LOOKING BEYOND UNIVERSAL PRIMARY EDUCATION:

GENDER DIFFERENCES IN TIME USE AMONG CHILDREN IN RURAL BANGLADESH

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Abstract

Gender disparities may persist in subtle ways even as gender equity in school enrolment is achieved. Hence, attention should focus on household level private investments in education. We analyze correlates of time spent in school, studying outside school, and work, using a unique data set on time use patterns of school going children and adolescents in rural Bangladesh. We find no significant gender or poverty related difference in time spent in school. We find gender disparities in time spent studying outside of school hours and work. This will have potential implications for grade completion by girls.

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INTRODUCTION

An implication of the considerable investments by developing country governments in programs to increase school enrollment is that school attendance and time spent in school have become less sensitive to gender and household's economic status. Not only are many countries now closer to achieving universal primary enrolment, "two out of three countries have achieved gender parity at the primary level" (United Nations 2008 p.16). Within South Asia, a region with the largest concentration of the world's poor, not only does Bangladesh have the highest gross enrolment rate, it has made significant strides in reducing gender disparity in primary education. Around 50 percent of the children enrolled in primary schools are girls. In addition, the number of years of schooling is likely to be greater for girls than in case of boys (World Bank 2008). The success in reducing gender disparity does not come as a surprise given that households received monetary benefits under specific government programs for sending their girl children to school.

However, the discussion on gender disparities in schooling needs to move beyond dichotomous measures like whether the child is attending school since gender disparities have become more subtle. Disparities may persist within the confines of the home even as gender equity in schools has increased. We explore variations in time spent in school, studying outside of school, working and leisure based on the nationally representative Bangladesh Adolescent Survey conducted in 2005 among young people aged 10- 24 years. In particular, our objective is to highlight gender disparities in time use among school going children and adolescents aged 10 – 16 years.

Time use patterns provide an important perspective on disparities achievement of gender parity in schooling. In settings where schooling expansion has occurred through policies such as shorter school hours and double shifting, study time and tutoring may become particularly important in influencing educational outcomes. Studies focusing on binary outcomes like school enrolment or attendance are unable to address the impact of overcrowding in school, schools running double shift and short school hours. Families may compensate for the reduced school hours by engaging tutors at home and extending study time outside of school (Assaad and El-Badawy, 2004). This represents an incipient form of privatization of education as success in school becomes a function of time spent studying outside school as well as direct expenditures on private tutoring.

Gender disparities can persist in at least three ways despite reduction in gender disparities in school attendance. First, to the extent that familial investments in education matter for school achievement, the competing demands for domestic work are likely to vary by gender and economic status. This will affect the amount of time spent studying at home. Second, when it comes to direct costs for private tutoring and schooling, in the context of South Asia, it has been argued that there may be a greater willingness to incur

these costs for boys than for girls because of perceived gender differences in returns on schooling (National Council of Educational Research and Training 1995, Dreze and Sen 1995, Chandrasekhar and Mukhopadhyay 2005)[1]. For similar reasons, parents may put more emphasis on time spent studying outside of school by boys rather than in case of girls. For example, in rural India, there are systematic differences across boys and girls in time spent doing homework. Among boys (girls) in the age group 6-10, 11-14 and 15-18 years, 55.4 (49.9) percent, 56.5 (45.1) percent and 26.5 (15.7) percent of them respectively spend non zero amount of time doing homework respectively (Motiram and Olsberg 2008). Third, gender disparities may stem from differences in alternative ways of spending time outside school. In many societies, in addition to expectations regarding work, boys and girls have vastly different opportunities for leisure. Youth clubs and sports fields are usually dominated by boys. As they mature, girls' lives become more and more restricted to the confines of home.

An improved understanding of time use patterns of children and adolescents is important for formulating appropriate policies in order to improve grade completion, gender disparities in examination scores and dropout rates after primary school. This paper contributes to the literature on children's educational attainment by seeking to understand how school going children in developing countries spend their time and is unique in being able to separate out school time from study time outside school hours.

