# Global Trends in Child Marriage

Minh Cong Nguyen and Quentin Wodon[1]

World Bank

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Abstract

Child marriage has been shown to have negative impacts on the education, health, and psychological well-being of the girls who marry early. These negative impacts explain why in many countries child marriage has been prohibited by law, but often with little practical effect. Building on results from the literature on poverty measurement, this paper provides new estimates of global trends in child marriage using a more precise and complete measurement approach than has been done to-date. The results suggest that while the incidence of child marriage as well as the child marriage gap and the squared child marriage gap have all been reduced over time, this has taken place relatively slowly.

Keywords: Child marriage, measurement, trends

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## 1. Introduction

Child marriage remains highly prevalent today and it has substantial negative development impacts (see for example Garenne 2004 on sub-Saharan Africa; Dubey and Dubey 1999, and Sagade 2005, on South Asia; and UNICEF 2001, Westoff 2003, Mensh et al. 2005, and Brown 2012 worldwide). The recent report by Brown (2012) suggests that one in every three women aged 20-24 still marries before the age of 18 – the more precise estimate for low and middle income countries provided in this paper is even higher, at 40 percent. The incidence of child marriage is especially high in South Asia and Africa. Although child marriage is linked to poverty and a lack of opportunities for girls, it is also linked to traditional cultural practices.

The negative impact of child marriage on health outcomes and psychological well-being is substantial. The practice has been linked to various psychological and health risks (UNICEF 2001, Nour 2004)), including vesico-vaginal fistulae (Akpan 2003) and a higher likelihood of acquiring HIV/AIDS, in part because early marriage often eliminates a girl's ability to abstain from sex and thus increases the frequency of intercourse while also decreasing condom use (Clark 2004). As assessed by Dixon-Mueller (2008) on the basis of various physiological and social criteria[2] and data from a large number of DHS surveys, boys and girls aged 14 and younger are quasi universally too young for sexual, marital, and reproductive transitions, while 15-17-year-olds may or may not be too young, depending on circumstances. This suggests that the traditional cut-off point of 18 years of age is appropriate for defining child marriage.

Child marriage also has negative impacts on schooling. In Bangladesh, Field and Ambrus (2009) found that for each additional year of delay in the age of marriage, a girl will benefit on average from 0.22 additional year of schooling and an increase in the probability of literacy of 5.6 percent. Using subjective responses in household surveys to questions about the reasons for not pursuing one's education, Nguyen and Wodon (2012a) find that child marriage is a significant factor, and more so than previously suggested by Lloyd and Mensch (2008). Through its negative impacts on human development, child marriage also contributes to the perpetuation of poverty (Otoo-Oyortey and Pobi 2003).

The negative impact of child marriage on a wide range of development outcomes explains why in many countries child marriage is now prohibited by law, but often with little effect. In India marriage before the age of 18 has been illegal for about three decades, but about half of all girls still marry before 18. In Nigeria as well, legal limitations on the age of marriage have not fundamentally altered the practice (Toyo 2006). The lack of impact of legislation is related in part to cultural and religious traditions (see for example Faizunnisa and Ul Haque 2003 for Pakistan). Beyond consent law reforms other interventions are often needed to curb the incidence of child marriage. Policies that help in reducing the likelihood of child marriage may include investments in education, with daughters of educated mother less likely to marry early (Bates et al. 2007), and possibly conditional cash transfers as well (Baird et al. 2010).

While child marriage has been recognized as a major policy issue, its measurement has remained relatively unsophisticated. To our knowledge, most existing studies simply report the incidence of child marriage which is the share of girls who marry early (typically before the age of 18) within a population, as well as the median age of marriage in a country. This is also the case for the recent Brown (2012) report. Measures that would better take into account how young girls marry are often not provided, and no tests are carried to assess the robustness of comparisons of age at marriage between countries, groups within countries, or time periods, for

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[2] The criteria considered by Dixon-Mueller are: *"(1) the physiological maturation of the body; (2) the cognitive capacity for making safe, informed, and voluntary decisions; and (3) institutionalized concepts of "old enough" for consent to sexual intercourse and marriage as reflected in legal frameworks and international standards"* (Dixon-Mueller, 2008: 247).

example with respect to the age threshold used to identify child marriage or the specific measure relied upon to measure child marriage.

Nguyen and Wodon (2012b) suggest that better measurement of child marriage can be obtained by adopting the techniques used for the measurement of poverty, and they illustrate these techniques with an application one African country. The objective of this paper is to use that approach to provide estimates of trends over time in the extent of child marriage – not only its incidence, but also what we refer to as the child marriage gap and the squared child marriage gap, for the developing world as a whole[3]. The data and methodology are discussed in section 2. The results are provided in Section 3. They suggest that the incidence of child marriage as well as the child marriage gap and the squared child marriage gap have been reduced over time, but only rather slowly. A conclusion follows.

## 2. Data and Methodology

The estimates of global trends in child marriage in this paper are based on data about age at first marriage in the Demographic and Health Survey (DHS) for 60 different countries. Most large developing countries are included in the sample with the exception of China. The surveys were implemented for the most part in 2007-2009 (see table 1 for a complete list of countries and survey years), although there are a few exceptions, including India for which the latest survey available is for 2005. The surveys ask about the age at first marriage for all women in the sample aged 15-49. Here we rely on the sample of women aged 18-49 in order to avoid the problem of incomplete information for girls below 18 years of age who could still get married before reaching 18, which we consider as our child marriage age threshold.

It is worth noting that for any given country, the same survey can be used to estimate both the current and past incidence of child marriage. However, the further one goes back in time, the more recall may be noisy in terms of remembering the exact age at which women got married. At the same time, getting married is such an important even in a woman's life that the risk of a substantial error in remembering the age at which one got married is probably not too large. Also, to the extent that the risk of maternal mortality is higher for girls who give birth (and probably got married) at an early age, we may underestimate the extent of child marriage, but this should not affect our trends in a significant way simply because maternal mortality rates are very low in comparison to child marriage rates.

We follow Nguyen and Wodon (2012b) in adapting the techniques proposed in the literature on poverty to the measurement of child marriage. Denote by $y_i$ the age at marriage of girl or woman $i$, and consider $z$ as the age threshold under which marriage is not permitted under normal circumstances. Denoting by $n$ the population (of girls typically and in this paper as well, given that child marriage among boys is much less frequent), and by $q$ the number of girls who marry before the age threshold $z$, the headcount index of child marriage, the child marriage gap, and the squared child marriage gap are defined using the formula proposed by Foster et al. (1984) for poverty measurement as follows:

$$P\alpha = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z-y_i}{z}\right]^{\alpha}$$

[3] The idea of applying poverty measurement techniques to other areas is not new. Morris et al. (2000) look at the 'nutrition poor' and define as stunted children who have a measure of height for age at least two standard deviations below international standards. The authors then simulate a nutrition intervention whose impact is estimated by computing the incidence of stunting (the headcount for the nutrition poor) as well as higher order measures of malnutrition before and after the intervention. Bardasi and Wodon (2010) use poverty measurement techniques to look at various measures of time poverty, and Makdissi and Wodon (2008) show that poverty measurement techniques can also be used for the analysis of climate change, for example in terms of CO2 emissions.

The headcount or incidence of child marriage is obtained when $\alpha$ takes a value of zero. The child marriage gap and the squared child marriage gap correspond to $\alpha$ equal to one and two, respectively. In many countries, $z$ has been set at 18 years of age, which also corresponds to the age at which the sexual, marital, and reproductive transitions are considered safer, as documented by Dixon-Mueller (2008). It is important however to check for the robustness of comparisons of measures of child marriage over time to the choice of the age threshold. For example, does the global trend in child marriage observed with a threshold of 18 years remain robust when a threshold of 17 or 16 years is used instead? As noted by Nguyen and Wodon (2012), this can be done by relying on the stochastic dominance techniques used for poverty measurement (see Atkinson, 1987, and Duclos and Araar 2006, on those techniques).

