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1 March 2011

Online at <https://mpra.ub.uni-muenchen.de/34794/>
MPRA Paper No. 34794, posted 25 Nov 2011 12:36 UTC

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Working Paper No. 12-2011



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Abstract: Government of Punjab is committed to attain the universalization of school education by providing free education and even in a number of districts the free books and through the programs of food for education. The stipends on the subsidized schooling are also part of the policy by Government of Punjab. The rapid increase in enrolment in private schools reflects the partial failure of these schemes and making the target of universalization of school education difficult. The paper examines the household choice of private versus public sector schools as an outcome of child, household and school characteristics by using logit model. Data has been collected from Bahawalpur city through stratified sampling of clusters and random sampling of households. A survey of 627 households having at least one school-going child made the data available. The study found that income of the household, education of the parents, English as medium of instruction in school and distance of public school from the household enhance the preference of private schools. To universalize the school education more public sector schools are required near to the households. The adaptation of English as medium of instruction may increase the school enrolment.

Keywords: School Choice, Private Schools, Public sector schools, education, cost of schooling, Pakistan.

INTRODUCTION

Within South Asia, Pakistan lags well behind its neighbors in school enrolment. Education is the responsibility of provincial governments. The Punjab Government is trying to get the target of universalization of school education. For the purpose a number of schemes are going on like the free education, stipends to the students and so on¹. There is no more success to significantly enhance the enrolment in public sector schools. On the other hand the enrolment in private schools is tremendously increasing. If the enrolment in public schools remained low the target of universalization of school education becomes difficult. The private schools are playing an important role by providing enrollment to 30 percent of the school-going children at national level. They have specific characteristics ranging from the building of the school to wages of the teachers. They have lower ratio of male and female children as compared to public sector schools, thus narrowing the gender gap [1]. Majority of the teachers are untrained and having less experience as well majority of the teachers are females in private schools [1, 2]. Private schools are usually housed in small buildings and provide very basic facilities. Alderman narrated that costs of private schools are low enough that even in the households of lowest bracket, 50 percent of the children go to private schools. Some of the private schools are not in best of their qualitative characteristics [3]. Ali and Khan concluded that majority of the private schools provide poor teaching quality and poor physical infrastructure but more working days are effective to pull the students in these schools [2]. Private schools are more effective in student's literacy skills [4]. Mueen compared the productivity of private school attendees to public school attendees and found that there is a probability of 30 percent higher returns if a worker had attended private school [5].

The private schools may be classified into different categories based on their distinguished characteristics like national chains of private schools and local schools, schools

¹ Most recently the Punjab Government has transformed all the Urdu medium public sector schools into English medium.

charging fee up to Rs.1000 and schools charging fee more than Rs.1000, english medium schools and schools where english is taught from class one but medium of instructions is urdu, co-educated schools up to 10 years education and segregated schools, the schools offering foreign certificates of schooling like O-level and A-level and schools offering certificates of local educational boards² and residential and non-residential private schools.

On the other hand public sector schools have specific characteristics like they have purpose built buildings, trained staff and uniform contents of courses, etc. But there is a shocking picture of quality of public schools in Pakistan reported by LEAPS [6]. The report narrated that almost half of the students of class three cannot answer simple counting question. Only 20 percent can spell “girl”. Human Development Report 2008 by UNDP revealed that 20 percent of the public sector schools have no electricity, 25 percent has no class rooms and hundreds of primary schools in the peripheral areas are used for livestock [7]. National Education Center further explained the situation by revealing that 7.7 percent public sector schools are ghost schools [8].

The comparative quality of the schools is a puzzle. Some of the private schools are of good quality but majority of the private schools are not providing good quality education. Similarly public sector schools are producing bulk of the outcome but schools have many flaws.

The question is if both type of schools have flaws, and education is free in public sector schools and Government of Punjab is trying to universalize the school education, then why parents are preferring (or not) the private schools. The factors causing their preference will be analyzed in this study and if private schools are preferred then the policy of free education needs some addition to attain universalization of school education.

