the youngest generations the postponement of marriage has been drawn by changes in behaviour. Likewise, the drop in the proportions of ever married for boys aged 15-19 is also mainly due to changes in behaviour, while for the age group 25-29 the changes in behaviour and structure account for 48% and 51% respectively. Moreover, for men, having university education does seem to delay their entry into first union. Altogether, it does not seem that there is any sign of a retreat from marriage over time, especially for women.

Therefore, the next step in the analysis would be to possible outline the reasons behind this change in the behaviour on younger generations of Indian cohorts who are shifting towards later entries into first marriage. One potential factor which could contribute to the reduction in early marriage among women is a change from arranged marriages to "love marriages", particularly in the urban areas. There is little research on the association between age at marriage and the spouse selection process, and even if there was a link, a rise in the age at marriage would not necessarily imply that the practice of arranged marriages is being eliminated (Malhotra and Tsui 1996). In this same direction Banerjee (1999) does not believe that love marriages have replaced the arranged ones, but a transformation from "an un-consented to a consented model" seems to be taking place. Despite increasing female education and work participation, familial socio-economic advancement is still viewed as largely achieved through males; hence, "families value sons accordingly while daughter's work and education is usually subjected to the dictates of marriage necessities" (Sudha and Rajan 2003). Basically, the age of marriage of men has largely been determined by the commitment of Indian families to provide daughters with a marriage (and, eventually, sons with land and other property) (Caldwell et al. 1983). Thus, taking into account that in India marriage is established more in terms of the union of two families (and not two individuals), when studying family formation patterns and age into first marriage specifically for this context one should not assume them as an "automatic product of individual decisions, but rather as a broader set of socio-cultural practices" linked to family and gender systems (Spijker and Esteve, 2011).

Also, any analysis on marriage timing in India should account for the sex ratio imbalances in its marriage market. Not only there is a general tendency from parents to discourage girl's schooling, but also the issue of "India's missing women" has raised concern, as it is not particularly due to greater natural frailty of girl children, but results from social practices against unwanted daughters through selective neglect, infanticide (Sudha and Rajan 2003) or sex-selective abortion (Das Gupta and Bhat 1997). A possible explanation of this situation is the rise of dowry as well as its spreading across the country, given the fact that those families with more daughters to marry than sons encounter major economic expenses. In addition to these sex ratio imbalances, one should also account for the artificial imbalances in the marriage pool (of available partners) due to the role of social stratification. As stated by Banerjee (1999), "the stratification of the traditional marriage market by caste, region and gender produced unequal marriage opportunities that depended

on the availability of partners within a narrow marriage circle, regardless of the number of individuals in the marriageable ages". Therefore, it is necessary, if data allows doing so, to include the effects of socio/regional stratification along with sex ratio imbalances when explaining Indian marriage patterns and the marriage payment system affected by it.

References

ABRAHAM, L. (2001). "Redrawing the lakshman rekha: Gender differences and cultural constructions in youth sexuality in urban India". *South Asia*, 24, pp. 133-56.

ARNETT, J. (2002). "The psychology of globalization". *American Psychologist,* 57, pp. 774-783.

BANERJEE, K. (1999). "Gender stratification and the contemporary marriage market in India". *Journal of Family Issues*, 20 (5), pp. 648-676.

BEGUY, D.; KABIRU, C. W.; ZULU, E. M.; EZEH, A. C. (2011). "Timing and sequencing of events marking the transition to adulthood in two informal settlements in Nairobi, Kenya". *Journal of Urban Health*, 88, pp. 318-340.

BHADRA, M. (2000). "Changing Age at Marriage of Girls in India". *International Journal of Anthropology,* 15 (1-2), pp. 33-50.

BHAT, P.N.M.; HALLI, S.S. (1999). "Demography of bride price and dowry: Causes and consequences of the Indian marriage squeeze". *Population Studies*, 53 (2), pp. 129-148.

BLOOM, D.E.; REDDY, P.H. (1986). "Age Patterns of Women at Marriage, Cohabitation, and First Birth in India". *Demography*, 23 (4), pp. 509-523.

