PARENTAL EDUCATION AND FAMILY ASPECT OF SCHOOL ENROLMENT IN RURAL INDIA

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ABSTRACT

Universal access to primary education is one of the Millennium Development Goals (MDGs) to be reached by 2015. India has made elementary and free child education to achieve the Universal Elementary Education. Constitution of India states that all children up to age 14 years have a fundamental right to free and compulsory education. Despite several efforts, education for all has not been achieved in India. Furthermore, low quality of school and a high dropout rate, as well as gender and rural-urban disparities remain the major challenges of India. Child's performance in school not only depends on the school or teacher's quality but also on the family environment where the child grows. The study has used NFHS-3 data for all India rural states to analyse the factors responsible for child school enrolment and performance. We found that parents' educational status and family economic condition (household access to basic assets), parents survival are the important factors which are more likely to affect children's education.

Introduction

Education system provides a basis for the development of human capital. Universal access to primary education is one of the Millennium Development Goals (MDGs) to be reached by 2015. India has made elementary and free child education to achieve the Universal Elementary Education. Constitution of India states that all children up to age 14 years have a fundamental right to free and compulsory education. The Central Government has taken several initiatives in strengthening infrastructure and delivery of elementary education. Despite several efforts, education for all has not been achieved in India. Theoretically, school enrolment and dropout are determined by household's demand for education and the supply of education services. Demand for education is determined by parents' decision on the amount of schooling for their children, which is based on assessments of the costs and benefits of education. The supply of education is determined by the access to and quality of local schools. In India, like other developing countries, household poverty is a major factor keeping many children out of school. Poor households often cannot afford to send their children to school or are forced to withdraw children out of school at early ages. Although primary school is almost free in India, hidden costs such as books, uniforms and food expenses hinder poor households from sending their children to school. Household size and family structure are also important determinants of children's schooling because a household's income and expenses are partly related to its size and structure. In addition, many households of the country are affected by unexpected economic and demographic shocks such as drought, food shortage, job loss, illness or death of an adult family member. These household-

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specific negative shocks have a detrimental effect on children's school enrolment and dropout. In this context, the paper analyses the household environment and parents' education on the child school enrolment. The broad objectives of the study are: (i) to examine the relationship of educational status (in terms of school enrolment, attendance and dropout) of children aged 5 to 14 years with family environment in India (ii) to examine the impact of parental education and household wealth level on the children's educational outcomes and (iii) to show the variation in educational outcome across Indian states.

Literature Review

Low educational achievement is a major problem in the Indian educational system. Many children, who enter the school, are unable to complete their education for various reasons. The following section will highlight the major factors which are responsible for low educational outcome.

Assets: A large set of literature on education achievement of the child suggests the importance of family economic resources in children's well-being (Becker, 1991, 1993; Becker & Tomes, 1986). Within this viewpoint, some researchers make a clear distinction between income and assets in terms of household resources. Sherraden (1991) highlights the importance of assets as more than a flow of income for maintaining the present and future consumption. Assets are important because they can bring economic security, especially in times of hardship or economic stress. Assets may also provide a position and signaling in the society, change the way people think, and expand the available opportunities (Oliver & Shapiro, 1995; Sherraden, 1991). Based on these arguments, assets may directly and indirectly enhance the welfare of children. Further, assets accumulation may help improve positive attitudes towards future orientation, and help people make specific plans with regard to work and family (Di

Pasquale & Glaeser 1999; Rossi & Weber, 1996; Yadama & Sherraden, 1996). Yadama and Sherraden found that savings and house values had positive links with attitudes and behaviours, such as prudence, efficacy and connectedness. These attitude changes then may lead to other positive social, economic, and inter-generational outcomes (Scanlon 2001). He suggested that assets might help people first shape hopes and plans, which in turn lead to positive social and economic outcomes. According to this view, parents with assets may perceive a brighter future for their children than those who do not hold any assets. This may positively affect parenting behaviours and investment and thus affect children's educational attainment. Several recent studies have examined possible independent and distinct effects of assets from income on children's education. Conley (2001) indicated that parental net worth had a strong effect on the post-secondary schooling of children and net of income and other measures of socio-economic background. Williams (2004) found that, parental wealth (net worth, account ownership and stock) was positively associated with educational achievement of children. Williams also found that the effects occurred even among very income-poor families. Similarly, Zhan and Sherraden (2003) found that lowincome single mothers' assets (home ownership and savings) were positively associated with children's educational attainment. Furthermore, this study found that income was associated with educational achievement when assets were not in the model; however, the relationship between income and children's education disappeared when assets were included. Other studies have found that the wealth gap is strong in the enrolment of children across Indian states (Flimer, Pritchett, 2001).

