

Marriage prevalence and education in developing countries

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Abstract

The main objective of this paper is to examine the degree of convergence between countries regarding marriage prevalence and timing among young adults as a function of educational attainment. This research is based on three well-documented socio-demographic observations: Educational expansion in most low and middle income countries over the past 4 decades; early marriage timing in low and middle-income countries as compared to high-income countries; and the effects of increasing education on marriage timing and prevalence, most studies on this having developed in Europe and North America. We use IPUMS census microdata since 1980 from 16 countries to examine the effect of education on marriage prevalence and timing among younger cohorts. We use multilevel logistic regression models. Preliminary results show that net of all control factors, differences in marriage prevalence between countries persist but are significantly lower when considering only higher educated individuals.

Extended Abstract:

Background.

Prolonged education is considered by some researchers to be the most important factor behind fertility postponement because of its link to a wide range of other factors related to the timing of parenthood. For instance, people with higher education have a better position in the labor market, have distinct values and preferences, have greater material and career aspirations, and are more proficient at assimilating information, and are less sensitive to social pressure. These frequent characteristics enable them to exercise more effective control over fertility and other life-course decisions. Not surprisingly, and important to this paper, is that education level is also linked with distinct partnership pathways. In particular, less traditional living arrangements were often initially spread among people with higher education, while highly educated women are likely to seek more egalitarian relationships and increased standards also lead to delayed union formation. Similarly, the traditional pattern of hypergamy among women with low educational levels is also disappearing or has reduced substantially in both high-income countries, as well as in low- and mid-income countries. Like the postponement of union formation and fertility, this process is partly explained by educational expansion, which may lead to convergence between male and female educational levels, decreased time between leaving school and entering a union, and changes in the marriage expectations among both sexes.

Objectives and hypotheses

The main objective of this study is to examine the degree of convergence between countries regarding marriage prevalence as a function of educational attainment. In this sense, we are not interested in specific country comparisons, but rather in describing the general trend: We therefore hope to answer the question if we can treat education as a fixed effect regarding marriage prevalence, or if there are countries or regions where it operates differently. The main hypothesis is that “overall cross-national variability in marriage prevalence decreases with educational expansion”. If this is affirmed, this may not necessarily only be due to changes in the structure of the population according to educational level but also due to changes in the effect of education on marriage prevalence itself. We will therefore also test the hypothesis that the “specific effects of educational levels have changed in time”.

Methods

We use IPUMS harmonized census microdata individuals aged 15 to 34 from the following 16 countries: Bolivia (1992, 2001), Brazil (1980, 1991, 2000), China (1982,1990), Colombia (1985, 1993, 2005), Ecuador (1982, 1990, 2001), Ghana (1983, 1996), India (labor surveys from 1983, 1987, 1993, 1997), Kenya (1989, 1999), Malaysia (1980, 1991, 2000), Mexico (1990, 2000), Mongolia (1989, 2000), Philippines (1990, 2000), Rwanda (1991, 2002), South Africa (1996, 2001), Uganda (1991, 2002) and Vietnam (1989, 1999). Multilevel, multivariate logistic regression models are used to assess the effects of individual and contextual characteristics on the likelihood of being in union. Educational attainment is our main independent variable of interest, but other control variables will also be included for age, sex, year, and regional contextual measures of widowhood, consensual unions, female workforce participation, agricultural workforce weight, and urban/rural. These will account for both individual characteristics and regional variation and are thus distributed at three different levels, individual sub-national and national.

This disparate set of countries serves well to illustrate whether education indeed works similarly on marriage outcomes around the developing world. If so, educational expansion is expected to be associated with decreased marriage prevalence disparities between countries. We estimate the effects of educational attainment by sex and age and on the overall variability between countries. This model estimates the effects of both education considered fixed for all countries as well as the variability between countries around the fixed effects. Greater variability in this case means greater differences between countries. The variation in time of the variability between countries by level of education indicates the degree of convergence in the prevalence of marriage by educational level.

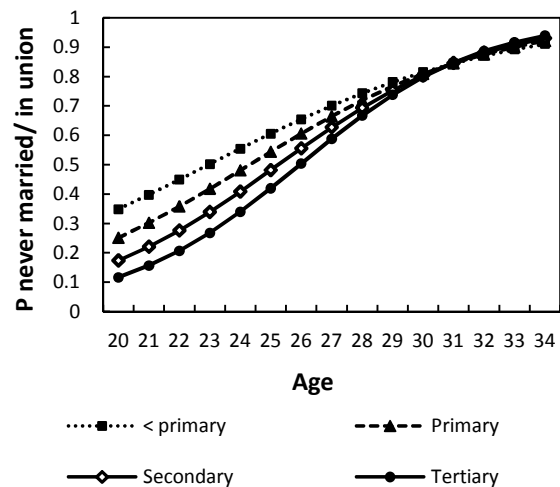
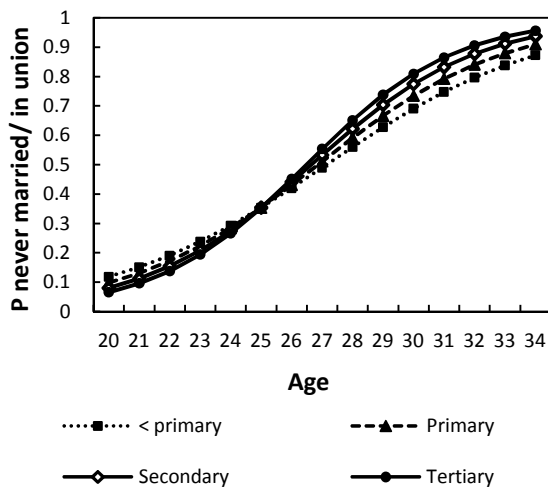
Finally a note on the dependent variable, ever married: This is in fact “ever married or in union (cohabitation)”. For those countries where formal marriage is not a universal way of entering into union, using “ever-married” status presents problems in census declarations. This is because the transition to marriage may be a gradual process that unfolds over the course of many years and may not coincide with well defined legal states easily captured by censuses. In our dataset, this problem is encountered especially with the South African and Latin American data, and it is a familiar problem in other African contexts.

