Changing Norms about Gender Inequality in Education: Evidence from Bangladesh

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ABSTRACT

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This paper examines norms about gender equality of the education of children and adults in Bangladesh using a recent household survey for two cohorts of married women. Education norms are found to differ substantially across cohorts, with women from the younger cohort being far more positive about female vs. male education of both children and adults. The effect of education in determining norms spans own and spousal education, as well as that of older educated females in the household, thus indicating sharing of education norms both within marriage and across generations. Detailed decompositions reveal that more than anything else it is the improvement in education across cohorts that has been driving the narrowing of the generational education norms gap in Bangladesh in recent years.

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"Earlier fathers used to say 'what is the use of educating girls….they will go to another house'. But now, fathers send both daughters and sons to school and college." School going adolescent girl, Mymensingh

" Mothers of the earlier generation used to advise their daughters to learn house-work and get education up to primary; now mothers are telling their daughters to get at least secondary school certificate". School going adolescent boy, Satkhira

Source: World Bank (2008)

Social norms and attitudes are often an indicator of social trends and the demand for various goods and services. They are also often pointers to the trajectory of social change. It is therefore not surprising that norms and attitudes have been studied by scholars for now several decades. The literature on norms and their transformation is rich in the US in particular. During the 1970s Mason et al (1976) looked at changing attitudes to women's work and their domestic roles at a time when the women's movement in the US was gaining strength and women were also entering the labor market in large numbers. This was followed by other scholars trying to assess the importance of education in changing "sex role attitudes." Still others asked how norms and values change, whether behaviors precede norms-change or vice versa.

We aim to add to this body of work by looking at change in attitudes to some aspects of gender equality in Bangladesh during a period of rapid social transformation. This work is of particular significance because, while data sets in developed countries have allowed for analysis of norms and attitudes to emerge, those from developing countries have been few or restricted to small samples and to attitudes to reproductive decision-making, sex preferences for children and to violence against women. Also, for the most part the work on developing countries has focused on using attitudes as explanatory variables for a number of outcomes, rather than outcome variables in their own right.

Drawing on the literature on change in "sex-role attitudes" from the US that documents changes in attitudes to gender equality (Mason, et al, 1976; Mason and Lu 1988; Brewster and Padavic, 2000) and a body of literature that assesses the importance

of education in changing attitudes to gender inequality (Kane and Kyyro, 2001), we ask how norms to gender equality in education have changed in Bangladesh and also what are the individual level determinants of these attitudes. While we cannot delineate clear causal pathways of change, we try to separate out the correlates of attitudes to gender equality in education. Additionally, we decompose the intergenerational gaps in the norms in gender equality in education into changes in the observable characteristics and to changes in the responses to those characteristics – and, in so doing, carefully incorporate recent methodological advances that address potential issues pertaining to previous such decompositions.

We believe the area of norms to gender inequality in education to be an important area to explore since the major part of South Asia suffers from entrenched son preference and low parental investments in girls' education. Parents do not see the value of educating girls for a number of demand and supply side reasons. This translates into poor educational outcomes for girls in absolute terms but also in relation to boys. We believe that this paper will enrich the empirical understanding on norm transformation and on some critical areas of gender inequality.

The work on education and gender norms has been addressed primarily to see if education is a liberalizing influence or a constraint on attitudes to gender equality. The results of this research are equivocal to say the least (Kane, 1995). We situate the analysis on changing attitudes on girls' education within the overall context of educational expansion in Bangladesh and the definitions of sex roles and expectations in the culture. By providing quantitative evidence on the determinants of gender education norms in Bangladesh our work therefore also complement the related earlier work by Schuler and colleagues using in-depth interviews and group discussions (see, e.g., Schuler et al 2006 (and the references therein)).

In the context of the coexistence of conservative gender norms and the far-reaching changes in the Bangladesh social landscape, including expansion in education we ask the question – what has this meant for social norms and attitudes with regard to the education of girls and women? In particular – what has this meant for attitudes towards equal education between girls and boys and husbands and wives? There are several reasons why this is important. "For although attitudes may fail to influence

individual behavior in many instances, marked attitude shifts in the population at large are likely to produce socio-political climates conducive to structural change" (Mason, et al: 1976:573). Montgomery (1999) also discusses the value of addressing changes in perceptions in response to actual patterns and the manner in which these perceptions can fuel further change. Thus, as populations perceive declining mortality, their effects are felt not only in their ability and willingness to regulate fertility behavior but also in the fact that social and political agency furthers the cause of better health care and increased demand for better quality care. In this case, we could argue that perceptions of greater equality among men and women in education could in turn lead to increased demand for education of better quality and increased ability of women to access the labor market, as well as to greater equality in marital relationships. Such changes would all have a positive bearing on women's status in Bangladesh.

The remainder of this paper is structured as follows. We first provide the contextual background for studying gender education norms for the specific case of Bangladesh. Next, we present the data and methods underlying the empirical analysis of this paper. We then present the results, whereafter we provide a section discussing the most noteworthy results from the empirical analysis in more detail. A final section concludes.

BACKGROUND

Bangladesh provides an interesting context for an analysis of the changes in gender education gap norms. The growth of education, especially secondary education for girls, has been perhaps Bangladesh's most dramatic achievement in the last two decades. Compared to other low-income countries, Bangladesh stands out as a shining success story in female secondary education, along with countries such as Nicaragua, Vietnam, and some countries of the erstwhile Soviet Union. Bangladesh's success is especially commendable because the growth in female education took place within a democratic regime and started from a really low base. What is more startling in Bangladesh is that this spectacular increase in girls' education has led to the reversal of a number of well-established patterns. First, girls gross enrollment at all levels except the highest has outstripped that of boys leading us to talk about a "boys left behind" phenomenon (Figure

1 and Table 1; Chowdury, Nath, and Choudhury, 2002; Filmer, King, and Pritchett, 1998; Shafiq, 2007; World Bank, 2008).[1] Second, there has been a dramatic increase in women who are marrying men less educated than themselves (Table 3, in the next section). This is a product of the marriage market where spousal age-gap has not changed much and younger cohorts of girls are more educated than the cohorts of men they marry in a strange "education squeeze." It should be mentioned that that the pro-male bias in tertiary education remains very large (Table 1).

[Figure 1 about here]

[Table 1 about here]

The growth in education and the attendant social change has probably been the most important but there are others as well. Starting from a very low base of 9 percent, female labor force participation picked up to over 22 percent during the years 1993-2003. While, as indicated, the female labor participation has increased, the female-male gap in labor force participation (LFP) has also increased in relative terms over the past few decades: in 1990 FFP was 61.7 percent for females and 88.4 for males but in 2011 had decreased to 57.2 percent for females and 84.3 percent for males (WDI, 2013). Evocative images of hundreds of young girls walking every morning to the garment factories have been etched in the popular imagination as a metaphor for progress. Infant mortality has dropped faster than in any other country in South Asia and gender differences in infant mortality have disappeared, unlike patterns in its neighboring countries. The total fertility rate has been cut into just less than a third over only four decades, from about 6.9 in 1971 to about 2.2 in 2011 (WDI, 2013) and the microcredit revolution sweeping the countryside has given women visibility and greater status. Better water and sanitation facilities have reduced the drudgery of mothers who now have time for other activities. An information and communication boom has accompanied use of radio, television and mobile phones. Expansion of rural roads and electrification has enabled labor to move out from low-productive cottage industries, in general, and allowing women to move out of their villages to jobs in town through more secure modes of transport and given them greater mobility, in particular (Hossain and Bose, 2004; World Bank, 2008).

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[1] This trend continues beyond the time period of the data examined here: in 2011, the most recent year for which we have been able to find enrollment data by gender, the ratio of girls to boys in secondary education was 116.8 (World Bank, 2013).

The progress recounted above is not meant to undermine the serious problems that remain and new ones that are surfacing. So, while women's status has improved dramatically form the last few decades, gender inequalities in many other areas are persistent such as access to markets, political spaces and high tech services. Moreover, there are serious differences by area of residence, wealth quintiles and ethnicity. The practice of dowry is on the rise and one of the reasons why girls are married off on average by the time they are 15 years old.[2]

Previously we described the extent to which education has expanded in Bangladesh and the manner in which it has trumped the conservative marriage market with increasing numbers of girls compared to their mothers' generation marrying men less educated than them. Clearly then, demand for education is not only contingent on cultural reasons and has some important structural correlates. Bangladesh for the last two decades followed a concerted policy to enhance girls' education through innovative incentive schemes that provided stipends to secondary school girls for remaining in school. NGOs too did their part in enhancing girls' education and the labor market expanded for them simultaneously during the last decade (World Bank, 2007: Ch 1).

