Proximate Determinants of School Dropout: A study on Rural West Bengal

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Abstract

In recent days, controlling school dropout has emerged to be the prime hindrance to spread literacy and formation of human resource thereby. The present paper is an attempt to identify proximate determinants of school dropout and suggest probable solutions to the problem. Status of enrollment & dropout at national and state level has been explored using macro data. Thereafter logistic estimation technique using micro level primary survey data has been used to identify factors that affect chances of school attendance. We also observe gender differences in chances of drop out as also differences in factors that affect this. Estimation result has been used to frame policy suggestions so as to improve chances of universalization of education.

Key Words: School Education, Literacy, Dropout, Logistic Estimation, Gender

JEL Classification: H11, I21, I24, I25, I28

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I.   Introduction

Access to education is a basic human right and essential to human well-being. Formal education is one of the instruments for accelerating the process of social mobility. School and college education generally give students the confidence that they can improve their lives. It also has the potential to make them aware of the difficulties and obstacles that may hinder their paths. Apart from that education has long been identified as one of the most important determinant of economic growth. It is considered to be both an indicator and instrument of economic development. Education increases labour productivity and thereby helps a nation to have a strong economic growth. It is an instrument in rising earning and reducing poverty. The Kothari Commission has beautifully said "The destiny of India is now being shaped in her classrooms. This we believe is no mere rhetoric. In a world based on science and technology it is education that determines the level of prosperity, welfare and security of people. On the quality and number of persons coming out of our schools and colleges will depend on our success in the great enterprise of national construction whose principal objective is to raise the standard of living of our people". In terms of social returns, schooling helps to improve perception, attitudes and behavior; it generates awareness and builds personality in such a way as to promote development and welfare of a country and its people. However, India's progress in providing access to education to its children and youth is remarkable for the last decade especially after Sarva Shiksha Abhiyan. During the six decades between 1951 and 2001, India's Per Capita GDP increased three times, while literacy rate increased 3.5 times and Gross Enrolment Ratio increased 2.5 times. More recently, the number of Out of School Children (OOSC) in the age group of 6-14 years has declined from around 45 million in 2001 to around 14 million by the end of 2008 according[2]. Enrollment of the child in school is to be followed by retention so that child can get to learn something. Though the Sarva Shiksha Abhiyan has played a significant role to bring the children into school but still a major portion of the enrolled children are found to be leaving the school before they complete their primary schooling.

Using a three stage approach, the paper to address the present problem of school dropout and thereby the problem of out of school children in the school going age in West Bengal. The stages are (i) finding the barrier behind universalization of education, (ii) finding the causes

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[2] World Bank database, http://data.worldbank.org/; accessed on 11th September, 2012

or factors which gave rise to that barrier, (iii) finding the solutions to break that barrier to achieve the goal. For that purpose, initially, a Macro level discussion is made by assessing the schooling status of the children as indicated by enrolment and dropout across the states of India & also for the districts of the focused state, West Bengal to identify the barrier to school education. Thereafter a micro study has been made based primary data collected from 456 surveyed households in the district of Bardhaman. With this, the paper tries to identify the proximate determinants of elementary schooling for a child and thereby also tries to identify the areas of concern for the policy makers. Finally, the last part of the paper sums up the findings and provides some possible suggestions so as to achieve the goal of universal education as soon as possible.

II.   Brief Review of Current Literature

From the view point of policy perspective for long run economic growth of a developing economy, controlling school dropout is of special interest to the policy makers and planners. Ensuring enrollment and reducing dropout are the two basic steps for universal education and human capital building to ensure the sustainable growth of a nation. In Indian context the first such attempt to recognize elementary education as a must need for the country to enhance its growth was done by Weiner (1996). The study puts an effort on education of children to be recognized as the basic mean to sustain the continuous expansion of the economy and to cater the growing need of human capital, thereby suggesting to invest in its children. Considering investment on children as necessary condition for long run economic growth, many researchers has focused on the achievement of sufficient condition latter on, viz. Accessibility, Affordability to those fruits of investment on child. Many studies were made to address the socio-economic determinants of elementary education across varied locations considering caste-class barrier along with some household level factors. Significant among them are by Bhatty (1998), Banerji (2000), Kaul (2001), Sengupta and Guha (2002), Sajjad et al (2012).

In international context also, many literatures are found on the identification of determinants of elementary education with special emphasis on developing/underdeveloped countries. Notable among them are by Levy (1971), Cairns et al (1989), Stromquist (1989), Ilon and Moock (1991), Fuller et al (1995), Colclough, Rose and Tembon (2000), Higgins et al (2007), Mike et al (2008).

However, to fulfill the sufficient condition, the relative importance of the factors determining elementary education is to be understood. Study discussing this aspect of determinants to

school dropout is sparse and the present authors did not come across any study on this aspect in Indian context. This present paper aims to fulfill this gap in existing literature.

III. Data Source & Methodology

The present study uses data mainly from District Information System of Education of the Government of India (DISE). Data on year wise school enrollment and drop out is taken from the World Bank data base. Some data has also been taken from Department of Planning, Government of West Bengal and data related to population and literacy has been taken from Census of India (2001 & 2011) and Ministry of Human Resource Development, GoI. The paper also uses primary data obtained through Field Survey in the district of Bardhaman so as to identify the possible determinants of drop out and their relative influence in reducing or enhancing dropout.