THE CASE OF BANGLADESH

Since independence in 1971 Bangladesh has experimented with a range of social and economic interventions to combat some of the highest rates of poverty in the world. Data on expansion of schooling shows that over the period 1985-90, the number of children enrolled in primary school grew at an annual rate of 7 percent. Over the next five years, i.e. 1990-95, the annual growth rate of enrollment increased marginally to 8 percent. Over the decade of 1995-2005, there was a marginal decline in the annual growth rate of enrollment because of a decrease in the number of children aged 6-12 years (World Bank 2008). At the secondary level girls' gross enrollment in secondary school increased from 13.6 percent in the 1990s to 46.9 percent in 2000 (UNESCO 2003 Table 7, pp 349).Between 1970 and 2005 gender equity, as measured by the female to male ratio of gross enrollment increased from 0.39 to 1.05 for secondary school enrollment.

Educational programs that are credited with increasing schooling and the closing of the gender gap include enrollment drives that target girls, free tuition for girls where boys are required to pay (late 1980s onwards), and beginning in 1994, monetary incentive schemes that reward families for sending girls to and keeping them in secondary school. The latter especially aimed at affecting age at marriage by promoting continued education and thereby encouraging later marriages and consequently lower fertility.

One requirement of the program is that parents have to sign a pledge that they will not marry their enrolled daughters off before 18 years of age. In addition the program of 'education for all' increased the number of schools and provided targeted subsidies (food/cash for education, free tuition) to poor children. It is not surprising that there is now near gender equity in the first ten years of school (World Bank, 2008). Although other studies have documented this phenomenon of increased schooling among women at least one study shows that while the program has effectively reduced the proportion of girls who are neither in school nor married (i.e reduced the time spent after quitting to school and waiting to marry), there is relatively little impact on age at marriage itself. They also find that marriage and dowry considerations prevail in decisions about when to end a girl's schooling (Amin and Huq, 2008).

Despite the school based and household incentive programs, Bangladesh's progress in improving secondary school completion rates has been far from satisfactory. Poor completion rates in secondary school are cause for concern because school certificates are often an important determinant of successful transition into the labor force. Although there has been some increase in women's participation in the workforce over time, women are less likely than men to enter the labor force (World Bank, 2008). A recent study on differential rates of schooling by economic status showed that early marriage is also a reason for not completing secondary school. The proportion of women in Bangladesh in the age group 20-24 years who were married by the time they were 18 years old is 68.7 percent. Although girls continue attending school until they get married, very few girls are able to continue after marriage (Mahmud and Amin, 2006).

There remains evidence of considerable disparity by gender beyond the first 10 years of schooling with girls dropping out at a faster rate than boys. Only 10 percent among girls who completed primary school passed the secondary school certificate examination compared to 25 percent among boys. A case study by UNICEF found that "retention, dropout and other challenges are still faced by girls more than boys" (p. 29 Mahbuba and Tate 2007). The United Nations Girls' Education Initiative has expressed concerns over the "large disparities in the upper levels of secondary schooling and in tertiary education, indicating lower expectations and limited opportunities for girls. Although the enrolment rate is relatively high, the completion rate is much lower. High drop-out rates and poor quality continue to be major challenges for the primary education system". Further, there is evidence to suggest gender gaps in test scores in favor of boys. A World Bank (2008) review of studies on the quality of primary education in Bangladesh made the following assertion, "(these studies) generally point to low levels of learning achievement, poor literacy and numeracy skills acquired during the primary school cycle as well as to a gender gap in test scores in favor of boys" (p. xii – xiii). In order to explain gender gap in test scores in favor of boys a starting point would be to understand differences in time use patterns of boys and girls.