Family Environment: Several studies are conducted to understand the relationship between family environment and child's outcomes, such as child behaviour, child education and child well-being etc. (Peterson &

Zill, 1986; Dubous et al., 1994; Salem et al, 1998; Wong, 1998; Carlson & Corcoran, 2001; Sun, 2001; Kamaruddin et al 2009; Kaur and Kaur, 2009). In a study by Dashore (1995), the socio-economic condition of girl child among tribes was studied. Study shows that the incidence of child labour is very high. Girls are forced to stay at home to care for younger siblings. Girl children get enrolled in school but are withdrawn early. The age and sex of the child affect his/her likelihood of going to school. In India there is evidence of discrimination against the girl child. Research done by University of Hull and Oxford University examined the factors that can affect how and whether girls participate in education by compiling results from India, Bangladesh, Sierra Leone, Cameroon and some other countries. The study revealed that pupils from bigger and poorer families were more likely to feel that going to school was more costly, and expressed negative views about the need for girls to go to school (Cammish and Brock, 1999). Tembon et al.(1999) studied the family level determinants of schooling of boys and girls in Guinea which indicated that parents' education and household wealth are the two important determinants of educational achievement of the child. They also found that mother's educational background has significant positive impact on the girl child school enrolment. There is evidence that in developing countries the cost of high fertility is borne by older siblings, rather than by parents (Emerson & Portela Souza, 2002).

School Quality: Dreze and Kingdon (2001) use data of 1143 households for rural north India to analyse the impact of school quality on school participation. They found that probability of participation increases with parental education, though mother's education does not have significant effect on male school participation. Among developing countries, India stands out in terms of the remarkably low levels of mobility in terms of educational achievement (see for example Gupta, 2004; Munshi and Rosenzweig, 2009) because of very poor quality of school

level infrastructure. Duraisamy(2001) studied the effectiveness of incentives on school enrolment and attainment in Tamil Nadu and found that school quality plays a major role in both supply and demand for education. If parents in poor rural households perceive the quality of their children schooling to be poor, they may be reluctant to send their children.

The review of various studies on child educational outcomes revealed that the focus has been on school quality and its impact on child educational outcome. However, there is hardly any study which shows the impact of family background, child status, and parental survival rate on child educational outcome

Methodology

Data for this study were drawn from "National Family Health Survey-3" (NFHS-3) conducted during 2005-06 in India. Three types of variables were considered for this study: a) Educational variables or outcome variables include educational status of child in terms of ever enrolment and current schooling and educational performance. b) Family environmental variables include child living status, survival status of parents, relationship with household head, parents' education status, parents' occupation status etc. c) Child characteristics and other socio-economic variables include child's age, sex, birth order, numbers of siblings, religion and caste etc. The paper has also included household access to basic assets to measure the household wellbeing. Household assets are defined as stock of financial, physical, human, natural or social resources that can be acquired, developed, improved and transferred across generations. In the current poverty-related development debates, the concept of assets or capital endowments includes both tangible and intangible assets, which broadly identifies as natural, physical, financial, human and social assets. However, in this study we have not incorporated the social assets because NFHS

data do not report the same. Natural assets include agricultural land and livestock which helps to maintain the sustainable livelihood of people in rural areas. Physical assets are generally defined as the stock of plant equipment, infrastructure and other resources owned by individuals, business and public sector. In this study, however physical assets include various types of consumer durables or household amenities and quality of house. Housing is the most important component of physical asset. The NFHS presents data on quality of houses based on the material used for construction of walls and roof separately. If both the walls and roof are made of pucca material, a house is classified as pucca. If the wall and roof are made of kutcha material the house is classified as kutcha. In all other cases the house is classified as semi-pucca. A wall is considered kutcha if the material used includes grass, leaves, bamboo, mud, un-burnt brick or wood. It is pucca when the material used is burnt brick, metal sheets, stone, cement or concrete. Similarly, a roof is considered kutcha if the material used is grass, leaves bamboo, mud, un-burnt brick or wood. It is considered pucca when the material used includes tiles, slate, corrugated iron, zinc or other metal sheets, asbestos, cement sheets, bricks, lime, stone and concrete. As proxy for standard of living within households we include quality of drinking water facility, toilet facility, type of cooking fuel, various household amenities such as electricity, television, radio, bicycle, watch, fan, water pump, and kitchen facility within household. A financial or productive asset comprises savings, credit, jobs and employment opportunities, and nonearned income used by people to achieve their livelihood objectives and to invest in new livelihood assets. However, NFHS data source is limited in scope for that information. In our study, productive assets count as financial assets because they represent a current or potential income stream. In the context of Indian rural States, sewing machines, tractor, thresher, animal drawn cart are key indicators for productive assets.