In order to explore the present status of school dropout in India, a discussion based on tabulated analysis on the incidence of dropout over the years of last decade is considered. For better exploration of the current educational attainment among children of school going age, an inter-state tabulated discussion is made so as to identify the better and poor performing states across the country. In this context the dropout scenario for BIMARU states is also discussed as a special observation. Focusing on West Bengal as study area, a similar kind of analysis is made for nineteen districts of the state.

After having a discussion of the problem of dropout in Macro level, to address the issue or to remove this problem a Micro level study is made using field data obtained from primary survey in Bardhaman district. The case study is mainly considered to address some basic question of why do children drop from school or what may be the possible reason of avoiding the school or in other words, what may be the determinants of a child's school participation? A series of demographic, social and Parental characteristics has been considered to address those questions. In addition to this descriptive exploration, a logistic regression approach is followed to identify the proximate determinants of a child's school participation. Variables like parental educational qualification, household characteristics, distance to school, etc. are considered to be the explanatory variables causing an influence on the categorical dependent variable, child's school going status. Lastly, using the results of the case study some suggestion to the policymakers is provided for the better functioning of the programme of universalization of education and thereby to achieve a universal literacy.

IV. Status of Dropout in India

Enrolling the children in school is the basic prerequisite for universal education. However enrolling children in school does not necessarily imply spreading literacy, the most difficult

task is to retain children in school so as to provide proper step by step education. Though Sarva Shiksha Mission introduced in the year 2000 has been able to bring all children into school, thereby reducing the number of never enrolled children, the dropout between classes is yet to be controlled. Retention as well as Completion Rate is still very low among children. However impact of Sarva Shiksha Abhiyan (SSA) in reducing out of school children as well as to increase Net Enrollment Rate is significant in the sense that, within eight years of introduction of SSA the combined Net Enrollment Rate (NET) has increased to 91 in 2008 from 78 in 1999 and Out of School children has also been decreased to half of the figure for the year 1999 (Appendix Table-1). Gender disparity among children in terms of higher enrolment among boys and higher dropout among girls has also come down significantly. Within a span of ten years the gender disparity in enrolling the children in school has gone down to just 3 percentage points, whereas in 1999 it was 14 percentage points, exact similar improvement is visualized for that of dropout rate also. In last ten years the average annual growth rate of population in the age group of 6-10 age group is somewhere around 1.3, whereas the growth rate of enrollment in that period is around 3.1. This may be a reflection of spreading awareness among people about the education for their next generation. However there are wide disparities across states in terms of both enrollment and dropout as we see while often discussed state of Kerala has reached almost universal literacy, several pockets of Bihar, Rajasthan and Uttar Pradesh have female literacy rates below 40 per cent[3]. State wise comparison of educational attainment may explore the region wise variation and may also identify the regional disparity in terms of educational development.

V.   Status of Dropout Across States

Analytical discussion of Intra State situation on enrollment and drop out may reveal the regional disparity on education and will also be able to reflect the performance of different promotional programmes to spread literacy. India being the home country of more than a billion populations with a wide geographical area, disparity is observed in of both social and economic development as reflected by educational attainment, health status, income distribution, etc. Universalization of education elementarily needs two basic but most important jobs – firstly, all children in the school going age needs to be enrolled in school and secondly, after enrolling the child it is to be ensured that the child continues to go to school or in other words does not drop out from the school. After the implementation of Sarva Shiksha

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[3] Census of India 2011, Female literacy rate in rural areas of Sirohi district of Rajasthan is 33.02 per cent; Female literacy rate in rural areas of Shrawasti district of Uttar Pradesh is 36.14 per cent; Female literacy rate in rural areas of Purnia district of Bihar is 40.15 per cent

Abhiyan the most significant issue appears to be the problem to retain children in school and this is mostly observed in some backward states with poor literacy and resulting lack of awareness about the future of education. A discussion on enrollment and dropout across states of the country shows that there are some states where almost all the children in the school going age is being enrolled but drops out just after getting admitted. Significant among those is Bihar, ranks number one in terms of enrolling the children with 99.4 per cent of children gets enrolled in school (Appendix Table II & III). But 35 out of every 100 children gets dropped out during their primary education. Similar kind of scenario is noticed for Chhattisgarh, Uttar Pradesh and Rajasthan where enrollment of child is ensured but continuation of study in school of that child is yet to be taken care of. Most importantly in the states where children are prone to dropout most of the enrolled students leaves school before they are promoted to the 2nd standard and the rest leaves in transition between higher classes. Statistically saying, 71 out of every 100 dropout in primary is observed to be happening in between class I and II. For Bihar and Rajasthan this percentage is 60 and 50 respectively implying enrolling the child into school does not necessarily imply spreading literacy.

There are some other states where late enrolment is noticed i.e. enrolment in class I is very low and children are enrolled in higher classes. However these states are having almost no drop out. Notable among them are Hariyana, Punjab and Kerala where only 53, 55 and 66 per cent child gets enrolled in class I respectively, rest are enrolled successively in higher classes with zero drop out in primary stage of education. These states are also having minimum number out of school child. Jharkhand and Orrisa are found to be in worst situation with a very low enrollment percentage followed by very high dropout percentage, consequently having a very low completion rate.