So-called first order statistical dominance involves comparing the cumulative distribution functions of the incidence of child marriage. Dominance is observed at the first order when the cumulative distribution function of child marriage for one year lies above that for another year at all age thresholds that could be used to identify child marriage. In that case, it can be said that for a broad range of measures of child marriage, these measures will be higher in the first year than the second. Said differently, if one finds first order dominance between two years (or groups) because the cumulative distributions do not intersect below reasonable age thresholds, then one can affirm that child marriage comparisons between the two years (or groups) will be robust to the choice of the age threshold. This will be the case not only for first order measures of child marriage such as its incidence, but also for second order measures such as the child marriage gap or third order measures such as the squared child marriage gap.

By contrast, if the cumulative distributions of child marriage intersect, one then needs to check for so-called second order dominance. This involves analyzing child marriage deficit curves or integrals of the areas below the cumulative distribution functions, in order to make sure that child marriage comparisons of the second order will be robust to the choice of the age threshold. If second order curves intersect, one can test for third order dominance, and so on. There is a large literature on the properties of these tests for robustness, but this need not be reviewed here. The techniques of stochastic dominance are illustrated in section 3, which also provides statistical measures of child marriage (incidence, child marriage gap, and squared gap).

## 3. Global Trends in Child Marriage

Measures of child marriage are provided at the country level in tables 1 through 4. All measures are obtained using the household weights in the DHS surveys. Table 1 provides data on the incidence of child marriage, the child marriage gap, and the squared child marriage gap as estimated in the overall samples of women aged 18 to 49 in each country. Tables 2 through 4 provide trends in the three measures according to the date of birth of women, which gives us trends over time in child marriage in each country.

Consider first table 1, which provides measures at the national level, as well as for urban and rural areas. At the national level, the incidence of child marriage for women aged 18 to 49 ranges from 8.4 percent in Vietnam to 82.3 percent in Bangladesh. The same two countries have the lowest and highest incidence of child marriage in urban and rural areas respectively. In terms of simple averages across countries without taking into account the size of the countries' population, the average incidence of child marriage across the 60 countries stands at 36.4 percent nationally, 41.6 percent in rural areas, and 28.6 percent in urban areas. The corresponding figures for the child marriage gap are 5.7 percent nationally, 6.6 percent in rural areas and 4.3 percent in urban areas. Vietnam and Bangladesh remain the two countries at the extremes

nationally, as well as in urban and rural areas for the child marriage gap. For example, the child marriage gap is at 0.8 percent nationally for Vietnam, versus 17.1 percent for Bangladesh.

The measures of child marriage in table 1 are obtained for the overall sample of women aged 18 to 49 in the various surveys. In tables 2 through 4, data are provided according to the date of birth of women, which is useful for assessing trends in child marriage. It is a useful feature of a one-time event such as the age at first marriage that the trend over time in the measures of child marriage can be estimated using a single cross-sectional survey.

Consider again the data on the incidence of child marriage for two countries mentioned earlier – Vietnam and Bangladesh. In Vietnam, the highest incidence of child marriage was observed among women born between 1970 and 1974, that is right towards the end of the Vietnam war. Child marriage increased from its level of 7.4 percent among women born in 1955-59 to reach a peak among women born between 1970 and 1974. This corresponds to the period of the Vietnam war which lasted from 1959 to 1975. Thereafter the incidence of child marriage was reduced by about half, since only 5.8 percent of women born between 1985 and 1999 married before reaching 18 years of age. A similar trend is observed in Vietnam for the child marriage gap in table 3. In Bangladesh, the incidence of child marriage decreased between 1955-1959 and 1980-1984, when it was at 77.3 percent. But it increased again to 81.8 percent among women born between 1985 and 1989. Yet simply looking at the incidence of child marriage can be deceptive for assessing the depth of the problem – what matters even more is how early girls marry. In table 3, the child marriage gap actually in Bangladesh decreased slightly for women born between 1985 and 1989, as compared to the level observed between 1980 and 1984. And table 4 shows a reduction in the squared child marriage gap for Bangladesh between the last two periods. While these reductions in the child marriage gap and the squared gap are small, they do suggest that child marriage did not become much worse among women born between 1985 and 1989 as compared to before, as looking at incidence only might suggest.

Overall, not taking into account the population of the various countries, the simple average of the incidence of child marriage across all the countries decreased from 41.2 percent for women born between 1955 and 1959 to 32.7 percent for women born between 1985 and 1989 (note that there are slight differences in the sample of countries available for both years due to the implementation dates for the DHS surveys). While this is not a negligible decline, child marriage thus remains highly prevalent. For the child marriage gap, the corresponding decline across all countries in the sample without country population weights was from 7.0 percent for women born between 1955 and 1959 to 4.7 percent for women born between 1985 and 1989. The proportional decline in the squared child marriage gap is similar in magnitude.

Table 5 indicates the number of countries by region or income group on which aggregate statistics are based. Table 6 provides aggregate trends for the various groups of countries and for the developing world as a whole taking into account the population of the various countries. Estimates for regions (as defined by the World Bank) and by income levels (again using the World Bank's definition of income cut-off points, with the groupings based on levels of GDP per capita today). The region with the highest overall incidence of child marriage today, as estimated through the incidence of child marriage among women born between 1985 and 1989, is South Asia where 45.4 percent of women born between those years were married below the age of 18. Sub-Saharan Africa is next, with 38.5 percent of women born in those years marrying below the age of 18. The Middle East and North Africa region comes next, followed by Latin America and the Caribbean, East Asia and the Pacific, and finally Europe and Central Asia.

In terms of trends over time, when comparing the incidence of child marriage between women born between 1985 and 1989 and women born between 1955 and 1959, the incidence of child marriage was reduced by 14.8 points in South Asia, 14.0 points in sub-Saharan Africa, and

8.7 points in the Middle East and North Africa. The declines were lower in the other regions, and the increase for Europe and Central Asia is due to estimates for Turkey which do not seem reliable for the last survey year possibly due to small sample size. When looking at income groups, the reduction in the incidence of child marriage was 14.1 points for low income countries and 11.9 points for lower middle income countries (again, Turkey causes estimates for upper middle income countries to go up in the last period). As expected, the absolute reductions in the incidence of child marriage have in general been largest in countries where the incidence was initially highest. For all low income and middle income countries as a whole for which we have DHS surveys, the incidence of child marriage was reduced by 10.8 percentage points from 51.2 percent among women born between 1955 and 1959 to 40.3 percent for women born between 1985 and 1989. Similar findings are obtained for the child marriage gap and the squared gap in terms of the comparison of regions and groups of countries with the largest decline over time. While progress has been made, the gains towards eliminating child marriage have been slow.

Finally, in order to illustrate the techniques of stochastic dominance mentioned in the previous section, Figures 1 and 2 display tests of first order of stochastic dominance, which rely on cumulative distribution functions. Figure 1 compares the cumulative distributions of age at marriage for Africa according to the decade in which women were born. The same is done in Figure 2 for India – the country with the largest population in our sample. Note that in both figures, for the most recent decade, the cumulative density function stops at around age 25-27 (this is country-specific and depends on the year in which the DHS survey was implemented). For example, for a survey implemented in 2008, there are no subsequent observations in the data set in the sample after age 27 given the start of the decade in 1981.

For Africa as a whole, there is a constant and regular progression from one decade to the next, with no intersections between the various first order stochastic dominance curves. This suggests an unambiguous decline in child marriage over time that would be robust to a change in the threshold used to identify child marriage. The first order dominance between decades also implies that the decline is robust to the choice of measure within broad classes of measures that could be used to monitor trends in child marriage. In the case of India by contrast, the curves for the 1950s, 1960s, and 1970s are close to each other and indeed intersect, suggesting limited progress over that period of time in the reduction of child marriage and no dominance over those decades. Yet the curve for the 1980s is lower and does not intersect with the curves for the previous decades, suggesting robust recent gains towards the reduction of child marriage[4].

