

The Role of Parental Perceptions in the Gender Bias in Education in West Bengal, India:

Results from a micro survey

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Introduction

Gender and education studies have become an important area of contemporary research. The need for such research, particularly in a developing country like India, arises from a history of discrimination against women that goes back centuries. Education is one of the most important fields where women have been deprived traditionally. Gender disparity in literacy, its causes and consequences has generated extensive research and various disciplines have made significant contributions. From the sociological viewpoint, education improves a woman's status, work efficiency and ability to deal with the home as well as the outside world. Educated women are also better able to overcome cultural biases and norms. Gender discrimination in education has an impact not only on women who are denied education by limiting their options, but also on future generations of their daughters. The economic consequences of the problem cannot be ignored. Increased education is associated with better bargaining power and resource control [Sen, 1990]. Studies have investigated the relationship between higher education and female employment and gender equality in higher education especially in developing countries. Analysis of spatial as well as temporal variations of literacy rates for females compared to that for males at national, regional, state and district levels based on available data have been the concern of demographers and geographers. Research into the causes of such variations has in turn influenced policy makers.

Our research attempts to explore some of the linkages between gender relations, socio-cultural factors, and economic forces, by using primary data obtained from individual households in 2007-08. This paper is part of a larger study that aims to identify the extent and causes of gender disparity in education in four villages in the state of West Bengal. In this paper we primarily focus on the importance of parental perception as a possible explanation for the persistence of gender bias in education among children. Since parents are the decision makers regarding their children's education, parental attitude and motivation in favour of education for daughters often act as a driving force which can overcome economic and other constraints.

The present study attempts to explore the motivation of parents with regard to education for female children in terms of the following aspects:

- Parental awareness regarding the necessity of education in contemporary society.
- Parental awareness with respect to the need for education for women.
- Parental attitude regarding the level of education required for children of both sexes.

- Parental attitude to education beyond primary level for children of both sexes.

2. Literature review

Gender inequality in education has generated considerable research in the international field. Numerous studies are being carried on especially in the developing countries where illiteracy and discrimination against women are major issues of contemporary relevance. The relation between female literacy and economic development is often at the centre of such research. Benavot [1989] analyses cross national data on 96 countries from 1960 to 1985 and finds clear evidence that in less developed countries, especially some of the poorest, education expansion among school age girls at primary level has a stronger effect on long term economic prosperity than does educational expansion among school age boys. Presentations at the Second Conference on Gender Equality in Higher Education [Zurich, 2000] included a study on the current scenario of the relationship between higher education and female employment in Mexico in relation to other countries of Latin America [Cuetara, 2001].

Studies on many developing countries show that girls are at an educational disadvantage compared to boys. For example, Worku [2001] has examined gender role problems in education in Ethiopia and has found that while girls' enrolment has increased, the gap is nevertheless widening due to various social, economic and cultural factors that hinder participation and performance of girls. In an analysis of gender stratification in higher education in Iran, Pakistan and Turkey, cultural factors [particularly religion] were found to be much better predictors than structural factors [Malik, 1995]. In Indonesia, a study shows that women are acquiring secondary and tertiary education in relatively larger numbers than men in recent years. Yet there is still a gap between male and female enrolments at these levels [Deolalikar, 1993]. Analysis of time series data for female participation rate in secondary education in Nigeria [Obasi, 1997] attributes the remarkable increase in participation rates to the nationwide implementation of a 6-year programme of free and compulsory Universal Primary Education from 1976.

A recent study in Bangladesh [Hossain and Tisdell, 2005] on the status of women in terms of key macro level indicators namely, women's labour force participation, educational attainments and earnings vis-à-vis men found remarkable improvement in women's

educational attainments. Further female education is found to be positively correlated with their workforce participation.

Increasing women's education has been a gender issue since the mid nineteenth century in India (Kumar, 1993). There are studies that show that discrimination against women is decreased by influences that give women more voice and agency within the family (Dreze and Sen, 1995). One of these influences is education. Since India's independence, equal educational opportunities for women are available under the law. Yet, India still has one of the lowest female literacy rates in Asia. In a district level study of literacy rates, Sopher (1980) found that male literacy was higher than female literacy in every district in rural and urban areas. In particular, districts in north central India (Bihar, eastern Uttar Pradesh and northeastern Madhya Pradesh) had the largest gender disparity in literacy rates. In fact, with the exception of Punjab, almost all occurrence of higher than median sex disparity in literacy rates occur in north and central India. Among the other areas, Kerala (with exceptionally high female literacy rates), Bengal, Assam and the northwestern mountain zone, had relatively small gender disparities. Sopher argued that the gender disparity exists as a result of prejudice against female education and also against their working outside the home. Since then there have been studies that show that in many families, whether urban or rural, some female education is looked upon positively. Yet, illiteracy is very high among women. In about 100 districts of India, the female literacy rate is less than 10 percent (Ghosh, 1995). In 1991, less than 40 percent of females aged seven and over were literate (Velkoff, 1998). While this represents a significant improvement over a female literacy rate of only 22 percent in 1971, it is very low in absolute terms. Additionally, even today, a large gender gap persists between the literacy rates for males and females. Sixty-six percent of men were literate compared to only 38 percent of women in 1995 (Adlakha, 1997). With the exception of Kerala, more males are literate than females in every state (Beckett, 94). The regional difference in gender disparity, that Sopher (1980) found, still holds. The northern states have the lowest literacy rates and the highest gender disparity (Jejeebhoy, 1991). In 2001, Bihar recorded the lowest female literacy rate of 33.1% in the country. There is also a large rural urban difference with girls in urban areas much more likely to attend school.

Analysis of state as well as district level changes in gender disparity in literacy during 1991-2001 [Bhargava, 2002] shows significant spatial variations. There are states like Rajasthan,

Uttar Pradesh and Bihar with significantly high gender disparity at one end. On the other, is a state like Kerala where the female literacy rate is close behind that of male literacy. The gender gap in literacy rate was more than 30 percentage points in more than five states [Uttaranchal, Rajasthan, Uttar Pradesh, Jharkhand and Chhatisgarh] in 1991. Though there have been considerable improvements in literacy during the 1991-2001 decade, the gap is still more than 30 percentage points in Rajasthan. The study also shows that in 1991, 71% of the total districts in India had a gender gap in literacy rate below 30 percentage points. In 2001, the figure increased to 83 % indicating that female literacy rate has risen during the 1991-2001 decade and the gender gap is narrowing down.

A look at current enrolment patterns of children also provides cause for concern. While male enrolment in primary education (classes I-V) is near universal, only about half the eligible girls in the four largest northern states are in school (Jejeebhoy, 1991). In Uttar Pradesh, the largest state in India, about two-thirds of all adolescent girls in rural areas have never been to school. In another study in a north Indian village, the researcher found that the sex ratio of elementary school students had increased from 83% male versus 17% female in 1955 to 56% male versus 44% female in 1975 (Minturn, 1984). However, she also found that families remove their daughters after fourth grade, after they have learned to read and write. The sex ratio dropped from 50-50 in class IV to 65-35 in class V. By the time they reached high school, only 8% of students were girls compared to 92% boys. At the national level, Ghosh (1995) found a third of the girls 6-11 years of age are not enrolled in school. By age 15-17 years, boys are in school at double the rate of girls.

Velkoff (1998) provides further support of gender disparity in education and shows that three out of five girls attend school versus three out of four boys. Women's education is often not taken seriously and school is only considered a place one spends time until marriage (Dhruvarajan, 1989). Data on school attendance show that the proportion of girls attending school decreases with age, while for boys it remains stable (Velkoff, 1998). Gender bias in school participation is a common feature in India and more so in rural areas (Dreze and Kingdon, 2001). In rural areas, girls' education is also stopped because parents will not allow their daughters to travel beyond the village (Jeffery and Jeffery, 1994). Many villages do not have high schools (Joshi, 1998). Other barriers to girls' schooling include a perceived irrelevance of

the curriculum to a girl's needs and an occasional lack of female teachers (Satia and Jejeebhoy, 1991).