VI.   Status of Dropout Across Districts of West Bengal

Our study area, West Bengal is comprised of nineteen districts with a population of more than ten million currently having around 28 per cent of population in the age group of 6 to 10. Discussing of the two earlier discussed indicators – enrollment and dropout, the state is currently having an enrollment percentage of about 74 per cent, however 17 out of every 100 enrolled child gets dropped out during their primary education. As like states, the analysis on districts of West Bengal also reveals different kind of disparity in terms of enrollment and dropout. To speak on status of enrolment Murshidabad, Maldah, Uttar Dinajpur the so called economically and socially backward districts with majority of the district population belonging to socially backward class is currently having hundred per cent enrollment followed by Koch Bihar, Dakshin Dinajpur and Puruliya with a percentage figure of above 95

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(Appendix Table IV & V). However Darjiling, North 24 Pargana, Purba and Paschim Midnapur are among those districts where more than 30 out of every 100 child in the school going age does not even gets enrolled in school, implying a very low enrollment rate, significant among them is Purba Mednipur where the enrollment rate in primary is as low as 38 per cent.

After enrolling the children the next important job is to retain the child in school, thereby reducing chance of dropout. In our state, across all the districts considered for discussion, Darjiling is observed to be the highest percentage of drop out where about 66 child gets dropped out of every 100 enrolled child, followed by Uttar Dinajpur, Maldah, Purulia, Maldah and Dakshin Dinajpur where out of 100 enrolled children, 60 are found to be continuing study in class V. In North 24 pargana, Pashim Midnapur and Birbhum no children is found to be dropped from school and noticeably, for the first two districts enrollment as discussed earlier is low but retention is ensured and late enrollment in higher classes is predominant. However Birbhum and Murshidabad can be called a grand success to have nearly hundred percent enrollment in class I and almost zero drop out. In district like Murshidabad where awareness among people acts as a major hindrance to promote social development because of the traditional beliefs of the predominant presence of socially backward class population enrolling and retain a child in school can be called a grand success. This kind of success is yet to be achieved at Puruliya, Malda and some other backward districts.

It appears from our country/state level Macro study by considering the enrolment/dropout that the enrolling the child in school is no longer a barrier to spread education except for one or two regions. However, retaining the child in school has emerged to be the major concern now a day. In this circumstance, the 2nd part of the paper makes an attempt to find the exact socio-economic factors which are forcing them to leave school. The primary objective of the study is to frame suitable policy measures so as to curb the problem of school dropout and finally to contribute to the universalization of actual literacy.

VII. Determinants of Dropout: A Micro Study

- The Basic Framework of the Model

The probability of child's school participation is predicted from a series of demographic, household and parental characteristics. We used to expect that the more educated parents would recognize the future benefits of education for their child and therefore have a higher propensity to enroll them in school. It is also to be tested that who plays more important role behind the education of the child – mother/father. Keeping the prevalence of gender disparity

across the country in almost all the sectors, it is also to be tested if gender does have any significant on the child's school going chances. As proxy to financial support to children in terms of maintaining educational expenditure, the father's occupation, monthly gross family income is used. With higher family income greater demand for child's schooling is expected. Father's profession is also likely to have an impact on child's school going status in the sense that parents with white collar job are expected to earn more and are also aware of the benefits of education in terms of getting job as compared to the parents engaged in Pink or Blue collar job. Here in this analysis white collar job is meant for the service holders like teachers, Government Service holders, etc., Pink collar job is for jobs under Trade & Service sector and Blue collar job is meant for Labourers. Among the household level factors to determine the child's schooling the size of the family is also expected to be impacting the probability of school going. Poor people raise their family size with a conception that adding one member of the family is the addition of one more earning hand and this can be supported by the 2nd stage of demographic transition. Hence we may expect this variable to have a negative impact on the school going chances of the child. Apart from household level factors distance to school acts as an important factor as for a child it would not be possible to cover a long distance to go to school and this is true especially for girl child.

The explained variable, the child's school going status is a dichotomous variable, assuming value '1' if the child goes to school and '0' if the child does not go to school i.e. dropped out or never enrolled to school. The explanatory variable used in this model are: i) Gender of the child (*childgen*), ii) Father's educational level (*fatheredu*), iii) Mother's educational level (*motheredu*), iv) Father's Occupation –White (assumes the value '1' if the child's father is engaged in White collar job, '0' otherwise), (*occuwhite*), v) Father's Occupation –Pink (assumes the value '1' if the child's father is engaged in Pink collar job, '0' otherwise), (*occupink*), vi) Father's Occupation –Blue (assumes the value '1' if the child's father is engaged in Pink collar job, '0' otherwise), (*occupink*), vii) Household Size (*hhsize*), viii) Distance to School (*distschool*).

In the model while considering father's occupation, three kind of occupational category is considered, out of which White collar job is taken as the base or control variable so as to avoid the dummy variable trap. Given the quantitative nature of the dependent variable, a logit estimation technique is used to analyze the enrollment and drop out decision.

The general logit model used for the analysis may be postulated as –

$$L_i = P(y_i = 1)$$
$$= F\,(\beta_1 + \beta_2 hhsize + \beta_3 childgen + \beta_4 fatheredu + \beta_5 motheredu$$
$$+ \beta_6 occupink + \beta_7 occublue + \beta_8 distschool + \beta_9 grossfaminc)$$

Where y_i = 1 if the child goes to school

0 if the child does not go to school or has dropped out

And F(.) is the cumulative logistic distribution function, "*i*" indexed the individual child.