## 4. Conclusion

Relying on techniques used for poverty measurement and comparable household survey for 60 countries, this paper has provided new estimates of global trends in child marriage. When comparing the samples of women born between 1985 and 1989 and those born between 1955 and 1959, the incidence of child marriage has been reduced substantially in lower and lower middle income countries. The declines were largest in South Asia (14.8 points) and sub-Saharan Africa (14.0 points). The declines in the child marriage gap and squared gap were broadly similar in proportional terms. Using stochastic dominance techniques, those declines, for example for Africa as a whole, were also found to be robust to assumptions used in the measurement of child marriage. Yet, while progress towards the elimination of child marriage has been made, the gains have been relatively slow. About 40 percent of all girls in low and middle income countries still marry early today, especially in South Asia and Africa.

[4] As mentioned in section 2, when first order dominance curves intersect, one may rely on higher order tests of stochastic dominance to obtain higher order robust child marriage comparisons, but this is not needed here.

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## Table 1: Incidence of Child Marriage, Child Marriage Gap, and Squared Gap (%)

| | Year | Incidence of child marriage | | | Child marriage gap | | | Squared gap | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Rural | Urban | All | Rural | Urban | All | Rural | Urban | All |
| Albania | 2008 | 11.2 | 7.1 | 9.3 | 1.0 | 0.7 | 0.9 | 0.1 | 0.1 | 0.1 |
| Armenia | 2005 | 19.7 | 11.6 | 14.5 | 1.8 | 1.0 | 1.3 | 0.2 | 0.1 | 0.1 |
| Azerbaijan | 2006 | 13.0 | 9.7 | 11.2 | 1.2 | 0.9 | 1.0 | 0.2 | 0.1 | 0.1 |
| Bangladesh | 2007 | 85.3 | 72.2 | 82.3 | 17.9 | 14.2 | 17.1 | 4.4 | 3.4 | 4.2 |
| Benin | 2006 | 47.6 | 28.0 | 39.6 | 7.2 | 4.0 | 5.9 | 1.5 | 0.8 | 1.2 |
| Bolivia | 2008 | 28.8 | 20.1 | 23.0 | 3.7 | 2.6 | 3.0 | 0.6 | 0.5 | 0.5 |
| Burkina Faso | 2003 | 62.7 | 31.2 | 56.1 | 7.1 | 3.7 | 6.4 | 1.1 | 0.6 | 1.0 |
| Cambodia | 2005 | 24.9 | 19.5 | 23.9 | 2.8 | 2.4 | 2.8 | 0.4 | 0.4 | 0.4 |
| Cameroon | 2004 | 63.3 | 41.1 | 51.3 | 11.5 | 6.8 | 8.9 | 2.6 | 1.5 | 2.0 |
| Central African Republic | 1995 | 55.8 | 57.9 | 56.7 | 9.6 | 10.2 | 9.8 | 2.1 | 2.2 | 2.2 |
| Chad | 2004 | 73.0 | 67.2 | 71.8 | 14.1 | 12.7 | 13.8 | 3.3 | 3.0 | 3.3 |
| Colombia | 2010 | 34.1 | 21.1 | 23.8 | 5.0 | 2.9 | 3.3 | 1.0 | 0.5 | 0.6 |
| Congo, Rep. | 2005 | 37.0 | 24.3 | 29.8 | 5.7 | 3.4 | 4.4 | 1.2 | 0.6 | 0.9 |
| Congo, Dem. Rep. | 2007 | 45.5 | 35.5 | 41.1 | 6.9 | 5.1 | 6.1 | 1.4 | 1.0 | 1.2 |
| Côte d'Ivoire | 2005 | 25.5 | 17.6 | 21.8 | 4.1 | 2.8 | 3.5 | 0.9 | 0.6 | 0.7 |
| Dominican Republic | 2007 | 49.2 | 38.2 | 41.3 | 8.3 | 6.1 | 6.7 | 1.8 | 1.3 | 1.4 |
| Egypt, Arab Rep. | 2008 | 38.7 | 20.4 | 31.1 | 5.6 | 2.7 | 4.4 | 1.1 | 0.5 | 0.9 |
| Ethiopia | 2005 | 63.3 | 38.3 | 59.0 | 13.6 | 8.2 | 12.6 | 3.7 | 2.2 | 3.4 |
| Gabon | 2000 | 48.2 | 32.6 | 35.7 | 8.8 | 5.4 | 6.1 | 2.2 | 1.2 | 1.4 |
| Ghana | 2008 | 38.7 | 20.5 | 29.9 | 5.4 | 2.9 | 4.2 | 1.0 | 0.5 | 0.8 |
| Guinea | 2005 | 76.2 | 53.3 | 69.4 | 13.1 | 8.6 | 11.7 | 2.7 | 1.7 | 2.4 |
| Guyana | 2005 | 19.7 | 13.5 | 17.8 | 2.5 | 1.7 | 2.3 | 0.4 | 0.3 | 0.4 |
| Haiti | 2005 | 32.2 | 25.4 | 29.0 | 4.6 | 3.4 | 4.1 | 0.9 | 0.6 | 0.7 |
| Honduras | 2005 | 46.8 | 33.3 | 39.6 | 6.9 | 4.8 | 5.8 | 1.3 | 0.9 | 1.1 |
| India | 2005 | 59.5 | 37.5 | 52.2 | 10.3 | 5.9 | 8.8 | 2.3 | 1.3 | 2.0 |
| Indonesia | 2007 | 44.1 | 26.2 | 36.6 | 7.0 | 3.7 | 5.6 | 1.5 | 0.7 | 1.2 |
| Jordan | 2007 | 23.9 | 22.4 | 22.6 | 3.0 | 2.7 | 2.7 | 0.5 | 0.4 | 0.4 |
| Kenya | 2008 | 32.8 | 18.9 | 29.1 | 4.9 | 2.7 | 4.3 | 1.0 | 0.5 | 0.9 |
| Lesotho | 2009 | 29.3 | 18.2 | 25.4 | 3.3 | 2.0 | 2.9 | 0.5 | 0.3 | 0.4 |
| Liberia | 2007 | 49.9 | 32.9 | 43.0 | 8.2 | 5.0 | 6.9 | 1.7 | 1.0 | 1.4 |
| Madagascar | 2008 | 45.9 | 29.3 | 43.0 | 7.0 | 3.7 | 6.5 | 1.4 | 0.6 | 1.3 |
| Malawi | 2004 | 52.3 | 38.7 | 49.9 | 7.8 | 5.6 | 7.4 | 1.6 | 1.1 | 1.5 |
| Maldives | 2009 | 37.3 | 27.6 | 34.1 | 5.3 | 3.9 | 4.8 | 1.0 | 0.7 | 0.9 |
| Mali | 2006 | 71.0 | 59.0 | 67.1 | 12.6 | 9.7 | 11.6 | 2.8 | 2.0 | 2.5 |
| Moldova | 2005 | 16.5 | 11.8 | 14.4 | 1.6 | 1.1 | 1.4 | 0.2 | 0.1 | 0.2 |
| Morocco | 2003 | 30.4 | 19.8 | 24.0 | 4.7 | 2.9 | 3.6 | 1.0 | 0.6 | 0.7 |
| Mozambique | 2004 | 60.4 | 45.6 | 55.2 | 11.1 | 7.5 | 9.8 | 2.7 | 1.7 | 2.3 |
| Namibia | 2006 | 11.4 | 7.0 | 9.2 | 1.7 | 1.0 | 1.3 | 0.4 | 0.2 | 0.3 |
| Nepal | 2006 | 60.4 | 47.1 | 58.3 | 8.8 | 7.4 | 8.6 | 1.6 | 1.5 | 1.6 |
| Nicaragua | 2001 | 56.6 | 40.7 | 46.5 | 9.3 | 6.3 | 7.4 | 1.9 | 1.3 | 1.5 |
| Niger | 2006 | 83.5 | 54.4 | 77.9 | 16.6 | 10.1 | 15.4 | 3.9 | 2.3 | 3.6 |
| Nigeria | 2008 | 54.8 | 28.0 | 45.2 | 10.8 | 5.1 | 8.7 | 2.6 | 1.2 | 2.1 |
| Pakistan | 2006 | 48.7 | 39.2 | 45.5 | 7.8 | 6.1 | 7.2 | 1.6 | 1.3 | 1.5 |
| Peru | 2004 | 32.4 | 16.0 | 20.6 | 4.3 | 1.9 | 2.6 | 0.7 | 0.3 | 0.4 |
| Philippines | 2008 | 20.9 | 11.5 | 15.6 | 2.5 | 1.4 | 1.9 | 0.4 | 0.2 | 0.3 |
| Rwanda | 2005 | 16.8 | 13.5 | 16.2 | 1.9 | 1.5 | 1.8 | 0.3 | 0.2 | 0.3 |
| São Tomé and Principe | 2008 | 41.1 | 32.1 | 36.2 | 5.1 | 3.7 | 4.4 | 0.8 | 0.6 | 0.7 |
| Senegal | 2005 | 58.5 | 29.9 | 44.5 | 9.8 | 4.6 | 7.2 | 2.0 | 0.9 | 1.5 |
| Sierra Leone | 2008 | 62.7 | 40.2 | 54.8 | 11.9 | 7.1 | 10.2 | 2.8 | 1.6 | 2.4 |
| South Africa | 1998 | 16.9 | 9.0 | 12.0 | 2.4 | 1.2 | 1.7 | 0.5 | 0.2 | 0.3 |
| Swaziland | 2006 | 16.2 | 7.9 | 13.9 | 2.1 | 1.1 | 1.8 | 0.4 | 0.2 | 0.3 |
| Tanzania | 2010 | 42.2 | 27.7 | 38.1 | 5.6 | 3.6 | 5.1 | 1.0 | 0.6 | 0.9 |
| Timor-Leste | 2009 | 23.1 | 18.6 | 21.9 | 3.1 | 2.6 | 3.0 | 0.6 | 0.5 | 0.6 |
| Togo | 1998 | 42.7 | 26.7 | 36.8 | 6.5 | 4.1 | 5.6 | 1.4 | 0.9 | 1.2 |
| Turkey | 2003 | 38.5 | 31.5 | 33.5 | 5.0 | 4.1 | 4.4 | 0.9 | 0.7 | 0.8 |
| Uganda | 2006 | 53.5 | 34.9 | 50.4 | 8.1 | 5.5 | 7.7 | 1.6 | 1.1 | 1.5 |
| Ukraine | 2007 | 16.6 | 11.0 | 12.5 | 1.5 | 0.9 | 1.1 | 0.2 | 0.1 | 0.1 |
| Vietnam | 2005 | 9.6 | 4.1 | 8.4 | 0.9 | 0.4 | 0.8 | 0.1 | 0.1 | 0.1 |
| Zambia | 2007 | 52.2 | 33.7 | 44.6 | 7.5 | 4.7 | 6.4 | 1.5 | 0.9 | 1.3 |
| Zimbabwe | 2005 | 40.1 | 21.8 | 32.8 | 5.6 | 2.6 | 4.4 | 1.1 | 0.4 | 0.8 |