Analysis of the Data

Construction of Asset Index: The paper has used the Multiple Correspondence Analyses (MCA) to create an asset index for all Indian States based on data from Demographic and Health Survey (NFHS) of India for the year 2005. MCA allows us to analyse the pattern of relationships of several categorical dependent variables (Asselin, 2002). There are several studies which have used the MCA score to generate the composite poverty index (Moser, C. and Felton, A. 2007, Filmer, D. and K. Scott 2008). The asset index value is given in the appendix.

The following equation is used to calculate a composite asset index for each household for each State

$$CAI_{i} = \frac{1}{\kappa} (I_{i1}W_1 + I_{i2}W_2.... + I_{ij}W_j)$$

where, CAI_i is the ith household's composite asset indicative score. I_{ij} is the response of household i to category j and W_j is the weight which we will derive from MCA. K is the total number of primary indicators.

Factors Affecting Child's Education Achievement: The paper has used the binary logistic regression model to find out the determinants of the child education status. The paper has run the three binary logistic regression models:

- 1. Child enrolment status: Here dependent variable is measured by 1 for enrolled child and 0 for never enrolled.
- Child educational performance: Here dependent variable is measured by 1 for successfully passed in the 7th standard class and 0 for failed.
- 3. Dropout status of enrolled child: 1 for dropout and 0 for continuing.

Independent variables include child living status, parents' survival status, caste, religion, parents' education, parents' occupation,

household asset index, child age, sex, number of siblings etc.

Results

Constructing Asset Index (CAI): To construct the CAI for each household, the study has used the functional form of the CAI expressed in footnote2. The weights (factorial scores on the first axis) attributed to the variable categories are presented in Appendix Table A1. There are 18 variables (primary indicators as in Appendix Table A1) and 41 categories demonstrates that the first factorial axis explains 71.6 per cent of the observed inertia (i.e., the eigen value) while the second axis accounts for only 6.58 per cent of the observed inertia (Appendix Table A2).

Weights with smaller or negative numbers indicate lower welfare; the larger numbers indicate higher welfare. To use these weights, the monotonicity axiom must be fulfilled, meaning that the CAI must be monotonically increasing for each primary indicator (Asselin,, 2002 & 2005). The axiom means that if a household improves its situation

for a given primary variable, then its CAI value increases so that its standard of living increases. The largest positive scores are observed to be associated with goods and services comfort, whose access is limited to well-off households. The better-off the household, the more access it has to these goods and services, which include television, pucca house, piped water facility, flush toilet facility, modern source of cooking fuel such as LPG, sewing machine and literacy of household members. The categories associated with the largest negative scores on the first axis are the most accessible goods and services. The poorer the households, the less they possess such goods and services. These households may lack a bicycle, have no access to safe drinking water or a hygienic toilet. Before analysing the impact of asset index on child educational outcome, it is useful to start with the descriptive statistics of the asset index score (presented in Appendix Table A3). Figure 1 illustrates the distribution of asset index score. It is seen that asset index is mild negatively skewed which indicates mean asset index is lower than its median value.

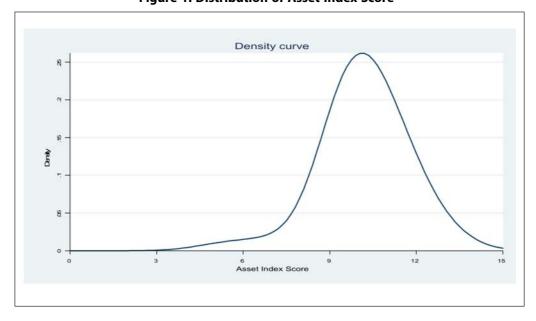


Figure 1: Distribution of Asset Index Score

Table 1: Child Enrolment Rates by Asset Quintile					
Asset Quintile	Q1	Q2	Q3	Q4	Q5
Enrolment rate	29	55	72	80	94

Source: Own calculation from NFHS, 2005 data.