BONGAARTS, J. (1982). "The fertility-inhibiting effects of the intermediate fertility variables". *Studies in Family Planning*, 13 (6/7), pp. 179-189.

BONGAARTS, J. (2003). "Completing the fertility transition in the developing world: The role of educational differences and fertility preferences". *Population Studies*, 57 (3), pp. 321-335.

CALDWELL, J. C.; REDDY, P. H.; CALDWELL, P.; (1983). "The causes of marriage change in South India". *Population Studies*, 37 (3), pp. 343-361.

CASTERLINE, J.B.; WILLIAMS, L.; MCDONALD, P. (1986). "The age difference between spouses: Variations among developing countries". *Population Studies*, 40 (3), pp. 353-374.

COHEN, S.A. (2004). "Delayed Marriage and Abstinence-until-Marriage: On a Collision Course?". *The Guttmacher Report on Public Policy*, 7 (2).

DAS GUPTA, S.; MARI BHAT, P.N. (1997). "Fertility Decline and Increased Manifestation of Sex Bias in India". *Population Studies*, 51 (3), pp. 307-315.

DAS GUPTA, S.; PANDE, R. (2008). *Knot Ready: Documenting Initiatives to Delay Early Marriage: Update 1*. Washington, DC: ICRW.

DAS GUPTA, S.; MUKHERJEE, S.; SINGH, S.; PANDE, R.; BASU, S. (2008). *Knot Ready: Lessons from India on Delaying Marriage for girls*. New Delhi: International Centre on Research on Women.

DAS, N.P.; DEY, D. (1998). "Female Age at Marriage in India: Trends and Determinants". *Demography India*, 27 (1) (Sp. Issue on the Golden Jubilee Years of India's Independence), pp. 91-115.

DOMMARAJU, P. (2010). "Female Schooling and Marriage Change in India". *Population (English edition),* 64 (4), pp. 667-683.

DRÈZE, J.; MURTHI, M. (2001). "Education, and Development: Evidence from India". *Population and Development Review*, 27 (1), pp. 33-63.

FERRÉ, C. (2009). "Age at first child: does education delay fertility timing? The case of Kenya". *Policy Research Working Paper* 4833, The World Bank South Asia Region, Human Development Division, February 2009.

IKAMARI, L.D. (2005). "The effect of education on the timing of marriage in Kenya". *Demographic Research*, 12 (1), pp. 1-28.

GOLDSTEIN, H. (1987). *Multilevel Models in Educational and Social Research*. London: Griffin. New York: Oxford University Press.

GOODE, W.J. (1963). *World Revolution and Family Patterns*. New York: Free Press.

GRIFFITHS, P; MATTHEWS, Z; HINDE, A (2000). "Understanding the Sex Ratio in India: A Simulation Approach". *Demography,* 37 (4), pp. 477-488.

GUPTA, D. (2009). "Disparities in Development, Status of Women and Social Opportunities: Indian Experience". *Journal of Alternative Perspectives in the Social Sciences,* 1 (3), pp. 687-719.

HATTI, N.; OHLSSON, R. (1985). "Impact of Education on Age at Marriage in India, 1960-1979". *Demography India,* 14 (2).

HAUB, C.; SHARMA, O.P. (2006). "India's Population Reality: Reconciling Change and Tradition". *Population Reference Bureau*, 61 (3).

HUANG, WJ (2005). "An Asian Perspective on Relationship and Marriage Education". *Family Process*, 44 (2), pp. 161-173.

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH (2007). "Consequences of early marriage on female schooling in rural Bangladesh". *Health and Science Bulletin*, 5 (4), pp. 13-18.

INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES (IIPS); MACRO INTERNATIONAL (2007). *National Family Health Survey (NFHS-3), 2005*–06. India. Vol. I. Mumbai, India: IIPS.

JAIN, S.; KURZ, K. (2007). *New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs.* Washington, D.C.: ICRW

JAUREGUI, B.; MCGUINNESS, T. (2003). "Inter-Community Marriage and Social Change in Contemporary India: Hybridity, Selectivity and Transnational Flows". *South Asia: Journal of South Asian Studies*, 26 (1), pp. 71-85.