Explained Variable: School going status of the child ('1' if child goes to school, '0' otherwise)

- Results and Discussion

The sample consisted of 356 children in the age group of 6 to 14 years; 291 goes to school and 65 do not go to school. The sample of 356 children has been drawn from 2349 number of population of 456 surveyed households. The logit model of school going status of a child assumes a non linear functional relationship between the dependent and independent variables.

Table - 1
Common Regression Results (*taking all children together*)

Variables	B	Sig.	Exp(B)
Gender of the Child[a]	-0.007	0.981	0.99
Household Size	-0.233*	0.000	0.79
Parental Education Level			
Father's Education[b]	0.096***	0.081	1.10
Mother's Education[b]	0.168*	0.007	1.18
Father's Occupation			
Pink Collar Job[c]	-2.104**	0.054	0.12
Blue Collar Job[c]	-2.259**	0.037	0.10
Family Income (log Rs/month)	0.225	0.433	1.25
Distance to School (km)	-0.227**	0.045	0.80
Nagelkerke R Square	**0.28**		
No. Of Ovservations	**356**		

Notes: a – Girls are Control Group; b – In completed years of formal schooling; c –White-collar occupations are Control group; * Significant at 1 per cent level, ** Significant at 5 per cent level, ***Significant at 10 per cent level

The result showed that among all the variables tested, some variables are found to be having positive impact on the school going chances of the child; where as some others are affecting negatively. Among the factors which are having positive effect, mother's educational qualification has the strongest positive influence on the children's school going chances. For unit increase in mother's educational level, the odds in favour of school going increases by 1.18 or about 18 per cent(Table-1).

The next strongest influence on the children's school going chances is Father's educational qualification. For a unit increase in father's educational level, probability of school going increases by about 10 per cent. Comparing the relative influence of parental educational qualification, it can be inferred that female literacy is more important so as to achieve universal literacy by reducing dropout.

Income of the parents is generally expected to be a major factor as determinant of the children's school going status. This is simply because parents need to finance the child's education. However, our estimated model doesn't find any significant impact on the child's school participation. It shows increase or decrease in family income does not have any impact of the school going chances of the child. This may be the explained in terms of free schooling up to class VIII. We have considered 6-14 years population i.e. up to class VIII child, which is supposed to be free and totally supported by the Government with free books and onetime meal every day. Hence people do not have to spend anything on their children up to class VIII, add to that if the parents are not capable of feeding their child properly, then also sending the child to school is beneficial for them in the sense that at least one time meal is ensured if the child gets enrolled in school and continues to study.

To discuss on the negatively affecting factors, a unit increase in the household size, the child's school going chances decrease by about 21 per cent, indicating bigger the family, lesser the child's school going chance or greater is the chance for being dropped out.

Distance from school is another factor to increase the chances of dropout. For unit increase in distance, the children's school going chance decrease by about 20 per cent.

With regard to occupational categories, it is observed that if father's occupation belongs to Pink/Blue collar job category then chances of school going is low as compared to those children whose fathers are engaged in White collar job. However the school going chance is highest for children whose father's are engaged in White collar job (all of them are found to be school going). A child with his father working in Pink collar job has 88 per cent chance of being dropped out, where as the probability is around 90 percent for that of Blue collar job category. Children of the people engaged in Blue collar job has the lowest chance of being enrolled in school or highest chance of being dropped out.

To discuss on the gender of the child, it is something which is expected to play a vital role to determine whether the child will be sent to school or not, is found to be insignificant to cause the child's school participation. This basically says, at the primary level, girls no longer face any discrepancy to be educated. But, to allow for the gender specific discrepancy in the magnitude of the coefficients, we tried separate regression for boys and girls(Table – 2). This

basically enables us to find the difference in probability attached for boys and girls in terms of their school going chances, caused by the factors taken for discussion. As estimated, parental education is found to be highly influencing factor with mother's education being strongest for the common regression taking boys and girls together with gender being taken as an intercept dummy variable. But with the regression result separately done for boys and girls, it is observed that mothers are more caring to their male child, fathers being just the opposite. Discussing father's occupation to cause the child's education, chances of schooling for boys seems to be poor for a child with his father working in Pink/Blue collar job category, magnitude of influence being the same for both job category. However, for the girls, the dampening effect is more for a girl with her father working in blue collar as compared to one with her father working in pink collar job category. This again reflects the gender gap in cances to get education at the very early age of a child. Another thing that matters for a child is the distance from school. Surprisingly, the dampening effect of increase in distance is more for boys. This may again be a representation of the fact that boys are more cared than girls. Family income, presumed to affect positively to the chances to go to school, is having a greater impact for girls than that of boys.