Table 1 illustrates how child enrolment rate varies across asset quintile. It is easily seen that higher the asset quintile, higher the child school enrolment.

Table 2 illustrates that in most of the States there is a large difference in the enrolment rates between richest 20 per cent and the poorest 20 per cent of the asset index. The difference is highest in Jharkhand (60 percentage points) and lowest in Delhi (3 percentage points).

Table 2 : Difference in the Average Enrolment Rates Between Richest 20 per cent and the Poorest 20 per cent Using Asset Index

-	_	
 Andhra Pradesh	39	
Arunachal Pradesh	45	
Assam	29	
Bihar	59	
Chhattisgarh	55	
Delhi	3	
Goa	15	
Gujarat	32	
Haryana	35	
Himachal Pradesh	10	
Jammu and Kashmir	21	
Jharkhand	60	
Karnataka	45	
Kerala	5	
Madhya Pradesh	46	
Maharashtra	22	
Manipur	22	
Meghalaya	32	
Mizoram	34	
Nagaland	37	
Odisha	40	
Punjab	38	
Rajasthan	49	
Sikkim	21	
Tamil Nadu	12	
Tripura	31	
Uttar Pradesh	49	
Uttaranchal	40	
West Bengal	47	
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Source: Own calculation from NFHS, 2005 data.

Empirical Evidence on Child Educational Outcome: Figure 2 shows that there exists State level variation in educational status and performance of children. It is found that proportion of children ever enrolled in school is highest in Tamil Nadu (93.1 per cent) followed by Himachal Pradesh (91.4 per cent), Uttaranchal (91 per cent), Kerala (90.9 per cent) and it is lowest in Bihar (57.8 per cent) followed by Meghalaya (66.6 per cent) and Nagaland (68.8 per cent). Dropout students are found highest for Jharkhand (11.4 per cent) and lowest for

Himachal Pradesh (1.2 per cent). All India level 80.1 per cent children are ever enrolled in school and among them 6.1 per cent are dropouts (Figure 4). From Figure 3 it is noticed that proportion of currently attending students is highest in Himachal Pradesh (98.8) followed by Tamil Nadu (96.5), Uttaranchal (96.3), Mizoram (96.3) and Tripura (96.2). It is also found that proportion of currently attending students is lowest in Jharkhand (88.6) followed by Meghalaya (90.5).

Figure 2: % of Children (in Age Group 5-14 Years) Ever Enrolled in School

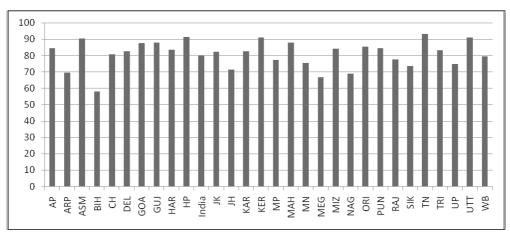
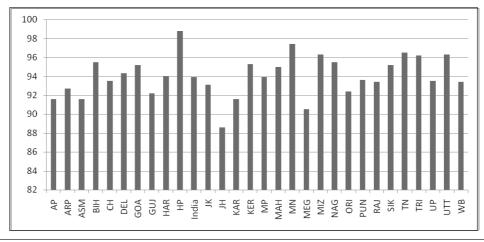


Figure 3: % of Children (in Age Group 5-14 Years) Currently Attending School Among the Enrolled Children



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Figure 4: % of Children (in Age Group 5-14 Years) Dropout from School Among the Enrolled Children

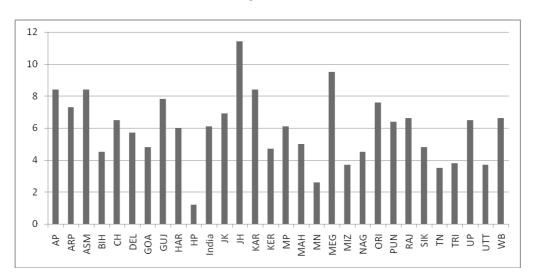
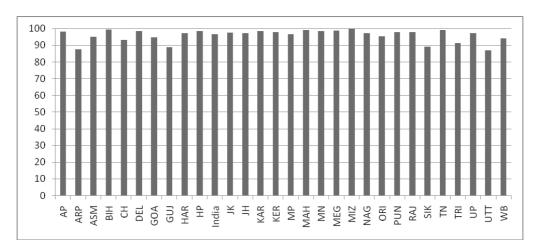


Figure 5: % of Children Passed in the Last Grade



From Figure 5 it is seen that among the children who are currently attending school, 'Percentage of children passed in the 7th class grade' has been found highest in Mizoram (100 per cent), followed by Tamil Nadu (99 per cent), and lowest in Uttaranchal (87 per cent).