DATA AND DATA DESCRIPTIVE

The Bangladesh Adolescent Survey (BAS) 2005 is a nationally representative survey conducted by BRAC's Research Division with technical assistance from the Population Council[2]. The purpose of the survey was to provide detailed descriptions on transitions to adulthood in terms of school, work, marriage and reproduction and to offer data on poverty and vulnerabilities specific to adolescence. The questionnaire included household and individual modules. The sample consists of 14,592 boys and girls between the ages of 10 and 24 living in 20,000 households. Sample households were selected using a multi-stage cluster sample and a sampling frame generated from the 2001 Census. The clusters are primary sampling units (PSU) corresponding roughly to a mouza in rural areas and a mohalla in urban or metropolitan areas. The sample sizes were calculated to generate indicators at the division level by urban/rural residence with a minimum of 30 households from each PSU. Only one randomly chosen adolescent between the age of 10 and 24 was interviewed from each household as a strategy for preserving confidentiality and anonymity[3].

The survey includes the first nationally representative data on time use patterns for young people irrespective of schooling status. Each survey respondent was asked to sequentially recall how they spent their time for a 24 hour period in the day prior to the interview. Start and end time was recorded by the interviewer for each activity reported in an open format grid marking time of day. Multiple data quality measures were taken - the detailed time grid included markers for prayer times and interviewers were trained to query improbable and inconsistent reports. For example, a person who reported being in school beyond school hours would be asked for more detail. Similarly, responses on work reported during harvest seasons or unreasonably long commuting time was cross-checked.

In the data set, information is available on over 60 distinct activities. For the purposes of the current analysis we group time spent by children and adolescents into the following categories: time spent in school (including commute time to school), time spent at home studying, time spent in domestic chores and other work on a given day. In line with the literature in our specification of work we include domestic and productive work (Lloyd, Grant and Ritchie, 2008; Assaad, Levinson and Zibani, 2004; Post, 2001). In addition we have the residual category which include leisure and sleep time.

Although the multivariate analysis presented later include all children regardless of whether they attended school on the day in question, Table 1 reports the average time and median time spent on different activities for individuals in the age group 10 – 16 years for those who report that they attended school on the day of the survey. It is evident that the school day is relatively short- boys and girls spend over 5 hours in school. Boys spend nearly 4 hours studying at home and around half an hour working. We observe gender specific difference in time spent on work with girls spending more time working on the average.

The fact that we find schooling going children engaging in some form of work is consistent with findings from UNICEF's Multiple Indicator Cluster Survey in Bangladesh. In the context of Peru (Patrinos and Psacharopoulos 1997), India (Maharatna 1997) and Nepal, Peru and Zimbabwe (Ersado 2005) authors have found that work and study are not necessarily mutually exclusive.

In terms of investing in the child, the parent could opt to send the child for tutoring either because the parent would like the child to cope with his or her studies or to realize his or her full potential. We find that there is a reallocation of time across activities if the child gets tutored. These children spend more time studying (Table 2). Girls who do not receive tutoring spend more time doing work on the average compared to girls who were tutored. Since we do not have outcomes relating to grades or academic performance we are unable to address the benefits of spending time at home studying.

EMPIRICAL METHODS

There is cross-country evidence to suggest that time allocation decisions across activities is jointly determined. Since our objective is to explain time use pattern of children going to school, we estimate a Seemingly Unrelated Regression (SUR) model[5]. We explore the factors determining the proportion time spent at school, time spent studying at home, time spent at home and elsewhere working and the residual category leisure. Ideally, we need information on time use pattern of all individuals in the household. However, we have information on time use pattern for only one adolescent from each household. This is a limitation of the data set and this should be borne in mind.