Table - 2
Regression Results: Separately for Boys and Girls

Variables	Boys			Girls		
	B	Sig.	Exp(B)	B	Sig.	Exp(B)
Household Size	-0.193**	0.057	0.86	-0.288*	0.002	0.75
Parental Education Level						
Father's Education[a]	0.029	0.693	1.03	0.183**	0.038	1.20
Mother's Education[a]	0.217**	0.016	1.24	0.122	0.167	1.13
Father's Occupation						
Pink Collar Job[b]	-19.818	0.998	0.00	-0.807	0.503	0.45
Blue Collar Job[b]	-19.635	0.998	0.00	-1.357	0.248	0.26
Family Income (log Rs/month)	0.197	0.625	1.22	0.291	0.492	1.34
Distance to School (km)	-0.299**	0.055	0.74	-0.152	0.363	0.86
Nagelkerke R Square	**0.27**			**0.32**		
No. of Observations	**189**			**167**		

Notes: a – in completed years of formal schooling; b – Control group: White-collar occupations; * Significant at 1 per cent level, ** Significant at 5 per cent level, ***Significant at 10 per cent level

However, in econometric sense, running separate regression for boys and girls is causing loss in observation, affecting the estimation in turn. As an alternative to this, we may go for the regression using interaction or slope dummy and see if there is any variation in result. But with this approach, there may be loss in terms of degrees of freedom. Results estimated using this approach is more or less similar to observe the magnitude of the coefficients except for family income but substantial difference can be noted for the absolute figure of the odds

ratios (Table – 3). To speak on family income, which was having a positive impact on the child's school going chances (both for boys & girls) in separate regression, is found to be affecting negatively for girls and positively for that of boys in probabilistic sense. We would say this last regression using slope dummy is more methodical with more number of observation and can also be treated as an alternative to chow test. Hence, it would be better to go by the results of last regression. One more concern about the exercise is the level of significance for the β's. For some explanatory variables, the significance level for β is quite poor. However, keeping the objective of the study, it should be noted that, here magnitude of the coefficient is more important as compared to the level of significance.

Table - 3
Regression Results: Using Slope/Interaction Dummy

Variables	Girls			Boys	
	B	Sig.	Exp(B)	B	Exp(B)
Household Size	-0.270*	0.005	0.76	-0.184	0.83
Parental Education Level					
Father's Education[a]	0.173**	0.046	1.19	0.024	1.02
Mother's Education[a]	0.132	0.136	1.14	0.221	1.25
Father's Occupation					
Pink Collar Job[b]	-0.899	0.462	0.41	-4.088	0.02
Blue Collar Job[b]	-1.848***	0.100	0.16	-3.919	0.02
Family Income (log Rs/month)	-0.088	0.785	0.92	0.209	1.23
Distance to School (km)	-0.166	0.316	0.85	-0.291	0.75
Nagelkerke R Square	**0.29**				
No. of Observations	**356**				

Notes: a – in completed years of formal schooling; b – Control group: White-collar occupations; * Significant at 1 per cent level, ** Significant at 5 per cent level, ***Significant at 10 per cent level

Table - 4
Derived Marginal Impacts (of 1 unit rise) – Percent point Increase in Chances of Going to School

Variables	**Common Regression**	**Separate Regression**		**Regression with Slope Dummy**	
		Girls	**Boys**	**Girls**	**Boys**
Gender[a]	0	-	-	-	-
Household Size	-21	-25	-18	-24	-17
Parental Education Level					
Father's Education	10	20	3	19	2
Mother's Education	18	13	24	14	25
Father's Occupation					
Pink Collar Job	-88	-55	-100	-59	-98
Blue Collar Job	-90	-74	-100	-84	-98
Family Income (log Rs/month)	25	34	22	-8	23
Distance to School (km)	-20	-14	-26	-15	-25

Note: a – for Boys vis-à-vis Girls

VIII. Policy Prescription

For universalization of education or to spread literacy it is to be ensured that all children goes to school or in other words enrolling the children has to be followed by proper retention in school. In this paper we have tried to identify some of the probable factors which reduce the child's school participation. To prescribe policy or to suggest for future betterment of educational development, steps are to be taken in short term and long term basis.

Short Term Policy: To enhance schooling among child in short run the factors that can be emphasized in the short run may be Parental education and Distance to school. These two are found to be highly influencing factors to determine the chance of school going. In other words, education of the next generation is highly dependent on the education of the present generation. Child's mother is observed to be having more important role behind the education of the child as compared to the child's father. Looking at our model, it says, for one standard increase in mother's education the probability of school going increase by about 18 per cent, whereas the increase in probability is about 10 per cent for that of father. This finding may prove to be helpful to the policy makers as it shows which factor is to be emphasized so as to achieve the target of "zero dropout" more quickly. It is quite clear from the analytical part of our discussion that female literacy is enhanced then that would help to achieve the goal more quickly. In the short run it is not possible to increase the level of education of the parents as they are not a part of schooling system any more, but as the basic idea is to increase awareness about education among parents, that can easily be done by setting up adult education centers where people can come in their leisure time and can enrich their knowledge. And for quick fulfilling of our target i.e. reduce the number of drop out, the policy makers need to ensure a high number of female participation in those centres as female literacy has more influence on child's school participation.

The second important factor that we have identified as an obstacle towards universalization of elementary education is the distance to school from the household. It is not possible to cover a long distance for a little child or a child who has just completed primary education and is dreaming to be admitted to high school, and this problem is more acute especially for girls. Our econometric exercise says that with an increase in distance of one Kilo Meter reduces the probability of school going by about 20 per cent or we may take it as a suggestion in the way that if the distance to school can be reduced by one Kilo Meter then that would lead to an increase in probability by 20 per cent. Say, for example in our case the average distance to school is 2.92 Kilo Meters, if we can reduce the distance by 2 Kilo Meters then

that would increase the child's school participation chance by 40 per cent. Hence, what is suggested from this finding is near the school, lower is the probability of drop out.

