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Parental Education, Parental Death, Poverty and Socio-economic Impact on School Attendance Status of Children in India

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1. Introduction

Parental education plays an important link for intergenerational mobility. Parental education is, of course, one aspect of family background that influences children's subsequent achievement as adults. The general view is that the higher educated parents provide adequate environment, which facilitates their children's opportunities for educational attainments. There is also a positive relationship between parental education, especially mother's education, and educational attainment of children. Corwyn and Bradely (2002) found that maternal education had the most consistent direct influence on children's cognitive and behavioural outcomes with some indirect influence through a cognitively stimulating home environment.

There are several reasons why school attendance may be lower for the children whose father or mother are dead than those parents are alive. The children whose parents are dead are more likely to live in a worst condition than non-orphans, and lower household wealth may result in less investment in schooling. Foster et al (1995) argue that orphans are not at any disadvantage over equally poor non-orphans. Lloyd and Blanc (1996) studied that, controlling for wealth, "the death of a parent appears to make relatively little difference to children's educational chances" (p. 290).

Children aged 5-14 years who were attending academic institutions, were expected to have reading, writing and understanding ability, according to the definition of Census of India, 2001. The children aged 5-14 years are actually expected to study in 1st to 10th standard of school education, and these school going children may be defined as literate children. On the other hand, the children who are not attending schools, may be defined as illiterate.

The next section reviews the literature. The third section presents the sources of data and main focus of the study. Methods of analysis of data is presented in section IV. Section V presents the findings of the study which include distribution of children attending academic institutions by different characteristics and determinants of schooling of children by using logistic regression techniques. This is followed by discussion and conclusion of the study.

II. Previous Literature

Much of the world's attention is focused on literacy and education as a way to enhance economic and social development in the 21st century (Saini Asha, 2000). The study observed that literacy can resolve the existing worldwide disparities in living standard. There is significant evidence that parental and maternal education explain gender difference in both school enrollment and attainment : while father's education has a significant impact on both boy's and girl's education at the primary level, mother's literacy has greater impact on the chances of daughters being educated than sons. In other words, when mothers have bargaining power via education, they are likely to increase collective household welfare rather than to perpetuate discriminatory practices (Kambhampati and Pal, 2001). Patkar

(1995) observed that literate women do not guarantee the articulation of their needs or their participation in planning and decision making. She also noted that divorced women from other areas such as women's low socio-economic status, labour market inequalities and legal bias, literacy programmes are a relatively inexpensive and politically expedient palliative in their present limited form. Tonse (1989) studied the relationship between literacy and employment rates among adults and children in 17 Indian states. He found that the states with a greater increase in adult literacy also observed a greater rise in child literacy, and a greater fall in child labour rates. But the states with a greater increase in adult labour rates had a greater increase in child labour rates. Borooah and Iyer (2005) in a study argues that Vidya (education), Veda (religion) and Varna (caste) are inter-linked in India. The study examined whether, and to what extent, the enrollment of children at school in India is influenced by community norms such as those of religion (Hindu or Muslim) or caste (Scheduled or non-Scheduled). The main findings of the study are that under favourable circumstances (for example, when the parents are literate), the size of the community effect is negligible. Under less favourable circumstances, the size of the community effect is considerable. Krishnan and Shyam (1978) studied the disparity in the literacy rates between urban and rural population, between males and females, and between young and the aged, a disparity in consonance with differences in necessity, propensity, and opportunity to become literate. The authors noted that the degree of urban influence and the intensity of urban-rural interaction are evidently the two major factors involved in the reduction of disparities between urban and rural disparity rates.

III. Data and main focus of the study

Large scale data on school attendance of children are available from Census of India. National Family Health Survey (NFHS 3, 2005-06) collected information on children attending school (5-14 years) in India and states. A data file having information on school attendance status of children (5-14 years) was created extracting information from household as well as individual data file of NFHS 3 data. Thus the said data file focuses on 114216 children having information on school attendance status along with different socio-economic characteristics. The study focuses mainly on the distribution of children attending educational institutions by selected characteristics.

The study aims to estimate the school attendance status of the children aged 5-14 years in India and states using mainly National Family Health Survey (NFHS 3) data (2005-06), collected by the International Institute for Population Sciences, Mumbai and sponsored by the Ministry of Welfare, Government of India. Census of India 2001 data on school attendance has also been used for the same purpose. The Educational attainment of children is estimated according to some socio-economic characteristics such as place of residence, sex, possession of agricultural land, education level of the parents, survival status of the parents, caste of the head of the household, wealth status of the household, relationship of the children to head of the household.