Source: Authors' estimation based on DHS surveys.

## Table 2: Incidence of Child Marriage by Date of Birth (%)

| | Year | Date of Birth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1950-4 | 1955-9 | 1960-4 | 1965-9 | 1970-4 | 1975-9 | 1980-4 | 1985-9 |
| Albania | 2008 | | 10.08 | 7.22 | 7.64 | 7.61 | 14.01 | 13.40 | 8.42 |
| Armenia | 2005 | | 10.65 | 11.55 | 16.52 | 22.87 | 22.30 | 10.89 | 6.72 |
| Azerbaijan | 2006 | | 10.84 | 7.14 | 8.52 | 9.67 | 18.25 | 13.41 | 11.08 |
| Bangladesh | 2007 | | 94.72 | 85.83 | 85.37 | 82.56 | 79.40 | 77.28 | 81.82 |
| Benin | 2006 | | 39.53 | 39.91 | 43.95 | 42.11 | 42.68 | 36.29 | 34.85 |
| Bolivia | 2008 | | 24.90 | 25.37 | 25.28 | 25.38 | 22.28 | 23.38 | 18.45 |
| Burkina Faso | 2003 | 53.23 | 58.00 | 59.12 | 61.89 | 58.05 | 56.81 | 50.03 | 45.67 |
| Cambodia | 2005 | | 20.25 | 25.60 | 24.27 | 25.43 | 29.56 | 23.97 | 17.25 |
| Cameroon | 2004 | 51.80 | 59.82 | 56.35 | 56.78 | 52.01 | 48.21 | 47.56 | 47.47 |
| Central African Republic | 1995 | 65.01 | 52.84 | 56.80 | 55.66 | 56.98 | 56.57 | | |
| Chad | 2004 | 46.34 | 69.55 | 71.09 | 76.31 | 72.54 | 72.83 | 71.45 | 66.47 |
| Colombia | 2010 | | | 21.87 | 22.57 | 24.90 | 25.99 | 25.34 | 23.76 |
| Congo, Rep. | 2005 | | 40.71 | 35.93 | 30.23 | 29.41 | 26.07 | 30.29 | 25.45 |
| Congo, Dem. Rep. | 2007 | | 50.34 | 45.62 | 46.90 | 43.95 | 40.80 | 38.94 | 35.42 |
| Côte d'Ivoire | 2005 | | 21.63 | 27.28 | 24.49 | 20.46 | 21.83 | 20.43 | 19.96 |
| Dominican Republic | 2007 | | 40.44 | 42.69 | 39.04 | 42.32 | 45.16 | 43.43 | 35.70 |
| Egypt, Arab Rep. | 2008 | | 40.88 | 35.82 | 33.60 | 28.36 | 25.42 | 26.00 | 37.79 |
| Ethiopia | 2005 | 72.87 | 67.71 | 66.28 | 63.86 | 56.27 | 43.76 | | |
| Gabon | 2000 | 50.15 | 41.78 | 39.90 | 35.79 | 32.92 | 33.81 | 30.71 | |
| Ghana | 2008 | | 34.22 | 39.28 | 38.54 | 33.86 | 32.02 | 26.42 | 23.75 |
| Guinea | 2005 | | 75.10 | 69.41 | 77.44 | 73.53 | 69.82 | 63.31 | 58.10 |
| Guyana | 2005 | | 16.97 | 15.42 | 18.29 | 18.72 | 20.30 | 18.98 | 14.33 |
| Haiti | 2005 | | 21.94 | 24.93 | 29.51 | 33.30 | 27.43 | 30.19 | 30.93 |
| Honduras | 2005 | | 41.39 | 40.42 | 41.00 | 41.10 | 39.77 | 40.19 | 34.27 |
| India | 2005 | | 57.67 | 58.62 | 59.60 | 57.91 | 53.82 | 47.19 | 37.54 |
| Indonesia | 2007 | | 49.29 | 45.53 | 40.19 | 31.06 | 29.02 | 28.62 | 48.71 |
| Jordan | 2007 | | 34.56 | 25.60 | 20.75 | 18.93 | 19.79 | 18.89 | 41.71 |
| Kenya | 2008 | | 48.16 | 38.39 | 30.68 | 31.40 | 31.20 | 29.61 | 22.84 |
| Lesotho | 2009 | | 60.52 | 37.10 | 32.64 | 31.49 | 24.34 | 22.07 | 18.97 |
| Liberia | 2007 | | 51.28 | 44.88 | 49.44 | 47.48 | 45.75 | 37.76 | 33.94 |
| Madagascar | 2008 | | 43.16 | 40.24 | 36.99 | 36.34 | 41.29 | 46.82 | 47.78 |
| Malawi | 2004 | 53.66 | 49.28 | 54.61 | 54.65 | 52.44 | 47.94 | 48.96 | 44.29 |
| Maldives | 2009 | | 59.64 | 65.24 | 56.49 | 44.44 | 32.71 | 16.93 | 5.76 |
| Mali | 2006 | | 67.72 | 62.94 | 65.00 | 64.19 | 66.75 | 68.73 | 71.05 |
| Moldova | 2005 | | 7.60 | 8.97 | 13.30 | 17.60 | 21.60 | 18.63 | 13.43 |
| Morocco | 2003 | 46.64 | 39.47 | 32.71 | 24.77 | 22.29 | 18.63 | 14.35 | 13.14 |
| Mozambique | 2004 | 42.50 | 52.76 | 54.38 | 56.27 | 55.24 | 55.66 | 56.43 | 55.97 |
| Namibia | 2006 | | 10.76 | 12.53 | 10.66 | 9.02 | 8.01 | 9.31 | 7.33 |
| Nepal | 2006 | | 71.03 | 66.22 | 63.92 | 62.47 | 58.83 | 54.67 | 41.17 |
| Nicaragua | 2001 | 47.59 | 46.73 | 49.86 | 49.40 | 47.93 | 45.47 | 41.54 | |
| Niger | 2006 | | 83.21 | 79.25 | 82.44 | 76.27 | 79.65 | 76.18 | 74.46 |
| Nigeria | 2008 | | 59.85 | 53.19 | 51.63 | 48.03 | 45.71 | 42.04 | 39.13 |
| Pakistan | 2006 | | 45.04 | 43.65 | 45.11 | 44.49 | 42.48 | 40.95 | 67.26 |
| Peru | 2004 | 27.58 | 23.44 | 23.25 | 21.46 | 20.29 | 22.34 | 18.92 | 16.31 |
| Philippines | 2008 | | 20.98 | 16.23 | 17.65 | 17.84 | 13.91 | 15.29 | 13.84 |
| Rwanda | 2005 | | 23.65 | 21.68 | 18.34 | 15.70 | 18.87 | 14.45 | 5.33 |
| São Tomé and Principe | 2008 | | 51.33 | 40.92 | 38.44 | 34.97 | 35.03 | 38.53 | 32.92 |
| Senegal | 2005 | | 57.39 | 54.32 | 49.40 | 46.06 | 41.42 | 38.36 | 38.44 |
| Sierra Leone | 2008 | | 61.83 | 55.13 | 59.26 | 59.22 | 56.73 | 56.51 | 45.29 |
| South Africa | 1998 | 13.58 | 16.36 | 15.18 | 13.66 | 10.30 | 6.50 | 4.62 | |
| Swaziland | 2006 | | 22.45 | 21.04 | 21.05 | 19.39 | 11.77 | 8.26 | 8.47 |
| Tanzania | 2010 | | | 45.20 | 40.65 | 42.20 | 38.09 | 37.77 | 36.83 |
| Timor-Leste | 2009 | | 28.14 | 20.18 | 26.66 | 23.59 | 25.93 | 24.38 | 18.70 |
| Togo | 1998 | 42.42 | 37.89 | 38.11 | 41.20 | 37.72 | 29.40 | 24.10 | |
| Turkey | 2003 | 36.34 | 35.84 | 37.02 | 28.80 | 30.66 | 28.33 | 41.07 | 74.49 |
| Uganda | 2006 | | 59.40 | 54.12 | 53.44 | 57.81 | 55.05 | 47.64 | 36.26 |
| Ukraine | 2007 | | 8.07 | 8.77 | 13.10 | 17.29 | 16.47 | 12.95 | 8.19 |
| Vietnam | 2005 | | 7.41 | 9.58 | 8.04 | 10.68 | 9.57 | 6.55 | 5.80 |
| Zambia | 2007 | | 57.29 | 59.47 | 47.66 | 48.32 | 43.81 | 43.73 | 33.76 |
| Zimbabwe | 2005 | | 38.09 | 43.42 | 35.00 | 31.43 | 30.18 | 33.51 | 26.94 |