JAYAKODY, R.; THORNTON, A.; AXINN, W. (Eds.) (2008). *International Family Change Ideational Perspectives.* New York: Lawrence Erlbaum Associates.

JEJEEBHOY, S.J. (1998). "Adolescent sexual and reproductive behaviour: a review of the evidence from India". *Social Science & Medicine,* 46 (10), pp.1275-1290.

JENSEN, R.; THORNTON, R. (2003). "Early female marriage in the developing world". *Gender & Development*, 11 (2), pp. 9-19.

JONES, G. (2010). "Changing Marriage Patterns in Asia". *Asia Research Institute Working Paper 13,* January 15.

KINGDON, G.G. (2007). "The progress of school education in India". *Oxford Review of Economic Policy*, 23 (2), pp. 168-195.

KRISHNAJI, N. (2000). "Trends in Sex Ratio: A Review in Tribute to Ashok Mitra", *Economic and Political Weekly*, 35 (14), pp. 1161-1163.

LARSON, R. W. (2003). "Globalization, societal change, and new technologies: What they mean for the future of adolescence". *Journal of Research on Adolescence*, 12 (1), pp. 1-30.

LLOYD, C.B.; MENSCH, B.S. (1999). "Implications of formal schooling for girls' transitions to adulthood in developing countries". C. H. BLEDSOE, J. B. CASTERLINE, J. A. JOHNSON-KUHN; J. G. HAAGA (Ed.). *Critical Perspectives on Schooling and Fertility in the Developing World*. Washington, DC: National Academy Press, pp. 80-104.

LLOYD (Ed.) (2005). *Growing up Global: the Changing Transitions to Adulthood in Developing Countries.* Washington, DC: National Academies Press.

LLOYD, C.B.; MENSCH, B.S. (2006). "Marriage and childbirth as factors in school exit: an analysis of DHS data from sub-Saharan Africa". *Policy Research Division Working Paper*, 219. New York: Population Council.

LOW, B.S.; SIMON, C.P.; ANDERSON, K.G.; (2002). "An evolutionary ecological perspective on demographic transitions: modelling multiple currencies". *American Journal of Human Biology*, 14 (2), pp. 149-167.

MACAULAY, C. (1974). *Letters on Education.* New York: Garland.

MALHOTRA, A.; TSUI, A.O. (1996). "Marriage timing in Sri Lanka: The role of modern norms and ideas". *Journal of Marriage and the Family*, 58 (2), pp. 476-490.

MARINI, M.M. (1978). "The transition to adulthood: Sex differences in educational attainment and age at marriage". *American Sociological Review*, 43, pp. 483-507.

MATHUR, S.; GREENE, M.; MALHOTRA, A. (2003). *Too Young to Wed: The Lives, Rights and Health of Young Married Girls.* Washington, D.C.: ICRW

MEDORA, N.P. (2003). "Mate selection in contemporary India: Love marriages versus arranged marriages". HAMON, R.R.; INGOLDSBY, B.B. *Mate Selection Across Cultures.* Thousand Oaks/London/New Delhi: Sage Publications.

MEDORA, N.P. (2007). "Strengths and Challenges in the Indian Family". *Marriage & Family Review*, 41 (1), pp. 165-193.

MENSCH, B.S.; BRUCE, J.; GREENE, M.E. (1998). *The Uncharted Passage: Girls' Adolescence in the Developing World.* New York: Population Council.

MENSCH, B.S.; SINGH, S.; CASTERLINE, J.B. (2005). "Trends in the timing of first marriage among men and women in the developing world". LLOYD, C.B. et al (Eds.). *The Changing Transitions to Adulthood in Developing Countries: Selected Studies.* Washington, D.C.: The National Academies Press, pp.118-171.

MOORE, A.M.; SINGH, S.; RAM, U.; REMEZ, L.; AUDAM, S. (2009). *Adolescent Marriage and Childbearing in India: Current Situation and Recent Trends.* New York: Guttmacher Institute.