Our choice of explanatory variables is consistent with the literature. The household level controls are religious group to which the household belongs (whether Muslim or non-Muslim), educational attainment of the head of the household (no education, primary and below, above primary), the number of children under the age of five, the number of individuals over the age of 60, whether the households is a member of any non governmental organization. Being a member of a non- governmental organization can affect decisions about education since these organizations explicitly encourage schooling of children in their advocacy and even run schools to encourage education particularly focusing on early childhood. Although not part of the formal education system, their importance can be gauged by the fact that around 1.2 million children are part of the primary school system run by non governmental organizations (World Bank 2008). We also control for the socio economic status of the household. In order to do so, we use the statistical technique of principle component analysis, to construct a wealth index to reflect the socio economic status of the household. The components of the wealth index are the following: whether the household owns a radio, television, bike, cot, motor or engine, cot, mosquito net, quilt, clock, multiple sets of clothing, and shoes. We also control for whether the household has electricity. This is important

since having access to electricity increases the time available for children to study. In addition to household variables the models include two measures of the community to capture economic opportunities in the area that may influence decisions on schooling: aggregate poverty measure for the division in 2000 and an average urban wage measure for construction workers in the nearest urban locality in 2004-05[6].

The individual specific controls are age and square of the age of the individual, sex of the individual, and they type of school attended (primary versus secondary level, Madrasa versus non- Madrasa), and whether the child was tutored.

In the SUR model the explanatory variables for the three equations are the same. The summary statistics of the variables used in the analysis are presented in Table 3. We estimate the model by including all children who are currently enrolled in school including those who did not attend school on the day of the survey. If we had excluded the children who are enrolled in school but did not attend school on day of the survey then we would have to address the issue of selectivity of regular school attendance. We also estimate the models separately for those attending primary and secondary school.

RESULTS AND DISCUSSION

We now turn to the estimates based on the SUR model shown in Table 4, 5 and 6. We first discuss the factors determining the time spent in school. Given that school time should be invariant to household characteristics it is not surprising that very few of the covariates considered are significant determinants of time spent in school (Table 4). In fact in the regression for primary and secondary school going children most covariates are insignificant (Table 5, 6). In the pooled regression for all children, among those that have significant effects are age, gender and the poverty headcount ratio for the division (Table 4). Even after controlling for the school type, the coefficient on age is positive and that on square of age is negative suggesting that amount of time spent in school increases at a decreasing rate as children grow older and attend higher levels of schooling. This is expected since children in primary school typically spend considerably less time than those in secondary school and this is probably what the age variable is capturing. We find that girls are significantly more likely to spend more time in school in the pooled table. There is some evidence in the grade for age data that would provide justification for girls being in higher grades than boys at lower levels of schooling. This is most likely a product of conditional cash and food transfers that are available for girls but not for boys at the secondary level. Boys in poor households who receive food for education may be less motivated than girls to progress through the grades in primary school and then to secondary schools because of the loss of benefits that such a transition will entail. Since secondary schools have slightly longer hours, better grade for age progression for girls could explain the observed gender differences. The poverty headcount ratio has a significant negative effect on

time spent in school. We also find that time spent in school is positively correlated with tutoring but only for students in secondary school (Table 6).

We now turn to a discussion of time spent studying outside of school and working. Time spent studying and working has more covariates that are significant than time spent in school. Generally, variables that are positively associated with study time are negatively associated with work time.

Girls are more likely to spend more time working and less time studying outside of school compared to boys. The fact that they are likely spend less time studying also comes out in the separate regression for children going to primary and secondary school. Recall, from the summary statistics, girls spend at least 30 minutes less on studying on the average compared to boys (Table 1). If we conservatively assume that children study five days a week, i.e. only on the days they go to school, then a difference of slightly over half hour everyday among boys and girls in terms of studying implies that over the course of the year girls study 130 hours less than boys. This average of course masks differences in time spent studying among girls across households from the lowest and highest socio-economic classes.

We also find that children who are tutored are likely to spend less time working and the effect is stronger for secondary school students.

Turning to household characteristics, in households where the head of the household has at least completed primary schooling, children spend less time working. In the literature on educational outcomes, it has been established that higher the number of siblings the lower is the probability of a child from that household attending school. We find a similar result in context of time spent studying, i.e. in households with larger number of children time spent studying outside of school is lower. We find that the presence of individuals over the age of 60 is not a significant determinant of time spent studying outside of school. Note however that we find that the presence of the elderly reduces the time spent by children working while the presence of children under the age of five increases the number of hours worked.