Despite these changes, there is a coexistence of patriarchal norms and conservative attitudes to women's roles. It is well known that male bias in South Asia is at the core of a number of negative outcomes for women and girls. The literature documenting this and analyzing its correlates throughout the life-cycle in South Asia is rich and varied in terms of disciplinary backgrounds. The basis for this norm is that daughters only "belong" to their natal family until they are married and parents should not live with their married daughters or accept financial help from them. This has led to the widely accepted notion that parental investments in girl children are determined by their low expected returns in the latter's old age (Cain, 1978). One key investment relates to education for girls.

Marriage of girls is central to their upbringing. The adage that women should be less educated than their husbands and in other ways less accomplished is an accepted apart of the South Asian culture. Thus, women marry "up" in a well-known practice of

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[2] Similarly, dowry is important in neighboring India, and has been for many years (Caldwell, Reddy and Caldwell, 1983).

hypergamy – wives are thus from lower social status, caste, employment status and educational levels than their spouses. Although some ethnic minorities do not adhere to this generally accepted pattern, at the other extreme are Hindu societies which have even a ritual ratification for "marrying up" – "*anuloma*" marriages are acceptable as lower caste women can marry higher caste men but "*pratiloma*" marriages where the women's caste is higher, are ritually unacceptable. In order to cement the relationship of the husband as the enforcer of norms and familial honor, the inter-spouse age difference is also substantial and has remained quite resistant to change. Yet another reason why educating girls at higher levels is considered pointless, is due to the high levels of dowry in South Asian cultures. While this is a singularly un-Islamic practice, it is widely prevalent in Bangladesh and from recent accounts, also on the rise (Chowdhury, 2010; World Bank, 2008). Thus, a more educated girl requires a groom who is even more educated and accomplished, thus inflating the amount of dowry her family would have to pay for the marriage.

In other ways too, women and girls are expected to behave in "appropriate" ways. One of the key attributes of a "good Bengali girl" for instance is the notion of "shyness" or "lojja", where girls seldom speak their minds before elders and outsiders. In many conservative parts of South Asia, higher education is considered to liberate girls so much that they would have problems "adjusting" to their marital home. During focus group discussions we have found that rural populations perceive the impact of girls' education most strongly in the ability of the latter to "speak" and to shed inhibitions. This is variously considered one of the positive or negative effects of education, depending on who one is talking to (World Bank, 2008: Ch 3).

Norms of seclusion or "purdah" in Bangladesh is yet another reason often cited for low demand for girls' education. Thus, pubescent girls traveling to neighboring villages to seek secondary education is considered unacceptable and a risk to the chastity and purity of girls, who may then have problems finding suitable, respectable husbands. Other research has recently shown that not only is the "purdah mentality" prevalent in non-Islamic populations of South Asia (Lateef, 1991; Das, 2004), but even when it is practiced, it is so amorphous a concept and so tied up with acceptable notions of safety and security than when appropriate conditions exist, it is a scant constraint on girls'

7

education or on women's labor market participation. In fact, women and girls renegotiate these norms of seclusion when opportunities present themselves (Kabeer, 2001; World Bank, 2008).

Finally, the demand for female education in Bangladesh and other South Asian cultures is considered to be low has been due to low opportunities and returns in the labor market. Several studies on India have argued that low returns to education for women, discourage families from educating their daughters (Kingdon and Unni, 1997; Dreze and Gazdar, 1996). Where female labor is valued only in the home and the labor force participation rate in India, Bangladesh or Pakistan does not exceed 37 percent, the returns to education in the form of entry into the labor market is perceived to be low. Thus, this discussion has shown that there are both cultural and economic reasons against educating girls at higher levels, which has to a large extent been responsible for low educational attainment of girls in South Asia.

Recent qualitative work shows however that there has been a widespread change in perception about girls' education and about gender norms in general. Today, local populations take great pride in the expansion of girls' education in their areas, and in the impact they see of this on the community, on children's well-being and on women's empowerment (World Bank, 2007: Ch 3). How and why did this change in perceptions about education come about? At the macro level, we argue that a supply side push for education tapped the latent demand among families of girls, which has existed despite what seem to be conservative norms and values. Once the impact of education on girls and communities became apparent, this fueled further demand. The access to new job opportunities in the garment sector and with NGOs showed families that girls can have an economic worth as well. Globally of course, higher returns to education for women are borne out in a number of studies including Psacharopoulos' (1994) cross-country review and Schultz (1994) and from such diverse settings as Taiwan (Gindling et al, 1994), Czech Republic and Slovakia (Chase, 1997) and India (Malathy and Duraisamy, 1993; Duraisamy, 2000).

DATA AND METHODS

One of the reasons why the empirical literature on changing norms in South Asia has not progressed much is due to limited data sets that allow for such analyses. Individual questions in the Demographic and Health Surveys on attitudes to violence, fertility preferences and to individual diseases have allowed for some analysis of attitudes to these areas, but very few questions allow for an analysis of attitudes to gender inequality. We use a unique data set – the World Bank Survey on Gender Norms in Bangladesh (WBGNS) 2006, which has a number of questions on attitudes to gender equality. Our aim is to understand whether two cohorts of women display differences in gender norms and/or the correlates of these norms, where the norms regard to the education of girls versus boys and wives versus husbands, respectively (more details below).

The WBGNS 2006 is the first comprehensive nationally representative household survey of gender norms and practices in Bangladesh. It is based on a sample of adults that include married women in the 15-25 and 45-59 year age range, married male heads of households in the 25-50 year age range, and 500 community leaders (such as Union Parishad (UP) members, Imams/Moulvis (religious leaders), primary school teachers and Madrasah teachers). The samples were drawn in two stages. 91 clusters[3] were selected at the first stage as a subsample of the 361 clusters included in the Bangladesh Demographic and Health Survey (BDHS) of 2004. The second sampling stage selected one adult from each household. Opinion leaders were selected from among those who were resident in and around the cluster, having knowledge of and influences on the people of the cluster. On average 49 adults and 5-6 opinion leaders were interviewed in each cluster. Out of the 49 adults interviewed in a cluster, roughly 16 were married women age 15-25, 16 married women age 45-59 and 17 married men age 25-50. Interviews were conducted in April-May 2006.

We have two estimation samples: older women (1431 initial observations) and younger women (1543 initial observations). Explanatory variables are missing for some observations, which cause a drop in sample sizes for the final/effective analyses samples. Our final samples thus are: older women (1408 observations) and younger women (1534

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[3] A cluster is a Census defined village that corresponds roughly to a mouza village in rural areas and a census block (part of a mohollah) in an urban area.

observations). Sample drops of these magnitudes do not seem to be cause for concern regarding the representativeness of the estimation samples. The means for the analysis samples are reported in Table 2.

[Table 2 about here]

In analyzing the difference in patterns between the two cohorts of women in the sample, we capture intergenerational change. Of course, it is entirely possible that the difference could well be a function of age and life-cycle and not of cohort. That being so, we believe that once we control for a number of demographic characteristics, we do capture the effect of change over time to a fairly large extent.

We use two different (but related) dependent variables in our analysis. Each of these represents an attitude to a different aspect of gender equality. The first is whether girls should be equally or better educated than boys. The second is whether wives should be equally or better educated than their husbands. These variables are based on the responses to the two questions "Do you think girls should be educated as much as boys should, or does it make more sense to educate boys more?" and "Do you think women should have equal or better education than their husband?" The possible responses to the first question include "same;" "boys more;" and "girls more," while the responses to the second question simply include "yes" and "no." To maintain consistency between the two dependent variables—and thus enabling us to interpret them similarly—we code the responses into two binary variables. The first is coded one if the respondent answers "same" or "girls more" (and zero if answering "boys more"), while the second is coded one for "yes" and zero for "no").[4] The share of women favoring equal or better education of girls changed from 77.8 percent to 85.2 percent across the two cohorts, while the share of women favoring equal or better education of wives changed from 49 percent to 53.9 percent across the two cohorts (Table 2). The gender gap in educational attainment appears to have narrowed over time: the "no education" group has shrunk from 65.3 percent for the older cohort of females to 23.6 percent for the younger cohort of females (Table 2). The share of wives with less education than their husband has shrunk from

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[4] As a referee also noted, it would have been useful if we were able to examine the "same" category for both of the two questions—but again, due to the way these questions were phrased in the questionnaire that is not possible. We therefore effectively lose some information from the coding of the first question, collapsing two categories into one—but that appears unavoidable in order to maintain consistency between the two measures.