The general lack of importance assigned to female education relative to male is confirmed in Basu's study (1992) of urban slum dwellers. She found that in general boys are more likely to be in school and for a longer time. As girls reach 10-12 years of age they are progressively more likely to be withdrawn from school because they have to help out at home. This excuse never applies to boys. Financial difficulties are also considered more valid reasons for not sending a girl to school than a boy (Basu,1992).

While there are numerous studies that have looked at the gender gap in education, there are far fewer studies that attempt to test the causal factors leading to such disparities. Differential treatment of sons and daughters by parents as a potential explanation of the gender gap in education in the Indian context has been analysed by Kingdon [2002]. The study empirically tests this explanation using household survey data collected in urban Uttar Pradesh. Findings showed that girls face significantly different treatment in the intra-household allocation of education.

Existing research also shows that parental education has an impact on school enrolment as well as on the gender differences in child's education [Pal, 2004; Dreze and Kingdon, 2001; Glick and Sahn, 1998; Tansel, 1997; Khambhampati and Pal 2001; Unni 1998]. For example, a study on Guinea, (Glick and Sahn, 1998) found that father's education affects schooling of both boys and girls while there are almost no cross-sex effects with respect to mother's education. Another work by Tansel (1997) on Cote D'Ivoire and Ghana shows that in both the countries schooling attainment of children of both sexes is related to the education of both parent but the effect of father's education is stronger than that of the mother. While school participation increases with parental education, both maternal and paternal, maternal education has a more significant effect on girl's schooling. This is confirmed on studies in India where mother's education has been found to have a strong positive effect on girls' schooling, but not on boys (Pal 2004; Unni 1998). In both studies, father's schooling significantly encourages boys schooling only and does not have any perceptible impact on that of girls.

The chances of schooling for girls from better endowed households and households with most of their income from non agricultural sources are greater. These variables did not affect the chances of boys' schooling (Unni 1998).

3. Background Information

Independent India recognized the need for a literate population and universal education as a crucial input for national development. Various programmes have been undertaken with the objective of eradicating illiteracy since independence. The National Literacy Mission was launched in 1988 with the objective of obtaining a sustainable threshold level of 75% literacy by 2005. However, despite these efforts even the last census figures indicate a low level of literacy for females compared to that for males. In 2001, the percentage of literate females was 53.7% while 75.3% males were literate. While the female literacy percentage has improved somewhat from the figure recorded in 1991 [39.3%], the gender gap is still noticeably wide. Further, there are significant rural-urban contrasts in the gender disparity in literacy rates within the country. Female literacy rates are substantially higher in urban areas where the gender gap is also much less. The reverse is true of most rural areas where traditional attitudes are more prevalent.

West Bengal is included among the states with above national average of literacy. Gender disparity in this state is not as high as in states like Rajasthan, Uttar Pradesh or Bihar but it is still sufficiently large to merit attention. Further, the disparity is obviously much greater in rural areas compared to urban areas. For instance, in West Bengal, urban male literacy is about 86% and female literacy rate is 76% so that there is a gap of 10 percentage points between the two. Rural female literacy [54%] on the other hand lags behind that for males [74%] by 20 percentage points. In Kolkata, the first ranking city of the state, the gender gap in literacy is around 6 percentage points, much lower than the state average for urban areas. The disparity however increases remarkably in adjoining rural areas.

The gap between the literacy rate for men and women is a crude but informative indicator of the gender difference in educational attainment. Therefore, an analysis of the gender gap in literacy in West Bengal by district is presented to give a clear picture of the overall scenario in which the micro study is being done. Analysis of district level rural and urban gender gap in literacy during 2001 shows considerable spatial variations (Table 1). With respect to gender disparity in urban areas, the entirely urban district of Kolkata shows the least gap of 6.49 percentage points while Puruliya shows an exceptionally high gender gap of 20.12 percentage points. However, the figures for the other districts reveal that with a few exceptions, the gender gap in literacy rates varies between 10 and 15 percentage points. The districts adjoining Kolkata namely, North Twenty-four Parganas, Haora and Hugli show a disparity

around 10 percentage points in urban areas. The gender gap in rural literacy rates is without exception much higher in all the districts of West Bengal. There are seven districts where the gender gap is above the state average and they are located mostly in the northern and western part of the state. Again the greatest disparity is seen in the westernmost district of Puruliya where the gap is as high as 39.13 percentage points. Disparity of less than 20 percentage points is seen in nine districts out of which four are adjacent to Kolkata. However South Twenty-four Parganas, the other adjoining district shows a gap of 21.79 percentage points.

Table 1. Gender gap in literacy rates in West Bengal, 2001

DISTRICT	TOTAL	RURAL	URBAN
Darjiling	17.11	20.73	9.14
Jalpaiguri	20.62	22.67	11.47
Koch Bihar	19.81	20.83	10.61
Uttar Dinajpur	21.97	23.44	10.68
Dakshin Dinajpur	18.15	19.63	9.27
Maldah	17.55	18.17	10.58
Murshidabad	13.28	12.86	14.96
Birbhum	19.34	19.81	14.53
Barddhaman	17.68	18.87	15.23
Nadia	12.73	13.28	11.19
North Twenty-four Parganas	12.2	15.67	9.21
Hugli	15.38	17.64	10.38
Bankura	27.33	28.25	16.2
Puruliya	37.22	39.13	20.12
Medinipur	20.49	21.29	13.46
Haora	13.11	16.17	9.70
Kolkata	6.49	N.A.	6.49
South Twenty-four Parganas	20.18	21.79	11.71
West Bengal	17.41	19.97	10.39

Source : Computed on the basis of data from Census of India, 2001.

Data on school attendance shows that in rural areas the proportion of girls attending school decreases with age, while for boys it remains stable (Velkoff, 1998). For instance, in West Bengal the proportion of girls enrolled in schools decreases steadily with increasing educational level. In 2003-04 the proportion of enrolled boys and girls is very similar at the primary level

but at the higher secondary level the share of girls fall below 40% of the total enrolment at that level (Table 2). For girls who are allowed to go to school, a little education is considered sufficient for marriage, so there is no hesitation about stopping her education to teach her household skills instead. In addition, while a little education is considered desirable for a girl, higher education can be economically disadvantageous for families as women with higher education often require payment of more dowry to get them married off (Dreze and Sen, 1995).

Table 2. Percentage of students enrolled in schools (General education) in West Bengal, 2003-04

Class	Percentage of total enrollment in each level	
	Girls	Boys
I to V	48.9	51.1
VI to VIII	47.5	52.5
IX to X	42.4	57.6
XI to XII	39.0	61.0

Source: Directorate of School Education, Government of West Bengal

The gender difference in the percentage share of enrolment for children currently enrolled in schools in the different districts of West Bengal is another important indicator of the gender inequality in education in the state (Table 3). Gender gap in this regard widens along with rising school level. For the state as a whole the share of girls and boys are almost equal in the primary level. At the middle school level the share of boys begins to rise, resulting in a widening gender gap. At the secondary level the gap is as high as 15.22 for the state. The difference increases further at the higher secondary level where the gap of nearly 22 percentage points indicate that the number of girls is about two-thirds that of boys enrolled at this level.

A study of inter district variations finds the same trend with a few exceptions. A consistently high gender gap at all levels is found to occur in Puruliya which is also characterized by the highest gender difference in literacy rate among the districts. Gender differences are also seen in Kolkata, though the figures are less than the state averages. Among the adjoining districts least disparity is seen in Haora and Hugli districts. Again, South Twenty-four Parganas shows above average disparity for all levels except secondary. In this district, the percentage share of boys and girls at the primary level is nearly 50-50 with a gap of hardly 1 percentage point but by the higher secondary level the ratio becomes 64 to 36.

Table .3. Gender gap in percentage share of school enrolment (General Education) at different levels by district in West Bengal, 2003-04.