The main focus of the study is based on the following hypotheses :

(i) School attendance rate is low at lower educational level of parents and it is high at higher educational level of parents; (ii) that the orphans are disadvantageous than non-orphans in regard to school attendance; (iii) school attendance rate is low for the poor children; (iv) lower schooling among orphans is due to poverty; (v) school attendance rate among the backward communities such as Scheduled Castes, Scheduled Tribes, and Other Backward Classes is lower than the children belonging to 'other higher castes'; and (vi) school attendance rate is lower among the children who

have no agricultural land.

Further, the study compares the proportion of school attendance between Census of India 2001 and NFHS 3 data. To explain disparities in school attendance by gender, residence, region, caste etc. is also one of the objectives of this study.

IV. Methods

The objectives of this study are : (1) to estimate the proportionate distribution of children attending school according to sex and residence in India and four group of states; and (2) to obtain correlates of school attendance status of children by different characteristic variables using logistic regression techniques.

Using 2001 Census figures on literacy rates of the rural children aged 10-14 years, the states in the country are grouped into four categories on the basis of level of literacy and difference between male and female literacy rates.

Category A : Difference between male and female literacy rates was 10 per cent or below and literacy levels of both sexes are ≥ 80 per cent . The states in this category are : Kerala, Sikkim, Goa, Delhi, Himachal Pradesh, Tamil Nadu, Manipur, Punjab, and Maharashtra.

Category B : Difference between male and female literacy rates was 10 per cent or less, and literacy levels of both sexes are below 80 per cent .The states in this category are : Meghalaya, Nagaland, Mijoram, Assam, West Bengal and Tripura.

Category C : Difference between male and female literacy rates was between 10 per cent and 20 per cent. The states in this category are : Haryana, Karnataka, Arunachal Pradesh, Andhra Pradesh, Gujrat and Jammu & Kashmir.

Category EAG¹ : Difference between male and female literacy rate is more than 20 per cent. The states belonging to this category are : Madhya Pradesh, Uttar Pradesh, Uttaranchal, Jharkhand, Bihar, Rajasthan Orissa and Chhattisgarh. This category of states is designated as Empowered Action Group (EAG) ¹ states.

V. Findings

Table 1 presents the distribution of children attending school by different characteristics used in the study. For all characteristic variables, the distribution of children attending academic institutions is higher in rural areas and also among males. The data in this table actually shows the distribution of children attending school in each category out of total children attending school.

Table 1 : Percent distribution of children attending academic institutions aged 5-14 years by selected characteristics : All India – NFHS 3

Characteristics	Categories	Rural	Urban	Total

		Male	Female	Male	Female	
Owns agricultural land	No land	52.8	47.2	_ 2	-	100.0 ³
	Owns land	53.5	46.5	-	-	100.0
Education level of father	No Education	46.6	37.1	8.7	7.6	100.0
	Primary	40.8	36.1	12.0	11.1	100.0
	Secondary to Higher	31.9	29.1	20.5	18.5	100.0
Education level of mother	No Education	45.0	37.8	9.1	8.1	100.0
	Primary	38.0	34.5	14.4	13.0	100.0
	Secondary to Higher	25.5	24.3	26.3	23.8	100.0
Survival status of father	Not Alive	38.3	36.6	13.1	12.0	100.0
	Alive	38.1	33.4	15.0	13.5	100.0
Survival status of mother	Not Alive	43.6	33.6	11.5	11.3	100.0
	Alive	38.0	33.5	15.0	13.5	100.0
Caste of the head of the household	SC	39.7	34.8	12.9	12.6	100.0
	ST	48.7	41.6	4.9	4.8	100.0
	OBC	39.6	33.9	14.2	12.4	100.0
	Others	31.8	28.6	21.1	18.5	100.0
Wealth status of household	Poorest & Poorer	50.3	43.0	3.5	3.2	100.0

	Middle & Richer	36.0	32.7	16.4	14.9	100.0
	Richest	13.9	12.1	39.3	34.7	100.0

Table 2 presents the distribution of children attending school by residence, sex and category of states using NFHS 3 as well as Census 2001 data. The table shows that per cent literates vary by region, gender and residence. The per cent attending school is obviously higher in urban areas as compared to rural areas and gender disparity is also higher in rural than urban areas as evidenced from both sources of data. There is also regional disparity among the per cent literate. It is obvious that school attendance rate is higher in A and B category states in both sexes and residences because of the fact of high adult literacy rate in these states and low participation rate in the adult as well as child labour force. On the other hand, proportion of school attendance in the C and EAG category states is low on account of low adult literacy rate and high participation rate of adult and child labour force.

