Child Schooling in India: Returns of fertility Decline [**]

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1. Introduction

Educational attainment of children enhances their productive skills and earning capacity in future, besides conferring several other benefits such as better health status, ability to acquire new information, reduce family size, etc. (Duraisamy 2000). Although, Jeffery and Basu (1996) argue for a distinction between schooling (number of years spent in school) and education (amount or content of learning actually acquired), level of child schooling is generally used as an important indicator to reflect the educational situation of a nation. The assumptions that link educational attainment with fertility can be separated into two groups. While the first group opines that individual's own schooling experiences influence their subsequent fertility behaviour, the second one suggests that the schooling of children is influenced by their parent's subsequent fertility behaviour (Axinn 1993). Unfortunately, very little research has examined the association of child schooling with regard to their parents' fertility.

Although many researchers have extended the analysis to examine the specific benefits that are responsible for the effect of educational attainment on fertility decline, the exploratory study showing the opposite effects are very limited to investigate whether reduction in fertility has any impact to the education of the child or not. Understanding the determinants of children's educational attainment is a critical concern in developing countries like India, particularly because investments in children's education produce a skilled stock of human capital that helps eliminate constraints on national development. Knowing how demographic transitions, in particular, fertility declines affect investment in children's education might help planners and policy makers to design programmes that will promote universal primary school enrollment and higher educational attainment, which are the goals of most developing countries. In addition, understanding how family size affects school enrollment and educational attainment may help shape policies intended to target children in need. It is also important to investigate how sex composition and birth order of the child influence child's schooling in the context of fertility decline in order to identify whether there exist any family level discrimination.

[**]*Some analysis and results are yet to add in the write up.*

The literacy rate of India has increased enormously over time. As indicated by the Census data, in the last four decades the percentage increase in literacy rate is around 86 percent (35 percent in 1971 and 65 percent in 2001). On the other hand, according to the SRS data, the fertility rate shows a decline of around 40 percent in the past three decades. It may also be noted that fertility levels have fallen among women irrespective of their educational status. Even among illiterate women, TFR has fallen by 1.5 births per women between the early 1980s and late 1990s (Bhat 2002). Having stated so, the question may arise that whether fertility decline among illiterate women points toward quantity-quality tradeoff or it has any impact on the educational attainment of their children. Generally, if the parents are literate then there exists an explicit conclusion that their educated children will replace them in future. However, the matter of concern is that whether illiterate parents will be replaced by their educated children or not. Most of the existing literature has not given emphasis on the educational attainment on the next generation.

It is also an issue that if later born children are sent to school and the expenditure is being met by the earlier born children, then what is their schooling status and when (time) they are withheld from school. Therefore, it is important to examine the birth order effect on child schooling. At the same time, assessment of the school progression allows to identify the children who are unfortunate to obtain education and to locate at what level of schooling this has happened. This is important for any assessment of policies aiming further improvement in child schooling, because it is based on a full understanding of the nature of the process across different levels of schooling as both family size and change in parental perception and aspiration get altered along with other socio-economic adjustments at family level.

In India, considerable increase in educational level can be noticed during the last few decades. The literacy rate has increased almost 30 percent during the period of 1971 to 2001. It is a documented fact that there has also been a substantial decline in fertility during the same period. According to SRS data, TFR has declined from 5.2 in 1971 to 3.1 in 2001. At macro level, a reduction in the total number of children at any point of time may be reflected after 5-6 years on the number of children of school entrance age (Jones 1975). This also implies that there will be an increase in the quality of education as teacher-pupil ratio will increase and this in turn helps individuals to obtain a better job in future and thereby replace the unskilled workforce of the nation with skilled manpower in future. The reduction in the school going children may be followed by a substantial reduction in the educational expenditure and if it happens then that may be helpful for a nation to invest more on creating

employment opportunities or on social security like pension, etc (Verona 2006, Schultz 1988). Addressing the issue of long term implications of low fertility in Kerala, Rajan and Zachariah (1998) stated that the pressure on schools and colleges is now is not a matter of concern and presently there are ample opportunities for the educational system to concentrate on the quality of education rather than on quantity. When the volume of total consumers or in other words, number of children becomes less in number, there may be an increase in the savings level at the national as well as household level (Coale and Hoover 1958). Providing education to the children involve an increase in consumption by creating new expenses relating to schooling and this decreases the benefit derived from children by removing them from family productive system or earning system at household level (Axinn 1993, Caldwell 1980). Accordingly, the parents take the decisions regarding child schooling and that explain the relationship between family size and child schooling at family level.