DISTRICT	Class I to V	Class VI to VIII	Class IX to X	Class XI to XII
Darjiling	2.92	6.26	10.50	33.28
Jalpaiguri	1.88	3.64	6.58	25.64
Koch Bihar	1.42	7.32	17.60	27.24
Uttar Dinajpur	5.44	3.42	28.08	36.70
Dakshin Dinajpur	0.50	7.10	15.06	29.82
Maldah	1.78	11.20	14.34	28.22
Murshidabad	0.72	2.42	22.94	35.30
Birbhum	7.30	14.4	21.34	29.42
Barddhaman	1.92	5.86	15.32	24.06
Nadia	0.70	5.68	18.72	34.06
North Twenty-four Parganas	1.08	3.92	10.62	19.44
Hugli	0.86	0.53	3.42	16.50
Bankura	1.46	10.12	30.78	34.22
Puruliya	8.80	8.34	38.26	44.66
Purba Medinipur	2.94	11.14	17.36	0.84
Paschim Medinipur	1.86	1.12	23.64	23.02
Haora	0.32	0.80	4.92	15.26
Kolkata	7.46	5.85	6.04	14.10
South Twenty-four Parganas	1.00	2.46	14.68	27.74
West Bengal	2.28	5.02	15.22	21.92

Computed on the basis of data by Education Directorate, Government of West Bengal.

4. Study area

An interesting point that emerges out of a preliminary analysis of gender inequality in educational attainment in West Bengal is the unexpectedly wide gender gap in the rural areas in districts adjoining Kolkata, especially in South Twenty-four Parganas. Educational infrastructure is mostly well developed and within a reasonable distance so that traveling to school is no hardship. Government Programmes such as the Sarba Shiksha Abhijan and the ICDS are well implemented and most primary schools have the mid-day meal system. Persistence of the gender gap in these areas seems to indicate that there is a need for an investigation of the extent as well as the causes of such gender inequality. The four villages chosen for this study are located in different CD Blocks of South Twenty-four Parganas, since

analysis of district level data on gender disparity in literacy reveals that among the districts adjoining Kolkata, the gender gap is widest in this district.

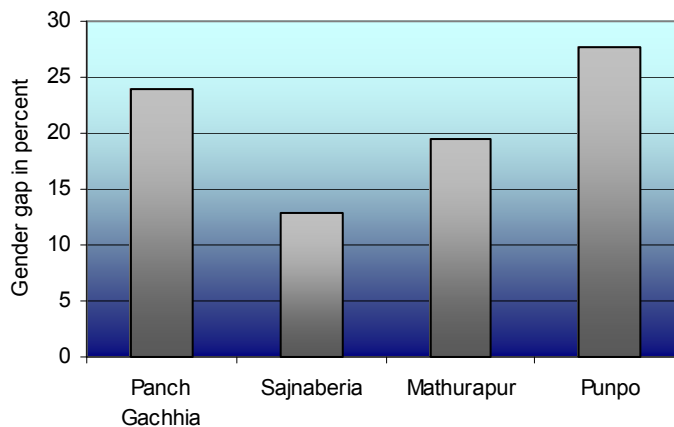
Selection of these villages was based on a number of considerations. First, there is a wide gender gap in the literacy rate in all villages (Table 4). Another deciding factor was the demographic diversity of the village populations. Scheduled castes form an overwhelming majority along with a sizeable Muslim community in both Panchgachhia and Punpo. The third village, Mathurapur, is entirely Hindu with a majority of the households belonging to the scheduled castes or tribes. Sajnaberia, the fourth village was primarily chosen for its religious composition which is different from that of the others. This small village is notable for its large Christian community. The villages are all within commuting distance from Kolkata and a large part of the population has direct links with the city, which is quite often their place of work. A pilot survey showed that the occupational pattern is diverse and educational facilities up to High School level are available within the villages or within adjoining villages.

Table 4 Literacy rate and gender gap in literacy, 2001 in the selected villages

Village	Literacy rate (%)			Gender gap
	Total	Female	Male	
Panch Gachhia	74.74	62.77	86.73	23.96
Sajnaberia	74.39	68.09	80.96	12.87
Mathurapur	76.49	66.41	85.87	19.46
Punpo	69.57	54.77	82.36	27.59

Source:: Census of India, 2001

Figure 1 Gender gap in literacy rates, 2001



Any investigation of gender inequality in education and its causes require a clear understanding of the demographic attributes of the population in which such disparity prevails. Census figures for the villages with respect to population characteristics in 2001 are presented in Table 5. In terms of population size Panch Gachhia ranks first with a total of 4044 residents followed by Mathurapur and Punpo with 3053 and 2908 respectively. Sajnaberia with a population of 1232 is much smaller than the other villages. Sex ratios show some variation among the selected villages. Panch Gachhia is characterized by an equal distribution of male and female population and the number of females is higher than that of males in Sajnaberia. Mathurapur and Punpo are however characterized by the unbalanced sex ratio typical in most parts of India. Scheduled caste population forms a large component in all the villages.

Table 5. Population and households, 2001

		Panch Gachhia	Sajnaberia	Mathurapur	Punpo
Population	Total	4044	1232	3053	2908
	Male	2022	608	1571	1530
	Female	2022	624	1482	1378
Sex ratio		1000	1026	943	901
Population(below 6 years)	Total	560	127	390	489
	Male	281	67	191	232
	Female	279	60	199	257
Sex ratio (below 6 years)		993	896	1042	1108
Scheduled caste population	Total	1906	446	2159	1578
	Male	962	202	1108	832
	Female	944	244	1051	746
Sex ratio (scheduled caste)		981	1208	949	897
Percentage of scheduled caste population		47.1	36.2	70.7	54.3
Number of households		761	283	715	559

Source: Census of India, 2001

5. Data and Methodology

Current sample

The total household sample size for this study is 385, with 106, 105, 99 and 75 households each from Panch Gachhia, Punpo, Mathurapur and Sajnaberia. The total number of children in the surveyed households is 1115 (673 girls and 451 boys). The male-female distribution of population among the sample households is strongly biased in favour of females

since the objective of this study required the presence of daughters of school going age in the household. Therefore, households consisting of only male offspring were usually excluded from the survey.

Dependent Variables:

Parental perceptions: Attitudes towards female education have been measured through four variables in this study. Responses to questions about the minimum education that a boy or girl should receive have been combined into a dichotomous variable, *boy should receive more education than girl*, coded 1 if parent's responses indicated agreement with this statement and 0 otherwise. Three other dichotomous variables have been created based on parental response to questions about reasons for educating their daughters. These are:

- i. *Improvement in the quality of life:* Within this category are included responses like women should not be deprived of knowledge and the awareness that at least some education is necessary for everyday life.
- ii. *Enhancement of the traditional role of a woman:* This includes responses like some education improves marriage prospects, helps in running the household and makes them able to supervise the education of their children.
- iii. *Provide economic independence:* this includes responses which stated that this would improve job prospects and also provide some additional income for the family.

It may be noted that respondents often gave more than one reason regarding as to why they are interested in providing their daughters with education.

Independent Variables:

Gender: Since it is possible that parental attitudes vary by gender we have included in our analysis a dummy variable, *gender*, that is coded 1 if the respondent was the mother, and 0 if the respondent was the father.

Parental education: parent's education has been operationalized through the use of several dummy variables categorizing different levels of education. *Primary* is coded 1 if the responding parent's education is between grades 1 - 5, and 0 otherwise. *Secondary* is coded 1 if the parent's education is between grades 6 through 10 (0 otherwise) while *higher secondary* is coded 1 if parental education is between grades 11 and 12 (0 otherwise). Finally, *college* is coded 1 if the respondent has some college education. The reference category is *illiterate*.

Religion: Three major religions are represented in our sample. The variables are Muslim (yes=1, 0 otherwise) and Christian (yes=1; 0 otherwise). The reference category is Hindu.

Caste: social class in India is inextricably linked to the caste system there. In this study, we have operationalized caste through a dummy variable, *scheduled caste/tribe/OBC*, which is coded 1 if the respondent belongs to a scheduled (i.e. low) caste or tribe, or is a member of the other backward castes, and 0 otherwise.