Table 2 : Percent of children aged 5-14⁴ years attending school by age, sex, residence and category of states : Census 2001 and NFHS 3

India & Category of States	Age	Rural				Urban			
		Census		NFHS 3		Census		Ma	
		Males	Females	Male	Female	Males	Females		
India	5-9	55.5	50.7	65.4	63.2	67.8	66.6	69	
	10-14	77.5	65.5	83.4	74.9	85.0	82.7	86	
	5-14	66.2	57.8	74.2	68.9	76.8	75.0	78	
Category A	5-9	71.8	71.1	74.0	75.5	74.3	74.1	77	
	10-14	89.8	86.3	91.3	87.5	90.1	89.6	91	
	5-14	81.2	79.0	83.2	81.7	82.6	82.2	85	

Category B	5-9	53.4	51.5	67.1	71.5	65.6	64.4	74
	10-14	72.8	69.5	80.6	80.4	81.7	80.0	85
	5-14	62.9	60.2	73.7	75.9	74.2	72.8	80
Category C	5-9	65.3	61.6	73.0	71.7	69.5	68.9	73
	10-14	79.9	67.4	83.4	75.0	85.7	83.3	87
	5-14	72.6	64.5	78.1	73.3	78.0	76.4	80
EAG	5-9	48.7	41.6	59.7	54.7	61.6	59.1	57
	10-14	73.8	56.9	81.4	69.6	80.7	76.7	82
	5-14	60.6	48.7	70.0	61.7	71.4	68.1	70

Majority of the literature on parents' education pertains to the direct and positive influence on children academic achievement (Jimerson, Egeland, & Teo, 1999; Kohn, 1963). Not only that but also parents' education influences the beliefs and behaviour of the parent, leading to positive outcomes for children and youth (Eccles, 1993). In Table 3, we get the per cent of children attending school at each level of education of both of the parents. It's a well known fact that per cent of children attending school is high at higher educational level of parents than when it is lower. But the data at the national as well as state category levels show that mothers' education plays more important role than fathers in determining children's educational attainment, because, on average, proportion of school attendance of children is higher at each level of education of mothers than fathers.

Table 3 : Percent of children aged 5-14 years by education level of parents : NFHS 3

India & Category of States	Education level of Parents	Father				Mother			
		Rural		Urban		Rural		N	
		Male	Female	Male	Female	Male	Female		

India	No Education	64.6	55.7	62.5	61.9	70.1	62.3	6
	Primary	78.3	73.3	76.1	75.6	83.1	83.7	8
	Secondary to Higher	82.5	80.3	84.4	84.7	83.8	85.1	8
Group A	No Education	76.7	68.7	74.5	72.2	79.8	75.0	7
	Primary	83.9	83.1	81.4	82.2	87.0	89.2	8
	Secondary to Higher	86.7	86.0	88.3	87.8	85.3	86.0	8
Group B	No Education	66.6	67.3	71.3	79.3	67.6	68.8	6
	Primary	76.6	78.1	81.3	83.7	80.4	85.9	8
	Secondary to Higher	82.1	88.5	85.8	87.0	84.1	88.3	8
Group C	No Education	70.4	60.8	68.8	66.1	74.5	67.5	7
	Primary	80.9	77.6	81.1	79.6	85.8	87.2	8
	Secondary to Higher	85.5	84.9	85.1	85.4	85.6	86.6	8
EAG	No Education	59.6	48.5	52.9	52.1	67.6	57.4	6
	Primary	74.8	64.5	66.2	65.4	80.1	76.4	7
	Secondary to Higher	79.8	74.7	79.4	80.2	80.6	81.6	8