Source: Authors' estimation based on DHS surveys.

## Table 3: Child Marriage Gap by Date of Birth (%)

| | Year | Date of Birth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1950-4 | 1955-9 | 1960-4 | 1965-9 | 1970-4 | 1975-9 | 1980-4 | 1985-9 |
| Albania | 2008 | | 0.98 | 0.60 | 0.69 | 0.67 | 1.33 | 1.38 | 0.78 |
| Armenia | 2005 | | 0.93 | 0.88 | 1.41 | 1.87 | 2.26 | 0.90 | 0.55 |
| Azerbaijan | 2006 | | 0.96 | 0.58 | 0.72 | 0.74 | 1.88 | 1.32 | 1.08 |
| Bangladesh | 2007 | | 23.35 | 19.26 | 18.73 | 17.69 | 16.46 | 15.06 | 14.70 |
| Benin | 2006 | | 5.74 | 5.95 | 6.68 | 6.19 | 6.69 | 5.20 | 5.19 |
| Bolivia | 2008 | | 3.60 | 3.35 | 3.47 | 3.21 | 2.78 | 2.94 | 2.36 |
| Burkina Faso | 2003 | 6.49 | 6.46 | 6.23 | 7.45 | 6.83 | 6.37 | 5.55 | 5.43 |
| Cambodia | 2005 | | 2.61 | 2.65 | 2.90 | 2.87 | 3.62 | 2.73 | 1.92 |
| Cameroon | 2004 | 11.10 | 10.28 | 10.10 | 10.29 | 9.45 | 8.70 | 7.81 | 7.55 |
| Central African Republic | 1995 | 12.02 | 9.18 | 10.00 | 9.69 | 9.33 | 9.62 | | |
| Chad | 2004 | 9.71 | 13.53 | 13.96 | 14.62 | 14.28 | 14.02 | 13.92 | 11.14 |
| Colombia | 2010 | | | 2.90 | 3.10 | 3.52 | 3.80 | 3.55 | 3.37 |
| Congo, Rep. | 2005 | | 7.12 | 5.33 | 4.64 | 4.46 | 3.93 | 4.02 | 3.41 |
| Congo, Dem. Rep. | 2007 | | 9.62 | 6.62 | 6.97 | 6.99 | 6.51 | 5.39 | 4.88 |
| Côte d'Ivoire | 2005 | | 3.96 | 4.44 | 3.77 | 3.30 | 3.64 | 3.11 | 3.29 |
| Dominican Republic | 2007 | | 6.94 | 7.03 | 6.18 | 6.77 | 7.51 | 7.05 | 5.88 |
| Egypt, Arab Rep. | 2008 | | 7.16 | 5.66 | 5.26 | 4.27 | 3.64 | 3.20 | 4.18 |
| Ethiopia | 2005 | 16.48 | 15.13 | 13.95 | 13.68 | 12.06 | 9.01 | | |
| Gabon | 2000 | 8.94 | 7.95 | 7.20 | 6.21 | 5.37 | 5.92 | 4.53 | |
| Ghana | 2008 | | 4.55 | 5.36 | 5.48 | 4.79 | 4.88 | 3.47 | 3.13 |
| Guinea | 2005 | | 13.15 | 11.48 | 13.02 | 12.90 | 11.79 | 10.53 | 9.49 |
| Guyana | 2005 | | 1.83 | 1.93 | 2.25 | 2.28 | 2.82 | 2.63 | 1.78 |
| Haiti | 2005 | | 3.18 | 3.33 | 4.29 | 4.84 | 3.92 | 3.98 | 4.32 |
| Honduras | 2005 | | 5.79 | 5.86 | 6.13 | 6.03 | 5.87 | 5.78 | 5.13 |
| India | 2005 | | 9.80 | 10.28 | 10.58 | 10.07 | 9.21 | 7.52 | 5.72 |
| Indonesia | 2007 | | 8.30 | 7.69 | 6.62 | 4.83 | 4.26 | 3.83 | 5.98 |
| Jordan | 2007 | | 4.68 | 3.41 | 2.45 | 2.39 | 2.19 | 2.03 | 4.60 |
| Kenya | 2008 | | 7.90 | 5.74 | 4.58 | 5.04 | 4.56 | 4.39 | 3.07 |
| Lesotho | 2009 | | 12.02 | 4.51 | 3.85 | 3.69 | 2.55 | 2.40 | 2.16 |
| Liberia | 2007 | | 8.16 | 7.36 | 8.48 | 7.82 | 7.50 | 5.82 | 5.08 |
| Madagascar | 2008 | | 6.06 | 5.97 | 5.56 | 5.27 | 6.14 | 6.96 | 7.47 |
| Malawi | 2004 | 8.21 | 8.11 | 8.34 | 9.04 | 8.21 | 7.20 | 6.78 | 5.45 |
| Maldives | 2009 | | 9.28 | 10.49 | 8.71 | 5.92 | 4.60 | 1.85 | 0.62 |
| Mali | 2006 | | 10.95 | 10.54 | 11.20 | 11.49 | 11.91 | 11.77 | 12.28 |
| Moldova | 2005 | | 0.70 | 0.78 | 1.30 | 1.64 | 2.03 | 1.82 | 1.24 |
| Morocco | 2003 | 8.41 | 6.52 | 5.19 | 3.71 | 3.31 | 2.64 | 1.87 | 1.39 |
| Mozambique | 2004 | 7.82 | 9.81 | 10.33 | 10.27 | 10.81 | 9.62 | 9.12 | 9.23 |
| Namibia | 2006 | | 2.04 | 1.73 | 1.60 | 1.24 | 1.26 | 1.26 | 1.07 |
| Nepal | 2006 | | 11.87 | 10.69 | 9.37 | 9.21 | 8.38 | 7.74 | 5.31 |
| Nicaragua | 2001 | 7.35 | 7.60 | 7.76 | 7.74 | 7.73 | 7.13 | 6.60 | |
| Niger | 2006 | | 16.87 | 15.51 | 17.11 | 15.42 | 15.76 | 14.85 | 13.94 |
| Nigeria | 2008 | | 12.47 | 10.77 | 10.55 | 9.42 | 8.98 | 7.89 | 7.18 |
| Pakistan | 2006 | | 7.08 | 7.11 | 7.64 | 7.12 | 7.01 | 6.26 | 9.43 |
| Peru | 2004 | 3.52 | 3.10 | 2.96 | 2.76 | 2.57 | 2.71 | 2.34 | 2.09 |
| Philippines | 2008 | | 2.78 | 1.91 | 2.30 | 2.15 | 1.66 | 1.84 | 1.62 |
| Rwanda | 2005 | | 2.67 | 2.44 | 2.33 | 1.99 | 1.92 | 1.59 | 0.61 |
| São Tomé and Principe | 2008 | | 7.10 | 5.60 | 4.56 | 3.99 | 4.56 | 4.36 | 3.72 |
| Senegal | 2005 | | 9.67 | 8.94 | 8.20 | 7.78 | 6.83 | 5.92 | 5.84 |
| Sierra Leone | 2008 | | 10.60 | 10.33 | 10.91 | 11.19 | 11.15 | 10.60 | 8.15 |
| South Africa | 1998 | 1.79 | 2.57 | 2.03 | 2.23 | 1.26 | 0.73 | 0.52 | |
| Swaziland | 2006 | | 3.24 | 3.20 | 2.91 | 2.47 | 1.59 | 0.96 | 0.97 |
| Tanzania | 2010 | | | 6.93 | 5.44 | 5.83 | 4.91 | 4.82 | 4.87 |
| Timor-Leste | 2009 | | 4.69 | 2.97 | 4.04 | 3.28 | 3.68 | 2.97 | 2.30 |
| Togo | 1998 | 6.11 | 5.86 | 5.67 | 6.47 | 6.05 | 4.22 | 3.62 | |
| Turkey | 2003 | 5.51 | 5.23 | 4.90 | 3.81 | 3.91 | 3.55 | 4.72 | 8.61 |
| Uganda | 2006 | | 9.75 | 8.82 | 8.28 | 8.96 | 8.63 | 7.04 | 4.87 |
| Ukraine | 2007 | | 0.80 | 0.64 | 1.05 | 1.55 | 1.60 | 1.08 | 0.74 |
| Vietnam | 2005 | | 0.70 | 0.93 | 0.78 | 1.05 | 0.92 | 0.64 | 0.62 |
| Zambia | 2007 | | 11.03 | 9.19 | 7.32 | 6.60 | 5.97 | 5.83 | 4.68 |
| Zimbabwe | 2005 | | 6.17 | 5.93 | 4.93 | 4.75 | 4.22 | 3.87 | 3.24 |