Standard of living: Income data for the households suffers from certain shortcomings. Information is not always available because many of the respondents are employed in agriculture. In most cases the cultivators cannot state their income in money terms and while the agricultural labourers do state their daily wage rate, they are vague about the number of days they actually worked. Sometimes, the respondents also showed some reluctance in stating their money income. Therefore economic condition of the households has also been determined empirically on the basis of information collected on ownership of house, housing conditions, availability of electricity, source of fuel, possession of a telephone and household possessions. The latter includes items like electrical appliances, recreational items as well as ownership of a mode of transport such as a cycle or a motor cycle. Scores were assigned to each of these items and the aggregate score for each household was used to determine a *standard of living index*. The values of the index have been used to classify the respondents into four standard of living categories (very low, low, medium, and high) that have been changed to dummy variables for the analyses. *Very low* standard of living is characteristic of households with scores below 6. Such scores indicate that the household lives in kutchra houses without electricity or any household possessions worth mentioning. Scores between 6 and 10 have been categorized as *low* standard of living and usually indicate that the household possesses some household goods such as a black and white television and a cycle. Increasing scores indicate improvement in economic condition of the household not only in terms of the structure of their homes but also the number of household goods. Thus families with scores between 11 and 20 (*medium* standard of living) usually live in pucca houses with electricity and possess recreational items as well as household appliances and a means of transport such as a two wheeler. Scores above 20 (*high* standard of living) indicate somewhat affluent families whose living standards are often at par with those of middle class urban households.

Control variables: The multivariate analyses controls for three other continuous variables, *respondent's age, number of female children, and number of male children.*

Analytical Strategy:

We begin by examining the descriptive statistics on all key variables and discuss bivariate relationships between children's educational outcomes and family characteristics. Much of the descriptive results are presented separately by village in order to explore the village level differences in characteristics and attitudes. Next we conduct logistic regression analyses that are organized into four models, based on the four dependent variables described above.

Results

Educational level of the children:

Among the surveyed households nearly two thirds (62.9%) of the children are seen to be attending school or college. The remainder consists of drop outs or is below school going age. The proportion of children of both sexes currently studying is very similar in the villages. The percentage of the eldest child in a household currently studying shows a steady decline with rising levels of education for both girls and boys above middle school (Table 6). However the decline is much steeper for girls compared to boys. Percentages for higher levels (undergraduate and above) show a wide gender gap. For the total sample, the percentage of boys currently pursuing higher studies is double the figure for girls. This is true for all villages except Mathurapur where the figures are similar for both sexes. A study of the figures for the second and third children reveals a total absence of girls pursuing higher education. This seems to indicate that parents show gender discrimination regarding the question of college education for girls.

Analysis of the mean educational level of children currently studying (Table 7) shows a slightly higher level for boys with respect to the total sample. Accordingly, the mean age for boys is also somewhat more than that for girls. The only exception to this is seen in Mathurapur, where a higher level is seen for the eldest female child in a household compared to that for the eldest son. At the same time the mean age for the former is greater than that for the latter by nearly two years.

Table 6. Percentage distribution of the eldest child per household currently studying by education level and sex

Education level	Eldest child		Second child		Third child	
	girl	boy	girl	boy	Girl	boy
Primary	34.3	34.5	57.0	54.8	78.0	55.6
Middle school	39.9	31.9	30.3	31.2	20.0	30.5
Secondary	14.9	15.0	5.2	4.5	2.0	8.3
Higher secondary	6.9	10.6	2.1	3.3	-	5.6
Undergraduate and above	4.0	8.0	1.4	3.2	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 7. Mean education level (years of school) of children currently studying by sex.

Village	Eldest child currently studying		Second child currently studying		Third child currently studying	
	girl	boy	girl	boy	girl	boy
Panch Gachhia	5.76	6.58	4.91	4.97	2.94	3.29
Sajnaberia	5.04	6.80	3.75	4.15	2.25	6.33
Mathurapur	6.28	4.68	3.09	3.70	3.60	4.00
Punpo	6.89	7.32	5.05	4.62	2.50	4.17
All villages	6.01	6.35	4.27	4.44	2.72	3.97

Household expenditure on education

Cost of education incurred for children of both sexes currently enrolled in schools or colleges have been grouped under three major categories: required expenditure, private coaching costs and miscellaneous expenditure. Required expenditure includes essential items such as fees, cost of books, stationary and school uniforms. Cost of private coaching has been considered as a separate category since it is seen that even the most financially backward households appoint tutors for their children right from the primary level. Lack of parental, especially maternal education appears to be the most important reason behind this. Finally, miscellaneous expenditure includes items like conveyance and lunch expenses.

Analysis of mean household expenditure per child currently enrolled in schools or colleges shows an average total cost of Rupees 3809 per annum (Table 8). Among the villages, education is least expensive in Punpo and most expensive in Sajnaberia. Among the different

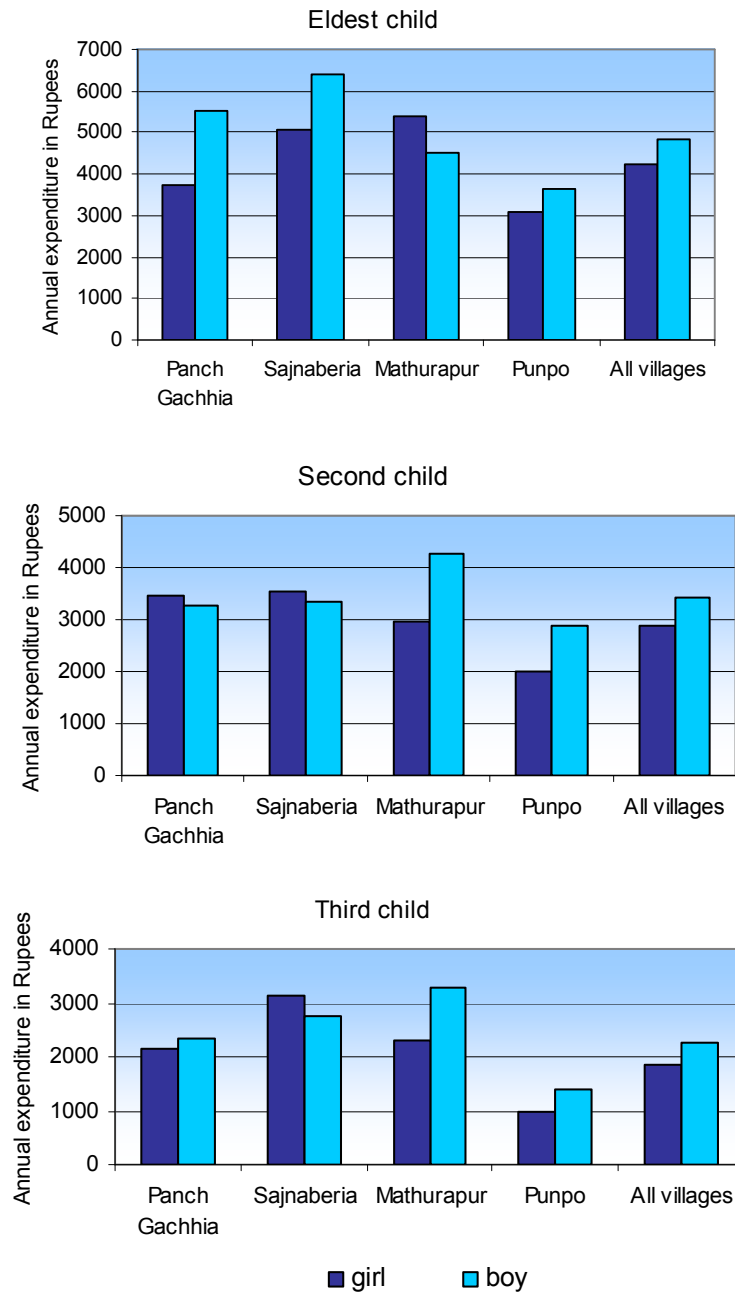
expenditure categories, cost of private coaching shows the highest figure and accounts for more than 40% of the total expenses. Low miscellaneous costs are explained by the fact that most children either walk to school or use cycles and a mid day meal is provided in the government run primary schools. Such costs rise for those attending private schools, schools located in Kolkata, or receiving college education. The comparatively higher expenses in this category for Sajnaberia are a consequence of the higher proportion of children going to private schools in this village.