A number of studies have shown that orphans are more vulnerable than non-orphans with respect to schooling. A study on orphanhood and children's school enrollment in 10 sub-Saharan African countries concluded that orphans are less likely to be enrolled in schools than non-orphans (Case et al. 2004). A descriptive study of 40 nationally representative household surveys in Sub-Saharan Africa observed that orphans were considerably less likely to attend school than non-orphans, and double orphans were most likely to be disadvantaged in schooling (Monasch and Boerma, 2004). Table 4(a) presents per cent of children attending school by survival status of parents. It is obvious that proportion of children attending school is expected to be higher for males than females. But here per cent of female children attending school is higher than males in many cases when survival status of parents is taken under consideration. The national data as well as state group wise data show that on average, per cent of male children attending school is lower than females when father is dead, and it is higher than females when father is alive. On the other hand, on average, per cent of female children attending school is lower than males when mother is dead and it is higher than males when mother is alive; and loss of mother is more detrimental for schooling of children than loss of father. The data show that double orphans are particularly more disadvantaged with respect to schooling as evidenced from Table 4(b). Table 4(b) presents school attendance of children by survival status of parents and wealth status of household at the national level. The data shows that orphans are significantly less likely than non-orphans to be enrolled in school. And among the orphans, schooling status is low for the children belonging to poor household. On the other hand, school attendance rate is much higher for the double orphaned children who belong to economically richer and richest categories. Orphans, are, no doubt disadvantageous than non-orphans in regard to school attendance. However, poverty of the household has more impact than orphanhood on non- attendance in school of the children.

Table 4(a) : Percent of school attendance of children aged 5-14 years by survival status of parents : NFHS 3

India & Category of States	Survival Status of Parents	Father				Mother		
		Rural		Urban		Rural		Mal
		Male	Female	Male	Female	Male	Female	Mal
India	Not alive	69.0	69.0	75.2	76.1	65.4	57.1	67.
	Alive	74.4	68.9	78.5	78.4	74.4	69.2	78.
Category A	Not alive	81.8	88.6	80.0	84.8	83.8	86.9	85.
	Alive	83.3	81.4	85.2	85.0	83.2	81.6	85.
Category	Not alive	64.9	69.2	80.3	74.6	63.5	53.3	83.

B								
	Alive	74.1	76.2	80.0	80.9	73.9	76.4	80.
Category C	Not alive	66.4	70.7	75.5	75.5	63.8	50.4	64.
	Alive	78.6	73.5	81.1	80.3	78.4	73.9	81.
EAG	Not alive	67.3	61.8	69.8	67.4	64.0	55.9	59.
	Alive	70.1	61.7	70.4	70.7	70.1	61.8	70.

Table 4(b) : Percent of school attendance of children aged 5-14 years at the national level by survival status of parents and wealth status : NFHS 3

Survival Status	Wealth Status	Rural		Urban	
		Male	Female	Male	Female
Both Dead	Poorest	38.9	47.6	0.0	0.0
	Poorer	63.7	54.9	67.4	87.8
	Middle	57.6	71.7	65.6	76.6
	Richer	97.5	59.2	57.1	68.6
	Richest	99.3	64.6	79.9	82.3
Both Alive	Poorest	63.8	55.4	52.3	48.2
	Poorer	74.1	68.0	67.0	64.5
	Middle	82.0	77.8	70.3	69.4
	Richer	84.7	84.7	78.8	80.2

	Richest	85.1	86.6	86.3	87.2
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Household income has been another important determinant of schooling of children. Klebanov et al. (1994) found that mothers' education and family income were the important predictors of the physical environment and learning experiences in the home. Smith et al. (1994) studied that association of family income and parents' education with children's academic achievement was mediated by the home environment. From Table 5, we get the proportion of children attending academic institutions by wealth status of household. The national as well as state group wise data show that per cent of children attending schools is low for poorest and poorer households as compared to middle and richer, and richest household categories. Among the category of states, performance of children attending academic institutions is comparatively better in A, B and C category states than EAG states. Poverty at the household level is the root cause which is held responsible for illiteracy and non-attendance in school in the Indian states as observed from the data.

Table 5 : Percent of children attending academic institutions aged 5-14 years by wealth ⁵ status of household : NFHS 3

India & Category of States	Wealth Status	Rural		Urban	
		Male	Female	Male	Female
India	Poorest & Poorer	68.1	61.0	61.7	59.3
	Middle & Richer	82.9	80.4	75.6	76.2
	Richest	85.3	86.8	86.5	87.1
Category A	Poorest & Poorer	76.9	72.9	73.3	72.3
	Middle & Richer	87.2	86.7	82.9	83.2
	Richest	84.9	87.9	88.7	89.0
Category B	Poorest & Poorer	69.8	71.8	76.7	67.8
	Middle & Richer	81.7	84.7	76.7	82.0
	Richest	83.9	87.5	87.1	83.5
Category C	Poorest & Poorer	72.3	65.1	63.3	63.8

	Middle & Richer	83.7	82.0	79.8	78.5
	Richest	90.6	89.2	87.5	87.9
EAG	Poorest & Poorer	65.2	55.2	53.7	49.1
	Middle & Richer	80.4	75.3	66.1	67.4
	Richest	81.3	82.6	83.2	85.1