Long Term Policy:

Development to be sustainable, every policy should be taken on basis of a long term thought. In macro concept, about 94 per cent of our country's population is working in unrecognized sector[4] and are basically what we call Blue Collar job holders and a majority of the people are found to be Trade & Service, the Pink Collar Job leaving a very few people working in White Collar job category. From our explanatory analysis it is found that children of the people with White Collar job has a high probability of school going where as the probability is low for that of Pink and Blue Collar job. Hence, what we require is a occupational shift which is basically a long term phenomenon. Considering the child's father as 1st generation and child as 2nd generation, this benefit can be obtained by the third generation learner if and only if there is an inter generational upward occupational mobility from the current 1st generation to the 2nd generation. For India, as an economy with huge number of people being informal sector workers, with increase in literacy many people in the next generation may be capable of getting white collar job. Regarding the low probability of school going from the Pink colour job category that will also be raised with enhanced literacy and knowledge. To be precise, if we look to ensure universal schooling for all children with no out of school children, an intergenerational upward mobility is to be ensured and that be done by increasing literacy of the parents as short term measure discussed earlier.

Another important factor that has been identified to explain a large amount of variation in school going status of a child is the size of the family from which the child belongs to. The family size is observed to be having a dampening impact on the chances of school going; greater the family the lower is the probability of child's school participation and vice versa. This finding is basically a recommendation of small family and that should be considered as the long term goal to the policy makers. To achieve this goal, firstly on short term basis it is to be ensured that the family size does not raise further as of now. This can be done by giving benefits to those who are having less number of children and latter on as long term perspective policies are to be taken so as to make people aware of the various benefits of small family and awareness about family planning is also to be spread. From this explanatory analysis we have tried to suggest some policies which can be taken on both short term and long term basis so as to reduce the number of drop out to its minimum possible level.

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[4] Labour in India, Wikipedia; Accessed from http://en.wikipedia.org/wiki/Labour_in_India on 25th October, 2012

IX. **Conclusion**

It may thus be inferred from our exploratory analysis that even after ten years of Sarva Shiksha Abhiyan and many other educational awareness programmes across country, school dropout still persists as the major problem to form human capital needed for economic growth of the country. As the paper is more focused on finding the causes of dropout, parental education & occupation has been found to be highly influencing factor to cause school education of a child. Keeping the relative influence of the factors affecting the child's school participation, emphasis on adult education for females in the short run and another emphasis on the quality of learning of the present readers to cause an inter generational occupational shift in the long run is recommended to ensure all citizens of the nation to be literate.

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Appendix

Appendix Table: 1
Status of Primary Enrollment in India

Year	6 - 10 Age Population (in lakh)			Enrollment (in lakh)			Out of School Children (in lakh)			Net Enrollment Rate		
	Male (1)	**Female** (2)	**Total** (3)	**Male** (4)	**Female** (5)	**Total** (6)	**Male[5]** (7)	**Female[6]** (8)	**Total[7]** (9)	**Male** (10)	**Female** (11)	**Total** (12)
1999	729	670	1399	627	483	1110	102 (14.0)	188 (28.0)	313 (21.9)	86	72	78
2000	745	688	1433	641	495	1136	104 (13.9)	193 (28.0)	302 (21.0)	86	72	79
2001	753	692	1445	640	498	1138	113 (15.0)	194 (28.0)	303 (21.0)	85	72	79
2002	765	707	1472	643	509	1152	122 (14.9)	198 (28.0)	325 (22.0)	84	72	78
2003	786	726	1512	668	588	1256	118 (15.0)	138 (19.0)	257 (16.9)	85	81	83
2004	796	725	1521	724	638	1362	72 (9.0)	87 (12.0)	151 (9.9)	91	88	90
2005	812	746	1558	739	649	1388	73 (8.9)	97 (13.0)	172 (11.0)	91	87	89
2006	817	745	1562	743	648	1392	74 (9.0)	97 (13.0)	172 (11.0)	91	87	89
2007	818	750	1568	744	660	1404	74 (9.0)	90 (12.0)	156 (9.9)	91	88	90
2008	n.a.	n.a.	1598	n.a.	n.a.	1455	n.a.	n.a.	144 (9.0)	n.a.	n.a.	91

Source: World Bank Database (www.data.worldbank.org)
Note: n.a. - Data Not Available

[5]Figures in the parentheses for this field are percentage of out of school boys to total number of boys in the age group of 6 - 10 i.e. [(7) ÷ (1)]×100

[6] Figures in the parentheses for this field are percentage of out of school girls to total number of girls in the age group of 6 - 10 i.e. [(8) ÷ (2)]×100

[7] Figures in the parentheses for this field are percentage of out of school children to total children in the age group of 6 - 10 i.e. [(9) ÷ (3)]×100

<div align="center">

Appendix Table: 2
Status of Enrollment and Dropout in the age group of 6 to 10 Across States