One might have expected that access to electricity will affect the time use pattern of children in particular time spent studying outside school. Desai and Sen (2004) suggest that availability of electricity effectively increases the amount of time available studying particularly after sunset. We do not find electricity to be associated with time spent studying but do find that in households with electricity children are likely to spend less time working. The recurring theme in the literature is that it is common for children from poorer households, to undertake multiple activities (Basu 1999). We find that children from higher wealth class are likely to spend more time studying at home than children from the bottom wealth class. At the same time, we find that there are no differences across the first three wealth classes in terms of time spent working. It is only in case of children in the fifth wealth class that we find that they are likely to spend less time working.

The community headcount ratio of poverty is positively associated with work, significant for the total sample and the primary school sample but not for secondary school. Prevalent wage rates are not significant predictors of work time of students.

Finally we turn to two specific issues specific to the case of Bangladesh — whether the household belongs to a non-governmental organization and attending religious as opposed to secular schools. Whether the household is a member of a non-governmental organization does not appear to be a significant determinant of time use patterns. While only poorer households are usually eligible to be members, membership may also be a community proxy for road accessibility and development since most NGOs are able to work better in areas that are more accessible by road transport from the capital city. It may also be the case that membership measures a kind of modern association. There is some evidence that the pro-poor NGO agendas are not uniformly welcome across the country and reports that NGOs have found it most difficult to recruit members in more conservative areas. Another factor may be that some NGO's run primary schools provide reasonably high quality early education to poor children and thus give these kids a head start.

Despite the broadly equalizing impact of recent developments on education, there are a number of historical influences that can lead to persistent remaining differentials in education. In particular, several studies have noted higher educational attainment among Hindus relative to Muslims, and have attributed to their acceptance of secular and English language education among Hindus while Muslims continued to prefer education in Arabic and Persian schools (Ahmed, 1996; Murshid, 1996). This divergent historical trajectory in education also resulted in Hindus being better represented in the sector occupations. We find that children from Muslim households are likely to spend less time studying outside of school. We find that Muslim children spend marginally less time in primary school but this effect is not significant for the pooled sample or for secondary school. We do not have a ready explanation for this difference of schooling by religion but it is possible that less time in school is driven by poor attendance. Poor attendance in turn may be a function of propensity to enroll in poorer quality schools such as madrashas among Muslim children.

There are concerns that that the growth of Madrasas in recent years, as a way of increasing access to schools among underprivileged children, can further exacerbate differences in outcomes across Hindus and Muslims (Asadullah and Chowdhury 2006).

We find that secondary school children going to Madrasas spend less time studying outside school although there is no difference in time spent in school. This is consistent with Asadullah and Chowdhury (2006) who argued that Madrasas in Bangladesh serve a similar function as NGOs as non-state providers of education and typically cater to less privileged segments of societies. They argue that like non-governmental organizations, growth of Madrasas is compatible with the rise of secular female education.

Pointing to similar patterns of growth in all three types of schooling the paper advocates subsidizing Madrasa education as a means of expanding schooling to underprivileged children. Our results suggest that this may come at the cost of providing inferior education to poor children and policies need to devise ways that can compensate for this inferiority.

With regard to the interaction terms, we find that not only are girls less likely to spend time studying at home the interaction between girls and NGO membership is significantly negative also. Further, the interaction between tuition and secondary school is significant.

In summary, the most striking results presented are the clearly significant association with gender and poverty with study time and the complementary effects of time spent working suggesting that work responsibilities have implications for study time even when they do not influence decisions to enroll. This would suggest the need for specific measures to address study time. For instance, Yap et al. (2003) found that the imposition of an after school program in rural Brazil resulted in a large reduction in the probability of child labor.