From the above graphs it is clearly evident that there is wide variation across Indian States in terms of child school enrolment and performance. In this background this paper attempts to find out various factors that are responsible for child school enrolment in Indian States.

Table 3: Birth Order and Dropout of Sample Children

	•	•	
Birth Order	Dropout	% of Total	
1	5334754	53.8	
2	3481472	35.11	
3	802196.3	8.09	
4	188402.1	1.9	
5	109074.9	1.1	
Total	99159	100	

Source: Own calculation from NFHS data 2005.

Results from Logistic Regression: It is seen that dropout is highest for the eldest child as they are for looking after the younger siblings or contributing to the household income by earning some extra money. We found that 53.8 per cent of dropout children happen to be first in the birth order, 35.11 per cent are second in the birth order and 8 per cent are third in the birth order (Table 3). From the profile of dropout children it can be concluded that older children, first and second birth order are more likely to dropout.

Factors Affecting Child Enrolment: Result shows that family environmental characteristics have significant effect on the child enrolment. Child living with mother whose father stays elsewhere has positive impact on child enrolment. It may be that father who stays elsewhere for job purposes generally helps the child to enroll in the school. However, child living with both parents is more likely to get enrolled in comparison to the child, living with a mother whose husband is staying elsewhere. Child whose relationship with household head falls in categories of 'son & daughter' is more likely to get enrolled than others. Children, whose both parents are literate, highly literate, either of the parent is literate, highly literate are more likely to get ever enrolled in comparison to the children, whose both parents are illiterate. Result also shows that children, whose both parents

are in secondary sectors and tertiary sectors, are more likely to get ever enrolled than the students, whose both parents are in primary sectors. It is also revealed from our analysis that if the household asset index is in the poorer quintile then it deter the child school enrolment.

Factors Affecting Child Dropout: Our result shows that children, living with a mother whose husband stays elsewhere or children living with single mother are more likely to dropout in comparison to the children, living with their both parents. Several factors come into play. Dropout is found higher for the children, where either of the parents is alive in comparison to the children; where both parents are alive (Ainsworth et al., 2005). Students whose both parents are illiterate have higher chances to dropout in comparison to the children, whose both parents are literate, highly literate, and either of the parents' is literate, highly literate. Dropout is found higher for the students who come from poorer asset quintile in comparison to the higher asset quintile. Parents' education and family economic condition are more significant on the child education outcome. Our analysis shows, if child has two or more siblings, parents are forced to drop out their child from the school.

Factors Affecting Child Educational Performance: We found that performance is higher for children who are living with both parents. One of the reasons could be that

students who are living with both parents can get good care which has positive impact on their performance. Performance is found higher for students, whose both parents are alive than either of the parents alive. Performance is found higher for the students, whose both parents are literate, highly literate and either of the parent is literate, highly literate in comparison to the children, whose both parents are illiterate. Performance among the currently attending students is likely to be higher for children, whose either of the parents is in tertiary sectors in

comparison to those children, whose both parents are in primary sectors. One of the possible reasons could be that of student's perception on education and parents' desire from the children. It means, students whose parents are in tertiary sectors working hard for their child education with an expectation to make their child educate and capable, may show better performance in education. Child coming from a wealthier family is performing better in comparison to child who comes from poorer family.