38.1 percent to 23.2 percent, while the share of wives with more education has increased from 8.2 percent to 30.2 percent (Table 3).

[Table 3 about here]

Based on the theoretical literature on the pathways to change in attitudes about gender equality discussed previously, we use a set of explanatory variables that include education, region, exposure to the media and congruity with other attitudes relating to gender equality. Our primary explanatory variable of interest is education and we define its role in several different ways. There are at least two pathways through which education interacts with attitudes. First, attitude to education can affect whether and how much education individuals get. Conversely, better education can change attitudes towards education. There are, therefore, inherent problems in establishing a causal relationship here. We can however, through the individual's education, examine whether higher levels of education are associated with more liberal attitudes toward gender equality. Research from the US has found that this relationship between higher education and liberal attitudes is not necessarily a clear-cut one and is contingent upon a number of other factors and has different effects for different categories of individuals (Kane and Kyyro, 2001). We use an individual's educational attainment (coded as four dummies for some primary, completed primary, some secondary and secondary and above—with no education being the reference category).

Other than the individual's own education, the household level "educatedness" may also have a bearing on the attitude of individuals to gender equality. The literature on "social influence" and "social learning" in changing perceptions of mortality and fertility points to a lag between actual and perceived changes (Montgomery and Casterline, 1996). Koenig et al (2003) found in Bangladesh that when women's autonomy is an accepted part of the community culture, violence against women decreases, so we would expect that higher levels of aggregate education and individuals from more educated families, especially, where female education is higher, would be more liberal in their attitudes to gender equality in education. We therefore also include spousal education as an explanatory variable since a woman's own views on educational equality may well be guided by her husband's in a society that is overwhelmingly patriarchal.

11

Finally, for younger women we add a measure that denotes the highest education level of an older woman in the household. The literature on South Asia is replete with analyses of the manner in which older women in the household exercise control over younger women. Thus, if older sisters-in-law or the mother-in-law are more educated we would expect the family to "bring in" a more educated and enlightened daughter-in-law and thus her own attitudes would be more liberal.

We use a number of individual level demographic characteristics as control variables. These include age, a squared term for age and household wealth quintiles. We also add a measure that denotes media exposure in terms of frequency of listening to the radio. Exposure to information is a way in which norms are broken down and the literature on acceptance of family planning is replete with the importance of the media in changing attitudes and behaviors. This is especially important when the population in question is not educated. Yet another explanatory variable in our analysis is a measure of gender equality in marriage. In South Asia, eating order signifies a patriarchal hierarchy with men and elders usually eating before the rest. We believe that if wives eat with their husbands they display a form of equality in marriage and that this would to some extent affect other attitudes about marriage. In our sample the proportion of wives who say they eat with their husbands has gone up from 57.7 percent among the older cohort to 60.4 percent in the younger sample (Table 2).

Finally, we include region of residence as an indicator of cultural norms as have other studies in the past (see, for example, Mason et al, 1976). In India, it is common to use region as a proxy for conservatism and the literature on regional differences is strong (see for instance Dyson and Moore, 1989). Bangladesh, however, is all too often viewed as a homogenous entity in the development literature. One reason for this is that national data sets have limited questions that can allow for the links between norms and outcomes. Surveys that do include this information are small in scale and do not allow for national generalizations to be made. That cultural norms are regionally determined and there are more or less conservative areas is well-known. For instance, Sylhet is a region fraught with poor indicators of women's status and universally regarded as conservative. Yet, it is also the major sending area for migrants to, for example, the UK and the Middle East. Combined with the possibility of some migrants in Dhaka ending up in key leadership

positions, its collective view may be to exercise stronger influence on policy with regard to women's status.

Estimation-wise, we note the potential endogeneity problems related to gender education norms and the different education measures, especially that for individual educational attainment. The same potential issue exists for gender education norms and eating norms—for example, due to omitted variables such as preferences.[5] However, as we do not have available in this dataset any variables that may potentially act as instruments, it does not appear feasible to try to address this problem using instrumental variables methods. As a result, we must interpret any subsequent results with caution and hence not give them a causal interpretation but rather as merely reflecting associations with gender education norms. In order to examine whether the possible endogeneity of this variable has any practical implications for the results, however, we suggest estimating the models progressively, by showing first the results *without* including this variable (Models M1 and M2 in Tables 4 and 5, below) – so that the reader can verify that at least the endogeneity concerns for this variable does not affect the conclusions regarding the other explanatory variables and their relationship with gender education norms.

The linear probability model (LPM) yields a more robust alternative to the also widely used probit and logit models both of which are founded on rather strong functional form assumptions and also appears appropriate here for several other reasons, despite its potential shortcomings.[6] Hence, the LPM is our preferred estimation method –

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[5] As also noted by a referee, the dependent variables as well as the eating variables may very well all together reflect the overall gender norms in society. At the same time, however we feel strongly that at the same time eating together is potentially an important component of the causal mechanism underlying the change of gender norms in society and so should be included as an explanatory variable (again with the caveat of possible endogeneity of this variable, coupled with the resulting "building-up" (see below) of the different empirical models to examine whether this is indeed affecting the results, in practice).
[6] While there may be some concern about using the LPM due to the possibility of the predicted probabilities falling outside the (0,1)-range and heteroskedasticity being present by default, it can be argued that the LPM still approximates the response probability well. This is particularly the case if (1) the main purpose is to estimate the partial effect of a given regressor on the response probability, averaged across the distribution of the other regressors, (2) most of the regressors are discrete and take on only a few values and/or (3) heteroskedasticity-robust standard errors are used in place of regular standard errors (Wooldridge, 2010). All three factors seem to work in favor of the LPM for the purposes of the application here. Additionally, it has been argued (Angrist and Pischke, 2009) that the LPM is at least a fairly good *approximation* of the conditional expectation function for a given dependent variable—and likely a better (and simpler) one than a non-linear regression function such as the logit or probit. In sum, we suggest that the use of the LPM for this application appears sound.

but we also compare the results for the LPM with those obtained using the probit model to check the robustness of results. Further, so as to allow for arbitrary heteroskedasticity, the estimations will be carried out using Huber-White standard errors (Huber, 1967; White, 1980). Additionally, so as to allow for the possibility that observations are correlated within communities the standard errors are also adjusted for within-cluster correlation (Wooldridge, 2010).

In addition to examining the determinants of the established gap in norms concerning gender inequality in education across the two cohorts of women, it would seem potentially useful to push the analysis further, still, by examining the composition of the established intergenerational gaps in education norms in more detail. Specifically, this amounts to examining to which extent the observed gaps in the two types of norms about gender inequality in education are attributable to changes in the observable characteristics, to changes in the responses to those characteristics, and to other factors (three-fold division)[7] and, relatedly, to which extent the observed norms gaps are due to observable and unobservable characteristics (two-fold division).[8] This analysis will be pursued as an Oaxaca (1973)-Blinder (1973) type decomposition, using several different specifications for the baseline (i.e., "absence of discrimination") model. The standard errors of the individual components are computed according to the method detailed in Jann (2008), which extends the earlier method developed in Oaxaca and Ransom (1998) to deal with stochastic regressors. In addition to examining the overall composition of the established intergenerational education norms gaps, it might be instructive to perform detailed decompositions, as well, whereby it would be possible to see which explanatory variables contribute the most to the three- and/or two-fold overall decompositions. An issue here is that while the overall decompositions are always identified, the results for categorical variables in detailed decompositions depend on the choice of the reference category (Oaxaca and Ransom 1999). A possible solution to this problem is to apply the deviation contrast transformation to the estimates before conducting the decomposition (Yun, 2005); this is also the approach pursued here.

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[7] See Winsborough and Dickinson (1971).
[8] See Oaxaca (1973), Blinder (1973), Cotton (1988), Reimers (1983), and Neumark (1988) for different approaches.