The relationship between fertility and child schooling is generally explained through the quantity-quality tradeoff theory. This theory is often cited and is used as the basis for many macro growth models to explain the observed negative correlation between family income and family size. A key element of the quantity-quality model is an interaction between quantity and quality in the budget constraint that leads to rising marginal costs of quality with respect to family size; this generates a tradeoff between quality and quantity (Becker and Lewis 1973, Rosenzweig and Evenson 1977, Becker 1981, Hanushek 1992, Kaplan 1994). Economic theories of fertility are generally built on the premise that fertility and children's schooling are jointly determined outcomes of a common set of exogenous determinants. The relationship of fertility in terms of family size with child schooling, is seen to vary over time and among countries according to several factors; the stage of economic development, role played by the state, the phase of demographic transition and the nature of the family system. The relationship between child's schooling and family size may also vary within different subgroups (religion, caste, standard of living etc.) of the population (Diamond et al. 1999).

2. Empirical evidences relating family size with child schooling, gender effect and birth order effect

Literature addressing the issue of children's schooling decisions at household levels mostly combined child labour with child schooling and more emphasis were laid on child labour.

Child schooling was identified as the opportunity costs of child labour (Deb and Rosati 2004, Jeong 2005, Ray 2000, Kulkarni et al. 2004, Emerson and Souza 2002). Studies based on primary surveys in Thailand and Vietnam exhibit that, even after adjustment for the many other powerful correlates of educational attainment, a strong inverse association operates between family size and the percentage of children who enter lower and upper secondary (Knodel and Wongsith 1991, Knodel 1992, Sudha 1997, Anh *et al.* 1998).

In order to identify the effect of fertility transition on child's education and more specifically to observe whether the negative association between family size and educational attainment hold in Brazil across cohorts of children separated by a period of fertility decline, a study by Marteleto (2005) in Brazil considered the cohorts of children born in pre and post transitional period. The findings based on a nationally representative data show that the fertility decline advantaged the younger cohort by increasing the proportion of smaller families, although the negative effect of family size on children's education did not decline. However, the researcher agreed that to separate directions of causality between family size and child schooling is out of the scope of this paper this study.

In India, Bhat (2002) using NCAER data has shown that there exist a tradeoff among illiterate parents, and he argues that first-born daughters have the most to gain from this development as in smaller families they are less likely to forgo schooling to take care of younger siblings. Rosenzweig and Wolpin (1980) examined the educational consequences evident from twin births, whose simultaneous arrival was clearly unintended in Indian situation. Children with many or closely spaced siblings are often thought to be disadvantaged with respect to their schooling in comparison with other children (Eloundou-Enyegue 1999, DeGraff *et al.* 1992). Sending the oldest child to school strongly reduces women's desire for children and the desire is higher for those women who did not send their first child to school.

In this light of discussion, the paper first shows the trend in child schooling of the children aged 6-14 years in terms of school enrolment, school attendance and then school progression ratio of the children aged 6-17 years, from the time period 1992-93 (NFHS-I) to 2005-06 (NFHS-III). in subsequent part, paper attempts to examine the impact of family size on child schooling in India and then, to find out whether there exist any family level discrimination, this paper made an effort to observe how family size influences child schooling with respect to child's sex and birth order composition.

3. Data and Methods of analysis

The study used the secondary dataset from the three rounds of National Family and Health Survey-NFHS-I (1992-93), NFHS-II (1998-99) and NFHS-III (2005-06). In the household schedule of NFHS dataset, for each member of the household aged 6 and above questions were asked about years of schooling, whether the member is still going to school or not and reasons for continuing/discontinuing schooling. Information is also available for women's educational aspirations for both boys and girls. In NFHS datasets, the schooling information is given in the household file for all the members of the household, whereas detailed information about women's fertility behaviour and contraceptive behaviour, and birth history of each child is provided in the individual file. After matching the mother from the women's individual file of the member of household aged 6-14 years the required dataset has been created, where along with children aged 6-14 years all the information of their mother's fertility behaviour can be found. Literate parents even if any one of the parents is literate are excluded from the analysis because of the explicit fact that, when parents are literate they obviously want educated children as well. Similarly, in the urban areas as schools are more and educated persons are more, so in an urban setup even if both the parents are found to be illiterate they intend to send their children to school more as facilities are available and also due to neighbourhood effect. Thus, it will be worth examining the relationship of family size and child schooling in a rural set up and among only illiterate parents from the policy point of view.