REVIEW OF LITERATURE

There is a plethora of studies focusing on the decision of household for their children’s schooling, but very few studies have attempted to probe the decision of the households for choice of public and private schools. Nasir has attempted to make a comparison of returns of private and public sector school attendees using Pakistan Integrated Household Survey (PIHS) 1995-96. The monthly earnings was taken dependent variable against the explanatory variables of human capital, wage related to personal characteristics, industry association, occupation of workers and most importantly the private school attended. The study concluded that private schools provide better education, higher learning skills and more cognitive skills. The study proposed to enhance the quality of public sector schools by revision of curriculum and acquiring good teaching staff [9].

The school quality, school cost and the public/private choice of low-income households in Quetta (Pakistan) have been probed by Alderman, et. al. The school attributes, proximity and fees across neighborhood are used to identify the factors which affect poor household’s decision to send their children to government schools, private schools or no-school. The results indicated that even the poorest households use private schools extensively, and their utilization increases with income. The study further concluded that lowering private school fees, distance and raising quality may enhance private school enrolment, partly by transfer from government schools and partly by new enrolments [3].

² The *deeni madaris* may also be considered private schools giving education to children and their certificates ultimately becomes equivalent to certificates of educational boards, but we have taken them as informal education system.

Andrabi, et. al. using the census of private educational institutions and Population Census of Pakistan explained that private schools particularly at primary level has an important factor in elementary education of children. Rural-urban gap largely exists in private education. The study further concluded that private schools are not an urban elite phenomenon [1]. They are affordable to middle and even low-income groups [3]. The determinants of pupil achievement in secondary schools in Pakistan are analyzed by Monazza. The study demonstrated that home background, personal and school-related factors are significant determinants of pupil achievement. The pupil achievement differs by private and public sector schools. Majority of parameters of pupil achievement but not all favor private schools [10].

For rural areas of Uttar Pradesh and Bihar (India) the parents' preference of private schools, public schools and no-schooling option has been probed by Roy. Using data from Living Standard Measurement Survey (LSMS), the study concluded that quality of public schools and cost of attendance has distinct effects on the choice of school. Moreover, at the village level, presence of private schools, access to electricity and lower level of cast homogeneity play a role for school choice [11].

The relative effectiveness of public and private schools and potential learning gap in students by school type has been explored by Monazza through a primary survey in Lahore. The relationship was explored by a number of variables like child's achievement, reading, math, education wish and gender of the child, etc. The findings revealed that boys are more likely to go to private schools. The private schools are more effective than public sector schools in imparting mathematics and literacy skill [4].

DATA AND MODEL SPECIFICATIONS

A random sampling survey of 627 households of twelve cluster of Bahawalpur city in 2008 made the data valid. Clusters were selected purposely so that households of all income groups would be part of survey. The clusters were Cheema Town, Hashmi Garden, Model Town A, Model Town B, Model Town C and Sattelite Town. For middle and lower-income group, the clusters were Quaid-e-Azam Colony, Fauji Basti, Himatian, Tibba Badar Shar, Gandhi Gali, Islami Colony. Only those households from the clusters were included who were sending at least one child to school.

Bahawalpur city may be a good case study as it has the private schools of national chains like, City, Beacon House, and Convent school, and Rangers, Army and Bahria foundation school and a residential school of Sadiq Public School along with a number of private schools of low-fee category. The Gross Primary School Enrolment rate of Bahawalpur district is 75 percent. The public school attendance rate (5-17) is 69 percent and the access to school (less than 2 Kilometer) is 86 percent. These figures represent a good case study as the area under study is not much developed like Lahore, Karachi and Islamabad as well not less-developed like far flung districts of Balochistan and KPK.

The decision of the household to send the child to private or public sector school is estimated by logit model.

$$\text{CHOICE} = f(\text{CGEN}, \text{CAGE}, \text{CAGESQ}, \text{CEDU}, \text{FEDU}, \text{MEDU}, \text{HHPCY}, \text{HHSIZ}, \text{NCHILD}, \text{DIST}, \text{COEDU}, \text{MEDI}, \text{FEE}) \dots\dots\dots (1)$$

The definitions of dependent and explanatory variables used in the model are shown in table-1.