RESULTS

That girls should be equally or better educated than boys is a value that the majority of the population espouses and this has only become more common in recent years. The role of education in this is nuanced and begs the questions – whose education and what kind of education? The results from linear probability models of norms regarding gender inequality in child education indicate that own education confers egalitarian attitudes for older women (Table 4). Further, the associations are strong and statistically significant at all levels of education except the highest (possibly due to small cell sizes). Education of their spouses is not associated with older women's attitudes towards their sons and daughters relative education. For younger women, own education matters, too, both in substantive and statistical terms. Once we add the husband's education to the model, the coefficients drop considerably in size, leaving only own secondary level education statistically significant at the 0.05 level (M2). Unlike for older women, younger women's attitudes to educational equality among boys and girls, therefore, is determined to a large extent by their husband's education. Brewster and Padavic (2000) also found in the US that over time the importance of education in norm construction became less strong as education became more common. As education becomes more common, other factors determine the attitudes of individuals.

[Table 4 about here]

The older woman's education is strongly and statistically significantly associated with the younger woman's attitudes to gender equality in education (M4). Thus, if an older woman in the household is more educated, younger women tend to have more egalitarian attitudes. Perhaps, families that have more educated women in the household are also families that will bring in a more educated daughter-in-law and the overall value in that household will be towards greater equality in education for boys and girls. The information variable indicated by radio exposure is important for older women but not for younger women, probably since the latter, being better educated, have other avenues for access to information. Also, younger women who eat with their husbands are also more likely to espouse more liberal attitudes towards children's relative education, all else equal, suggesting that different norms and perceptions are correlated.

Region of residence is the other important correlate of women's attitudes towards

15

educational equality for children. For older women, Barisal and Chittagong are associated with more conservative attitudes and Sylhet with the most liberal attitudes to educational equality for boys and girls. Barisal ceases to be a negative influence on gender norms for younger women about education as was the case for older women. Thus, it seems that younger women in Barisal are more liberal in this respect than older women. But in Chittagong we see the same for younger women. In fact, this thread of conservatism in Chittagong seems to be increasing, with younger women displaying stronger and more statistically significant results than older women. The counter-intuitively positive effects of residing in Sylhet in terms of having more liberal gender norms about education persist strongly for younger women too.

Finally, household wealth status emerges as a significant correlate of norms towards gender equality for the children's education for older women. Thus, the richest quintile espouses the most liberal values compared to the poorest. But for younger women once we control for spousal education, socioeconomic status does not matter.

The determinants of women's attitudes about educational equality within marriage are much less clear cut (Table 5). Neither their own education nor that of their spouses matters for older women's attitudes. And again, as in the case of attitudes towards girls' and boys' relative education, in the case of husband's and wives' relative education too, we find that listening to the radio regularly is associated with more liberal attitudes for older women. Interestingly, where we would have expected eating together with the husband to exercise a positive influence in gender norms in marriage, we see no association for either group of women. And socioeconomic status for the most part is not associated with women's attitudes to educational equality in marriage.

[Table 5 about here]

For younger women, a series of "life-cycle explanations" and cultural mores seem to explain their attitudes to educational equality in marriage. To start with, age is highly significant and with increasing years, this younger cohort of women tends to become more liberal in their attitudes. But their own secondary or higher education has only a weakly statistically significant positive association with their attitudes.

Adding the older woman's education also brings out a negative association with religion (as we also found for the child education norm regressions for the younger

women). Therefore, controlling for own education, spousal education, and education of the older woman, we find that belonging to a Muslim household has a negative and statistically significant association with younger women's attitude to equality in marriage.

As for regional effects, we find that living in Barisal, Rajshahi and Khulna (but not Chittagong) has a negative association with liberal attitudes on spousal educational equality for older women. But Sylhet again shows up as having a positive association with older women's attitudes to educational equality. All these effects of region also persist for younger women but only until we add the older woman's education level. Once we do, the effect of region is no longer significant (except Rajshahi). Age, too, is a strong and significant factor in younger women's attitudes of educational equality in marriage. It appears, therefore, that younger women are under the strong influence of external factors. Left to themselves they would perhaps have more egalitarian values, but once we bring in the household or community values in any way, their own values become more conservative. Perhaps as women grow older and acquire greater status in the household, complete childbearing and more "junior" women enter the household, their views become increasingly their own.

Again, while the linear probability model appears appropriate and, as we argued earlier, perhaps even preferable for this application – since it imposes only relatively modest restrictions on the estimated relationship in terms of functional form, relative to the probit or logit model – it would still seem useful to verify that the previous results are robust to the estimation method. Since the probit model is widely used and roughly comparable to the results for the logit model (subject to a scaling factor), we pursue this alternative estimation method as a sensitivity analysis (Appendix, Table A1). Overall, the results reveal only modest differences. Hence, the previous results are essentially robust to estimating instead by the probit model – including the direction, magnitude and statistical significance of the estimated associations. As a cautionary remark in interpreting these results it should be mentioned, however, that both the R^2 and the pseudo-R^2 are quite low—which is perhaps not surprising, since gender norms in education is a quite complex concept to model. It does indicate, however, that there are potentially important drivers left unaccounted for when attempting to model the gender

norms of education in the present analysis.

Summing up, after establishing the existence of an intergenerational gap in norms concerning gender inequality in both the education of children and adults, the previous analysis examined the determinants of those norms across the two cohorts of women. Again, it would seem potentially useful to also examine the extent to which the observed gaps in the two types of norms about gender inequality in education are attributable to changes in the observable characteristics, to changes in the responses to those characteristics, and to other factors and, relatedly, to which extent the observed norms gap is due to observable and unobservable characteristics. We therefore next turn to an Oaxaca (1973)-Blinder (1973) type decomposition, using several different specifications for the baseline (i.e., "absence of discrimination") model.

The decomposition analysis has two components – first, examining overall decompositions and, second, examining detailed decompositions, whereby the education gender gap norm differential may be decomposed into the contributions from specific explanatory variables. The results from the overall decompositions are shown in Table 6. The top panel gives the results for child gender inequality, while the bottom panel gives the results for adult gender inequality. The first column then gives the three-fold decomposition result, while the four next columns give the two-fold decomposition results for different alternative specifications of the "absence of discrimination" group. Starting with the three-fold decomposition of the norms gap related to child education, the first thing to note is that the raw gap, at 7.5 percentage-points, is both substantively large and statistically significant. Also, it is mainly attributable to the coefficients[9] (5.9 percentage-points out of the 7.5 percentage points total gap), though the change in endowments (including education) explains 2.6 percentage-points and the interaction between them the remaining -1 percentage-point. Also, only the coefficient part is statistically significant. Moving to the two-fold decompositions of the child norms gap, the unexplained[10] part of the gap therefore is greater than the explained part, though the latter still accounts for a substantial part, between about 20 and about 34 percent of the

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[9] This is the part that is frequently interpreted as "discrimination" in decompositions of gender wage differentials.

[10] Again, this part is frequently interpreted as "discrimination" in decompositions of gender wage differentials.

overall norms gap, depending on the specification of the "absence-of-discrimination" model. Hence, a substantial part of the difference in the norms across the two cohorts regarding child education can be explained by the change in observable characteristics, while an even larger part cannot be explained. One might interpret the latter as changes in norms and perceptions in the society over time more generally. Again, here also only the unexplained part is statistically significant while the explained part of the gap is not.

[Table 6 about here]

Perhaps not surprising, the decomposition results for adult education norms reveal that only little of the 5 percentage-point norms gap (which is not statistically significant) overall is attributed to endowments, so that only little (between almost nil and about 8 percentage-points, depending on the specification of the "absence-of-discrimination" model) of the gap can be explained. Again, this is due to the general lack of statistical (and substantive) significance in the regression model underlying the decompositions.

While the overall decompositions helped illuminate a bit more how norms pertaining to gender inequality of education differs across the two cohorts of Bangladeshi women examined here, detailed decompositions may yield additional insights.[11] Specifically, this analysis will allow us to pinpoint exactly which explanatory variables contribute most to the intergenerational gap in gender education norms. Also, while the explained parts of the two norms gaps were statistically insignificant overall, the contributions from individual explanatory variables may still be statistically significant. Starting with the results for child education norms, they reveal that the effects from specific individual explanatory variables do in fact "drown" in the aggregated explained part reported earlier, which, again, was not statistical significant overall. Starting with own education, it is not the difference in educational attainment for the higher levels of education that matters in explaining the difference in the norms gap across cohorts (these are all insignificant, in magnitude as well as statistically) but rather the fact that the older cohort has a greater share who has not completed any education: having a larger share of the no education completed group is what really hurts the older cohort, in terms of their less favorable gender education norm outcomes – with estimated associations between

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[11] So as to conserve space, the results from the detailed decompositions are not shown here (but are available upon request).