MUCAI-KATTAMBO, V. W.; KABEBERI-MACHARIA, J.; KAMERI-MBOTE, P.; KABEBERI-MACHARIA, J. (1995). *Law and the Status of Women in Kenya*. Women, Laws and Practices in East Africa: Laying the Foundation. Nairobi: Women and Law in East Africa.

MURTHI, M.; SRINIVASAN, P. V.; SUBRAMANIAN, S. V. (1999). *Linking the Indian Census with the National Sample Survey*, Working Paper. Centre for History and Economics, King's College, Cambridge.

OFFICE OF THE REGISTRAR GENERAL AND CENSUS COMMISSIONER, INDIA. (2001). *Census of India, Provisional Population Totals, Series I, Paper I of 2001*. New Delhi: Office of the Registrar

PRATHAM (2007-08). "*ASER 2006 - Annual Status of Education Report*". New Delhi, Pratham, April 2007-March 2008.

RAJ, A.; SAGGURTI, N.; BALAIAH, D.; SILVERMAN, J. G. (2009). "Prevalence of child marriage and its impact on the fertility and fertility control behaviours of young women in India". *Lancet,* 373 (9678), 1883.

RAM, U.; SINGH, A.; RAM, F.; MOHANTY, S. (2009). "Consequences of early marriage on young women's lives and reproductive health and choices: Evidence from the Youth in India, Situation and Needs Study". Paper presented at the *IUSSP International Population Conference.* Marrakech, Morocco (September 27 - October 2, 2009).

RAO, V. (1993). "Dowry 'Inflation' in Rural India: A Statistical Investigation". *Population Studies*, 47 (2), pp. 283-293.

REGISTRAR GENERAL, INDIA (2001). *Census of India 2001, primary census abstract*. New Delhi, India: Office of the Registrar General

SHARMA, O. P.; HAUB, C. (2008). "Sex ratio at birth begins to improve in India". *Population Reference Bureau, Home-Population Reference Bureau.* Accessed February 15, 2013.

SPIJKER, J. J.; ESTEVE, A. (2011). "Changing household patterns of young couples in low-and middle-income countries". *The History of the Family*, 16 (4), pp. 437-455.

SUBRAHMANIAN, R. (2002). "Citizenship and the 'right to education': Perspectives from the Indian context". *IDS bulletin*, 33 (2), pp. 1-10.

SUDHA, S.; RAJAN, S.I. (2003). "Persistent Daughter Disadvantage, What do Estimated Sex Ratios at Birth and Sex Ratios of Child Mortality Risk Reveal?". *Economic and Political Weekly,* 38 (41), pp. 4361-4369.

THE WORLD BANK (2008). *Prospects for the Global Economy*. Country Developments. Global Economic Prospects 2008; Regional Appendices: South Asia.

THORNTON, A.; AXINN, W. G.; TEACHMAN, J. D. (1995). "The influence of school enrolment and accumulation on cohabitation and marriage in early adulthood". *American Sociological Review*. 60, pp. 762-774.

UNICEF (2005). *Early Marriage: A Harmful Traditional Practice.* New York: United Nations Children's Fund.

YADAVA, S. S.; CHADNEY, J. G. (1994). "Female education, modernity, and fertility in India". *Journal of Asian and African studies*, 29 (1-2), pp. 110-119.

Appendix

Table 1A.- Ever married proportions and number of cases by sex, age, educational attainment level, urban/rural, and year.