To fulfill the objectives of the proposed study, bi-variate and multivariate techniques have been used. Appropriate testing procedure has been adopted to find out the significant differentials in the outcomes of different groups specially gender differences and gender specific birth order differences in schooling. To find out the leading factors that may influence the different stages of school progression, appropriate multivariate techniques have been adopted.

In this study, fertility will be expressed through the component family size and to express child schooling two variables will be used - whether enrolled in school that is ever been to school or not ; school attendance that is whether the member is still in school or not and school progression to see up to which level they continue schooling. The sample size will comprise of children aged 6- 17 years to calculate the school progression rates. Progression from the primary to the secondary level is conditional on the successful completion of the

final year of the primary school. Three school progression rates in terms of (a) enrollment in the school, (b) completion of primary schooling and (c) completion of the secondary standard has been calculated as the proportion of children having a particular educational status to the children of previous educational status. The formula for calculating school progression rates has been given below.

$$School\ enrolment\ rate = \frac{Number\ of\ children\ (6\text{-}17\ years\ )ever\ enrolled\ in\ school}{Total\ number\ of\ children\ between\ age\ 6\text{-}17\ years}$$

$$Pr\ imary\ school\ completion\ rate = \frac{Number\ of\ children\ (6\text{-}17\ years\ )\ completed\ primary\ schooling}{Number\ of\ children\ (6\text{-}17\ years\ )ever\ enrolled\ in\ school}$$

$$Secondary\ school\ completion\ rate = \frac{Number\ of\ children\ (6\text{-}17\ years)\ completed\ \sec ondary\ schooling}{Number\ opf\ chilren\ (6\text{-}17\ years)\ ever\ completed\ primary\ schooling}$$

4. Results and discussion

The profile of the children (6-14 years) of illiterate parents in rural India according to socio-economic and demographic characteristics is described through Table 1. The percentage of children in the age 6-14 varies between 9 to 13 percent in various ages. The sex ratio (F/M) of the child population in the above mentioned age group is around 923 for both NFHS-II and NFHS-III. In both the NFHS-II and NFHS-III around 27 percent of those children are of the first order birth, while around 31 percent of them belong to birth order of four or more in NFHS-II, the percentage belongs to the same group in NFHS-III is almost 29 percent. More than half of the children (almost 56 percent) are born to the non-working mother aging between 25-34 years in both the datasets. More than two third of these children are from those mothers who are using any contraceptives in NFHS-II while the share of children aged 6-14 years is three-fourth of those mothers who used any contraception in NFHS-III. In NFHS-II around 63 percent of these children belonged to the parents having four or more surviving children while 37 percent are from those parents whose desired family size were two. On the other hand According to NFHS-III, around 57 percent of children aged 6-14 belongs to the parents with four or more living children which is less compare to NFHS-II and 48 percent are from those parents whose desired family size were two which is much higher compare to NFHS-II. This may occur as the demand for desired family size is

decreasing and people are having smaller family compare to earlier. These children are mostly from the general caste Hindu families with medium standard of living.

From bi-variate analysis (in Table 2) it was evident that proportion of children ever enrolled in school is declined slightly from 86 percent in NFHS-II to 84 percent in NFHS-III, but among those enrolled children the proportion of continue schooling or school attending increased in NFHS-III to 94 percent while it was only 78 percent in NFHS-II. As the main focus of this paper is on how family size and contraceptive use are related with child schooling, so the discussion is stressing on these two variables more. The children enrolled in school are more among the users of any contraceptives compare to non-user of any contraceptives in both the datasets. It can be noticed that as number of surviving children increases the percentage of school enrollment as well as school attendance both decreases, though the percentages are higher for NFHS-III.

Though it came out that the parents using any contraceptives are more inclined to send their children to school. The parents those who are deliberately trying to control their family size by using contraception have a higher tendency to send their children to school, which is clear from the difference of the percentages in Table 3 of children attending school. Though this percentage declines with the increase in the number of surviving children, there is a considerable difference in percentage of children attending school among never user and ever user. The difference between the percentage of school attendance among the never user and ever users of contraceptive increases from 10 percent to 15 percent as the number of surviving children increases from one to four and above in NFHS-II, while the differences are small in NFHS-III. It can be observed that in NFHS-III, if the number of surviving children is one or two, the differences of school attendance among the children of ever user of contraceptives and never users became very minor where as this differences is more in NFHS-II. This result clearly indicates that though the situation of child schooling is improving, still there is a quantity-quality trade-off. The trade-off is prominent among the female children compared to their male counterparts in NFHS-II, while the trade-off became weak in NFHS-III.