19

1.7 and 2.1 percentage points, which is roughly about the size of the explained gap overall (Table 6). The only other variable that contributes statistically significantly to the explained part of the gender education norms gap is spousal education of secondary and above, though the association here is much more modest, at about 0.4 to 0.5 percentage-points. The bulk of the explained part of the gender education norms gap, therefore, is due to the higher incidence of females having never attended school – in other words, it is the lack of education for the older cohort that accounts for almost all of the explained part of the gender education norms gap.

Turning next to the detailed decompositions of the unexplained part of the overall gender education norms gap – again, this the effect of differences in the coefficients ("prices" or "returns") across the two cohorts – own education does not contribute statistically significantly to the gap. Spousal education, however, does: the differences in coefficients for primary education increase gender education norms inequality, while the differences in coefficients for some primary education decrease gender education norms inequality. Listening to radio improves the gap (again, the older cohort had a higher "return" to radio listening in terms of improvements of gender education norms), while not listening to the radio worsens education norms even more than listening to radio improves them (about 2.5 versus about 1 percentage-points, respectively).

Again not surprisingly, the results from the detailed decompositions for gender norms in adult education are almost all substantively and statistically insignificant. The only exception is some secondary education, where there is some (weak) evidence that it leads to a worsening of the explained part of the norms gap and to an improvement in the unexplained part of the gap. All of the estimated associations are only statistically significant at the 10 percent level, however.

DISCUSSION
Perhaps the strongest result that we note in our analysis is that Bangladeshi women are more likely to espouse attitudes of gender equality in education for their children and less so about gender equality among spouses. While there is about a 7 percentage point change in the attitudes of older and younger women towards giving girls equal or better education than boys, there is only about a 5 percentage point change in the view between

the two cohorts that wives should have equal or better education than their husbands. The change itself is not the most remarkable – what is truly remarkable are the absolute percentages. While a large majority of both groups of women believe in educational equality for children, only a little over half believe in educational equality in marriage.

Perhaps more important is the fact that education plays a key role in determining liberal attitudes about the relative education of boys and girls, but cannot explain attitudes about educational equality in marriage. We believe that the two questions may perhaps be capturing two different issues. While the question on relative education of boys and girls captures the value of education per se, the question on educational equality in marriage captures the norms regarding marriage and the relative worth of husbands and wives. Here cultural factors denoted by region and other such variables become much more important. For younger women in particular very few variables other than region and age are significant determinants of their attitudes on educational equality in marriage. If you are a young woman in Bangladesh, perhaps your attitudes about equality in marriage are determined more by societal norms and the influence of elders in the family than your own educational level or characteristics. Thus, "life cycle explanations" and cultural mores emerge as most important. These life cycle issues have also been seen to be important for other outcomes, especially in health (Das Gupta, 1995).

The tendency towards liberalism in children's education and conservatism in views about marriage (or more important, a lack of explanation about views on educational equality in marriage) has interesting antecedents as well as implications. The general norm discussed earlier in this paper that women should be in most ways less accomplished than their spouses is a difficult one to break down. We have also argued elsewhere that while there have been small changes in the attitudes to divorce, marriage in Bangladesh is by and large a stable, unchanging institution (World Bank, 2008). In other South Asian countries, too, marriage patterns seem very difficult to change. Thus, in Sri Lanka, Malhotra and Tsui (1996) found that modern norms had only a small influence on timing of marriage. Perhaps, with greater numbers of women marrying men equally or less educated than them, this may change over time, too. However, it is also possible that it is more acceptable to voice liberal attitudes about children's education and less so about marriage and the marital relationship.

The importance of region as a determinant of both educational equality for boys and girls and husbands and wives has to be underscored. That some regions are known to be conservative is pointed out earlier in this paper, but not all our results are easily explicable. Sylhet, the region widely regarded as the most conservative, seems to have women who have inordinately liberal attitudes to gender equality in education – both for their children and within their own marriages. When seen together with the low educational attainment of women in Sylhet this presents itself as a sort of "yearning for education" among women. But Chittagong defies explanation. It is next to Sylhet in the perception of conservatism and in terms of low levels of educational attainment of girls, and also comes across as the region with the most conservative attitudes to educational equality among girls and boys.[12]

From the decomposition analysis, it was found that a substantial part of the overall norm gaps could be explained by observable characteristics—and, further, that the explained part of the norms gap is found to be driven almost exclusively by the decrease in the "no education" group from the older to the younger cohort. In sum, more than anything else, it is the lack of education for the older cohort relative to the younger cohort that appears to have been driving gender education norms in Bangladesh in recent years.

When interpreting the difference in patterns between the two cohorts of women in the sample it should be kept in mind that the difference could well be a function of age and life-cycle and not of cohort. Again, that being so, we believe that once we control for a number of demographic characteristics, we do capture the effect of change over time to a fairly large extent.

CONCLUSION

Our results show that the far-reaching changes in Bangladesh in terms of female education seem to have had equally far-reaching impacts on the value of girls' education relative to boys. Education for women thus explains these liberal attitudes towards their children's education. But in terms of their attitudes to their marriages, Bangladeshi

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[12] These observations are further supported by the data on gross enrollment rates of boys and girls by level and region presented earlier (see Table 1), especially for lower and higher secondary.

women are still relatively conservative and education has done little to change that. Overall, though, it was found that a substantial part of the overall norm gaps could be explained by observable characteristics—and, further, that the explained part of the norms gap is found to be driven almost exclusively by the decrease in the "no education" group from the older to the younger cohort. In sum, more than anything else, it is the lack of education for the older cohort relative to the younger cohort that appears to have been driving gender education norms in Bangladesh in recent years. We therefore predict for the future that as female education expands, the demand for girls' education will grow even more robust. Also, as more wives are equal or better educated than their husbands (owing to having been increasingly better educated as children), the value of equality in marriages, too, may grow.

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Table 1. Gross Enrollment Rates of Boys and Girls by Level and Region

	Primary (Grade 1-5)		Lower Sec. (Grade 6-8)		Secondary (Grade 9-10)		Higher Secondary (11-12)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Barisal	93.9	93.6	55.4	58.9	45.8	58.1	44.7	35.0
Chittagong	83.5	84.5	48.1	58.2	37.2	49.9	34.6	32.8
Dhaka	86.1	84.5	52.7	58.4	62.2	66.6	32.3	33.3
Khulna	96.1	99.5	60.7	66.9	58.3	71.5	39.3	36.2
Rajshahi	85.5	91.5	53.5	70.3	50.3	57.5	38.2	33.4
Sylhet	83.2	85.7	57.1	36.3	39.7	58.0	29.1	28.5

Source: BANBEIS (Government of Bangladesh), 2005/06

Table 2. Descriptive Statistics for the Estimation Samples

	Older cohort:		Younger cohort:	
	Mean	*Std Dev*	*Mean*	*Std Dev*
Dependent variables:				
Girls should be equally or better educated than boys	0.778	0.416	0.852	0.355
Wives should be equally or better educated than their husbands	0.490	0.500	0.539	0.499
Explanatory variables:				
Age	49.67	4.164	21.52	2.893
No education	0.653	0.476	0.236	0.425
Some primary	0.137	0.344	0.172	0.378
Primary	0.073	0.260	0.159	0.366
Some secondary	0.090	0.286	0.328	0.470
Secondary and above	0.048	0.213	0.105	0.306
No education (Spouse)	0.503	0.500	0.327	0.469
Some primary (Spouse)	0.113	0.316	0.151	0.358
Primary (Spouse)	0.089	0.285	0.115	0.320
Some secondary (Spouse)	0.126	0.332	0.236	0.425
Secondary and above (Spouse)	0.168	0.374	0.171	0.376
Listens to radio	0.210	0.407	0.297	0.457
Islam	0.908	0.289	0.933	0.251
Eat together	0.577	0.494	0.604	0.489
Urban	0.477	0.500	0.497	0.500
Barisal	0.067	0.250	0.063	0.242
Chittagong	0.181	0.385	0.159	0.366
Dhaka	0.332	0.471	0.309	0.462
Khulna	0.114	0.317	0.130	0.337
Rajshahi	0.237	0.425	0.280	0.449
Sylhet	0.070	0.255	0.059	0.236
N	1408		1534	