AGE GROUP	EDUCATION	Females:									
		India 1983		India 1987		India 1993		India 1999		India 2004	
		nº cases	% ever married	nº cases	% ever married	nº cases	% ever married	nº cases	% ever married	nº cases	% ever married
15-19	Less primary	17096	58.63	16727	55.77	11837	47.11	9812	41.88	7935	38.63
	Primary	8266	22.93	9354	21.27	8686	17.28	10596	16.98	11705	15.37
	Secondary	2668	9.29	3608	10.55	4745	8.21	6088	8.79	7408	7.10
	Total 15-19	28141	43.30	29809	39.31	25332	29.49	26594	24.26	27158	19.88
20-24	Less primary	18907	93.40	20569	93.26	15057	92.40	12847	91.79	11515	90.38
	Primary	5681	78.45	6271	77.64	5560	78.88	6463	79.19	7845	76.59
	Secondary	2159	51.62	2949	52.55	3484	52.69	4681	54.00	5473	53.23
	Universitary	727	33.78	956	35.55	1176	31.00	1646	32.92	1909	31.90
	Total 20-24	27473	85.45	30744	84.37	25276	81.10	25637	77.94	26742	74.56
25-29	Less primary	17608	98.44	19434	97.97	15769	98.02	14444	97.66	11807	97.75
	Primary	4571	94.26	4973	95.41	4708	95.54	5797	94.67	6540	95.62
	Secondary	1453	86.23	1775	87.99	2058	87.70	3041	90.48	3477	89.99
	Universitary	665	74.26	829	75.58	1004	77.47	1397	78.91	1867	77.06
	Total 25-29	24297	96.26	27011	96.15	23539	95.75	24678	95.01	23691	94.39
30-34	Less primary	15258	99.24	16284	99.08	14274	99.10	14666	98.94	14096	98.70
	Primary	3059	98.42	3645	97.10	3813	97.91	4376	97.69	5488	98.09
	Secondary	805	94.43	1190	93.13	1578	96.08	2104	95.88	2738	96.96
	Universitary	359	93.94	594	92.01	687	93.40	1052	93.37	1267	92.75
	Total 30-34	19481	98.81	21714	98.23	20352	98.45	22199	98.14	23589	98.03
Population	Rural	74381	82.21	83279	81.03	69925	78.02	72533	75.74	74242	72.96
	Urban	25011	68.58	25999	67.23	24573	65.05	26574	62.95	26939	61.84
Total general		**99392**	78.78	**109277**	77.74	**94499**	74.65	**99108**	72.31	**101181**	70.00

AGE GROUP	EDUCATION	Males:									
		India 1983		India 1987		India 1993		India 1999		India 2004	
		nº cases	% ever married	nº cases	% ever married	nº cases	% ever married	nº cases	% ever married	nº cases	% ever married
15-19	Less primary	12327	16.17	12037	14.56	9014	9.70	7374	7.59	6212	5.79
	Primary	14535	8.87	16480	8.03	14164	5.18	15535	3.90	15935	2.93
	Secondary	4647	8.06	5767	6.23	7305	4.18	8268	2.68	9543	1.61
	Total 15-19	31629	11.62	34442	10.01	30566	6.27	31298	4.45	31781	3.10
20-24	Less primary	11053	57.68	11437	57.31	8222	54.61	6845	52.16	6343	51.05
	Primary	9221	44.39	9548	40.72	7873	38.23	8731	36.34	10098	35.10
	Secondary	4642	27.68	6056	26.08	7067	25.17	7754	21.75	7920	18.69
	Universitary	1216	20.33	1562	20.13	1531	19.07	1838	14.95	2230	14.09
	Total 20-24	26131	45.92	28603	43.13	24694	38.76	25169	34.58	26591	32.25
25-29	Less primary	11099	87.41	12800	88.93	9425	87.53	8381	85.04	6835	84.80
	Primary	8045	80.22	8238	79.59	6728	77.74	7379	75.28	8360	73.30
	Secondary	3323	68.28	3790	68.24	4182	65.44	5574	66.19	5673	64.62
	Universitary	1562	56.48	1811	55.90	2047	48.00	2440	49.67	2583	48.99
	Total 25-29	24029	80.35	26639	80.85	22383	76.85	23774	73.96	23451	71.88
30-34	Less primary	10049	94.66	11229	95.47	9511	95.45	8659	95.13	7099	94.36
	Primary	5992	95.09	6717	94.39	6060	93.68	5949	92.29	7126	93.48
	Secondary	2807	90.46	3026	90.55	3229	90.80	4170	90.03	4797	88.73
	Universitary	1235	89.17	1515	89.74	1731	86.50	2046	85.79	2343	83.31
	Total 30-34	20083	93.86	22487	94.10	20531	93.44	20825	92.38	21366	91.59
Population	Rural	73499	56.30	83450	55.39	71042	51.84	72168	49.61	72994	47.71
	Urban	28373	43.90	28721	42.69	27132	40.69	28897	38.47	30194	36.97
Total general		**101872**	52.84	**112172**	52.14	**98174**	48.76	**101065**	46.42	**103188**	44.57