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State	Total Children in the age group of 6-10 in 2005 - 06 (in lakh)	Enrolled Children In Primary in 2005-06 (in lakh)	Never[8] Enrolled Children (in lakh)	Number of[9] Dropout During Primary Stage (Class I – IV) (in lakh)
	(1)	(2)	(3) = (1) – (2)	(4)
Andhra Pradesh	20.9	16.3	4.6 (22.0)	2.5 (15.3)
Bihar	34.3	34.1	0.2 (0.5)	12.1 (35.5)
Chhattisgarh	9.2	9.1	0.1 (1.0)	3.4 (37.4)
Delhi	4.5	3.3	1.3 (28.8)	0.1 (3.0)
Gujarat	15.5	13.1	2.5 (16.1)	1.7 (12.9)
Haryana	5.6	3.0	2.6 (46.4)	0.0 (0.0)
Himachal Pradesh	1.4	1.3	0.1 (8.2)	0.0 (0.0)
Jammu & Kashmir	2.8	2.3	0.6 (19.4)	0.0 (0.0)
Jharkhand	22.4	14.3	8.1 (36.3)	6.2 (43.4)
Karnataka	10.5	10.4	0.1 (1.4)	0.0 (0.0)
Kerala	5.7	3.8	1.9 (33.3)	0.0 (0.0)
Madhya Pradesh	26.1	24.6	1.5 (5.7)	5.4 (21.9)
Maharashtra	26.1	21.9	4.2 (16.0)	2.0 (9.1)
Orissa	14.1	10.1	4 (28.2)	2.0 (19.8)
Punjab	5.6	3.1	2.5 (44.5)	0.0 (0.0)
Rajasthan	29.8	25.2	4.6 (15.4)	11.1 (44.0)
Tamil Nadu	13.3	12.8	0.5 (3.3)	0.0 (0.0)
Uttar Pradesh	60.7	59.3	1.4 (2.3)	17.4 (29.3)
Uttarakhand	3.1	2.4	0.7 (23.4)	0.4 (16.6)
West Bengal	26.3	22.2	4.1 (15.5)	3.6 (16.2)

Source: Author's calculation based on data from State Report Card 2005-06 to 2009-10, DISE

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[8] Figures in the parentheses for this field are percentage of never enrolled to total population i.e. $[(3) \div (1)] \times 100$

[9] Figures in the parentheses for this field are percentage of drop out to total enrollment i.e.$[(4) \div (2)] \times 100$

Appendix Table: 3
Gender Specific Status of Enrollment and Dropout in the age group of 6-10 Across States

State	Enrollment in Class I in 2005-06 (in lakh)		Enrollment in Class V in 2009-10 (in lakh)		Dropout During Primary Stage (in lakh)	
	Boy (1)	Girl (2)	Boy (3)	Girl (4)	Boy[10] (5) = (1) – (3)	Girl[11] (6) = (2) – (4)
Andhra Pradesh	8.3	8.0	7.0	6.8	1.3 (15.7)	1.2 (15.0)
Bihar	18.5	15.6	11.8	10.1	6.7 (36.2)	5.5 (35.3)
Chhattisgarh	4.6	4.5	2.9	2.8	1.7 (37.0)	1.7 (37.8)
Delhi	1.7	1.5	1.7	1.5	0.0 (0.0)	0.0 (0.0)
Gujarat	6.9	6.2	6.1	5.3	0.8 (11.6)	0.9 (14.5)
Haryana	1.6	1.4	2.1	1.9	0.0 (0.0)	0.0 (0.0)
Himachal Pradesh	0.7	0.6	0.7	0.6	0.0 (0.0)	0.0 (0.0)
Jammu & Kashmir	1.2	1.1	1.3	1.2	0.0 (0.0)	0.0 (0.0)
Jharkhand	7.3	7.0	4.1	4.0	3.2 (43.8)	3.0 (42.9)
Karnataka	5.4	5.0	5.6	5.2	0.0 (0.0)	0.0 (0.0)
Kerala	1.9	1.9	2.3	2.2	0.0 (0.0)	0.0 (0.0)
Madhya Pradesh	12.3	12.3	9.7	9.6	2.6 (21.1)	2.7 (21.9)
Maharashtra	11.5	10.4	10.6	9.3	0.9 (7.8)	1.1 (10.6)
Orissa	5.3	4.9	4.2	4.0	1.1 (20.7)	0.9 (18.4)
Punjab	1.7	1.4	2.0	1.6	0.0 (0.0)	0.0 (0.0)
Rajasthan	13.3	12.0	7.7	6.5	5.6 (42.1)	5.5 (45.9)
Tamil Nadu	6.6	6.2	6.7	6.3	0.0 (0.0)	0.0 (0.0)
Uttar Pradesh	31.2	28.1	20.9	21.0	10.3 (33.0)	7.1 (25.3)
Uttarakhand	1.2	1.1	1.0	0.9	0.2 (16.6)	0.2 (18.1)
West Bengal	11.3	10.9	9.2	9.4	2.1 (18.6)	1.5 (13.8)

Source: State Report Card 2005-06 to 2009-10, DISE
Note: Figures in the parentheses are percentage of dropout to total enrolment.

