Educational Expansion and Early Marriage in India: Time and Regional Trends

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Abstract.-

In India there is evidence that 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 document social, regional, and time trends of Indian marriage prevalence at younger ages between 1983 and 2004. We illustrate 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. 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). We conduct a multilevel analysis to investigate demographic trends at two levels of disaggregation: regional and individual. 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. Nevertheless, between educational groups, a change in the behaviour among the lowest educated women has also been observed.

Keywords: Union formation, marriage, education, India.

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 percent 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 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). 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 India there is evidence that the prevalence of adolescent marriages has been declining modestly over the last decades (Jejeebhoy, 1998). 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). 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).

Although studies in India, at the individual level, have generally found schooling to delay marriage, the causality between marriage timing and education has been difficult to establish (Das & Dey 1998; Bloom & Reddy 1986). In addition, the internal diversity is noteworthy and cannot be ignored. 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. 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.

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, at the individual level, linking education and marriage prevalence 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.

Data and methodology.-

The data used in this paper comes from the IPUMS database (.ipums.org). IPUMS provides free access to census microdata from 44 countries around the world. In the case of India, however, the data comes from employment surveys for the following years: 1983, 1987, 1993, 1999 and 2004.

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). The 'Ever married' are those individuals whose marital status was: married, separated, divorced or widowed at the time of the survey. We focus on young individuals in two age groups 15-19 and 20-24 for three main 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. Table 1 shows the sample size for every year as well as the distribution of the main variables used[1]. As predictor variables we use, at individual level, sex, education, religion and urban-rural residence. In the case of education, Indian samples do not provide years of schooling within levels. Thus, the variable education adheres to the Indian system of years: primary equals completion of 5 years, lower secondary is 8 years, and secondary is 10 years.

We have compared the proportions of ever married from the Employment Surveys with the data, provided by the Demographic and Health Survey (DHS), in order to calibrate the quality of the information for the two years for which we have data of both sources: 1993 and 1999. From the DHS there is also available another sample for 2005-06 that confirms the tendencies observed in the previous years. The results show (Table 2) that the proportion of 'ever married' observed in the IPUMS samples is very similar to the DHS samples.

[1] This table is missing information for the year 2004; however we are already working on the data for this time period.

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. This will allow us to observe variability levels between regions and also to assess how much of the total variation in family formation can be attributed to differences between individuals and regions. We will use multilevel logit models for binary and multinomial responses.