Table No.1 Definitions of Variables Used in Sequential Probit Estimation

VARIABLES	DEFINITION
Dependent Variables	
CHOICE (Choice of parents)	• 1 if child goes to private school, 0 otherwise
Explanatory Variables	
Child Characteristics	
CGEN (Child's gender)	• 1 if child is male, 0 otherwise
CAGE (Child's age)	• Child's age in completed years
CAGESQ (Child's age squared)	• Child's age squared
CEDU (Child's education)	• Child's education in completed years
Household Characteristics	
FEDU (Father's education)	• Father's education in completed years of education
MEDU (Mother's education)	• Mother's completed years of education
HPCY (Household's per capita income)	• Household per capita income per month in Rupees (00s)
HHSIZ (Household size)	• Number of household members
NCHILD	• Number of children (5-15 years) in the household
School Characteristics	
DIST (Distance of school)	• Distance of the relevant public sector school from the household (in KMs.)
COEDU (Co-education)	• 1 if co-education in school, 0 otherwise
MEDI (Medium of instruction)	• 1 if medium of instruction in school is English, 0 otherwise ³
FEE (Fee of the School)	• Fee of the relevant school in Rupees (00s)

RESULTS AND DISCUSSION

The summary statistics and logit results have been given in table-2. The results are consistent with theoretical implications of choice of parents for private and public sector schooling.

Table-2 Logit Model Results of Choice of Public and Private Schools

Variables	Mean	Standard Deviation	Probability Derivative	T-Values
Constant	-	-	1.0053	2.9629*
CGEN	0.6752	0.4831	0.0367	1.3845**
BORD	2.1012	1.2651	0.1421	0.1421
AGE	9.3087	2.8564	0.2884	0.7492
AGSQ	89.1247	49.6759	0.0734	0.9477
CEDU	5.1298	3.1302	-0.0985	-1.8265**
FEDU	10.1764	6.4821	0.0313	1.4712**
MEDU	8.8510	5.0931	0.1285	1.3552**
HPCY	2934	6407.38	0.4076	2.7126*
HHSIZ	6.2716	1.6587	-0.0213	-0.3281
NCHILD	2.9228	1.1034	-0.0738	-1.6421**
DIST	3.9467	46.0759	0.4556	2.1036*
COEDU	13.2586	0.3281	0.8721	0.0839
MEDI	0.2351	0.4973	0.1869	2.8315*
FEE	2841	359.13	-0.1168	-1.5472*
Number of Observations = 937				

³ Although most recently the public sector schools in Punjab have adopted the English as a medium of instructions.

R-Squared = 0.6951
Percent Correct Predictions = 0.7793
Log Likelihood = 612.47

* Significant at 5 percent level and ** significant at 10 percent level.

The following features of the results are worth noting.

Gender of the Child: The choice of the household for private or public sector schooling may be affected by the gender of the child as it is concerned with investment on children. Our results revealed that boys are more likely to go to private schools as compared to the girls. The result is supported by Monazza [4]. There may be a number of possible explanations for such type of choice by parents. Some times parents prefer segregated education for the girls, but some private schools have co-education. The private schools are costly as compared to public schools, so the parents' choice represents the gender discrimination in investment in schooling of the children.

Educational Level of Child: The years of education of child are also relevant to the choice of the private versus public sector schools by parents. One of the important factors is cost of schooling that increases by increase in educational level of the child. Secondly the private schools up to primary are more prevalent as compared to secondary schools. Thirdly, an important aspect of the choice of the schools by the parents is the result at the secondary level, that remains with the students for ever in the coming academic and professional years so the parents may prefer private schools at secondary school level. However, we have found that by increase in years of education of child the probability for the child to go to private schools declines. The explanation may be the prevalence of primary schools in private sector and secondly the educational level of the child results into increase in school fees.