Notes: Calculations incorporate sampling weights and also adjust for within-community correlation/clustering (Wooldridge, 2010).
Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 3. Education Equality in Marriage Across the Two Cohorts

	Older cohort:		Younger cohort:	
	Mean	*Std Dev*	*Mean*	*Std Dev*
Wife less than husband	0.381	0.486	0.232	0.422
Wife and husband equal	0.537	0.499	0.466	0.499
Wife more than husband	0.082	0.274	0.302	0.459
N	1408		1534	

Notes: Calculations incorporate sampling weights and also adjust for within-community correlation/clustering (Wooldridge, 2010).
Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 4. Education Gender Gap Norms OLS Regression Results: Girls Vs. Boys

	Older cohort:			Younger cohort:			
	M1: Only own education	*M2: M1 + spousal education*	*M3: M2 + eating norms*	*M1: Only own education*	*M2: M1 + spousal education*	*M3: M2 + eating norms*	*M4: M2 + Max. education of older female in HH*
Age:							
Age	0.192**	0.189*	0.191**	0.091*	0.099**	0.093**	-0.044
	[0.095]	[0.095]	[0.095]	[0.048]	[0.047]	[0.046]	[0.084]
Age squared	-0.002**	-0.002**	-0.002**	-0.002*	-0.002*	-0.002*	0.001
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]
Own education:							
Some primary	0.100***	0.091***	0.089***	0.036	0.042	0.038	0.100*
	[0.029]	[0.031]	[0.031]	[0.037]	[0.033]	[0.033]	[0.060]
Primary	0.122***	0.096**	0.093**	0.075	0.058	0.048	0.01
	[0.037]	[0.041]	[0.041]	[0.047]	[0.044]	[0.044]	[0.061]
Some secondary	0.104***	0.061	0.059	0.082**	0.052	0.044	0.04
	[0.036]	[0.039]	[0.038]	[0.034]	[0.034]	[0.035]	[0.056]
Secondary plus	0.08	0.027	0.025	0.112**	0.073	0.063	0.09
	[0.070]	[0.094]	[0.092]	[0.056]	[0.051]	[0.051]	[0.068]
Spousal education:							
Some primary		0.023	0.024		-0.063	-0.061	-0.073
		[0.033]	[0.033]		[0.048]	[0.048]	[0.080]
Primary		-0.053	-0.051		0.088**	0.089***	0.056
		[0.050]	[0.049]		[0.035]	[0.033]	[0.063]
Some secondary		0.043	0.04		0.074**	0.077**	0.057
		[0.039]	[0.038]		[0.033]	[0.033]	[0.053]
Secondary plus		0.078	0.075		0.060*	0.059*	0.086
		[0.059]	[0.057]		[0.032]	[0.032]	[0.057]
Highest education of older female in HH:							
Some primary							0.114***
							[0.040]
Primary							-0.029
							[0.077]
Some secondary							0.085**
							[0.040]
Secondary plus							0.086
							[0.057]
Norms:							
Eat together			0.033			0.062**	
			[0.037]			[0.025]	
Information access / processing:							
Listens to radio	0.056**	0.055**	0.059**	-0.017	-0.015	-0.007	0.012
	[0.028]	[0.028]	[0.028]	[0.030]	[0.028]	[0.028]	[0.038]
Religion of household head:							
Islam	-0.055	-0.05	-0.051	-0.063	-0.065	-0.065	-0.085**
	[0.055]	[0.057]	[0.057]	[0.041]	[0.041]	[0.042]	[0.037]
Poverty / Wealth:							
Second -to-lowest asset score decile	0.087**	0.083**	0.087**	-0.004	-0.007	-0.008	-0.035
	[0.040]	[0.040]	[0.041]	[0.037]	[0.037]	[0.037]	[0.067]
Median asset score decile	0.058	0.053	0.055	0.046	0.037	0.04	0.013

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	[0.038]	[0.038]	[0.039]	[0.040]	[0.039]	[0.038]	[0.052]
Second-to-highest asset score decile	0.152***	0.143***	0.144***	0.064	0.049	0.052	0.01
	[0.041]	[0.042]	[0.042]	[0.045]	[0.044]	[0.045]	[0.061]
Highest asset score decile	0.186***	0.169***	0.169***	0.077*	0.053	0.057	-0.031
	[0.037]	[0.042]	[0.042]	[0.045]	[0.045]	[0.043]	[0.064]
Geography:							
Urban	-0.006	-0.005	-0.004	0.003	0.005	0.008	0.02
	[0.034]	[0.034]	[0.035]	[0.026]	[0.025]	[0.024]	[0.041]
Barisal	-0.115**	-0.125**	-0.126**	-0.076	-0.074	-0.081	-0.104
	[0.054]	[0.052]	[0.052]	[0.047]	[0.050]	[0.050]	[0.065]
Chittagong	-0.111**	-0.114**	-0.113**	-0.161***	-0.147***	-0.145***	-0.216***
	[0.046]	[0.045]	[0.046]	[0.043]	[0.042]	[0.042]	[0.064]
Khulna	0.009	0.005	0.003	-0.052*	-0.046	-0.052*	-0.109**
	[0.048]	[0.047]	[0.047]	[0.029]	[0.028]	[0.027]	[0.045]
Rajshahi	-0.105*	-0.111*	-0.112**	-0.097***	-0.092***	-0.090***	-0.120**
	[0.056]	[0.056]	[0.056]	[0.034]	[0.032]	[0.032]	[0.048]
Sylhet	0.093**	0.098**	0.097**	0.064**	0.078***	0.076***	
	[0.039]	[0.040]	[0.041]	[0.027]	[0.027]	[0.027]	
Constant	-4.129*	-4.054*	-4.131*	-0.133	-0.217	-0.192	1.25
	[2.429]	[2.435]	[2.428]	[0.511]	[0.499]	[0.494]	[0.862]
R^2	0.102	0.107	0.109	0.067	0.084	0.091	0.12
N	1408	1408	1408	1534	1534	1534	611

Notes: Dependent variable: one if responding that girls should be equally or better educated than boys, zero otherwise. Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Wooldridge, 2010). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.
Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 5.   Education Gender Gap Norms OLS Regression Results: Wives Vs. Husbands

	Older cohort:			Younger cohort:			
	M1: Only own education	M2: M1 + spousal education	M3: M2 + eating norms	M1: Only own education	M2: M1 + spousal education	M3: M2 + eating norms	M4: M2 + Max. education of older female in HH
Age:							
Age	-0.068	-0.07	-0.068	0.202**	0.202**	0.202**	0.224**
	[0.113]	[0.112]	[0.113]	[0.078]	[0.079]	[0.080]	[0.112]
Age squared	0.001	0.001	0.001	-0.005***	-0.005**	-0.005**	-0.006**
	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]	[0.003]
Own education:							
Some primary	-0.025	-0.02	-0.021	0.039	0.049	0.05	0.143
	[0.041]	[0.043]	[0.043]	[0.046]	[0.044]	[0.044]	[0.096]
Primary	-0.091	-0.084	-0.085	0.025	0.031	0.031	0.132
	[0.058]	[0.063]	[0.063]	[0.052]	[0.052]	[0.052]	[0.094]
Some secondary	0.066	0.066	0.065	0.024	0.03	0.031	0.096
	[0.066]	[0.068]	[0.068]	[0.046]	[0.048]	[0.049]	[0.085]
Secondary plus	-0.042	-0.045	-0.046	0.113*	0.128*	0.129	0.158
	[0.095]	[0.102]	[0.102]	[0.065]	[0.077]	[0.078]	[0.117]
Spousal education:							
Some primary		-0.021	-0.02		-0.071	-0.071	0.026
		[0.052]	[0.052]		[0.049]	[0.049]	[0.083]
Primary		-0.019	-0.018		-0.033	-0.033	0.014
		[0.054]	[0.054]		[0.045]	[0.045]	[0.068]
Some secondary		-0.029	-0.03		-0.004	-0.005	-0.023
		[0.055]	[0.054]		[0.049]	[0.049]	[0.068]
Secondary plus		-0.002	-0.004		-0.033	-0.033	-0.016
		[0.052]	[0.052]		[0.057]	[0.057]	[0.081]
Highest education of older female in HH:							
Some primary							-0.073
							[0.082]
Primary							-0.077
							[0.106]
Some secondary							-0.085
							[0.071]
Secondary plus							-0.025
							[0.107]
Norms:							
Eat together			0.018			-0.005	
			[0.033]			[0.030]	
Information access / processing:							
Listens to radio	0.095*	0.096*	0.098*	0.005	0.005	0.005	0.003
	[0.053]	[0.053]	[0.052]	[0.040]	[0.039]	[0.039]	[0.053]
Religion of household head:							
Islam	0.046	0.044	0.044	-0.055	-0.051	-0.051	-0.214***
	[0.055]	[0.055]	[0.055]	[0.039]	[0.040]	[0.040]	[0.046]
Poverty / Wealth:							
Second -to-lowest asset score decile	0.025	0.025	0.027	0.004	0.004	0.004	-0.016
	[0.045]	[0.045]	[0.045]	[0.040]	[0.040]	[0.040]	[0.080]
Median asset score decile	0.026	0.027	0.028	0.042	0.044	0.044	0.128