Preliminary results

A recent pilot study (Riffe, 2009¹) on eight of the above-mentioned countries indicated decreasing differences in marriage prevalence outcomes between countries alongside increased educational attainment after controlling for agricultural activity, local sex-ratios, and regional variation. Results were broken down by age, sex and educational groups. Figures 1A and 1B display changes in the estimated probability of being ever married by age and education level for males and females while holding other controls constant at the pooled means. In both cases, we affirm the postponement effects of increased education and note an overall trend of higher marriage rates for university educated males at older ages (visible by interacting age and education level). University educated women on the whole displayed a more delayed and gradual ‘catch-up’ than men in these samples, though also overtaking other less-educated women by age 34.

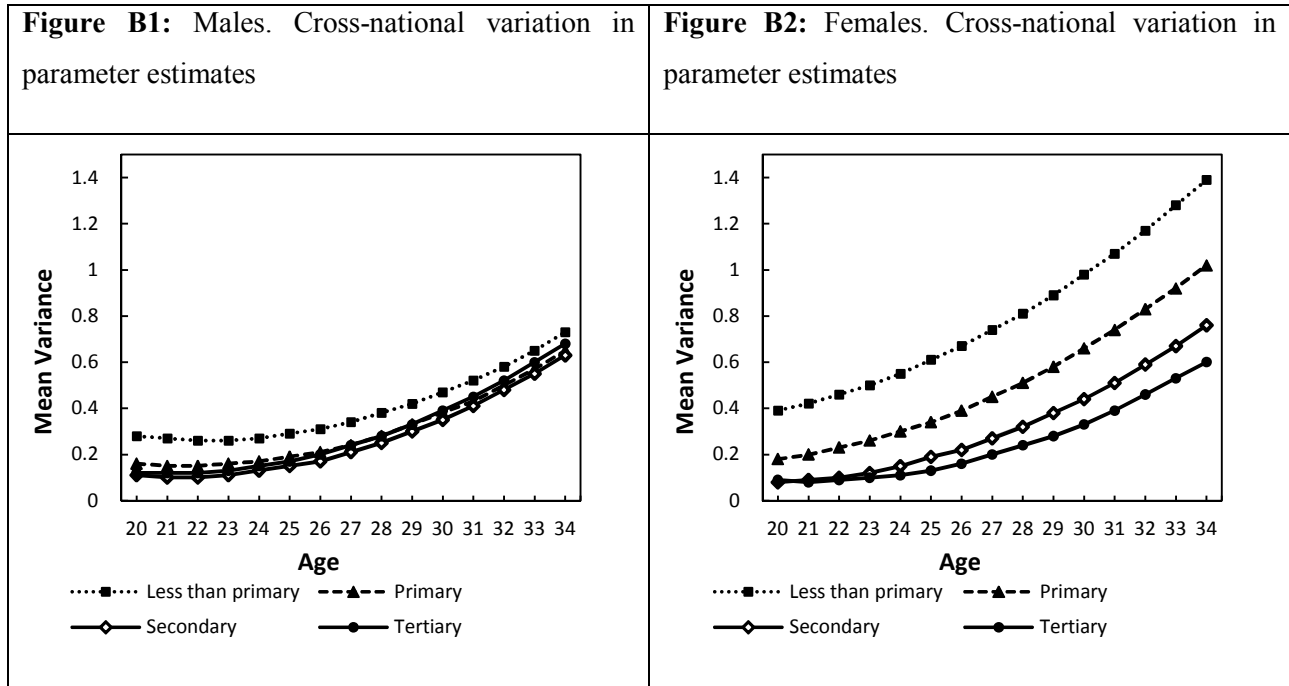
Figure 1A: Males. Probability of being in union by age and education level

Figure 1B: Females. Probability of being in union by age and education level



More importantly, we estimate the country-level variability of these estimates, as represented in the following figures B1 and B2, which display increasing cross-national variability with age, and an inverse relationship with educational attainment. On the whole, cross national differences are the greatest at higher ages, especially among low-educated females and lowest for high-educated females (here we should disregard university-educated individuals below age 23, since there are so few in the samples). The education gradient of cross-national variability is not nearly

as pronounced for males as it is for females. This provides a first approximation to answering our initial hypothesis: that cross national differences in marriage prevalence, at least for women, are on the average lower among those with higher education.



The present study will increase the number of countries from 8 to 16, as well as refine the controls included in the above pilot, ideally finding a uniform measure of urban/rural status. Furthermore, we will analyze changes in time.

ⁱ Riffe, T. (2009) master thesis available on request from the authors.