CONCLUSION

An improved understanding of time use patterns of children and adolescents will help formulate appropriate policies for improving school enrolment, grade completion, and educational attainment in the changing context of increasing attendance in developing countries which has led to escalating student teacher ratios in school. Schools routinely accommodate increased demand by introducing multiple shifts and there is a shift towards shorter school hours in South Asia. Concerns have been expressed about poor school achievement. To compensate for shorter school hours and ensure success in school examinations and progression, students have to spend increasing amounts of time studying outside school and beyond school hours. In addition parents invest in private tutoring to ensure time spent studying is spent productively.

The objective of this paper is to explore one possible future direction for research on schooling and work for the developing world today. In Bangladesh, primary school enrolment has over time become relatively inelastic to the income of the household, an outcome that more public investments in schooling are expected to yield. The government provides scholarships and subsidies to primary schools. The context of increasing investments in school access leading to near universal enrollment dictates that measures such as the fact of enrollment are no longer sufficient for understanding education. By exploring detailed time use data on time spent studying outside of school as well as in school we hope to have shed light on current patterns of variations in school and study towards a better understanding of factors such as gender and poverty that might explain investments in human capital in Bangladesh.

Our findings complement the few studies that explore factors affecting aspects of educational investments that might explain emerging gender disparities. This study helps to understand how gender disparities in workforce participation and educational achievements post-secondary school have persisted despite considerable achievement at the primary and secondary level. Our interpretation of this persistence is that the sources of gender inequality have become less perceptible because they are now more subtle and take place within the confines of the home even as gender equity in public spaces such as schools are reduced.

As enrollment rates expand and time spent in school is reduced, there is now an insidious privatization and has become a function of the extent to which households respond by turning to increased investment in private studies. However, rather than explore the determinants of whether a child gets tutored, we explore the implications of time spent studying at home more generally as the mechanism which mediates the impact of these private investments. While most children receive some tutoring, usually at strategically times to maximize improved performance in examinations, these investments need to be understood in conjunction with time spent studying.

These findings have potential policy implications. They suggest in the case of poor and under performing children, additional resources may be targeted to underprivileged children to extend their time in school. Such targeted investments have been shown in case of other countries to improve performance in poor neighborhoods because they compensate for the quality and more intense supervision that better off parents are able to offer to their children in a way that poor parents cannot. In a setting such as Bangladesh such targeted investments may have even stronger impact given that the majority of school attending children live in homes where there are no literate adults.

Table 1: Time Spent on Important Activities

Boys	Boys		Girls	
Total Time (Minutes)	Mean	Median	Mean	Median
School	315	320	330	340
Studying at Home	231	225	198	185
Work	32	0	63	30
No. of Observations	1401		1430	

Table 2: Time Spent on Important Activities by Tutoring

Boys	No Tutor		Tutored	
	Mean	Median	Mean	Median
School	312	310	319	330
Studying at Home	204	200	272	270
Work	35	0	28	0
No. of Observations	841		560	
Girls	No Tutor		Tutored	
	Mean	Median	Mean	Median
School	326	330	340	355
Studying at Home	172	160	252	240
Work	72	40	44	10
No. of Observations	962		468	

Table 3: Summary Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Share of Time Spent in (%)					
School	4611	13.8	12.33	0	53.82
Study	4611	13.4	9.33	0	57.29
Work	4611	6.6	9.74	0	59.72
Leisure, sleep, personal care	4611	66.2	14.43	28.96	100.00
Age	4611	12.23	1.86	10	16
Square of Age	4611	153.04	47.49	100	256
Female	4611	0.50		0	1
Ever tutored	4611	0.35		0	1
Currently attending Madrasa	4611	0.15		0	1
Education of Household Head					
No Education	4611	43.74		0	1
Primary and Below	4611	28.84		0	1
Above Primary	4611	27.41		0	1
# Children Under 5 Years of Age	4611	0.47	0.68	0	5
# Elderly Over 65 Years of Age	4611	0.18	0.42	0	2
Member of NGO	4611	0.35		0	1
Household has Electricity	4611	0.30		0	1
Wealth Index	4611	0.10	1.76	-5.61	3.58

Table 4: Factors Determining Proportion of Time Spent in School, Studying Outside School and Work