There exists male female difference in school enrollment and attendance. The illiterate parents intend to send their sons to school more compare to their daughters. The results of z-test revealed that the difference is significant at one percent level of significance. To observe whether there are any sex specific birth order effect of schooling among the children the sample is divided into to two categories i.e. first order birth and higher order

birth, for each sex. Higher birth order children are less enrolled in school and they are attending school less compared to first order born children irrespective of their sex. Table 4 shows that significant birth order difference exists irrespective of the sex of the children. It may happen due to the fact that the higher order son or daughters are privileged as when they are getting admission to school the numbers of children born to their parents are less at that time and as they are not supposed to share their part of resources they got from their parents. But after that, whether they will continue schooling or dropout from school that becomes dependent on their number of siblings, so that the difference of school attendance between first order boy or girl to their higher order boy or girls is small, though statistically significant.

Previously the influences of different socio-economic and demographic factors were analyzed. The results from such a bi-variate analysis could be misleading, because the effects of other factors were not controlled while doing the analysis. To know the significance of each factor it is necessary to control the effect of other factors through multivariate analysis. To know the significance of family size as well as gender and birth order effect on child's school attendance, binary multivariate logistic analyses has been carried out considering school attendance as the dependent variable. Controlling for other socio-economic factors family size has a significant negative impact on child's school attendance. Irrespective of its effect of school attendance through family size, contraceptive use is found to be significant factor controlling for all other independent variables. Though the effect of sex and birth order were negatively significant for all children it was not significant for the daughters. The binary logistic analysis (in Table 6a and 6b) was carried out for each sex and birth order to understand the impact of family size on child schooling. It was found that in NFHS_III except for first order male children there is no significant influence of family size on child schooling, whereas for NFHS_II the effect of family size is significant for different birth order. Thus it can be said that the effect of family size on child school attendance is became weak though still negative. To understand clearly the effect of family size according to birth order, when further analysis carried out considering the higher family size that taking the households with illiterate parents and more than 3 children in rural areas it is found that the effect of family size is significantly negative for the first order or earlier born children. From Table 6b it can be said that the earlier born male children the chance of attending school became significantly negative as the family size or number of surviving siblings increases.

5. Conclusion and policy implication

The above discussions of results specify that family size plays an important role in child schooling. It is a well established fact that parent's education has the significant impact on child school attendance (Pal 2003). To control the effect of parental education and other diffusion effect of education, the present study considers only the rural illiterate parents and the results show that smaller the family size more is the child school attendance. Significant sex and birth order differentials are also found to exist. This calls for a better gender discrimination free society, so that all the girl children receive education along with the boys.

With the fertility transition, as people are using contraceptives, and desire smaller family, the next consequences of the fertility decline can be seen in forms of more schooling among children. In other way, the returns of fertility decline in terms of smaller family size will result in providing more schooling and therefore, increase the overall educational level of a society.   So far in the fertility research the fact is established that education has a strong negative effect on fertility, i.e., as educational level increases the people desires smaller family. Thus, it can be said that not only schooling can influence the people to achieve their desired smaller family in the context of fertility decline, on the other hand the smaller family during fertility transition can be helpful for fulfilling the target of achieving 'education for all'. While schooling influences to have smaller family size, small family provides more education to children.

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Table 1: Percentage distribution of children aged 6-14 years of illiterate parents by selected background characteristics in rural India for NFHS-II (1998-99) and NFHS-III (2005-06)