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[10] Figures in the parentheses for this field are percentage of boy dropout to total enrollment in Class-I i.e. [(5) ÷ (1)] × 100
[11] Figures in the parentheses for this field are percentage of girl dropout to total enrollment in Class-I i.e. [(6) ÷ (2)] × 100

Appendix Table: 4
Status of Enrollment and Dropout Across Districts of West Bengal

District	**Total Children in the age group of 6-10 in 2005-06** *(in thousands)*	**Enrolled Children in 2005-06** *(in thousands)*	**Never[12] Enrolled Children** *(in thousands)*	**Number of[13] Dropout During Primary Stage** *(in thousands)*
	(1)	(2)	(3) = (1) – (2)	(4)
Bankura	98.0	89.9	8.1 (8.3)	13.4 (14.9)
Barddhaman	202.6	151.8	50.9 (25.1)	12.7 (8.4)
Birbhum	78.3	75.7	2.6 (3.3)	0.0 (0.0)
Dakshin Dinajpur	60.2	58.7	1.6 (2.7)	19.8 (33.7)
Darjiling	119.4	39.2	80.3 (67.3)	25.7 (65.6)
Haora	126.9	92.1	34.8 (27.4)	3.5 (3.8)
Hugli	159.2	114.4	44.7 (28.1)	13.9 (12.2)
Jalpaiguri	135.8	121.1	14.7 (10.8)	27.3 (22.5)
Koch Bihar	84.0	83.0	1.0 (1.2)	6.1 (7.3)
Kolkata	147.7	55.7	92 (62.3)	0.0 (0.0)
Maldah	151.2	151.2	0.0 (0.0)	54.4 (36.0)
Murshidabad	176.7	176.7	0.0 (0.0)	3.7 (2.1)
Nadia	169.3	139.4	30.0 (17.7)	19.3 (13.8)
North 24 Pargana	245.1	156.1	89.0 (36.3)	0.0 (0.0)
Paschim Medinipur	190.7	122.0	68.6 (36.0)	0.0 (0.0)
Purba Medinipur	307.3	116.2	191.2 (62.2)	21.5 (18.5)
Puruliya	107.1	104.1	3.0 (2.8)	45.3 (43.5)
Siliguri	n.a.	28.2	n.a.	1.3 (4.6)
South 24 Pargana	223.8	199.2	24.6 (11.0)	37.6 (18.9)
Uttar Dinajpur	142.9	142.9	0.0 (0.0)	77.4 (54.2)

Source: District Report Card 2005-06 to 2009-10, DISE
Note: Figures in the parentheses are percentage of dropout to total enrolment.
   n.a. -Data Not Available

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[12] Figures in the parentheses for this field are percentage of never enrolled to total population i.e. [(3) ÷ (1)] ×100
[13] Figures in the parentheses for this field are percentage of drop out to total enrollment i.e. [(4) ÷ (2)] ×100

Appendix Table: 5
**Gender Specific Status of Enrollment and Dropout in the age group
of 6 to 10 Across Districts of West Bengal**

District	Enrollment in Class I in 2005-06 *(in thousands)*		Enrollment in Class V in 2009-10 *(in thousands)*		Dropout in Primary Stage *(in thousands)*	
	Boy (1)	**Girl** (2)	**Boy** (3)	**Girl** (4)	**Boy[14]** (5) = (1) – (3)	**Girl[15]** (6) = (2) – (4)
Bankura	45.6	44.3	39.9	36.6	5.7 (12.5)	7.7 (17.3)
Barddhaman	78.1	73.7	70.6	68.5	7.6 (9.7)	5.1 (6.9)
Birbhum	38.8	36.9	38.6	37.2	0.2 (0.01)	0.0 (0.0)
Dakshin Dinajpur	30.0	28.6	19.1	19.7	10.9 (36.3)	8.9 (31.1)
Darjiling	19.3	19.8	6.8	6.7	12.6 (65.2)	13.1 (66.2)
Haora	46.9	45.3	43.4	45.3	3.5 (0.01)	0.0 (0.0)
Hugli	58.7	55.7	49.5	51.0	9.2 (15.6)	4.7 (8.4)
Jalpaiguri	61.6	59.5	46.8	47.0	14.8 (24.0)	12.6 (21.2)
Koch Bihar	42.8	40.2	38.7	38.2	4.0 (9.3)	2.0 (5.0)
Kolkata	27.8	27.9	30.7	32.8	0.0 (0.0)	0.0 (0.0)
Maldah	77.6	73.6	45.0	51.8	32.5 (41.9)	21.9 (29.8)
Murshidabad	91.0	85.6	81.2	91.8	9.9 (10.9)	0.0 (0.0)
Nadia	71.7	67.7	60.1	60.0	11.6 (16.2)	7.7 (11.4)
North 24 pargana	79.3	76.9	79.6	85.2	0.0 (0.0)	0.0 (0.0)
Paschim Medinipur	61.8	60.2	66.0	61.8	0.0 (0.0)	0.0 (0.0)
Purba Medinipur	59.2	57.0	46.8	47.9	12.4 (20.9)	9.1 (16.0)
Puruliya	51.7	52.4	30.6	28.1	21.0 (40.6)	24.3 (46.4)
Siliguri	13.8	14.3	13.6	13.3	0.2 (1.4)	1.1 (7.7)
South 24 Pargan	101.5	97.8	78.1	83.5	23.3 (22.9)	14.2 (14.5)
Uttar Dinajpur	74.0	68.9	31.7	33.8	42.4 (57.2)	35.1 (51.0)

Source: District report Card 2005-06 to 2009-10, DISE

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[14] Figures in the parentheses for this field are percentage of boy dropout to total enrollment in Class-I i.e. [(5) ÷ (1)] × 100
[15] Figures in the parentheses for this field are percentage of girl dropout to total enrollment in Class-I i.e. [(6) ÷ (2)] × 100