Source: Authors' estimation based on DHS surveys.

## Table 4: Squared Child Marriage Gap by Date of Birth (%)

| | Year | Age of Birth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1950-4 | 1955-9 | 1960-4 | 1965-9 | 1970-4 | 1975-9 | 1980-4 | 1985-9 |
| Albania | 2008 | | 0.12 | 0.06 | 0.08 | 0.08 | 0.16 | 0.18 | 0.10 |
| Armenia | 2005 | | 0.11 | 0.09 | 0.16 | 0.18 | 0.29 | 0.09 | 0.06 |
| Azerbaijan | 2006 | | 0.11 | 0.07 | 0.09 | 0.07 | 0.27 | 0.17 | 0.14 |
| Bangladesh | 2007 | | 6.40 | 5.02 | 4.75 | 4.43 | 3.98 | 3.51 | 3.21 |
| Benin | 2006 | | 1.13 | 1.22 | 1.38 | 1.23 | 1.40 | 1.00 | 1.02 |
| Bolivia | 2008 | | 0.70 | 0.59 | 0.64 | 0.54 | 0.48 | 0.48 | 0.39 |
| Burkina Faso | 2003 | 1.07 | 1.05 | 0.93 | 1.29 | 1.17 | 1.00 | 0.83 | 0.84 |
| Cambodia | 2005 | | 0.45 | 0.35 | 0.46 | 0.44 | 0.58 | 0.42 | 0.28 |
| Cameroon | 2004 | 3.07 | 2.24 | 2.33 | 2.43 | 2.22 | 2.02 | 1.65 | 1.59 |
| Central African Republic | 1995 | 2.81 | 2.04 | 2.23 | 2.14 | 1.97 | 2.09 | | |
| Chad | 2004 | 2.06 | 3.16 | 3.36 | 3.43 | 3.43 | 3.32 | 3.34 | 2.35 |
| Colombia | 2010 | | | 0.52 | 0.56 | 0.67 | 0.74 | 0.67 | 0.64 |
| Congo, Rep. | 2005 | | 1.68 | 1.08 | 0.95 | 0.95 | 0.81 | 0.72 | 0.61 |
| Congo, Dem. Rep. | 2007 | | 2.38 | 1.26 | 1.46 | 1.51 | 1.40 | 1.01 | 0.91 |
| Côte d'Ivoire | 2005 | | 0.89 | 0.89 | 0.80 | 0.71 | 0.81 | 0.62 | 0.73 |
| Dominican Republic | 2007 | | 1.58 | 1.52 | 1.32 | 1.43 | 1.61 | 1.46 | 1.24 |
| Egypt, Arab Rep. | 2008 | | 1.65 | 1.17 | 1.09 | 0.86 | 0.73 | 0.55 | 0.65 |
| Ethiopia | 2005 | 4.58 | 4.17 | 3.71 | 3.68 | 3.32 | 2.40 | | |
| Gabon | 2000 | 2.14 | 2.09 | 1.78 | 1.43 | 1.18 | 1.43 | 0.85 | |
| Ghana | 2008 | | 0.79 | 0.99 | 1.03 | 0.90 | 1.04 | 0.61 | 0.57 |
| Guinea | 2005 | | 2.78 | 2.34 | 2.64 | 2.74 | 2.40 | 2.17 | 1.95 |
| Guyana | 2005 | | 0.26 | 0.32 | 0.37 | 0.39 | 0.52 | 0.49 | 0.29 |
| Haiti | 2005 | | 0.57 | 0.58 | 0.82 | 0.93 | 0.73 | 0.70 | 0.77 |
| Honduras | 2005 | | 1.07 | 1.12 | 1.19 | 1.15 | 1.10 | 1.06 | 0.98 |
| India | 2005 | | 2.23 | 2.36 | 2.47 | 2.30 | 2.07 | 1.59 | 1.14 |
| Indonesia | 2007 | | 1.87 | 1.74 | 1.46 | 1.01 | 0.86 | 0.71 | 1.03 |
| Jordan | 2007 | | 0.85 | 0.59 | 0.38 | 0.40 | 0.33 | 0.29 | 0.66 |
| Kenya | 2008 | | 1.62 | 1.19 | 0.93 | 1.17 | 0.93 | 0.91 | 0.57 |
| Lesotho | 2009 | | 2.78 | 0.72 | 0.62 | 0.60 | 0.35 | 0.34 | 0.33 |
| Liberia | 2007 | | 1.66 | 1.57 | 1.82 | 1.66 | 1.57 | 1.16 | 0.97 |
| Madagascar | 2008 | | 1.17 | 1.15 | 1.08 | 1.03 | 1.24 | 1.40 | 1.53 |
| Malawi | 2004 | 1.29 | 1.75 | 1.71 | 2.02 | 1.79 | 1.48 | 1.25 | 0.92 |
| Maldives | 2009 | | 1.67 | 2.11 | 1.69 | 1.04 | 0.87 | 0.27 | 0.11 |
| Mali | 2006 | | 2.18 | 2.19 | 2.40 | 2.56 | 2.62 | 2.57 | 2.63 |
| Moldova | 2005 | | 0.09 | 0.09 | 0.19 | 0.24 | 0.26 | 0.22 | 0.16 |
| Morocco | 2003 | 1.97 | 1.45 | 1.11 | 0.76 | 0.66 | 0.51 | 0.33 | 0.19 |