Table 6, describes the per cent distribution of children attending school by castes of the head of the household. According to socio-economic advancement, the caste groups are ranked in ascending order as : Scheduled Tribes (STs) < Scheduled Castes (SCs) < Other Backward Classes (OBCs) < Other higher castes. The comparative advancement among the caste groups is also reflected in the schooling status of children in most cases. Per cent of children attending school is higher for urban than rural areas for each castes and category of states. In the states where literacy rate is high, caste differential for schooling of children is less; on the other hand, in the states where literacy rate is low, caste differentials of schooling of children is high. The caste differentials of school attendance exhibit the comparative advancement of each caste of the Indian society. The order of advancement of the caste categories are reflected in the educational attainment of children. However, the percent of school attendance of children of these backward communities, in some cases, is higher than the other higher castes.

Table 6 : Percent of children attending school aged 5-14 years by caste⁶ of the head of the household : NFHS 3

India & category of states	Caste of the head of the households	Rural		Urban	
		Male	Female	Male	Female
India	SC	73.3	68.1	76.3	76.6
	ST	67.6	59.1	73.8	75.8
	OBC	75.0	68.4	76.8	76.4
	Others	76.6	74.7	81.2	81.2

Group A	SC	82.7	82.5	85.1	82.7
	ST	71.3	64.8	83.0	80.2
	OBC	87.0	86.5	87.0	87.9
	Others	83.6	82.3	83.4	84.4
Group B	SC	77.0	76.7	79.8	80.3
	ST	66.9	61.8	78.8	84.9
	OBC	86.6	87.0	80.7	84.5
	Others	72.8	77.6	81.0	78.4
Group C	SC	78.8	75.2	80.3	77.5
	ST	68.2	61.7	70.4	70.3
	OBC	78.4	73.0	79.6	79.0
	Others	84.8	81.4	84.5	84.4
EAG	SC	67.4	58.4	66.5	70.0
	ST	66.0	54.9	66.4	74.3
	OBC	71.4	62.9	68.2	67.1
	Others	70.5	65.2	76.0	75.8

Effects of socio-economic factors on schooling status of children

The *multivariate binary* logit model is defined as :

$$P = F(Z) = \frac{1}{1 + e^{-z}} \dots\dots\dots(1)$$

where $Z = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$. Here e represents the base of natural logarithms, which is approximately equal to 2.718 and P is the estimated probability of school attendance status of children given X_i 's. It is noteworthy that z is not the response variable but a linear function of a set of predictor variables.

The quantity $\frac{P}{1-P}$ is called the *odds ratio* which is denoted as : $\frac{P}{1-P} = e^z = \Omega = Odds$

and, logit $P = \log \frac{P}{1-P} = z = \log \Omega = Log Odds \dots\dots\dots(2)$

Hence, $\log \Omega = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \dots\dots\dots(3)$

Thus $\log \Omega$ is calculated first, then $\Omega = e^{\log \Omega}$ and then $P = \frac{\Omega}{1 + \Omega}$, P is presented in percentage form

(multiplying P by 100) (Retherford & Choe, 1993).

Children aged 5-14 years are the units of analysis in this study. The status of the child, that is, whether attending school or not, is the dependent variable. Following socio-economic variables, namely, (1) own agricultural land, (2) relationship of the child with the head of the household, (3) education level of the parents (both), (4) survival status of parents (both), (5) caste of the head of the household, and (6) wealth status of household are used as independent variables.

Own agricultural land : if the household owns agricultural land, 1 is assigned ; 0, otherwise.

Relationship of the child to head of the household : if the child is son or son in law or grand child, 1 is assigned; 0, otherwise.

Survival status of father : if the father of the child is dead, 1 is assigned; 0, otherwise.

Survival status of mother : if the mother of the child is dead, 1 is assigned; 0, otherwise.

Education level of father : if the education level of the father is secondary or higher, 1 is assigned; 0, otherwise.

Education level of mother : if the education level of the mother is secondary or higher, 1 is assigned; 0, otherwise.

Caste group : if the child belongs to SC or ST or OBC, 1 is assigned; 0, otherwise.

Wealth index : if the child belongs to middle or richer, or richest status, 1 is assigned; 0, otherwise.

