Academic Progress in Ghana and the Role of Schooling Costs

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BACKGROUND

I propose in this paper to look at the determinants of schooling progress in Ghana using data from the 2003 Household and School Survey and the 2001 Child Labour Survey. The aim of this analysis is to introduce an economic perspective to identify the variables associated with parental decision making regarding children's schooling. Enrolling children in school has direct costs for parents. It also involves monetary and time costs of transportation to school. In the absence of strict child labour laws, there is the opportunity cost of lost income when the children attend school instead of working. All these factors influence the decision making of parents regarding enrolling and keeping their children in school.

The results of this analysis should shed light on the selection bias with regards to educational attainment and the underlying factors. Any study of schooling in Ghana presents an endogeneity problem because school enrollment and schooling choice are not random and as such cross-sectional samples of students is not representative of the cohort because they have to have enrolled in primary school and not dropped out at the time of the survey. Secondly, it will provide some insight into the decision making process of parents concerning their children's education and whether costs are a significant factors that influence the decision-making. This topic is important both for research and policy reasons.

From the policy-making perspective, it is useful to understand which factors influence parents to keep their children in school to better target anti-dropout policies. From the social scientist's perspective, it is important to understand these factors for future research on the subject of schooling.

THEORETICAL FRAMEWORK

We can theorize that the years of schooling that a child receives is a function of household decision-making:

$$S = \alpha + \beta D + \delta O + \eta I + \gamma U + \varepsilon;$$

where D represents the net direct costs to parents of keeping their children in school, O represents the opportunity costs of having children in school and U represents the utility parents receive from investing in their children's education and I is the household income which represents the family's budget constraints.

The direct monetary costs of attending school will be a primary influence of whether parents decide to enroll their children in school and keep them there. While the direct costs to parents as measured by household expenditure on school fees, school supplies and transportation are central to schooling decisions, household income is what determines whether parents are deterred by the costs. Thus, the budget constraint of the household as measured by their income is an integral part of the model. The opportunity costs of keeping children in school which represents the alternative options available to parents if they decided not to educate the children. The main opportunity costs here is the income that could be saved if parents did not pay for education and the time and monetary costs of transportation where parents have to travel with their children to school. It is fair to assume that the main goal of parents when deciding their educational investment in their children is to maximize their utility given their level of income. Unobservable factors such as parental

preferences and ambition will determine how much utility parents gain from children's schooling. Because it is difficult to accurately empirically measure utility, it is necessary to rely on proxies such as parental education or returns to education instead.

DATA AND METHODS

The data for this analysis comes from a sample of children aged 9 to 18 years in the 2003 Ghana Household and School Survey. Supplementary data on will be taken from the 2001 Ghana Child Labour Survey. Both are nationally representative surveys household-based surveys. The Household and School Survey provides education and community level data on schools whilst the Child Labour Survey provides information on the economic and educational activities of children

The methodology will involve using OLS and logistic regressions to model the determinants of schooling progress. The main dependent variable will be completed years of schooling. Alternate dependent variables will be categorical variables that measure whether child is presently in school and whether the child is in the age- appropriate class. This measure will be derived by comparing the child's age to completed years of schooling ratio with what would be the expected ratio using the government recommended enrollment age of 6 years.

The direct costs of school will be measured using school fees, expenditure on school supplies and transportation costs. The opportunity costs of school will be measured using travel time to the nearest primary school and to the nearest middle school in the model. The other measure of opportunity costs will be income foregone from child if they went to work instead of school using data on gender and age-specific child wage rates. All models will control for child and family characteristics. In addition, the final models will test for gender differences in the correlates of schooling progress.

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