| Mozambique | 2004 | 1.81 | 2.32 | 2.56 | 2.46 | 2.86 | 2.20 | 1.97 | 1.95 |
| Namibia | 2006 | | 0.54 | 0.33 | 0.37 | 0.24 | 0.31 | 0.24 | 0.22 |
| Nepal | 2006 | | 2.39 | 2.15 | 1.69 | 1.69 | 1.50 | 1.38 | 0.85 |
| Nicaragua | 2001 | 1.46 | 1.56 | 1.56 | 1.59 | 1.62 | 1.47 | 1.33 | |
| Niger | 2006 | | 4.11 | 3.63 | 4.16 | 3.71 | 3.73 | 3.51 | 3.13 |
| Nigeria | 2008 | | 3.18 | 2.65 | 2.63 | 2.31 | 2.17 | 1.91 | 1.66 |
| Pakistan | 2006 | | 1.39 | 1.51 | 1.69 | 1.48 | 1.52 | 1.28 | 1.77 |
| Peru | 2004 | 0.53 | 0.53 | 0.48 | 0.46 | 0.42 | 0.43 | 0.37 | 0.35 |
| Philippines | 2008 | | 0.45 | 0.31 | 0.39 | 0.35 | 0.27 | 0.29 | 0.25 |
| Rwanda | 2005 | | 0.44 | 0.38 | 0.41 | 0.37 | 0.27 | 0.24 | 0.10 |
| São Tomé and Principe | 2008 | | 1.22 | 0.98 | 0.72 | 0.57 | 0.84 | 0.66 | 0.55 |
| Senegal | 2005 | | 2.06 | 1.84 | 1.69 | 1.62 | 1.44 | 1.19 | 1.14 |
| Sierra Leone | 2008 | | 2.22 | 2.47 | 2.49 | 2.67 | 2.70 | 2.56 | 1.85 |
| South Africa | 1998 | 0.34 | 0.59 | 0.39 | 0.52 | 0.23 | 0.11 | 0.07 | |
| Swaziland | 2006 | | 0.62 | 0.65 | 0.58 | 0.44 | 0.31 | 0.14 | 0.15 |
| Tanzania | 2010 | | | 1.48 | 1.03 | 1.04 | 0.86 | 0.82 | 0.83 |
| Timor-Leste | 2009 | | 0.78 | 0.59 | 0.81 | 0.61 | 0.73 | 0.51 | 0.39 |
| Togo | 1998 | 1.21 | 1.26 | 1.27 | 1.42 | 1.40 | 0.91 | 0.71 | |
| Turkey | 2003 | 1.09 | 0.99 | 0.87 | 0.68 | 0.66 | 0.59 | 0.72 | 1.33 |
| Uganda | 2006 | | 2.06 | 1.81 | 1.67 | 1.78 | 1.72 | 1.35 | 0.91 |
| Ukraine | 2007 | | 0.14 | 0.07 | 0.11 | 0.20 | 0.23 | 0.11 | 0.09 |
| Vietnam | 2005 | | 0.09 | 0.12 | 0.11 | 0.14 | 0.12 | 0.08 | 0.09 |
| Zambia | 2007 | | 2.75 | 1.99 | 1.55 | 1.22 | 1.12 | 1.06 | 0.91 |
| Zimbabwe | 2005 | | 1.42 | 1.12 | 0.97 | 1.00 | 0.86 | 0.61 | 0.53 |

Source: Authors' estimation based on DHS surveys.

**Table 5: Number of Countries by Country Group across Periods**

| | 1955-9 | 1960-4 | 1965-9 | 1970-4 | 1975-9 | 1980-4 | 1985-9 |
|---|---|---|---|---|---|---|---|
| **Regions** | | | | | | | |
| East Asia & Pacific | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Europe & Central Asia | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Latin America & Caribbean | 7 | 8 | 8 | 8 | 8 | 8 | 7 |
| Middle East & North Africa | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| South Asia | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Sub-Saharan Africa | 32 | 33 | 33 | 33 | 33 | 31 | 28 |
| **Income level** | | | | | | | |
| Low income | 23 | 24 | 24 | 24 | 24 | 22 | 21 |
| Lower middle income | 25 | 25 | 25 | 25 | 25 | 25 | 24 |
| Upper middle income | 10 | 11 | 11 | 11 | 11 | 11 | 9 |
| **World** | 58 | 60 | 60 | 60 | 60 | 58 | 54 |

Source: Authors' estimation based on DHS surveys.

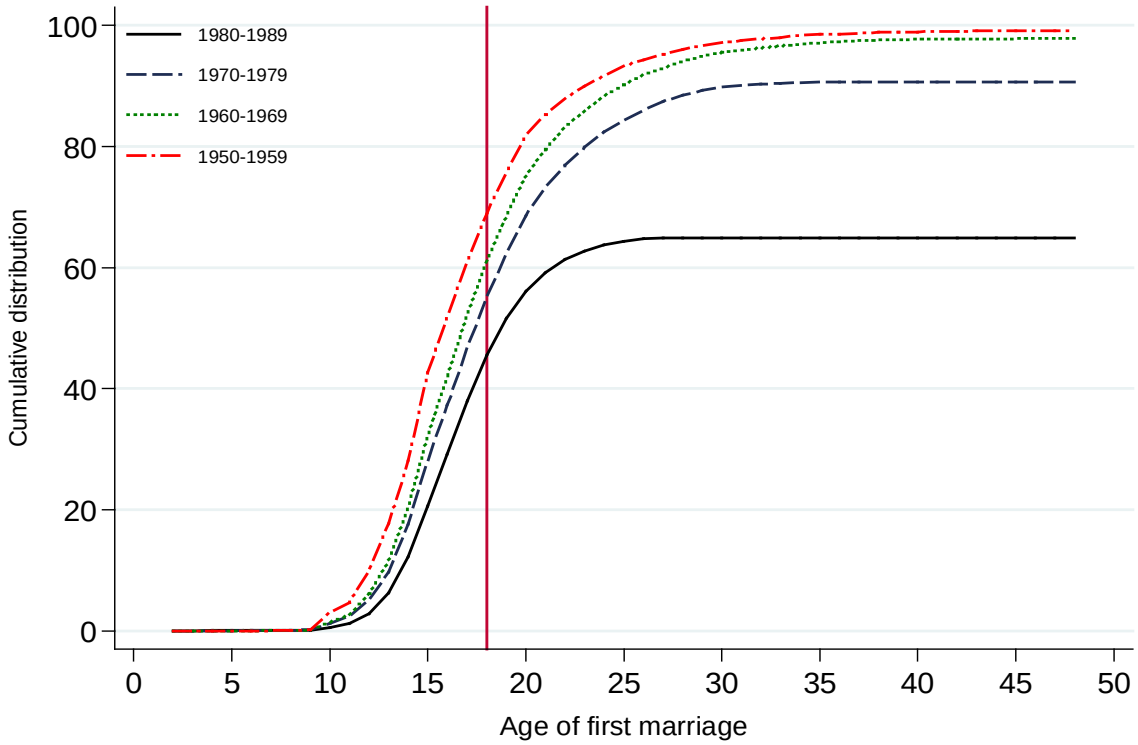
**Table 6: Population Weighted Measures of Child Marriage by Groups of Countries (%)**