Background Characteristics	Percentage of children		
Characteristics of the Child	NFHS-I (1992-93)	NFHS-II (1998-99)	NFHS-III (2005-06)
Age of the child			
6	13.7	12.7	12.1
7	12.6	11.3	11.6
8	14.0	12.7	12.5
9	10.1	10.2	10.1
10	13.8	12.7	12.6
11	8.2	9.4	9.6
12	11.8	12	11.8
13	7.9	9.2	10.7
14	7.9	9.7	8.9
Sex of the child			
Male	52.8	52.1	51.9
Female	47.2	47.9	48.1
Order of birth			
1	18.9	26.7	27.1
2	19.9	24	25.4
3	18.6	18.6	18.6
4+	42.6	30.7	28.9
Characteristics of the parents			
Age of the mother			
<25 Years	4.8	4.1	3.2
25-34	50.9	56.2	54.3
35 and above	44.3	39.8	42.5
Mother's working status			
Not Working	50.4	56.4	55.9
Working	49.6	43.6	44.1
Contraceptive use			
No	54.2	67	76.7
Yes	45.8	33	23.3
Number of surviving children			
1	1.1	1.8	2.3
2	6.6	13.5	17.4
3	19.8	21.7	22.8
4+	72.5	63	57.4
Socio-economic Characteristics			
Religion			
Hindu	79.9	79.1	78.5
Muslim	15.6	15.7	16.5
Other religions	4.5	5.2	5.1
Caste			
Scheduled caste	16.4	38.9	28.2
Scheduled Tribe	15.2	19.3	20.4
Other Backward Castes and general	68.4	9.3	9.2
		32.5	42.2
Standard of living			
Low	55.2	36	31
Medium	39.3	47.3	35.2
High	5.5	16.7	32.2
Total number of children	**29744**	**83105**	**87764**

Table 2: Percentage of children (6-14 years) of illiterate parents in rural India according to ever been to school and school attendance NFHS-II (1998-99) and NFHS-III (2005-06)

Background Characteristics	Ever been to school			School attendance		
Characteristics of the Child	NFHS-I	NFHS-II	NFHS-III	NFHS-I	NFHS-II	NFHS-III
Age of the child						
6	41.5	78.2	56.7	97.0	69.4	95.4
7	47.6	85.6	77.1	95.5	82.7	98.3
8	48.3	86.3	83.1	95.3	83.6	98.5
9	50.8	89.0	89.7	93.9	86.5	98.3
10	48.4	86.6	89.6	91.8	82.4	97.3
11	53.7	88.5	93	90.4	83.1	96
12	50.8	84.5	90.6	87.2	75.7	92
13	51.1	87.4	90.4	83.4	74.3	88.3
14	49.4	84.8	91.3	80.4	66.6	83.4
Sex of the child						
Male	61.7	89.4	86	93.2	82.6	94.7
Female	34.6	81.4	82.1	87.2	73.7	93.9
Order of birth						
1	49.8	89.4	87.7	92.2	82.6	95.5
2	50.3	87.9	87.5	92.1	81.3	94.7
3	49.1	85.4	84.5	90.6	78.3	94.1
4+	48.0	80.4	77.5	90.5	72.3	92.7
Characteristics of the parents						
Age of the mother						
<25 Years	44.8	82.4	67.4	96.9	74.5	97.6
25-34	47.8	86.2	83.9	92.3	79.8	95.6
35 and above	50.5	84.9	85.6	89.5	76.6	92.4
Mother's working status						
Not Working	48.7	88.6	84.1	92.6	83	95.4
Working	49.2	82.4	84.1	89.7	74	92.9
Contraceptive use						
No	39.1	74.7	71.9	92.1	67.2	92.4
Yes	60.0	90.8	87.8	90.5	83.8	94.8
Number of surviving children						
1	60.8	94.1	89.1	89.4	89	97.9
2	58.6	95.3	92.2	92.2	90.7	97.5
3	57.7	92.7	89.4	93.0	86.7	95.8
4+	45.6	80.8	79.4	90.4	72.5	92.3
Ideal family size						
1	68.3	95.6	85.9	90.5	90.8	97.9
2	65.2	93.5	95.3	89.5	87.4	95.7
3	55.6	86.9	85.9	92.4	79.3	93.3
4+	41.7	75.2	81.6	91.1	66.9	91.2
Socio-economic Characteristics						
Religion						
Hindu	49.6	86.1	85.8	91.5	78.8	94.7
Muslim	41.2	80.3	74.8	90.4	72.6	91.6
Other religions	64.4	93.4	88.6	88.8	88.5	94.8
Caste						
Scheduled caste	52.9	82.1	83.4	91.9	74.1	92.7
Scheduled Tribe	41.0	74.8	76	91.0	66.3	92
Other Backward Castes and general	49.8	85.5	83.5	91.0	78.1	94.7
Mass media exposure						
No exposure	44.9	76.1	74.5	91.3	67.8	91.4
Any exposure	63.1	93.9	89	90.8	87.7	95.5
Standard of living						
Low	43.0	73.5	72.3	89.3	64.4	90.9
Medium	53.5	90.1	86	92.3	82.9	93.5
High	76.1	98.5	93.7	95.4	95.4	97.6
Total	**49.0**	**85.5**	**84.1**	**91.2**	**78.3**	**94.3**