Table 7 presents the logit regression results for rural and urban data at the national level separately for males and females. The rural data show that possession of agricultural land contribute a positive impact on school attendance status of rural children. Households having agricultural land are the better off segment of the rural population and they can afford the education expenses of their children. Children (both sexes) attending school is high for a child who is a son/daughter or son-in-law/daughter-in-law or grand son/grand daughters compared to a child who does not belong to these categories. The odds ratio of school attendance status is negative whose mother is dead and father is alive but the ratios are significant for rural children only. On the other hand, the odds ratios of mother alive and father dead give a mixed response, it is negative for rural male and positive for rural female and both sexes urban children. It is observed that death of mother provide a negative relationship with the school attendance status of children (both sexes and both residences). But survival status of mother is more important than father in determining school attendance status of their children. Children (both sexes and both residences) of educated parents have high chance of attending school than those whose parents have low level of education. Caste groups give mixed response for SC and OBC categories but the odds of school attendance status is negatively related for ST children as compared to the reference category other higher caste. Odds ratios of middle/richer and richest wealth index provide a positive relationship with school attendance status of children (both sexes) with reference to poorest and poorer category households which implies that school attendance status of children increases with the improvement of their wealth status.

Table 7 : Odds ratio for schooling status of the children aged 5-14 years for each residence and sex : India – NFHS 3

Independent Variables	Reference Category	Categories	Rural		Urban	
			Male	Female	Male	Female
Own agricultural land ⁸	No land	Own land	1.34*** 9	1.18***	-	-
Relationship of the child to head of the household	Other relative	Son/ daughter/ son in law/ daughter in law/ grand child	1.21***	1.04	1.16	1.09
Survival status of	Both alive	Mother dead father	0.73***	0.72***	0.82	0.85

parents		alive				
		Mother alive father dead	0.98	1.35***	1.18***	1.19
Education level of parents	Illiterate or < primary	Mother's education secondary to higher father 's education any level	1.62***	2.31***	2.12***	2.31***
		Father's education secondary to higher mother illiterate	1.65***	1.80***	1.81***	1.78*
Caste of head of the household	Others	SC	1.11**	0.96	1.06	1.14*
		ST	0.87***	0.71***	0.95	1.13
		OBC	1.03	0.83***	0.97	0.94
Wealth status of household	Poorest & poorer	Middle & richer	1.95***	2.07***	1.60***	1.81***
		Richest	2.03***	2.46***	2.56***	2.88***
Wald chi ²			946.3	1435.1	619.0	632.3
Log pseudo likelihood			-19340	-19560	-11672	-10582
Pseudo R- squared			0.039	0.059	0.052	0.062
No. of observation			35293	33546	23588	21622

8 The variable 'own agricultural land' is applicable only in rural areas.

⁹ *** significant at 1 per cent level, ** significant at 5 per cent level and * significant at 10 per cent level

The urban data shows that the school attendance of children is mainly dependent upon education level of parents and households' wealth status. Effects of survival status of parents and caste are very negligible on the educational attainment of urban children.

Table 8 presents the odds ratio for school attendance status of children aged 5-14 years for rural male and rural female by category of states. Possession of agricultural land makes a positive impact upon school attendance status of children than those who do not possess. In fact, the people who possess agricultural land, are the better off segment of rural population who can afford the educational expenses of their wards.

The odds ratios for relationship of the children to head of the households have a positive association with school attendance of children excepting the C category states for female children but the ratios are significant only in A category states for male children. Survival status of parents provides a mixed response for the school attendance status of children for both the sexes. Odds ratios for the children who lost their mother is negatively related with the educational attainment of children for both the sexes and in most of the category of states excepting group A states for female children which is contrary to the assumption. Odds ratios for educational attainment of children who lost their father provide mixed response among the category of states and sexes. It appears that survival status of parents do not provide consistently significant results on educational attainment of children. Educational level of parents has been a crucial factor in determining educational attainment of children for both sexes in rural India. The ratios are highly significant in most of the groups of states. Educational attainment of children belonging to Scheduled Castes, Scheduled Tribes and Other Backward Classes are supposed to be less as compared to the reference category 'other higher caste'. But the results of logit model give mixed response among the groups of states for SC and OBC children. A and B category states are the states where proportion of literacy is higher than the all India average, and there is a little difference among different caste groups in regard to literacy rate. Educational attainment of the children belonging to ST category is negatively related with the reference category 'other higher caste'. As it is described earlier that the wealth status of household has high significant contribution in determining schooling of children. Here the odds ratios for middle and richer, and richest wealth status are also positively related with the school attendance status of the children as compared to the reference category 'poorest and poorer' and the ratios are highly significant for both sexes, and in most of the group of states.