Source: India National Survey. IPUMS-International (own calculations)

Table 2A.- Ever married women ages 15-19 by region and year

Region	*Ever married women ages 15-19 by region and year (%)*				
NORTH-EAST INDIA	**1983**	**1987**	**1993**	**1999**	**2004**
Arunachal Pradesh (Arunachal Pradesh)	18.71	28.44	11.00	20.76	6.83
Hills (Assam)	26.46	30.27	21.96	0.42	0.00
Plains Eastern (Assam)	18.48	15.13	3.67	8.99	6.23
Plains Western (Assam)	21.10	19.09	10.96	14.84	15.62
Central (Bihar)	66.52	58.05	44.55	38.25	33.17
Northern (Bihar)	67.53	57.75	51.20	35.10	27.78
Southern (Bihar)	56.38	49.84	36.17	31.23	-
Jharkhand (Jharkhand)	-	-	-	-	29.70
Meghalaya (Meghalaya)	18.29	11.32	7.71	9.84	8.50
Mizoram (Mizoram)	10.73	7.21	2.99	3.95	4.52
Nagaland (Nagaland)	20.78	12.54	4.17	6.20	0.00
Hills (Manipur)	6.28	3.65	4.29	4.71	0.28
Plains (Manipur)	5.65	6.69	4.64	2.94	2.10
Central Plains (West Bengal)	30.19	32.69	25.68	28.28	21.70
Eastern Plains (West Bengal)	40.74	44.15	36.27	51.50	39.51
Himalayan (West Bengal)	26.82	36.05	17.06	19.05	19.35
Western Plains (West Bengal)	40.27	44.99	38.71	24.45	35.84
Sikkim (Sikkim)	16.47	16.38	10.56	9.69	9.69
Tripura (Tripura)	23.91	21.05	17.05	17.82	12.92
NORTH-WEST INDIA	**1983**	**1987**	**1993**	**1999**	**2004**
Eastern (Haryana)	48.14	35.12	27.40	21.98	14.61
Western (Haryana)	61.21	52.33	42.15	31.81	23.03
Himachal Pradesh (Himachal Pradesh)	26.80	25.23	11.73	6.07	5.94
Jhelam Valley (Jammu and Kashmir)	22.19	15.39	-	3.57	1.10
Mountainous (Jammu and Kashmir)	19.25	9.36	7.74	4.44	3.07
Outer Hills (Jammu and Kashmir)	34.12	24.17	24.13	3.66	9.12
Northern (Punjab)	12.63	11.95	11.22	6.47	2.75
Southern (Punjab)	18.36	15.65	13.04	8.41	11.52
North-Eastern (Rajasthan)	73.35	64.29	51.99	41.71	39.61
South-Eastern (Rajasthan)	71.34	69.28	52.30	42.51	41.01
Southern (Rajasthan)	67.20	51.35	46.13	39.11	25.03
Western (Rajasthan)	52.24	55.37	45.22	29.86	32.69
Uttarakhand (Formerly Uttaranchal)	-	-	-	-	5.61
Central (Uttar Pradesh)	54.70	53.11	35.71	29.81	18.94
Eastern (Uttar Pradesh)	70.46	71.48	49.81	34.62	24.80
Himalayan (Uttar Pradesh)	37.02	26.12	16.00	11.07	-
Southern (Uttar Pradesh)	76.37	74.46	55.93	45.31	23.30
Western (Uttar Pradesh)	45.81	37.96	29.43	22.45	14.28
CENTRAL INDIA	**1983**	**1987**	**1993**	**1999**	**2004**
Chhattisgarh (Chhattisgarh)	0.00	0.00	0.00	0.00	14.65
Dry areas (Gujarat)	37.19	18.11	12.67	16.01	26.00
Eastern (Gujarat)	34.22	17.67	19.65	21.41	17.05
Plains Northern (Gujarat)	39.84	27.06	22.84	17.76	13.76
Plains Southern (Gujarat)	18.13	18.82	18.01	10.55	10.28
Saurashtra (Gujarat)	10.33	8.14	9.03	5.61	7.30
Central (Madhya Pradesh)	63.64	48.17	38.75	36.44	27.57
Chhattisgarh (Madhya Pradesh)	55.99	52.86	34.81	23.14	0.00
Malwa (Madhya Pradesh)	68.76	55.85	44.37	35.64	34.95
Northern (Madhya Pradesh)	73.41	68.01	51.42	41.41	34.46
South (Madhya Pradesh)	53.34	47.53	31.21	21.69	26.10
South-Western (Madhya Pradesh)	55.49	43.73	35.81	25.37	21.50
Vindhya (Madhya Pradesh)	82.38	76.29	49.63	51.04	32.72