Table 4: Factors Affecting Child Educational Status: Results from Logistic Regression Analysis

	Enrolled	Dropout	Performance
Child living with mother whose father stays elsewhere	0.09***	0.03**	0.22**
Child living with single mother	-0.10**	0.10**	0.12**
Child of either parents alive	-0.02***	-0.07**	-0.02**
Relation with household head grandson	0.02	0.06	0.09
Other relations	0.78	0,12	0.06
Both parents literate up to secondary education	0.78***	-0.09***	0.89**
Both parents literate above higher secondary education	0.45***	-0.18***	0.20**
Either of the parents are in secondary education	0.34**	-0.32***	0.21***
Both the parents working in secondary sector	0.12**	-0.90***	0.21**
Both parents in tertiary sector	0.23**	-0.098**	0.15***
Both parents unemployed	-0.89***	0.78***	0.67**
Household asset index in poorer quintile	-0.12***	0.23***	0.34**
Household asset index in middle quintile	0.09**	-0.23**	0.08**
Household asset index in richer quintile	0.34***	-0.13**	0.16**
Household asset index in richest quintile	0.23***	-0.23***	0.12**
Child sex female	-0.12	0.23	0.23
No. of siblings 2	-0.12	0.21***	0.12
No. of siblings >2	-0,87	0.56**	-0.12
Religion/ Muslim	-0.56	0.34*	0.31
Religion/Other	0.12	-0.02*	0.21
Scheduled Caste	-0.12	0.21*	-0.09
Scheduled Tribe	-0.08	0.04	-0.34*
OBC	-0.06	0.09	-0.21
General	0.23*	-0.80	0.78
Constant	0.56**	0.67**	0.78**
R^2	0.23	0.19	0.20
No. of Observations	128000	99159	70718

Note: ***, **, * indicates 1%, 5% and 10% level of significance.

For validating our findings we have used the simple ordinary regression model where dependent variable is proportion of enrolled child, dropout child and proportion of child successfully pass the grade 7 (Appendix Table A4). However, we did not find any different results. Significance and sign of the coefficients remains same, except the values of the coefficient changed.

Conclusion

- There is wide variation across Indian States in terms of child school enrolment and performance. Some of the States like, Tamil Nadu, Kerala, Uttaranchal have more than 90 per cent children who are enrolled, whereas in States like Bihar, only 57 per cent children are enrolled.
- 2. There is a large difference in the average enrolment rates between the richest 20 per cent and the poorest 20 per cent of the asset index (Flimer et al., 2001).
- 3. It is seen that dropout is highest for the eldest child as they are for looking after the younger siblings (Emerson et al., 2002).
- 4. The interesting finding is that children, whose both parents are literate, highly

literate, either of the parent is literate, highly literate are more likely to get enrolled in comparison to the children, whose both parents are illiterate. Result also shows that children, those both parents are in secondary sectors and tertiary sectors, are more likely to get enrolled than the students, whose both parents are in primary sectors.

- It is also revealed from our analysis that if the household asset index is in the poorer quintile then it deters the child school enrolment and increases the dropout rate.
- Our finding reveals that if child has two or more siblings, parents are forced to drop out their child from the school (Emerson et al., 2002).
- 7. Child's performance is mostly affected by parents' educational status and parents' survival status.

So, the main crux of the paper is that parents' educational status and family economic condition, parents' survival are the important components of the family environment which are more likely to affect the children education, in the Indian context.

References

- 1. Ainsworth, M, Beegle, K and Koda, G. (2005), The Impact of Adult Mortality and Parental Deaths on Primary Schooling in North-Western Tanzania, *The Journal of Developmental Studies*, 41 (3); 412-439.
- 2. Asselin, L.M. (2002), Composite Indicator of Multidimensional Poverty, CECI, June.
- 3. Asselin L.M & Vu T.A. (2005), Multidimensional Poverty in Vietnam 1993-1998, According to CBMS Indicators, *Vietnam Socio-Economic Development Review*, Spring 2005, No.41.
- 4. Becker, G.S. (1991), A Treatise on the Family, Cambridge, MA7 Harvard University Press.
- 5. Becker, G.S. (1993), Human Capital: A Theoretical and Empirical Analysis, with special reference to Education, Chicago University of Chicago Press.
- 6. Becker, G. S., & Tomes, N. (1986), Human Capital and the Rise and Fall of Families, *Journal of Labor Economics*, 43, PS1– PS39.
- 7. Cammish, N and Brock, C. (1999), Girls, Schools and Limits to Change, *Insight* 29: 2.

8. Carlson, M.J. & Corcoran, M.E. (2001), Family Structure and Children's Behavioral and Cognitive Outcomes, *Journal of Marriage and Family*, Vol. -63. Pp. 779-792.