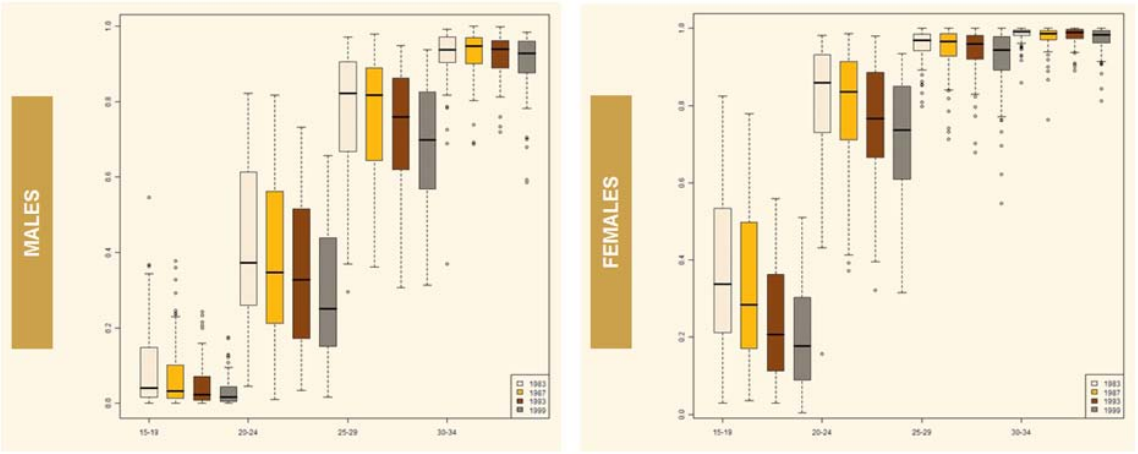
Preliminary research results.-

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. The preliminary results shown here are until the year 1999 since we are currently working with the year 2004. Among women, we observe a steady and spatially homogenous decline over time in the proportion of ever married at younger ages (15-19); while from the age of 25 and onwards, there are no significant differences over time, although we find a rise in the regional diversity (figures 1 and 2). Among men, the decline is less pronounced and it is concentrated at the age group of 20-24 (figure 1).

Most of the change is related to the postponement of marriage among the lower educated women (less than primary and primary completed), while proportions of ever-married remained constant over time for the highest educated women (figure 3). The multivariate analysis[2] is consistent with the descriptive results and reinforces the idea that the most important contribution to the marriage postponement has been made by the two lowest segments of the educational hierarchy. Therefore, educational expansion does not seem to be the main force behind marriage postponement, instead there has been a change in the behavior among the lowest educated women. Consistent with previous studies, there is no sign of a retreat from marriage over time. In fact, we observe increases over time in the likelihood of ever married among women with secondary and university studies at ages 25-29. These results open an avenue for future research on other factors that influence the postponement of marriage prevalence at younger ages in India.

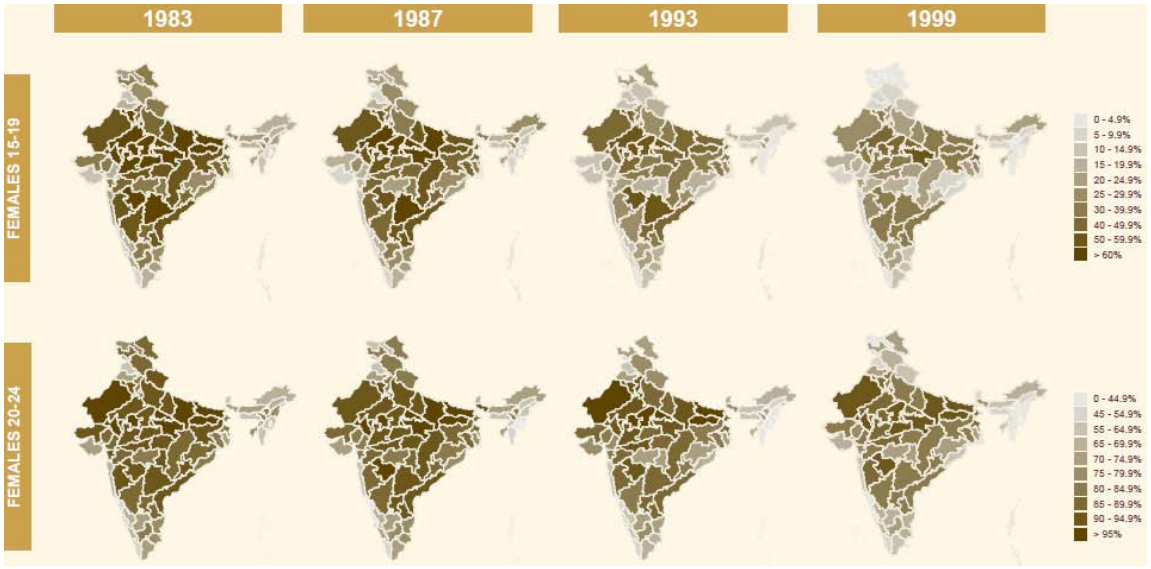
[2] Not shown in the present extended abstract.