Parents Education: The characteristics of the parents are critical in determining the child's school, i.e. private versus public sector. We have found that children from educated parents are more likely to go to private schools. It explains the positive perceptions of educated parents towards private schooling. It may also be inferred that educated parents give more weightage to the facilities of the private sector schooling, ignoring the flaws in this sector. The further explanation of the preference for private schools by educated parents may be that such parents may have higher income based on the level of human capital. The children of these parents go to the category of private schools producing quality education and charging higher fees. The schools may be the national chains and residential schools.

Household Per-capita Income: The public sector schools are free, while the private sector is charging the fee in the range of three hundred to seven thousand. If quality of education is taken directly corresponding to the fee structure, the household per-capita income becomes significant for decision of the parents in choice of schools. We have found a positive association between the household per-capita income and choice of private schools. The findings by Alderman, et. al. for Quetta supports the results as they concluded a more proportional increase in the use of private schooling with an increase in income [3]. The results also corroborate the effect of parents education and number of children on school choice in our analysis. Alternatively the lower income households prefer public sector schools. If it is assumed and partially supported by the empirical evidences that private schools are producing good quality students, the notion of intergenerational disparity becomes evident. To eliminate such disparity the enhanced quality of public sector schools is proposed.

Number of Children: The presence of school-age children in the household represents the intra-household resource competition. We have found that number of children (school-age group) in the household negatively impacts the choice of private schooling of children. Roy for India has found same type of results showing that few number of children in the school-age group have a greater likelihood of going to some school and particularly to private schools [11].

Distance of Public Sector School from Household: It is found that more the distance of public sector school from the household, it is more likely for the child to go to private school. The availability of public sector schools is much important for enhancing the school enrolment. As we have found earlier that lower income group households send their children to public sector schools. It is proposed to Government of Punjab to make availability of public sector schools near to particularly poor community households. Aruntilake also pointed out for Sri-Lanka that free education for all has failed to raise the literacy rate to 100 percent [12]. The availability and quality of public sector schools are necessarily required.

Medium of Instruction: The English attained the language of high status in Pakistan. Proficiency in English is assumed to be required for joining and advancement in armed forces, civil services, better paying jobs in private companies and NGOs. It is also medium of instruction in universities, that is why it is required by parents in schools. Harlech-Jones, et. al. reported that in Khyber Pukhtoon Khwa there was a tremendous expansion in private schools during 1992-2003. The English language was seen as the major determinant of this expansion and as basic requirement by the parents [13]. We have found a positive association between the choice of private school and medium of instruction as English.

There is also evidence by Alderman, et. al. that English language and mathematics in private schools give strong demand for private schools by parents [3]. Roy (for India) also reported that medium of instruction in English along with discipline and status symbol associated with private schools is responsible for preference of private schools [11]. The Punjab Government's initiative of transforming Urdu medium public sector schools into English medium may result into increase in enrolment in public sector schools.

School Fee: The educational cost is assumed to be the most important factor for not only the decision of schooling but also the choice of public vs private schooling as well. We have used the fee of school as the proxy of school cost. Although the transport cost, the expenditure on educational material and uniform have significant share of the total cost of schooling. Moreover, in poor households the opportunity cost of schooling also remains high. We have found inverse relation between the school fee and choice of private school. Alderman, et. al. also reported that as the fee rises, the probability of attending private schools falls. Not all children switch to government schools but some may opt no-school option [3].

CONCLUSION

The question to be answered in this paper was that government of Punjab is trying to universalize the school education by providing free education in schools along with a number of schemes like free books, food for education and stipends to students in public sector schools. If the parents are preferring private sector schooling the policies will face failure. Our results show that educated parents prefer private schooling for their children. The

distance of the public sector schools tends the parents to send their children to private schools. On the other hand higher fee keeps the children away from private schools. Moreover, higher per-capita income group of households send their children to private schools and vice versa. The public sector policy for universalization of school education is partial failure and need modification by inclusion of more public sector schools with improved quality of education. For the lower per-capita income group, the public sector schools are necessary to attain the target of universalization of school education.

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