Table 8 : Odds ratio for schooling status of the children aged 5-14 years by category of states – Rural Male and Female : NFHS 3

Independent Variables	Reference Category	Categories	Male			

			Group A	Group B	Group C	EAG
Own agricultural land	No land	Own land	1.04	1.17*	1.24***	1.63***
Relationship of the child to head of the household	Other relatives	Son/daughter, son in law/ daughter in law, grand child	1.57**	1.15	1.29	1.15
Survival status of parents	Both alive	Mother dead father alive	0.70	0.74	0.58	0.79*
		Mother alive father dead	0.94	0.79	0.72*	1.09
Education level of parents	Illiterate or < primary	Mother's education secondary to higher father's education any	1.18	1.70***	1.28**	1.69***
		Father's education secondary to higher mother illiterate	1.59***	1.35**	1.51***	1.74***
Caste of the head of the household	Others	SC	1.06	1.34***	0.98	1.15**
		ST	0.66***	0.77***	0.72***	0.96
		OBC	1.43***	2.03***	0.89	1.09
Wealth status of household	Poorest & poorer	Middle Richer	1.74***	1.62***	1.69***	1.84***
		Richest	1.38**	1.60	2.61***	2.02***
Wald Chi2			99.2	101.6	155.2	529.6

Log Pseudo Likelihood	-3295	-3224	-3358	-8858
Pseudo R-squared	0.031	0.034	0.033	0.042
No. of Observations	7436	5795	6710	15352

*** significant at 1 per cent level, ** significant at 5 per cent level and * significant at 10 per cent level

Table 9 presents the odds ratios for schooling status of the urban children by category of states and sex. The results of the logit model show that the relationship of the children to head of the household and survival status of parents not providing consistently significant result among the category of states excepting a few cases. Caste groups also provide mixed response among the category of states. The schooling status of the SC, ST and OBC children is high in A and B category of states whereas it is low in C and EAG category of states as compared to the reference category 'other higher castes'. In A category states, schooling status of SC, ST and OBC male children is higher than the 'other higher caste' male children because of the fact of high literacy rate of these states. In fact, these backward communities population are mainly concentrated in rural areas, and engaged in agricultural and allied occupations, but the better off segment of these communities with sufficiently high educational background and high socio-economic status are settled in the urban areas, and as a result of which there is very little difference among the backward caste categories and 'other higher castes'. The schooling status of children are positively related with the education level of parents, more specifically mothers' education playing a crucial role in determining schooling status of urban children. The odds of mothers' education are highly significant in each sex and category of states. Higher wealth status of households are positively associated with the schooling of children as compared to the poorest and poorer wealth status excepting middle richer wealth status in B category states for male children. In urban areas, educational attainment of children is largely dependent upon the education level of parents more specifically on mothers' education as well as the wealth status of the households.

Table 9 : Odds ratio for schooling status of the children aged 5-14 years by category of states – Urban Male and Female : NFHS 3

Independent Variables	Reference Category	Categories	Male			
			Group A	Group B	Group C	EAG
Relationship of the child to head of the household	Other relatives	Son/daughter, son in law/daughter in law, grand child	1.21	2.72***	1.41*	0.90

Survival status of parents	Both alive	Mother dead father alive	1.34	2.71**	0.90	0.70
		Mother alive father dead	0.88	1.78	1.22	1.15
Education level of parents	Illiterate or < primary	Mother's education secondary to higher father's education any level	2.03***	2.61***	1.49***	2.01***
		Father's education secondary to higher mother illiterate	2.09***	1.51	1.33**	1.95***
Caste of the head of the household	Others	SC	1.43***	1.25	1.07	0.93
		ST	1.23	0.88	0.65*	1.10
		OBC	1.53***	1.14	0.89	0.92
Wealth status of household	Poorest & poorer	Middle Richer	1.48**	0.88	2.25***	1.39***
		Richest	2.09***	1.19	3.40***	2.75***
Wald Chi ²			100.7	49.6	107.4	336.8
Log Pseudo likelihood			-3174	-1710	-2065	-4360
Pseudo R-squared			0.037	0.54	0.039	0.064
No. of observation			7800	3616	4344	7828

*** significant at 1 per cent level, ** significant at 5 per cent level and * significant at 10 per cent level

VI. Discussion

According to Census 2001 data, school attendance rate of children aged 5-14 years is high in the states of Kerala, Sikkim, Goa, Delhi, Himachal Pradesh, Tamil Nadu, Manipur, Punjab, Maharashtra and Uttaranchal. In these states, school attendance rate for both sexes (male and female) is above 80 per cent, and in the remaining states of the country, average school attendance rate is below 80 per cent. In the states, namely, Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh, Orissa, Andhra Pradesh proportion of child literacy specifically female literacy is far lower than the national average. The regional variation in the school attendance rate is mostly the outcome of regional disparities in the socio-economic development.