Table 8. Mean household expenditure on education per annum per child

Village	Required expenditure (Rupees)	Private coaching expenditure (Rupees)	Miscellaneous expenditure (Rupees)	Total expenditure (Rupees)
Panch Gachhia	1238.65	1828.70	490.09	3557.44
Sajnaberia	1703.04	1602.92	1551.67	4857.63
Mathurapur	1916.44	1879.89	578.67	4375.00
Punpo	1234.62	1264.10	292.20	2790.93
All villages	1499.57	1641.21	668.34	3809.12

Financial constraint is often a significant factor behind gender discrimination in education particularly in rural India. Differential treatment of sons and daughters with regard to educational expenses is a persistent feature in the country and if a family has to make choice between educating a son and a daughter because of financial restrictions typically the son will be chosen (Velkoff, 1998). Therefore, the distribution of household expenditure on education for both daughters and sons has been presented for the villages (Figure 2). It may be noted that expenditure is higher for eldest sons for all the expense categories considered for the sample as a whole. While this may be said to show some evidence of a differential treatment with regard to education costs, it is also partly due to a slightly higher mean educational level for the boys. Total household expenditure remains consistently higher for the second and third male child of the family as well. It may also be noted that the gender gap in education costs is widest for Panch Gachhia (more than Rupees 1700 per annum) for the eldest child and least for Punpo (less than Rupees 600 per annum).

Figure 2. Mean household expenditure on education per child, per annum



Family characteristics

Among the various factors influencing education are religion, caste, and standard of living. In order to study the extent of gender disparity among the various religious groups, the survey included households from the three major religious communities of the country. About

two-thirds of the total sample consists of Hindus (Table 9). The proportion of Muslim population is a little under a quarter while Christians make up the remainder. Almost 60% of the households belong to a scheduled caste/tribe or is a member of the other backward castes. More than half the sample households have a low or very low standard of living (31 and 22 percent respectively). Almost 40% exhibit a medium standard of living with only 8% being categorized as having a high standard of living. There is some inter-village variation with Sajnabaria clearly having the highest percentage of affluent families and Punpo having the highest percentage of economically disadvantaged families.

It is also expected that educational attainment of children in the family are influenced to some extent by family size since per capita availability of funds is a deciding factor in the allocation of household income for education. Greater number of children in the economically backward families often results in only one child continuing with education while the others are deprived. In rural areas this is often the son because parents feel it is more important to educate him since Indian tradition dictates that the son is the one continuing the family name and also the one who looks after the parents in their old age. Therefore household characteristics of the villages in terms of family size and the number of children per family are presented in table 9.

Table 9: Descriptive statistics on family characteristics

	Panch Gachhia	Sajnaberia	Mathurapur	Punpo	All villages
Religion*					
Hindu	52	47	100	71	69
Muslim	48			29	21
Christian		53			10
Scheduled caste/tribe/obc*					
	44	35	78	71	58
Standard of living*					
Very low	14	4	21	42	22
Low	33	7	43	35	31
Medium	44	73	28	21	39
High	8	16	7	2	8
Family size					
	6	5	5	6	5
Number of children per family					
	4	2	2	3	3

*in percent; **frequency

Lack of a male child may influence parental attitudes in favour of education for female children in comparison to families with children of both sexes. Thus, discrimination against girl children with regard to education is most likely in households with children of both sexes. Differential treatment of daughters may also increase with increasing number of children

particularly in families with one son and more than one daughter. A study of the figures presented in table 10, which shows the percentage distribution of households by number and sex of children, reveals that Mathurapur and Sajnaberia are the two villages where around 40% of the families have the ideal distribution of one daughter and one son. However, it may also be seen that nearly half the households in Sajnaberia possess only daughters. Among the other villages the proportion of such families varies between 30 to 40%.

Table 10 Percentage distribution of households by number and sex of children

Village	Percentage of households with				
	one child of each sex	more than one child of each sex	one son and more than one daughter	one daughter and more than one son	only daughters
Panch Gachhia	19.0	21.7	21.7	0.9	36.7
Sajnaberia	37.3	4.0	8.0	1.0	49.7
Mathurapur	40.4	2.0	18.2	1.0	38.4
Punpo	25.7	16.2	26.7	2.9	28.5
All villages	29.9	11.7	19.5	1.6	37.3

Educational level of the parents

Educational level of the parents plays an important role in the education of children, since educated parents are more likely to attach greater importance to education and also to realize how necessary education is, not only for economic reasons, but also for everyday life. It is expected that higher the level of education of the parents the greater will be their expectations from their children with regard to a successful profession or a career. Educational attainment of the parents has been considered in terms of the number of years of education received by both parents. It may be noted that parents included in the illiterate / no formal education category have not gone to school but sometimes have rudimentary capability of reading and writing.

Table 11 shows the percentage distribution of households by education level of parents in the selected villages. The figures show that out of the total sample more than one fifth of the fathers are either illiterate or have not received any formal education. The percentage of fathers with higher education is rather low in all the villages. Punpo is the only village with nearly 13% of the fathers included in the graduate and above category. The percentage of fathers with education up to the primary level varies between 15 to 25 % among the different villages. Education up to middle school appears to be most prevalent with more than one third of the fathers being included in this category. The mean education level of the fathers is almost 6 years

for the total sample. A large proportion of the mothers have no education at all and the figure is highest for Punpo where more than 50% of the mothers are classified as illiterate. Mothers with higher education are absent in all the villages and only around 2% of the mothers have education up to higher secondary level.

Table 11 Percentage distribution of households by education level of parents

Education level	Panch Gachhia		Sajnaberia		Mathurapur		Punpo		All villages	
	mother	father	mother	father	mother	father	mother	father	mother	father
Illiterate/ no formal education	40.6	25.0	21.3	20.3	30.3	12.5	51.0	24.3	37.0	20.7
Up to primary	12.2	15.4	20.0	17.5	13.1	18.75	14.4	24.3	14.6	19.1
Up to middle school	37.8	37.5	36.0	37.9	40.4	42.71	25.0	25.2	34.6	35.5
Up to secondary	8.5	13.4	16.0	14.8	14.2	16.67	7.7	7.8	11.2	13.0
Up to higher secondary	0.9	4.9	5.4	4.1	2.0	5.21	1.0	3.9	2.1	4.5
Undergraduate	-	-	1.3	-	-	1.04	1.0	1.9	0.5	0.8
Graduate and above	-	3.8	-	5.4	-	3.13	-	12.6	-	6.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Among the socio-cultural influences on the level of education, religion is a significant factor. Therefore, religious composition has been related to the different levels of education considered in this analysis. Among the different religious groups considered in this analysis, the percentage of parents without any education is lowest among the Christians. On the other hand the highest proportion of illiterate parents is recorded among the Muslims. Among the Christians, about 8% percent of the fathers are uneducated in comparison to about 36 % of the Muslim parents. The proportion of parents, especially fathers with higher education, is also the highest among Christians though the proportion of Hindu fathers with education up to graduation and above follow closely. It is noteworthy that mothers with education up to graduation and above is seen only among the Christians.

Analysis of the mean educational levels by religion (Table 12) shows some departure when the sample villages are considered individually. For all villages taken together fathers with the highest figure of about 10 years of education is found among Christians and the lowest of slightly less than 7 years among the Muslims with Hindus falling in between. However,

Punpo shows an unexpectedly high figure of more than 10 years of education for Muslim fathers in comparison to Panch Gachhia where the figure is less than 5 years.