	School	S.E	Study	S.E	Work	S.E.
Age	3.36**	1.49	5.07***	1.03	1.62	1.13
Square of Age	-0.16***	0.06	-0.20***	0.04	-0.01	0.04
Female	0.92**	0.46	-2.18***	0.32	2.55***	0.34
NGO Member	0.63	0.55	0.62	0.38	-0.12	0.41
Female * NGO Member	-0.48	0.76	-1.03**	0.53	-0.04	0.58
Attend Secondary School	0.87	0.58	2.43***	0.40	-0.26	0.44
Tuition	0.76	0.57	3.32***	0.39	-1.89***	0.43
Tuition * Secondary	1.14	0.78	2.20***	0.54	-1.30**	0.59
Attend Madrasa	0.05	0.53	-0.08	0.37	0.25	0.40
Muslim	-0.80	0.58	-0.84**	0.40	0.02	0.44
Education of Household Head Primary and Below	0.24	0.45	0.95***	0.31	-0.41	0.34
Education of Household Head Above Primary	0.60	0.51	1.55***	0.35	-1.31***	0.38
# Children Under 5 Years of Age	-0.05	0.28	-0.62***	0.19	0.68***	0.21
# Elderly Over 65 Years of Age	0.12	0.44	0.12	0.30	-1.05***	0.33
Household has Electricity	-0.06	0.46	0.22	0.32	-0.93***	0.35
Household Socio Economic Status (Bottom 20 percent)						
2nd Quintile	0.13	0.57	1.19***	0.39	-0.12	0.43
3rd Quintile	-0.24	0.59	1.92***	0.41	-0.26	0.44
4th Quintile	-0.19	0.64	2.05***	0.45	-0.13	0.49
5 th Quintile (top 20 percent)	-0.27	0.75	2.40***	0.52	-0.76	0.57
Division Wage Rate Helper 2004-05	-0.02	0.02	-0.01	0.01	-0.01	0.01
Poverty HCR Division 2000	-0.04*	0.02	0.00	0.01	0.07***	0.02
Constant	0.14	9.63	-19.06***	6.66	-12.49*	7.29
Observations	4558		4558		4558	
R-squared	0.02		0.18		0.10	

***, ** Significant at 1 percent, 5 percent

Table 5: Factors Determining Proportion of Time Spent in School, Studying Outside School and Work (Primary School Going Children)

	School	S.E	Study	S.E	Work	S.E.
Age	3.82	2.72	3.54*	1.82	-0.55	2.09
Square of Age	-0.17	0.11	-0.15*	0.08	0.08	0.09
Female	0.86	0.57	-1.94***	0.38	2.70***	0.44
NGO Member	0.15	0.67	0.77*	0.45	0.12	0.51
Female * NGO Member	-0.37	0.96	-0.65	0.64	-0.91	0.74
Tuition	0.59	0.54	3.33***	0.36	-2.01***	0.41
Attend Madrasa	-0.65	0.62	0.69	0.42	-0.03	0.48
Muslim	-1.47*	0.76	-0.78	0.51	0.07	0.58
Primary and Below	0.45	0.54	0.90**	0.36	-0.28	0.42
Above Primary	0.65	0.71	2.47***	0.47	-1.48***	0.54
# Children Under 5 Years of Age	-0.04	0.33	-0.39*	0.22	0.59**	0.26
# Elderly Over 65 Years of Age	-0.12	0.59	-0.48	0.39	-0.74*	0.45
Household has Electricity	0.38	0.64	0.17	0.43	-0.54	0.49
Household Socio Economic Status (Bottom 20 percent)						
2nd Quintile	0.62	0.63	1.09***	0.42	-0.41	0.48
3rd Quintile	0.02	0.69	1.39***	0.46	-0.28	0.53
4th Quintile	0.38	0.81	2.39***	0.54	-0.85	0.62
5 th Quintile (top 20 percent)	0.23	1.03	2.58***	0.69	-0.07	0.79
Division Wage Rate Helper 2004-05	-0.01	0.02	-0.02	0.01	-0.01	0.02
Poverty HCR Division 2000	-0.06**	0.03	0.02	0.02	0.10***	0.02
Constant	-3.19	16.25	-9.59	10.87	-0.64	12.47
Observations	2501		2501		2501	
R-squared	0.01		0.11		0.09	