The results of the logistic regression show that the education level of the parents and wealth status of households are more significant factors of children's school attendance as compared to other socio-economic factors. The study shows that the children's school attendance rate is positively associated with the higher level of education of the parents. Further, it is revealed from the study that proportion of children attending school is less for those whose parents' have no education or have less than primary level of education.

The odds of orphanhood give the mixed response in regard to schooling of children. However, orphanhood, in most cases, are negatively associated with the schooling of children. Maternal orphans are more disadvantageous than paternal orphans, and double orphan children are really vulnerable in regard to educational attainment.

Wealth status of the household represents the proxy for socio-economic status of a household. Moreover, education level of the parents and wealth index has a positive correlation and both the factors are positively associated with the school attendance rate of the children.

School attendance rate is found to be low among the Scheduled Castes and Scheduled Tribes communities specifically in C and EAG category of states, as revealed from the study. Their low attendance in the academic institutions is closely associated with the poor educational level of the parents along with poor socio-economic status of these households. So long as these backward people are not developed socio-economically, it is difficult to eliminate the root cause of the child illiteracy from the Indian society.

The provision of universal and compulsory education for all children in the age group 6-14 was a cherished national ideal and had been given overriding priority by incorporation as a Directive Policy in Article 45 of the Constitution of India, but it is still to be achieved more than half a century since the Constitution was implemented.

VII. Conclusion

Promotion of literacy at the household level may be an important step for reducing child illiteracy from the country. Elimination of adult illiteracy may be a measure in promoting literacy in the next generation. Educational standard of a country can not be improved unless its socio-economic infrastructure are developed. So, to improve the educational standard of a country, the first step would be to uplift the

socio-economic status of its population. Some states of the country specifically the states in C and EAG categories which constitute more than 50 per cent of the country's total population need special measures in this regard.

The orphans with higher economic status are no less disadvantageous than the non-orphans in the matter of educational attainment. Hence, poverty of the family is much more responsible for illiteracy of the children than their orphanhood.

In a nut shell, abject poverty, illiteracy and other social evils are the underlying factors for existence of child illiteracy in India. To abolish child illiteracy, its causes are to be addressed for rectification.

NOTES

¹ Empowered Action Group (EAG) :

The National Population Policy (NPP) has listed short and long term goals to be achieved for population stabilisation and achievement of Key Socio-Demographic Indicators by the year 2010 and 2045. One of the key objectives is attainment of TFR (Total fertility rate) of 2.1 by 2010 for the country. It is felt that although progress in some states is satisfactory, poor performance in Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Orissa and the three newly created states namely Uttaranchal, Jharkhand and Chattisgarh following the division of Uttar Pradesh, Bihar and Madhya Pradesh in the year 2000 is proving to be a constraint to national progress. Therefore, more focused interventions are needed on the issues of reproductive and child health care in these states for attainment of the demographic goal set in the NPP, 2000.

In Uttaranchal, difference between male and female literacy rates is less than 10 per cent and should actually fall under group A states. Orissa and Chattisgarh fall in the C category of states on the basis of the same criterion. However, on account of the unsatisfactory socio-demographic indicators, all these states are included in the EAG group. The three new states such as Uttaranchal, Jharkhand and Chhattisgarh have thus been included in the EAG

⁴ Though the percentage of children attending school is shown in two age distribution that is 5-9 and 10-14, this study is focused mainly on the distribution of children attending school in the age group 5-14 years.

⁵ The wealth status or economic status was constructed using household asset data and housing characteristics. The NFHS 3 wealth index is based on 33 assets and housing characteristics such as household electrification, source of drinking water, type of toilet facility, television, refrigerator, bicycle, motorcycle, car etc. Each household was assigned a score for each asset, and the scores were summed for each household ; individuals are ranked according to the score of the household in which they reside. The sample is then divided in quintiles, that is, five groups such as poorest, poorer, middle, richer and richest wealth status categories.

⁶ Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs) are the weaker sections or backward communities, whereas the other higher castes are the advanced group of population of the Indian society. Backwardness of these communities are ranked in ascending order as : Scheduled Tribes < Scheduled Castes < Other Backward Classes. Some special facilities in the

matter of education and employment in the government institutions and departments are provided to these weaker sections as mentioned in the Constitution of the country.

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