Table 3: Percentage of children aged 6-14 years of illiterate parents attending school by mother's contraceptive use and family size in Rural India

Use of contraceptives		% of children attending school		
		Total		
	Number of surviving children	NFHS-I	NFHS-II	NFHS-III
Never used	1	90.3	83.1	97.6
	2	91.9	78.1	95.3
	3	93.4	73.2	93.5
	4+	91.8	62.7	91.3
Ever used	1	86.7	93	98.2
	2	92.2	92.2	97.7
	3	92.8	87.7	96.1
	4+	89.3	77.8	92.7

Table 4: Results of Z test for significance differences in school enrollment and school attendance of children according to sex and birth order, NFHS-III

	Percentage of children ever been to school	Significance	Percentage of children attending school	Significance
Sex of the child				
Male	**86.0**	ψ	**94.7**	ψ
Female	**82.1**		**93.9**	
Birth order composition of child (Male)				
First order male	**89.2**	ψ	**95.9**	ψ
Higher order male	**84.8**		**94.2**	
Birth order composition of child (Female)				
First order female	**86.2**	ψ	**95.1**	ψ
Higher order female	**80.6**		**93.4**	

ψ = Difference is significant at 1% level of significance

Table 5a: Logistic regressions of school attendance of children aged 6-14 years of illiterate parents in Rural India, NFHS-III (2005-06)

Background Characteristics	Exp(B)		
	All son	**All daughter**	**All children**
Characteristics of the Child			
Age of the child	2.81**	2.00**	2.37**
Age of child square	0.94	0.95**	0.95**
Birth order of child (reference=first order)			
Higher birth order	0.96	1.13	0.71**
Sex of the child (reference=male)			
Female			1.06
Characteristics of the parents			
Age of the mother	1.01	1.00	1.00
Mother's working status(Reference=not working)			
Working	1.04	0.82	0.92
Contraceptive use (Reference=not using/never used)	1.23	1.27	1.26*
Number of surviving children	0.91*	0.94	0.92**
Mass media (Reference=no exposure)	1.31*	1.47**	1.38**
Socio-economic Characteristics of the household & community			
Landholding (Reference=own no land)	1.27	1.13	1.19
Religion (Reference=Hindu)			
Muslim and others	0.63*	0.90	0.74*
Caste (Reference=General)			
Scheduled Caste	0.94	1.18	1.07
Scheduled Tribe	0.83	1.07	0.93
OBC	0.83	0.86	0.84
States (reference=low fertility states)			
Moderate fertility states	1.34	1.37	1.34*
High fertility states	1.51**	1.65**	1.59**
Constant	0.34	1.19	0.78
-2 Log likelihood	3208.38	3266.39	6492.04
Cox & Snell R Square	0.060	0.062	0.062
Total number of cases	**8486**	**8085**	**16571**

*p<0.01, **p<0.001

Table 5b: Logistic regressions of school attendance of children aged 6-14 years of illiterate parents in Rural India, NFHS-II (1998-99)

Background Characteristics	Exp(B)		
	All son	All daughter	All children
Characteristics of the Child			
Age of the child	2.951**	2.509**	2.657**
Age of child square	0.944**	0.948**	0.947**
Birth order of child (reference=first order)			
Higher birth order	0.792**	0.932	0.467**
Sex of the child (reference=male)			
Female			0.860**
Characteristics of the parents			
Age of the mother	1.031**	1.021**	1.026**
Mother's working status(Reference=not working)			
Working, but not for wage	0.804**	0.692**	0.746**
Working for wage	0.618**	0.605**	0.614**
Contraceptive use (Reference=not using/never used)	1.660**	1.622**	1.626**
Number of surviving children	0.874**	0.841**	0.858**
Mass media (Reference=no exposure)	1.538**	1.742**	1.639**
Socio-economic Characteristics of the household & community			
Landholding (Reference=own no land)	1.605**	1.235**	1.404**
Religion (Reference=Hindu)			
Muslim and others	0.769**	0.997	0.875*
Caste (Reference=General)			
Scheduled Caste	0.984	0.875	0.926
Scheduled Tribe	0.640**	0.806*	0.719**
OBC	0.918	0.946	0.930
Distance to available Transport	0.999	0.999	0.999
Distance to primary/Middle school	1.002**	1.001**	1.001**
Village size	0.891**	0.907**	0.902**
States (reference=low fertility states)			
Moderate fertility states	1.180	0.999	1.081
High fertility states	0.853**	0.534**	0.670**
Constant	0.026**	0.076**	0.071**
-2 Log likelihood	13305.676	13341.656	26871.140
Cox & Snell R Square	0.093	0.136	0.132
Total number of cases	**12498**	**11419**	**23917**