Table 12. Mean education level (years of education) of the parents by religion

	Panch Gachhia		Sajnaberia		Mathurapur	Punpo		All villages		
	Hindu	Muslim	Hindu	Christian	Hindu	Hindu	Muslim	Hindu	Muslim	Christian
Mother	4.22	3.39	4.83	5.93	4.89	4.56	2.87	4.65	3.20	5.93
Father	6.20	4.78	4.71	9.05	9.01	6.52	10.60	7.14	6.99	9.05

As expected, the maternal educational level is, without exception much lower than that of the paternal level. And again, it is much lower for Muslim mothers compared to that of the two other religions. It may be noted that the gender gap in mean education level of the parents is lowest among Hindus and highest among Muslims. Punpo again, shows a striking example of such gender disparity since the maternal educational level of less than 3 years lags far behind the paternal level of nearly 11 years of education.

Parental Perception and Gender Bias in Education

Our study found a general awareness among the people regarding the importance of acquiring some education. There is a universal feeling among all the parents that education is important for their children. The various reasons regarding why parents feel that education is a necessity have been grouped into three categories:

- i. *To enrich quality of life* which includes responses like education is necessary for everyday life, gain knowledge and improve quality of life.
- ii. *Gain social status*; some parents felt that education leads to a better social position.
- iii. *Improvement in economic condition*; education results in a general improvement of economic condition and improves job prospects.

Among the different motivations, the one most frequently expressed is enrichment of the quality of life since more than two-thirds of the respondents stated this was the reason why they felt that education should be available for all. The uneducated parents in particular spoke about the difficulties in every day life that the illiterate have to face and they feel that education will help their children overcome such problems (Figure 3).

The general awareness regarding the necessity of acquiring some education among parents is also reflected upon their feelings about educating their daughters (Table 4). Without exception, all the respondents feel that education is important for both girls and boys. Improvement in marriage prospects has become an important reason for female education in most rural areas since some education appears to be necessary for marrying off daughters.

Figure3 Parental motivation for education

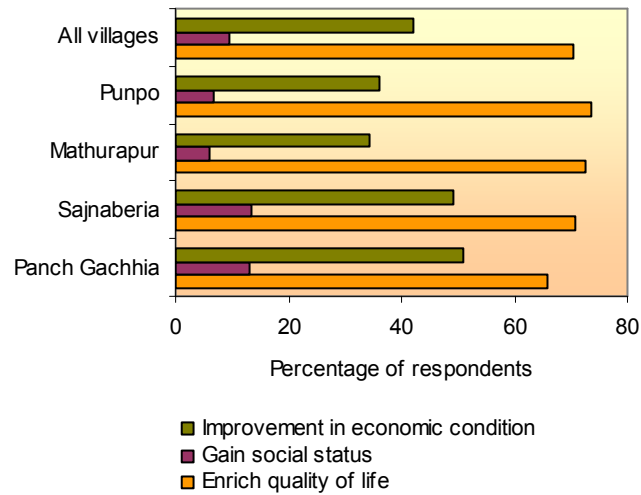
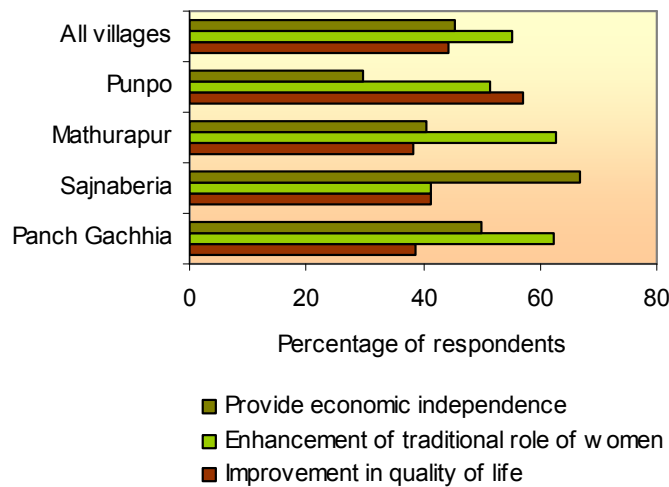


Figure 4 Parental motivation regarding education for women

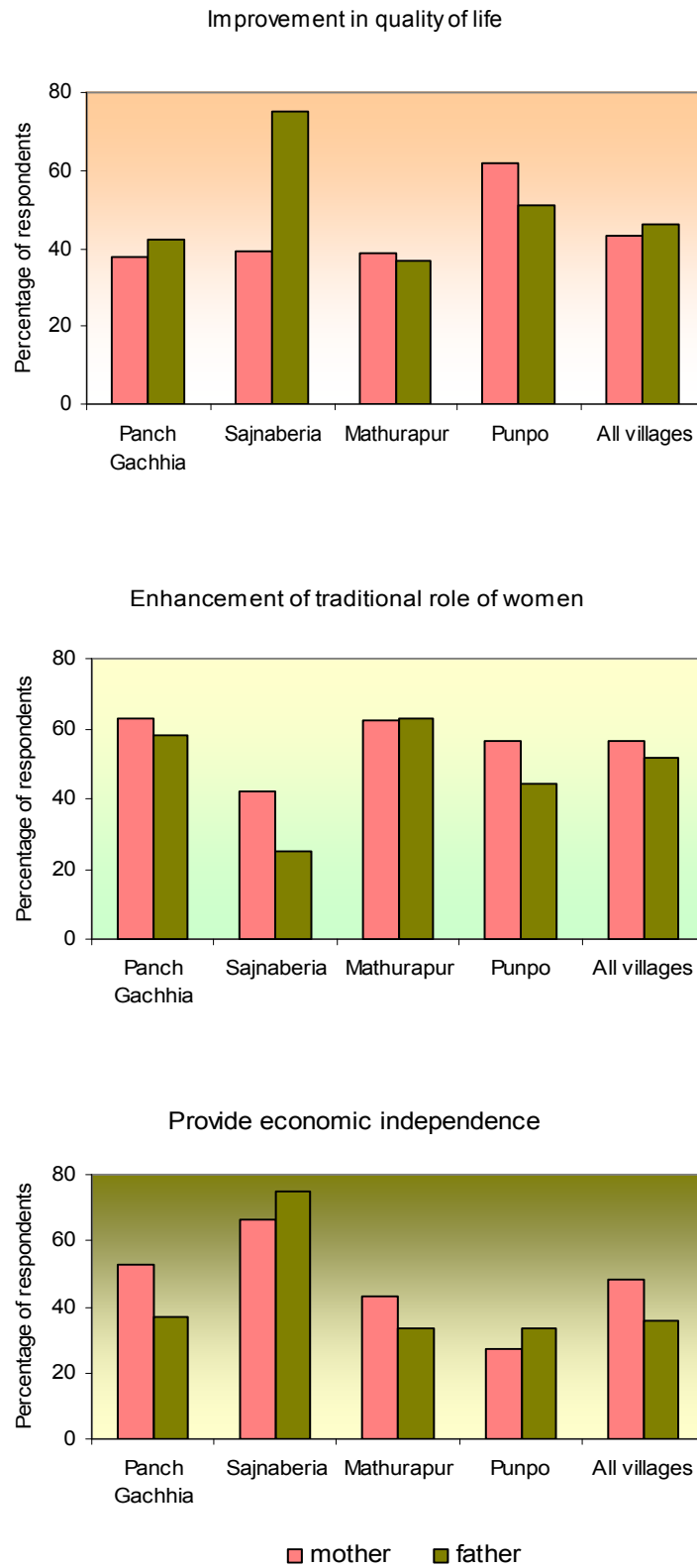


Parents are also aware that a woman’s lack of education has a negative impact on the health and well being of her children. An educated woman is able to provide the necessary supervision at home for the education of her children at least during the primary stages. This is an important factor since household expenditure on education shows that cost of private coaching makes up a large share right from the primary level. Thus, more than 55% of the total respondents stated that enhancement of the traditional role of woman is the most important

motive for educating the girl child (Figure 4). Illiterate women usually have low earning potential and little autonomy within the household. A large segment of the parents appear to feel that some education will not only help their daughters to supplement the family income but also achieve more voice within the household. If necessary, they would be able to earn their own living. Some parents also expressed the view that a higher level of education would lead to improvement in job prospects. Achievement of economic independence appears to be an important motive for about 45% of the respondents. Among the villages, economic independence is given the least importance by the residents of Punpo and this may be a reflection of the disenchantment of the common people with the current employment scenario. The opposite is however true for Sajnaberia where about two-thirds of the respondents found this an important reason for educating girls.