- 9. Conley, D. (2001, January), Capital for College: Parental Assets and Postsecondary Schooling, *Sociology of Education*, 74, 59–72.
- 10. Dashore, R. (1995), Status of Tribal Girl Child, *Social Change: Issues and Perspective*, 25(2-3):207-216.
- 11. DiPasquale, D., & Glaeser, E. L. (1999), Incentives and Social Capital: Are Homeowners Better Citizens? *Journal of Urban Economics*, 45(2), 354–384.
- 12. Dreze, J. and G. Kingdon (2001), School Participation in Rural India, *Review of Development Economics*, 5(1),1:24.
- 13. Dubous, D. L., Susan K. Eitel, & Robert D. Felner (1994). Effects of Family Environment and Parent-Child Relationship on School Adjustment During the Transition of Early Adolescence, *Journal of Marriage and Family*, Vol.56, pp. 405-414.
- 14. Duraisamy, P., (2001), "Effectiveness of Incentives on School Enrolment and Attainment", Journal of Educational Planning and Administration, 15(2):155-177.
- 15. Emerson, Patrick M. and Andr´e Portela Souza (2002), Bargaining over Sons and Daughters: Child Labor, School Attendance and Intra-Household Gender Bias in Brazil, Department of Economics, Working Paper 02-W13, Nashville, TN, Vanderbilt University.
- 16. Flimer, D and Lant, P. (2001), Estimating Wealth Effects without Expenditure Data-or Tears: An Application to Educational Enrollments in States of India, *Demography*, 38(1), 115-132.
- 17. Gupta, D. (2004), Caste, Oxford, Oxford University Press.
- 18. Kamaruddin, R., Rashidha N. & Aminuddin Z.M. (2009), The Quality of Learning Environment and Academic Performance from a Student's Perception, *International Journal of Business and Management*, Vol. 4, No-4.
- 19. Kaur, J.Rana, J.S, & Kaur R. (2009), Home Environment and Academic Achievement as Correlates of Self-concept among Adolescents, Studies on Home and Community Science, Vol. 3, No. 1, pp. 13-17.
- 20. Moser, C. and Felton, A. (2007), The Construction of an Asset Index: Measuring Asset Accumulation in Ecuador, CPRC Working Paper 87. URL: http://www.dfid.gov.uk/r4d/PDF/Outputs/ChronicPoverty_RC/87Moser_Felton.pdf
- 21. Munshi, K. and M. R. Rosenzweig (2009), Why is Mobility in India So Low? Social Insurance, Inequality and Growth, Technical Report, Brown University.
- 22. Oliver, M. L., & Shapiro, T. M. (1995), Black Wealth/White Wealth: A New Perspective on Racial Inequality, New York Routledge.
- 23. Peteson, J., & Zill, N. (1986), Marital Disruption, Parent Child Relationship and Behavior Problems in Children, *Journal of Marriage and Family*, Vol.48, pp. 295-307.
- 24. Rossi, P. H., & Weber, E. (1996), The Social Benefits of Homeownership: Empirical Evidence from National Surveys, *Housing Policy Debate*, 7(1), 1–35.

- 25. Salem, D.A., Zimmerman, M.A, Notaro, P.C. (1998), Effects of Family Structure, Family Process and Father Involvement on Psychosocial Outcomes among African American Adolescents.
- 26. Scanlon, E. (2001), Toward a Theory of Financial Savings and Child Well-being: Implications for Research on a Child and Youth Savings Account Policy Demonstration, Research Background Paper, CYSAPD 01-11. Washington University, St. Louis, MO7 Center for Social Development.
- 27. Sherraden, M. (1991), Assets and the Poor: A New American Welfare Policy, Armonk, N.Y.7 M.E. Sharpe.
- 28. Sun Youngmin, (2001), Family Environment and Adolescents' Well Being Before and After Parents' Marital Disruption: A Longitudinal Analysis, *Journal of Marriage and Family*, Vol. 63, No. 3, pp. 697-713.
- 29. Tembon, M. and Al-sammarrai, S. (1999), Who Gets Primary Schooling and Why? Evidence of Gender Inequalities Within Families in Guinea, IDS Working Paper No. 85, pp 33.
- 30. Williams, T. R. (2004), The Impacts of Household Wealth on Child Development, Working Paper No. 04-07. St. Louis, MO: Center for Social Development, Washington University.
- 31. Yadama, G. N., & Sherraden, M. (1996), Effects of Assets on Attitudes and Behaviors: Advance Test of a Social Policy Proposal, *Social Work Research*, 20(1), 3 11.
- 32. Zhan, M., & Sherraden, M. (2003), Assets, Expectations, and Children's Educational Achievement in Female-Headed Households, *Social Service Review*, 77(2), 191–211.