*p<0.01, **p<0.001

Table 6a: Logistic regressions of school attendance of children aged 6-14 years of illiterate parents in Rural India, NFHS-II (1998-99)

Background Characteristics	Exp(B)			
	First order son	Higher order son	First order daughter	Higher order daughter
Characteristics of the Child				
Age of the child	2.931**	2.983**	3.330**	2.363**
Age of child square	0.947**	0.944**	0.937**	0.950**
Characteristics of the parents				
Age of the mother	1.032	1.030**	1.020	1.018**
Mother's working status(Reference=not working)				
Working, but not for wage	0.786	0.807**	0.637**	0.702**
Working for wage	0.570**	0.629**	0.589**	0.603**
Contraceptive use (Reference=not using/never used)	1.689**	1.650**	1.554**	1.670**
Number of surviving children	0.858**	0.873**	0.727**	0.859**
Mass media (Reference=no exposure)	1.481*	1.565**	1.489**	1.821**
Socio-economic Characteristics of the household & community				
Landholding (Reference=own no land)	1.393*	1.666**	1.328*	1.210**
Religion (Reference=Hindu)				
Muslim and others	0.832	0.756**	0.924	1.016
Caste (Reference=General)				
Scheduled Caste	0.968	0.992	0.943	0.862
Scheduled Tribe	0.554**	0.669**	0.812	0.804*
OBC	0.950	0.912	1.019	0.930
distance to available Transport	0.998	0.999	1.000	0.999
distance to Middle school	1.003**	1.002**	1.002*	1.002**
Village size	0.857*	0.911**	0.855*	0.935*
States (reference=low fertility states)				
Moderate fertility states	1.103	1.212	0.920	1.038
High fertility states	0.884	0.839*	0.536**	0.536**
Constant	0.031**	0.017**	0.041**	0.076**
-2 Log likelihood	2729.767	10566.439	2970.903	10349.165
Cox & Snell R Square	0.081	0.095	0.138	0.137
Total number of cases	**2691**	**9807**	**2563**	**8856**

*p<0.01, **p<0.001

Table 6b: Logistic regressions of school attendance of children aged 6-14 years of illiterate parents in Rural India, NFHS-III (2005-06)

Background Characteristics	Exp(B)			
	First order son	Higher order son	First order daughter	Higher order daughter
Characteristics of the Child				
Age of the child	4.45**	2.50**	1.36	2.25**
Age of child square	0.92**	0.94**	0.97	0.95**
Characteristics of the parents				
Age of the mother	1.06	1.00	0.99	1.00
Mother's working status(Reference=not working)				
Working	1.15	1.02	0.77	0.82
Contraceptive use (Reference=not using/never used)	1.31	1.21	1.14	1.32
Number of surviving children	0.78*	0.93	0.88	0.96
Mass media (Reference=no exposure)	1.14	1.33	1.82*	1.38*
Socio-economic Characteristics of the household & community				
Landholding (Reference=own no land)	1.62	1.19	1.13	1.13
Religion (Reference=Hindu)				
Muslim and others	0.69	0.62*	1.14	0.85
Caste (Reference=General)				
Scheduled Caste	0.73	1.00	0.96	1.23
Scheduled Tribe	0.94	0.82	1.03	1.07
OBC	0.52	0.93	0.60	0.94
States (reference=low fertility states)				
Moderate fertility states	1.21	1.39	1.35	1.37
High fertility states	1.74	1.49	2.28	1.51*
Constant	0.01	0.73	13.17	0.69
-2 Log likelihood	618.544	2571.840	704.985	2550.9
Cox & Snell R Square	0.0671	0.062	0.081	0.0597
Total number of cases	**1562**	**6924**	**1599**	**6486**

*p<0.01, **p<0.001