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



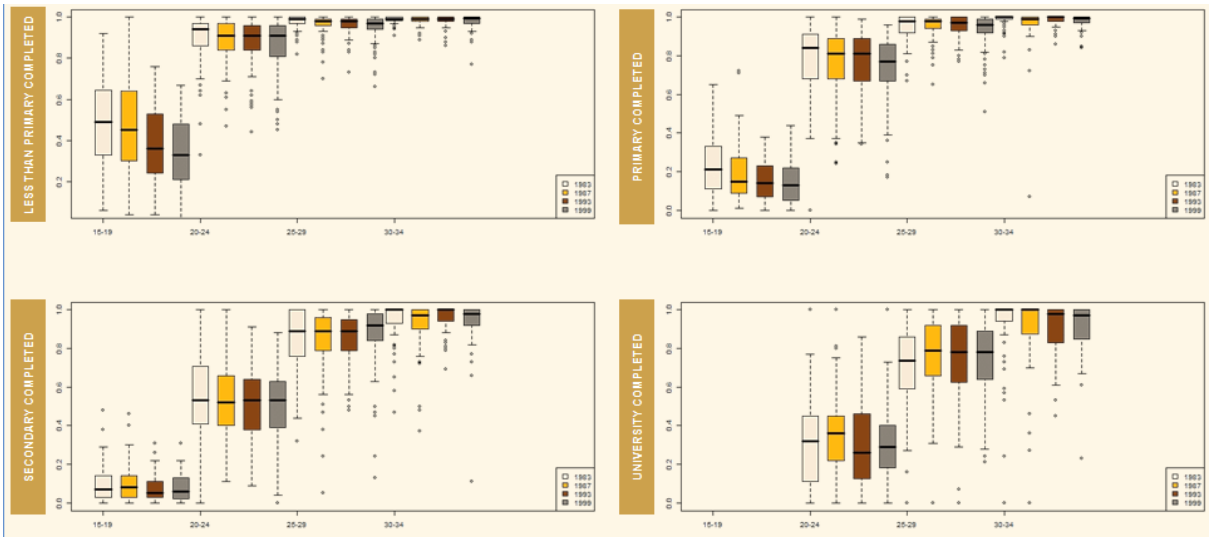
Source: India National Survey. IPUMS-International

Figure 2: Proportion of ever married women by age, year and region.



Source: India National Survey. IPUMS-International

Figure 3: Region variability in the proportion of ever married by age, year and educational attainment.



Source: India National Survey. IPUMS-International

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Table 1.- Sample size and distribution of the sample by main explanatory variables

		Sample							
		India 1983		India 1987		India 1993		India 1999	
Educational attainment									
Male	Less than primary completed	11377	(42.3)	11729	(40.0)	8468	(33.2)	7141	(27.2)
	Primary completed	9468	(35.2)	9785	(33.4)	8161	(32.0)	9142	(34.8)
	Secondary completed	4797	(17.8)	6185	(21.1)	7280	(28.6)	8021	(30.5)
	University completed	1253	(4.7)	1613	(5.5)	1582	(6.2)	1952	(7.4)
	Total	26895		29312		25491		26256	
Female	Less than primary completed	19349	(68.6)	21086	(66.8)	15574	(59.6)	13451	(50.3)
	Primary completed	5864	(20.8)	6444	(20.4)	5755	(22.0)	6739	(25.2)
	Secondary completed	2238	(7.9)	3045	(9.6)	3612	(13.8)	4834	(18.1)
	University completed	739	(2.6)	988	(3.1)	1204	(4.6)	1698	(6.4)
	Total	28190		31563		26145		26722	
Religion									
Male	Buddhist	127	(0.5)	144	(0.5)	172	(0.7)	159	(0.6)
	Hindu	22213	(82.5)	24346	(83.1)	21308	(83.6)	21626	(82.3)
	Muslim	2977	(11.1)	3258	(11.1)	2714	(10.6)	3143	(12.0)
	Christian	729	(2.7)	694	(2.4)	627	(2.5)	637	(2.4)
	Other	874	(3.2)	840	(2.9)	675	(2.6)	702	(2.7)
	Total	26920		29282		25496		26267	
Female	Buddhist	159	(0.6)	164	(0.5)	178	(0.7)	143	(0.5)
	Hindu	23516	(83.3)	26157	(82.9)	21922	(83.8)	22052	(82.5)
	Muslim	2921	(10.4)	3547	(11.2)	2765	(10.6)	3192	(11.9)
	Christian	819	(2.9)	782	(2.5)	612	(2.3)	674	(2.5)
	Other	800	(2.8)	889	(2.8)	676	(2.6)	663	(2.5)
	Total	28215		31539		26153		26724	
Urban-rural status									
Male	Rural	18972	(70.5)	21334	(72.8)	18184	(71.3)	18312	(69.7)
	Urban	7951	(29.5)	7980	(27.2)	7312	(28.7)	7955	(30.3)
	Total	26923		29314		25496		26267	
Female	Rural	21098	(74.8)	24063	(76.2)	19367	(74.1)	19632	(73.5)
	Urban	7122	(25.2)	7511	(23.8)	6786	(25.9)	7094	(26.5)
	Total	28220		31574		26153		26726	