	[0.044]	[0.045]	[0.045]	[0.053]	[0.054]	[0.054]	[0.084]
Second-to-highest asset score decile	0.079	0.081	0.081	0.059	0.066	0.066	0.134
	[0.050]	[0.051]	[0.051]	[0.054]	[0.052]	[0.052]	[0.087]
Highest asset score decile	0.083	0.084	0.085	0.015	0.016	0.016	0.092
	[0.066]	[0.066]	[0.066]	[0.061]	[0.060]	[0.060]	[0.098]
Geography:							
Urban	-0.006	-0.006	-0.005	0.03	0.03	0.03	0.034
	[0.038]	[0.038]	[0.038]	[0.026]	[0.026]	[0.026]	[0.045]
Barisal	-0.182***	-0.180***	-0.181***	-0.154***	-0.151***	-0.151***	-0.038
	[0.060]	[0.059]	[0.059]	[0.046]	[0.048]	[0.048]	[0.064]
Chittagong	-0.056	-0.056	-0.055	-0.013	-0.007	-0.007	-0.028
	[0.054]	[0.054]	[0.055]	[0.043]	[0.043]	[0.043]	[0.068]
Khulna	-0.142***	-0.140**	-0.141**	-0.128***	-0.127***	-0.126***	-0.075
	[0.054]	[0.055]	[0.055]	[0.034]	[0.034]	[0.034]	[0.082]
Rajshahi	-0.218***	-0.218***	-0.219***	-0.230***	-0.231***	-0.231***	-0.233***
	[0.052]	[0.052]	[0.053]	[0.033]	[0.032]	[0.032]	[0.062]
Sylhet	0.268***	0.272***	0.272***	0.303***	0.311***	0.311***	
	[0.062]	[0.063]	[0.063]	[0.042]	[0.041]	[0.041]	
Constant	2.266	2.304	2.262	-1.427*	-1.414*	-1.415*	-1.474
	[2.900]	[2.878]	[2.906]	[0.781]	[0.804]	[0.806]	[1.109]
R^2	0.09	0.09	0.09	0.09	0.096	0.096	0.093
N	1408	1408	1408	1534	1534	1534	611

Notes: Dependent variable: one if responding that wives should be equally or better educated than husbands, zero otherwise. Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Wooldridge, 2010). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.
Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 6. Education Gender Gap Norms Overall Decomposition across the Two Cohorts of Women: Girls' Vs. Boys' and Wives Vs. Husbands' Education

	Tree-fold Decomposition:	Two-fold Decomposition: Weights/"Absence-of-discrimination" model:			
		D = 0	D = 1	D = 0.5	D = 0.531
Girls' Vs. Boys' Education:					
Mean prediction high (H):	0.852				
Mean prediction low (L):	0.778				
Raw differential (R) {H-L}:	0.075***				
due to endowments (E):	0.026				
due to coefficients (C):	0.059**				
due to interaction (CE):	-0.010				
Unexplained (U){C+(1-D)CE}:		0.049*	0.059**	0.054**	0.054**
Explained (V) {E+D*CE}:		0.026	0.016	0.021	0.020
% unexplained {U/R}:		65.7	79.2	72.5	72.9
% explained (V/R):		34.3	20.8	27.5	27.1
Wives Vs. Husbands' Education:					
Mean prediction high (H):	0.539				
Mean prediction low (L):	0.490				
Raw differential (R) {H-L}:	0.050				
due to endowments (E):	-0.004				
due to coefficients (C):	0.045				
due to interaction (CE):	0.008				
Unexplained (U){C+(1-D)CE}:		0.054*	0.045	0.049*	0.049*
Explained (V) {E+D*CE}:		-0.004	0.004	0.000	0.000
% unexplained {U/R}:		108.1	91.6	99.8	99.3
% explained (V/R):		-8.1	8.4	0.2	0.7

Notes: The references for the different specifications of weights are: 0 (Oaxaca, 1973), 1 (Oaxaca 1973; Blinder, 1973), 0.5 (Reimers, 1983), 0.531 (relative group size, younger cohort) (Cotton, 1988). Standard errors for calculating statistical significance are computed according to Jann (2008). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.
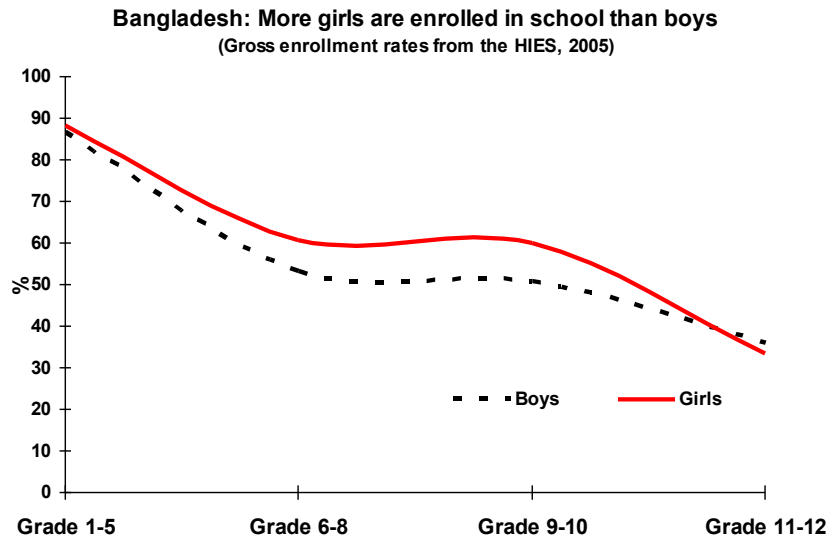*Source:* World Bank Survey on Gender Norms in Bangladesh (2006).

Figure 1.

Bangladesh: More girls are enrolled in school than boys
(Gross enrollment rates from the HIES, 2005)

Table A1. Education Gender Gap Norms OLS and Probit Regression Results: Girls Vs. Boys and Wives Vs. Husbands