***, ** Significant at 1 percent, 5 percent

Table 6: Factors Determining Proportion of Time Spent in School, Studying Outside School and Work
(Secondary School Going Children)

VARIABLES	School	S.E	Study	S.E	Work	S.E.
Age	0.75	2.92	9.91***	2.07	2.05	2.18
Square of Age	-0.07	0.11	-0.38***	0.08	-0.03	0.08
Female	0.97	0.74	-2.63***	0.52	2.41***	0.55
NGO Member	1.23	0.91	0.36	0.65	-0.33	0.68
Female * NGO Member	-0.69	1.23	-1.32	0.87	0.91	0.92
Tuition	2.03***	0.61	5.53***	0.43	-3.07***	0.45
Attend Madrasa	1.10	0.95	-1.41**	0.67	0.64	0.71
Muslim	0.06	0.89	-0.93	0.63	-0.09	0.66
Education of Household Head Primary and Below	-0.15	0.77	0.95*	0.55	-0.65	0.58
Education of Household Head Above Primary	0.48	0.76	0.84	0.54	-1.27**	0.57
# Children Under 5 Years of Age	-0.09	0.47	-0.95***	0.34	0.87**	0.35
# Elderly Over 65 Years of Age	0.32	0.67	0.73	0.47	-1.37***	0.50
Household has Electricity	-0.36	0.67	0.27	0.47	-1.33***	0.50
Household Socio Economic Status (Bottom 20 percent)						
2nd Quintile	-1.07	1.17	1.21	0.83	0.41	0.87
3rd Quintile	-1.18	1.11	2.34***	0.79	-0.15	0.83
4th Quintile	-1.29	1.15	1.65**	0.82	0.53	0.86
5 th Quintile (top 20 percent)	-1.31	1.25	2.22**	0.89	-0.91	0.93
Division Wage Rate Helper 2004-05	-0.04	0.03	-0.00	0.02	-0.00	0.02
Poverty HCR Division 2000	-0.03	0.04	-0.01	0.03	0.03	0.03
Constant	19.74	19.94	-48.78***	14.11	-14.27	14.87
Observations	2057		2057		2057	
R-squared	0.03		0.15		0.11	

***, ** Significant at 1 percent, 5 percent

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[1] Poor households might not be able to afford to send their children to school. In many countries primary education was not free despite the fact that there are not supposed to be any charges. Kattan and Burnett (2004) examined the incidence of tuition fees in case of 79 countries. They found that only 19 countries had legal tuition fees. Fees were "implemented illegally" in the following 11 countries Benin, Ethiopia, Indonesia, Vietnam, India, Nepal, Colombia, Bosnia, Latvia, Russia and Egypt.

[2] Details on the survey and the data are available at http://dataportal.popcouncil.org

[3] We are assured of high data quality based on several indicators. The overall rate of non-response and refusal is low. There was an intense level of scrutiny during fieldwork and every questionnaire was cross-checked by a supervisor in the field to ensure rapid correction when necessary. In addition, a random sample of respondents were cross-interviewed by a data quality enforcer. Consistency checks were conducted onsite and reconciled by supervisors.

[5] We observe time spent studying at home only for those who go to school. Hence, when we estimate the time spent studying at home, we have to correct for the "sample selection bias". In order to correct for sample selection, we include those who do not go to school and control for distance to secondary school in the division. Distance to secondary school is a reasonably good instrument. There are many more primary schools than secondary schools in Bangladesh and it is seen from grade specific data that there is a significant disjuncture in school attendance between primary and secondary schools. In 2006 the ratio of primary to secondary schools was one is to four approximately. We test for selection effect and reject the test at 10 percent level of significance.