Appendix

Table A1:Variables and Weights from MCA

Primary Indicators	Categories	Weights
Physical Assets		
Household Amenities	Has Electricity / No Electricity	1.366-0.391
	Has Radio / No Radio	1.601-0.805
	Has Television / No Television	3.012-0.915
	Has Bicycle / No Bicycle	0.843-0.75
	Has Watch / No Watch	1.196-1.849
	Has Electric Fan / No Electric Fan 2	2.414-1.178
	Has Water Pump / No Water Pump Has Separate Room for Kitchen	2.64-0.145
		0.648-0.677
House Type	Pucca House	2.487
	Semi -Pucca House	-0.579
	Kutcha House	-0.83
Source of Drinking water	Piped Water into Residence	2.327
	Public Tap or Public Handpump	-0.572
	Well Water	-0.368
	Rain Water	-0.249
Source of Toilet Facility	Flush Toilet	3.841
	Pit Latrine	1.609
	No Toilet	-0.701
Cooking Fuel	LPG	3.679
	Other Cooking Fuel	-0.335
Financial/Productive Assets	Has Sewing Machine	2.72
	No Sewing Machine	-0.52
	Has Tractor	0.492
	No Tractor	-0.77
	Has Thresher	0.655
	No Thresher	-0.55
	Has Animal-drawn Transport	1.085
	No Animal-drawn Transport	-0.182
Natural Assets	Has Land	2.162
	Has Non-irrigated Land	-0.321
	Has Both Irrigated and Non-irrigated Land	l -0.089
	Has Any Livestock	0.10
	No Livestock	-0.019

Table A2: Dimension Specific Inertia from MCA Score

Dimension	Principal Inertia	Per cent
Dimension1	0.237	71.6
Dimension 2	0.021	6.58
Dimension 3	0.013	4.19
Dimension 4	0.008	2.69
Dimension 5	0.005	1.56
Dimension 6	0.003	0.78
Dimension 7	0.002	0.49
Dimension 8	0.001	0.31
Dimension 9	0.0007	0.21
Dimension 10	0.0004	0.15
Dimension 11	3.25E-05	0.01
Dimension 12	2.17E-07	0.00
Total Inertia	0.325	100

Source: Own calculation from NFHS data.

Table A3: Descriptive Statistics of Asset Score

Maximum	Minimum	Mean	Standard Deviation	Skewness
14.15	5.14	10.18	1.4	-0.78

Table A4: Factors Affecting Child Educational Status: Results from OLS Regression Analysis

•	•		
	Enrolled	Dropout	Performance
Child living with mother whose father stays elsewhere	0.08***	0.13**	0.22**
Child living with single mother	-0.50**	0.80**	0.32**
Child of either parents alive	-0.12***	-0.17**	-0.32**
Relation with household head grandson	0.12	0.16	0.19
Other relations	0.78	0,12	0.06
Both parents literate up to secondary education	0.28***	-0.19***	0.79**
Both parents literate above higher secondary education	0.35***	-0.08***	0.28**
Either of the parents are in secondary education	0.30**	-0.33***	0.23***
Both the parents working in secondary sector	0.02**	-0.96***	0.26**
Both parents in tertiary sector	0.28**	-0.198**	0.10***
Both parents unemployed	-0.79***	0.77***	0.47**
Household asset index in poorer quintile	-0.02***	0.13***	0.35**
Household asset index in middle quintile	0.12**	-0.13**	0.18**
Household asset index in richer quintile	0.35***	-0.10**	0.86*
Household asset index in richest quintile	0.03***	-0.93***	0.72**
Child sex female	-0.10	0.27	0.26
No. of siblings 2	-0.42	0.25***	0.18
No. of siblings >2	-0.84	0.53**	-0.13
Religion/ Muslim	-0.51	0.33*	0.34
Religion/Other	0.11	-0.12*	0.23
Scheduled Caste	-0.10	0.20*	-0.19
Scheduled Tribe	-0.18	0.14	-0.34*
OBC	-0.06	0.09	-0.21
Constant	0.26**	0.17**	0.48**
R ²	0.25	0.21	0.24
No. of Observations	128000	99159	70718

Note: ***, **, * indicates 1%, 5% and 10% level of significance.