	Girls Vs. Boys:						Wives Vs. Husbands:					
	Older cohort:		Younger cohort:				Older cohort:		Younger cohort:			
	Probit	OLS	Probit	OLS	Probit	OLS	Probit	OLS	Probit	OLS	Probit	OLS
	M2: M1 + spousal education	*M2: M1 + spousal education*	*M2: M1 + spousal education*	*M2: M1 + spousal education*	*M3: M2 + eating norms*	*M3: M2 + eating norms*	*M2: M1 + spousal education*	*M2: M1 + spousal education*	*M2: M1 + spousal education*	*M2: M1 + spousal education*	*M3: M2 + eating norms*	*M3: M2 + eating norms*
Age:												
Age	0.174**	0.191**	0.077**	0.093**	-0.066	-0.044	-0.072	-0.068	0.212**	0.202**	0.248**	0.224**
	[0.087]	[0.095]	[0.037]	[0.046]	[0.066]	[0.084]	[0.119]	[0.113]	[0.086]	[0.080]	[0.117]	[0.112]
Age squared	-0.002**	-0.002**	-0.002*	-0.002*	0.002	0.001	0.001	0.001	-0.005**	-0.005**	-0.006**	-0.006**
	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.001]	[0.001]	[0.002]	[0.002]	[0.003]	[0.003]
Own education:												
Some primary	0.082***	0.089***	0.031	0.038	0.071**	0.100*	-0.023	-0.021	0.052	0.05	0.154	0.143
	[0.026]	[0.031]	[0.022]	[0.033]	[0.029]	[0.060]	[0.046]	[0.043]	[0.047]	[0.044]	[0.097]	[0.096]
Primary	0.104***	0.093**	0.039	0.048	0.01	0.01	-0.092	-0.085	0.03	0.031	0.142	0.132
	[0.038]	[0.041]	[0.030]	[0.044]	[0.040]	[0.061]	[0.066]	[0.063]	[0.055]	[0.052]	[0.096]	[0.094]
Some secondary	0.056	0.059	0.039	0.044	0.037	0.04	0.071	0.065	0.031	0.031	0.103	0.096
	[0.045]	[0.038]	[0.025]	[0.035]	[0.038]	[0.056]	[0.074]	[0.068]	[0.052]	[0.049]	[0.090]	[0.085]
Secondary plus	0.013	0.025	0.06	0.063	0.103***	0.09	-0.047	-0.046	0.134*	0.129	0.165	0.158
	[0.139]	[0.092]	[0.044]	[0.051]	[0.036]	[0.068]	[0.107]	[0.102]	[0.080]	[0.078]	[0.119]	[0.117]
Spousal education:												
Some primary	0.018	0.024	-0.051	-0.061	-0.052	-0.073	-0.021	-0.02	-0.077	-0.071	0.028	0.026
	[0.029]	[0.033]	[0.039]	[0.048]	[0.055]	[0.080]	[0.056]	[0.052]	[0.054]	[0.049]	[0.088]	[0.083]
Primary	-0.065	-0.051	0.067***	0.089***	0.03	0.056	-0.025	-0.018	-0.036	-0.033	0.022	0.014
	[0.051]	[0.049]	[0.022]	[0.033]	[0.039]	[0.063]	[0.059]	[0.054]	[0.049]	[0.045]	[0.073]	[0.068]
Some secondary	0.039	0.04	0.061**	0.077**	0.035	0.057	-0.03	-0.03	-0.004	-0.005	-0.024	-0.023
	[0.036]	[0.038]	[0.025]	[0.033]	[0.039]	[0.053]	[0.057]	[0.054]	[0.051]	[0.049]	[0.073]	[0.068]
Secondary plus	0.095	0.075	0.045	0.059*	0.054	0.086	-0.002	-0.004	-0.036	-0.033	-0.016	-0.016
	[0.058]	[0.057]	[0.029]	[0.032]	[0.038]	[0.057]	[0.056]	[0.052]	[0.061]	[0.057]	[0.085]	[0.081]
Highest education of older female in HH:												
Some primary					0.088***	0.114***					-0.081	-0.073
					[0.025]	[0.040]					[0.083]	[0.082]
Primary					-0.03	-0.029					-0.083	-0.077
					[0.067]	[0.077]					[0.106]	[0.106]
Some secondary					0.078***	0.085**					-0.089	-0.085
					[0.025]	[0.040]					[0.076]	[0.071]
Secondary plus					0.058	0.086					-0.026	-0.025
					[0.039]	[0.057]					[0.111]	[0.107]

Norms:												
Eat together	0.036	0.033	0.058**	0.062**			0.018	0.018	-0.007	-0.005		
	[0.036]	[0.037]	[0.023]	[0.025]			[0.036]	[0.033]	[0.033]	[0.030]		
Information access / processing:												
Listens to radio	0.066**	0.059**	-0.008	-0.007	0.01	0.012	0.108**	0.098*	0.005	0.005	0.003	0.003
	[0.029]	[0.028]	[0.025]	[0.028]	[0.027]	[0.038]	[0.055]	[0.052]	[0.042]	[0.039]	[0.056]	[0.053]
Religion of household head:												
Islam	-0.061	-0.051	-0.061*	-0.065	-0.088***	-0.085**	0.049	0.044	-0.054	-0.051	-0.227***	-0.214***
	[0.056]	[0.057]	[0.035]	[0.042]	[0.026]	[0.037]	[0.058]	[0.055]	[0.042]	[0.040]	[0.047]	[0.046]
Poverty / Wealth:												
Second-to-lowest asset score decile	0.060**	0.087**	-0.004	-0.008	-0.028	-0.035	0.026	0.027	0.006	0.004	-0.021	-0.016
	[0.029]	[0.041]	[0.028]	[0.037]	[0.051]	[0.067]	[0.047]	[0.045]	[0.043]	[0.040]	[0.085]	[0.080]
Median asset score decile	0.035	0.055	0.027	0.04	0.002	0.013	0.027	0.028	0.05	0.044	0.137	0.128
	[0.029]	[0.039]	[0.029]	[0.038]	[0.040]	[0.052]	[0.048]	[0.045]	[0.056]	[0.054]	[0.085]	[0.084]
Second-to-highest asset score decile	0.106***	0.144***	0.042	0.052	0.004	0.01	0.084	0.081	0.072	0.066	0.139	0.134
	[0.029]	[0.042]	[0.034]	[0.045]	[0.047]	[0.061]	[0.054]	[0.051]	[0.055]	[0.052]	[0.088]	[0.087]
Highest asset score decile	0.149***	0.169***	0.059*	0.057	-0.045	-0.031	0.086	0.085	0.017	0.016	0.099	0.092
	[0.029]	[0.042]	[0.033]	[0.043]	[0.063]	[0.064]	[0.070]	[0.066]	[0.065]	[0.060]	[0.101]	[0.098]
Geography:												
Urban	-0.003	-0.004	0.01	0.008	0.023	0.02	-0.007	-0.005	0.031	0.03	0.036	0.034
	[0.033]	[0.035]	[0.021]	[0.024]	[0.031]	[0.041]	[0.041]	[0.038]	[0.028]	[0.026]	[0.047]	[0.045]
Barisal	-0.170**	-0.126**	-0.095	-0.081	-0.154	-0.104	-0.181***	-0.181***	-0.155***	-0.151***	-0.042	-0.038
	[0.077]	[0.052]	[0.067]	[0.050]	[0.113]	[0.065]	[0.055]	[0.059]	[0.048]	[0.048]	[0.066]	[0.064]
Chittagong	-0.121**	-0.113**	-0.152***	-0.145***	-0.278***	-0.216***	-0.056	-0.055	-0.009	-0.007	-0.031	-0.028
	[0.052]	[0.046]	[0.052]	[0.042]	[0.093]	[0.064]	[0.055]	[0.055]	[0.045]	[0.043]	[0.072]	[0.068]
Khulna	0.004	0.003	-0.055	-0.052*	-0.157**	-0.109**	-0.142***	-0.141**	-0.131***	-0.126***	-0.08	-0.075
	[0.053]	[0.047]	[0.035]	[0.027]	[0.071]	[0.045]	[0.053]	[0.055]	[0.035]	[0.034]	[0.085]	[0.082]
Rajshahi	-0.111**	-0.112**	-0.090**	-0.090***	-0.146**	-0.120**	-0.221***	-0.219***	-0.235***	-0.231***	-0.243***	-0.233***
	[0.057]	[0.056]	[0.036]	[0.032]	[0.066]	[0.048]	[0.051]	[0.053]	[0.032]	[0.032]	[0.062]	[0.062]
Sylhet	0.151***	0.097**	0.113***	0.076***			0.312***	0.272***	0.374***	0.311***		
	[0.039]	[0.041]	[0.017]	[0.027]			[0.070]	[0.063]	[0.037]	[0.041]		
Constant		-4.131*		-0.192		1.25		2.262		-1.415*		-1.474
		[2.428]		[0.494]		[0.862]		[2.906]		[0.806]		[1.109]
R^2 / Pseudo-R^2	0.121	0.109	0.117	0.091	0.16	0.12	0.069	0.09	0.076	0.096	0.071	0.093
N	1408	1408	1534	1534	611	611	1408	1408	1534	1534	611	611

Notes: Dependent variable: one if responding that girls should be equally or better educated than boys (and zero otherwise) and one if responding that wives should be equally or better educated than husbands (and zero otherwise), respectively. Probit results are marginal effects, evaluated at the mean of the other explanatory variables. Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Wooldridge, 2010). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.
Source: World Bank Survey on Gender Norms in Bangladesh (2006).