Improvement in the quality of life is another reason frequently stated by the respondents and it may be noticed that nearly 60% of the parents in Punpo found this an important motive for female education. A further breakup of parental motivation by gender of the parent does show some difference of opinion between the mother and the father (Figure 5). However, enhancement of woman's traditional role appears to be the most important reason for both parents. The most important difference in opinion is that regarding the economic independence motivation. Nearly half the mothers in the total sample considered this an important reason for educating their daughters while around one-third of the fathers expressed the same view. Among the villages, in Sajnaberia and Punpo, fathers attached greater importance to this motive compared to the mothers.

Figure 5 Motivation for education for women by gender of parents



Gender and level of education

The preceding discussion clearly reveals the existence of parental awareness regarding the necessity of education for both daughters and sons. However, it is also essential to find their attitude towards the level of educational attainment for children of both sexes and whether there is any gender bias in this respect. Analysis of parental views regarding the preferred level of education for both boys and girls reveals that a lower level of education is generally preferred by parents for their daughters. About 15% and 40% of the parents feel that primary and secondary education is sufficient for a girl. A preference for higher education, that is graduation and more for daughters is expressed by less than one fourth of the parents. In contrast nearly half the parents felt that higher education is necessary for sons (Table 13). It may be noticed that the widest gender gap with respect to college education is found in Sajnaberia followed by Punpo.

Table 13. Percentage distribution of households by preferred level of education required for children of both sexes

Level of education	Percentage of households									
	Panch Gachhia		Sajnaberia		Mathurapur		Punpo		All villages	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Primary	22.1	16.0	2.7	1.6	2.1	-	27.5	19.0	14.7	10.0
Secondary	47.1	20.2	41.3	21.9	35.1	15.1	45.1	32.0	42.4	22.5
Higher secondary	6.7	22.3	37.3	26.6	30.9	22.6	5.9	14.0	18.7	20.8
Graduation	21.2	28.7	18.7	45.3	28.7	45.2	12.7	20.0	20.3	33.6
Post graduation	2.9	12.8	-	4.7	3.2	17.2	8.8	15.0	4.0	13.1

A further analysis of households according to disparity in educational attainment of daughters as well as sons is presented in Table 14 which classifies households into three categories:

- i. Households with preference for a higher education level for girls
- ii. Households with preference for an equal education level for both girls and boys
- iii. Households with preference for higher education level for boys.

A study of the figures shows that the percentage of respondents opting for a higher educational level for boys is somewhat lower than that which shows a preference for an equal amount of education for both. This is however, a reflection of the responses obtained from Punpo, where nearly two-thirds of the parents said that both girls and boys should receive the same amount of education. Also an equal level was preferred by the more financially disadvantaged parents who were unable to afford higher education for their children and

therefore felt that a little education is sufficient for both girls and boys. In the other villages, the proportion of households with preference for higher educational level for boys is considerably higher than those of the other categories. Therefore, parental bias is clearly obvious with regard to the preferred level of education for daughters and conforms to findings that a lower level of education is considered suitable for girls (Velkoff, 1998).

Table 14. Percentage distribution of households by gender bias in the level of education required for children of both sexes

Village	Percentage of households with preference for		
	Higher education level for girls	Equal education level for both girls and boys	Higher education level for boys
Panch Gachhia	1.9	38.7	48.1
Sajnaberia	2.7	40.0	42.7
Mathurapur	4.0	40.4	49.5
Punpo	-	62.5	33.3
All villages	2.1	45.7	43.5

Gender and progress to education beyond primary level

As stated before, parents act as the ultimate decision makers with regard to sending their children to school and how far a daughter would be allowed to continue with her education. Thus, an analysis of the parental attitudes which influence this decision-making process has been presented in this section. The various responses received in this regard show some variation according to gender (Table 15). For instance marriage is an important control with regard to girls' education. About one-fifth of the parents will let their daughters continue with their studies till marriage. Finance is another important reason for discontinuing school, especially among the poorer families

A comparison of the figures for boys and girls with regard to dropping out of school shows that financial constraint is a more frequent cause for girls compared to boys. However, the most popular response for both girls and boys is that they can continue with their education as long as they wish to. It may be seen that with the exception of Sajnaberia, all other villages show a higher proportion of parents expressing this view with regard to their sons. One reason for this is parental control over male offspring is much less than that over daughters. In many households, particularly those belonging to the economically backward section, boys show a tendency to stay away from school, while girls appear to like going to school.

Thus parental attitude towards girls continuing school beyond primary and middle levels shows that marriage and financial constraints are important controls. It is noticeable that financial constraints are less important with regard to sons and provides further support for earlier evidence in favour of discrimination in parental allocation of household resources for education of children (Kingdon, 2005; Pal, 2004; Glick and Sahn, 2000).

Table 15. Parental attitude towards daughter/son continuing education as percent of household

Parental attitude:	Panch Gachhia		Sajnaberia		Mathurapur		Punpo		All villages	
	daughter	son	daughter	son	daughter	son	daughter	son	daughter	Son
as much as she/he wants	51.9	54.7	72.0	54.7	52.5	58.6	44.8	64.8	54.0	58.4
till marriage	16.0	-	18.7	-	17.2	-	32.4	-	21.3	-
till he gets a job	-	-	-	2.7	-	2.0	-	4.8	-	2.3
enough to get a job	0.9	2.8	5.3	2.7	1.0	3.0	1.0	1.0	1.8	2.3
as long as finance permits	37.7	27.4	28.0	10.7	30.3	26.3	28.6	31.4	31.4	24.9
as long as she/he does not fail	6.6	2.8	4.0	1.3	1.0	2.0	1.9	5.7	3.4	3.1

Multivariate Results:

Results from the multivariate analyses are provided in Tables 16 and 17. Table 16 shows that the respondent's education and religion, as well as the household standard of living have statistically significant effects on the belief that boys should have more minimum education than girls. While most of the coefficients for respondent's education are non significant, respondents with an educational level between primary and secondary education are almost twice ($1.8=e^{.601}$) as likely as illiterate respondents to believe that boys should have more education than girls. Consistent with expectations, Christian respondents are less than half as likely as Hindus to believe that boys should have more education ($.39=e^{-.931}$). Finally, compared to a high standard of living, respondents with very low, low, or medium standard of living are far less likely to believe that boys should have more education than girls.

Table 16: Results from logistic regression analysis of parental opinion on minimum education for boys versus girls

Variables	B	SE
Gender	.101	.312
Respondent's education		
Up to primary	.013	.309
Grade 6 - secondary	.601**	.279
Grade 11 – high secondary	.453	.674
college	.786	.668
Religion		
Muslim	-.455	.437
Christian	-.931*	.480
Standard of living		
Very low	-.910*	.479
Low	-.921**	.451
Medium	-.737*	.430
Scheduled caste/tribe/backward caste	-.443	.350
Respondent's age	.000	.015
Number of male children	.155	.132
Number of female children	.182	.114
Intercept	.091	.881

Table 17 provides the results from the logistic regression analyses of parental perceptions regarding reasons for educating daughters. Model 1 shows that religion, caste, and standard of living are significant predictors of whether parents believe that improvement in a woman's quality of life is an important reason for women's education. Both Christian and Muslim parents are far more likely than Hindu parents to select this reason. Compared to Hindu parents, Muslim parents are almost four times more likely to believe that improved quality of life is a reason for women's education ($3.96=e^{1.376}$), while Christian parents are more than two and a half times more likely ($2.58=e^{.947}$) to have this opinion. Parents from the low castes are also far more likely ($4.2=e^{1.433}$) to provide this reason for their daughters' education than other caste members.