Source: India National Survey. IPUMS-International

Table 2.- Proportion of ever married at age 20-24 by sample

		Samples						
		IPUMS83	IPUMS87	IPUMS93	DHS93	IPUMS99	DHS99	DHS06
Educational attainment								
Male	Less than primary completed	57.5	57.3	54.5	49.4	51.8	48.4	48.6
	Primary completed	44.0	41.0	38.3	36.0	36.7	36.7	32.1
	Secondary completed	27.9	26.4	25.3	27.8	21.7	30.8	20.0
	University completed	20.5	20.1	19.2	17.7	15.0	17.1	10.8
	Total	45.8	43.3	38.8	38.2	34.6	33.1	30.5
Female	Less than primary completed	93.3	93.3	92.4	92.4	92.1	91.6	91.7
	Primary completed	78.3	77.5	78.8	74.9	78.9	81.1	78.2
	Secondary completed	51.4	52.5	52.8	54.7	54.4	74.6	59.5
	University completed	32.2	35.5	31.5	34.7	32.9	44.5	30.7
	Total	85.2	84.3	81.1	82.8	78.2	79.2	76.0
Religion								
Male	Buddhist	40.9	41.7	23.3	n.a.	14.4	n.a.	n.a.
	Hindu	47.8	44.8	40.2	n.a.	36.4	n.a.	n.a.
	Muslim	41.4	41.2	35.9	n.a.	29.4	n.a.	n.a.
	Christian	19.2	19.2	15.9	n.a.	15.7	n.a.	n.a.
	Other	31.8	28.7	31.1	n.a.	25.8	n.a.	n.a.
	Total	45.8	43.3	38.8	n.a.	34.6	n.a.	n.a.
Female	Buddhist	91.2	85.4	80.3	n.a.	74.8	n.a.	n.a.
	Hindu	86.7	85.6	81.9	n.a.	79.6	n.a.	n.a.
	Muslim	86.6	86.0	84.0	n.a.	78.8	n.a.	n.a.
	Christian	55.7	53.1	51.3	n.a.	45.0	n.a.	n.a.
	Other	65.8	66.9	70.0	n.a.	61.5	n.a.	n.a.
	Total	85.2	84.3	81.1	n.a.	78.2	n.a.	n.a.
Urban-rural status								
Male	Rural	52.4	49.6	44.9	44.1	41.2	38.5	38.0
	Urban	30.0	26.5	23.6	25.0	19.5	21.0	18.5
	Total	45.8	43.3	38.8	38.4	34.6	33.1	30.5
Female	Rural	89.3	88.4	86.3	87.7	84.2	84.8	82.6
	Urban	73.1	71.1	66.3	69.8	61.6	64.9	62.3
	Total	85.2	84.3	81.1	82.8	78.2	79.2	76.0

Source: India National Survey. IPUMS-International