(%)

Continues

Coastal (Maharashtra)	23.50	14.31	10.71	7.54	7.42
Eastern (Maharashtra)	39.63	31.89	13.74	5.29	5.36
Inland Central (Maharashtra)	66.78	58.27	50.49	32.13	29.01
Inland Eastern (Maharashtra)	34.53	24.98	15.91	14.82	8.03
Inland Northern (Maharashtra)	52.86	43.39	26.41	25.78	22.34
Inland Western (Maharashtra)	44.40	41.59	22.72	20.23	19.23
Coastal (Orissa)	29.81	23.39	12.53	9.13	5.31
Northern (Orissa)	29.65	27.39	19.41	6.26	8.56
Southern (Orissa)	42.23	46.41	26.91	17.20	11.54
SOUTH INDIA	**1983**	**1987**	**1993**	**1999**	**2004**
Coastal (Andhra Pradesh)	59.47	50.97	43.37	33.85	28.25
Inland Northern (Andhra Pradesh)	70.15	64.05	50.32	34.55	21.93
Inland Southern (Andhra Pradesh)	51.70	50.03	37.40	34.64	27.27
South-Western (Andhra Pradesh)	43.62	54.86	47.27	39.57	31.19
Goa (Goa)	-	-	5.23	2.32	12.28
Coastal and Ghats (Karnataka)	13.34	7.43	6.29	5.05	1.90
Inland Eastern (Karnataka)	18.37	17.13	11.65	12.03	5.00
Inland Northern (Karnataka)	51.96	41.79	28.58	30.33	23.70
Inland Southern (Karnataka)	35.86	30.89	22.85	22.59	15.34
Northern (Kerala)	23.12	24.30	9.75	21.93	14.98
Southern (Kerala)	6.29	7.22	4.65	3.46	7.35
Coastal (Tamil Nadu)	22.78	21.73	17.03	13.61	6.12
Coastal Northern (Tamil Nadu)	27.27	27.00	18.24	13.19	9.07
Inland (Tamil Nadu)	32.52	30.69	23.87	20.88	20.55
Southern (Tamil Nadu)	19.13	15.56	14.61	10.27	5.90
UNION TERRITORIES	**1983**	**1987**	**1993**	**1999**	**2004**
Chandigarh (Chandigarh)	21.24	9.60	10.11	2.26	3.95
Andaman and Nicobar Islands (Andaman ar	29.14	20.15	11.09	14.04	8.34
Pondicherry (Pondicherry)	24.24	19.59	12.59	19.06	11.22
Dadra and Nagar Haveli (Dadra and Nagar H	40.99	30.75	20.66	13.44	24.91
Daman and Diu (Daman and Diu)	-	-	8.43	0.73	0.00
Delhi (Delhi)	19.20	15.57	17.86	8.35	3.87
Lakshadweep (Lakshadweep)	23.95	27.53	22.28	15.99	16.66

Source: India National Survey. IPUMS-International