Results from Models 2 and 3 also show a few, scattered significant coefficients. Model 2 investigates the correlates of parental belief that daughters should be educated in order to enhance their traditional roles as wives and mothers. The only statistically significant coefficient in this equation is a positive effect for low standard of living. Parents from households with a

low standard of living are 2.6 times ($e^{.955}$) more likely than those with a high standard of living to believe that the enhancement of a woman's traditional role is an important reason for female education. Results from Model 3 show that parents who are Muslim are only a third as likely as Hindu parents to believe that improved economic prospects is a good reason for educating girls. Low caste membership also exhibits a negative relationship as parents from low castes (compared to all other castes) are only about half as likely as to believe that the prospect of a good job in the future is a reason to educate their daughters ($.474=e^{-.746}$). The coefficient for very low standard of living is also negative and marginally significant ($p=.105$), showing that respondents with a very low standard of living are less likely than those with a high standard of living to find future economic potential a compelling reason for educating their daughters.

Table 17: results from logistic regression analyses of parental reasons for educating girls

Variables	Model 1 (improve quality of life)		Model 2 (enhance woman's traditional role)		Model 3 (get a good job)	
	b	se	b	Se	b	se
Gender	-0.216	0.319	0.265	0.315	0.335	0.319
Respondent's education						
Up to primary	-0.188	0.304	0.296	0.305	0.084	0.308
Grade 6 - secondary	-0.340	0.279	-0.033	0.277	0.171	0.282
Grade 11 – high secondary	0.571	0.697	-0.481	0.694	-0.186	0.697
college	0.992	0.694	-1.181	0.742	0.277	0.671
Religion						
Muslim	1.376**	0.507	0.480	0.451	-0.982**	0.449
Christian	0.947*	0.537	-0.515	0.475	0.157	0.493
Standard of living						
Very low	-0.365	0.484	0.259	0.481	-0.788	0.486
Low	-0.795*	0.458	0.955**	0.457	-0.154	0.449
Medium	-0.605	0.436	0.327	0.435	-0.081	0.431
Scheduled caste/tribe/backward caste	1.433**	0.433	-0.515	0.475	-0.746**	0.360
Respondent's age	-0.025	0.016	0.009	0.015	-0.001	0.015
Number of male children	-0.123	0.136	0.059	0.137	-0.165	0.140
Number of female children	-0.047	0.114	-0.073	0.114	0.003	0.117
Intercept	0.475	0.917	-0.659	0.889	0.573	0.889

Discussion and Conclusion

This study investigates the extent of and reasons for continued gender disparity in children's education in the rural fringes of the metropolitan city of Kolkata. The analysis is based on field data collected in 2007-08 from four villages that are accessible to the city, yet show considerable gender disparity in education according to the 2001 census. Selection of the villages has been done so that the sample is representative of the religious and social diversity of the country as well as to provide an adequate representation of the economically backward section of the rural population. Analysis of the demographic characteristics of the sample shows significant inter-village variations in terms of population composition and household characteristics.

The results provide some encouraging news in that proportions of males and females currently studying is very similar for the younger children. It appears that the gender gap in literacy revealed by census figures for these villages is primarily a reflection of the disparity that is found among the older generation, since a large proportion of the adult women, in these villages are uneducated. Among the younger generation, especially girls aged between 5 and 15, illiteracy is a rare occurrence. Thus, there is hardly any evidence of gender bias in the primary level school enrolment which in turn may be related to the rising awareness of parents regarding the need for education for survival in the modern world. Nearness to Kolkata ensures that the selected villages are well equipped with regard to educational infra-structure up to the secondary level. The other reason is economic, since the availability of cost free education up to this level result in children from even the most poverty stricken families being able to attend school.

Analysis of mean education level for boys and girls currently enrolled reveals a slightly higher level for boys but this can be explained by the older mean age for boys. However, our survey does uncover continued gender disparity at older ages as girls tend to drop out at a disproportionately higher rate than boys. Our study shows that the proportion of girls pursuing higher studies is dismally low. Among the most important reason for a girl dropping out of school is for marriage, although financial reasons are also an important factor. Another important indicator of gender bias appears to be household expenditure on education. Expenditure, especially on the eldest child currently enrolled, is usually higher for sons. This cannot be fully explained by the slightly higher mean education level for the boys.

Consequently, it may be inferred that there is some pro-male bias in the allocation of household resources between daughters and sons.

To uncover specific reasons for the lack of importance assigned to the continued education of girls, our survey included a section on parental attitudes towards education for children of sexes as well as the benefits of educating girls. We find that there is a general awareness among nearly all parents about the need for some education for both boys and girls, particularly for a better quality of life. There are some faint traces of changing attitudes reflected in the small minority of parents who show preference for a higher education level for daughters. However, a large percent of the sample parents believe that boys should have more education than girls. The results from the multivariate analysis show that social and economic class, as well as religion, are important predictors of parental attitudes towards their daughter's education. With respect to the minimum education level for boys versus girls, parents with a high standard of living and Christian parents (compared to Hindus) appear to be more egalitarian in their beliefs. On the other hand, parents with some education appear to be less egalitarian than illiterate parents.

It is possible that this gender bias in attitude may be at least partially explained by the benefits of education that parents spoke about. The parents' stated reasons for educating daughters do not indicate much change in cultural values and attitudes. According to their parents, the primary benefit of educating girls is to enhance her traditional role as a wife and mother. Some education improves a girl's marriage prospects and also allows her to supervise her own children's education. The latter may be related to the pattern of household expenditure on education which invariably shows that private coaching comprises the largest share. But higher levels of education are considered unnecessary since parents are hoping that most of their married daughters will be good homemakers, not need to go outside the home to earn a living. Achievement of economic independence as a motive for educating daughters is given importance only in one village.

Results from multivariate analyses of the reasons for educating daughters is consistent with the bivariate results that show little variation in attitude by individual or family characteristics. This is particularly true of enhancement of a woman's traditional role as a primary reason. Parents, regardless of gender, education, and other family characteristics, are likely to provide this as an important reason for educating their daughters. The only variation is

by economic class, with parents from a low standard of living family being more likely than those from a high standard of living to consider this an important reason. A possible explanation for this is that it is normative for girls from more affluent families to be educated enough to be able to maintain their traditional roles as wives and mothers (i.e. monitor their children's education, or run a household smoothly) and therefore did not come up as a stated reason for education as much. On the hand, for poor families, the goal of a better marriage, and performing traditional roles well is a target still to be achieved, and may figure more prominently in the parent's beliefs about their daughter's education.

Parental attitude regarding the other two reasons shows some variation by religion, caste, and economic class. Parents who are Hindu, from a higher caste, or from a low standard of living, are more likely to believe that improving one's quality of life is an important reason for female education. The enhancement of future income earning potential of educated daughters was also considered an important reason for educating them. Results from the logistic regression show that after controlling for various family and individual level characteristics of the parents, there is evidence of variation by religion and caste. Compared to Hindus, Muslim parents are far less likely to cite this as a reason for educating daughters, while parents from the higher castes are somewhat more likely than parents from the low castes to have this motivation for educating their daughters.

Our investigation is also interesting for some of the things that we did not find support for. While the bivariate results show some differences in attitude by parental gender, it is not statistically significant in any of the multivariate models. Thus, once other factors are controlled for, parental gender is no longer an explanatory factor for parental attitudes regarding their children's education. Somewhat contrary to expectations, the number of male or female children also do not generally impact parental attitudes in our study. One exception to this is the impact of number of female children on parent's preference about minimum education for boys versus girls. The coefficient is marginally significant ($p=.109$) and is in the expected, positive direction, indicating that the more daughters a parent has, the more likely she/he is to believe that boys should have more education than girls.

Our study has made an attempt to identify the extent of gender bias in education in rural areas as well as explore the different determinants of such bias. However, it must be remembered that the entire work has been done in rural areas located within easy reach of

Kolkata. We believe that further investigation is necessary especially in remote rural areas where educational infra-structure is not so readily available. Even within the scope of this rather limited work, the present analysis opens up several related and promising avenues of research especially with regard to parental motivation and progress to higher education for women. A more in-depth study of parental motivation regarding female education and its various socio-economic correlates appears to be called for. It is also likely that a more age specific as well as a larger data base regarding educational attainment of older children would provide greater insight into the typical pattern of gender inequality in education persistent in India.

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