| | 1955-9 | 1960-4 | 1965-9 | 1970-4 | 1975-9 | 1980-4 | 1985-9 |
|---|---|---|---|---|---|---|---|
| | Incidence of Child Marriage | | | | | | |
| **Regions** | | | | | | | |
| East Asia & Pacific | 34.00 | 31.47 | 28.49 | 24.02 | 21.96 | 21.26 | 31.71 |
| Europe & Central Asia | 22.39 | 22.98 | 20.70 | 23.46 | 22.80 | 27.32 | 42.02* |
| Latin America & Caribbean | 29.29 | 26.79 | 26.75 | 27.94 | 28.18 | 27.12 | 23.69 |
| Middle East & North Africa | 40.20 | 34.50 | 30.65 | 26.30 | 23.36 | 22.60 | 31.53 |
| South Asia | 60.24 | 59.82 | 60.64 | 58.96 | 55.21 | 49.66 | 45.43 |
| Sub-Saharan Africa | 52.50 | 49.15 | 47.60 | 44.87 | 41.84 | 39.27 | 38.52 |
| **Income level** | | | | | | | |
| Low income | 65.45 | 60.05 | 59.09 | 56.94 | 53.76 | 53.20 | 51.32 |
| Lower middle income | 49.32 | 48.47 | 48.17 | 45.80 | 42.58 | 38.38 | 37.43 |
| Upper middle income | 27.11 | 25.76 | 22.53 | 22.90 | 22.49 | 25.19 | 42.56 |
| **World** | 51.20 | 49.20 | 48.55 | 46.43 | 43.42 | 40.13 | 40.34 |
| | Child Marriage Gap | | | | | | |
| **Regions** | | | | | | | |
| East Asia & Pacific | 5.43 | 4.94 | 4.41 | 3.43 | 3.05 | 2.70 | 3.85 |
| Europe & Central Asia | 3.04 | 2.79 | 2.41 | 2.69 | 2.65 | 2.96 | 4.73* |
| Latin America & Caribbean | 4.31 | 3.72 | 3.80 | 3.97 | 4.04 | 3.81 | 3.38 |
| Middle East & North Africa | 6.89 | 5.45 | 4.74 | 3.94 | 3.27 | 2.80 | 3.49 |
| South Asia | 10.91 | 10.85 | 11.05 | 10.51 | 9.67 | 8.13 | 7.02 |
| Sub-Saharan Africa | 9.88 | 8.63 | 8.45 | 7.91 | 7.21 | 6.26 | 6.09 |
| **Income level** | | | | | | | |
| Low income | 13.47 | 11.26 | 10.99 | 10.56 | 9.62 | 8.90 | 8.26 |
| Lower middle income | 8.43 | 8.37 | 8.39 | 7.76 | 7.12 | 5.95 | 5.43 |
| Upper middle income | 3.97 | 3.46 | 3.11 | 3.03 | 2.98 | 3.13 | 5.21 |
| **World** | 9.16 | 8.61 | 8.54 | 7.99 | 7.33 | 6.29 | 5.95 |
| | Squared Child Marriage Gap | | | | | | |
| **Regions** | | | | | | | |
| East Asia & Pacific | 1.20 | 1.04 | 0.95 | 0.67 | 0.60 | 0.49 | 0.65 |
| Europe & Central Asia | 0.56 | 0.50 | 0.41 | 0.44 | 0.41 | 0.42 | 0.71* |
| Latin America & Caribbean | 0.84 | 0.68 | 0.73 | 0.75 | 0.75 | 0.73 | 0.60 |
| Middle East & North Africa | 1.61 | 1.14 | 0.99 | 0.82 | 0.63 | 0.51 | 0.50 |
| South Asia | 2.54 | 2.55 | 2.63 | 2.41 | 2.21 | 1.75 | 1.39 |
| Sub-Saharan Africa | 2.39 | 1.99 | 1.96 | 1.83 | 1.63 | 1.33 | 1.27 |
| **Income level** | | | | | | | |
| Low income | 3.40 | 2.68 | 2.61 | 2.49 | 2.19 | 1.90 | 1.69 |
| Lower middle income | 1.90 | 1.91 | 1.95 | 1.73 | 1.59 | 1.25 | 1.04 |
| Upper middle income | 0.79 | 0.64 | 0.60 | 0.55 | 0.52 | 0.54 | 0.82 |
| **World** | 2.13 | 1.98 | 1.99 | 1.80 | 1.64 | 1.32 | 1.15 |

Source: Authors' estimation based on DHS surveys - population weighted.

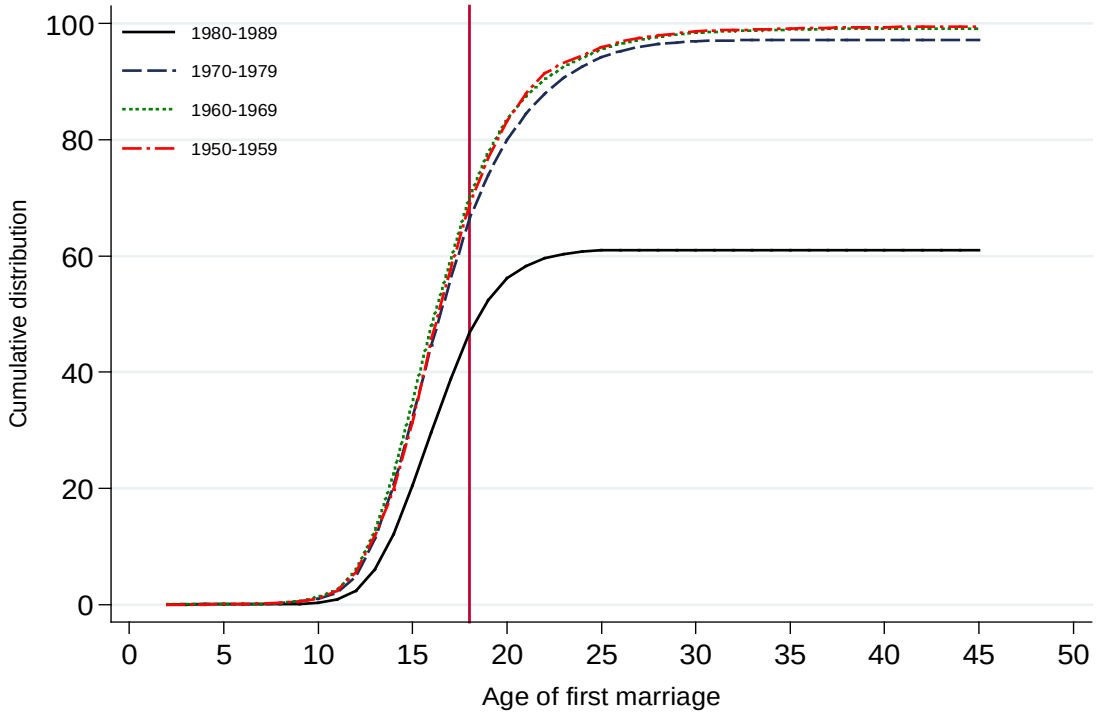
Note: (*) The increase in child marriage observed for Europe & Central Asia is due to a sharp increase in estimates for Turkey which may not be reliable due to limited sample size.

**Figure 1: Cumulative Distribution of Age of First Marriage by Decade of Birth, Africa**




Source: Authors' estimation from DHS Surveys, Sample of women aged 18-49.

**Figure 2: Cumulative Distribution of Age of First Marriage by Date of Birth, India**




Source: Authors' estimation from the India DHS 2005, Sample of women aged 18-49.