Determinants of Access to Education in Cameroon

By

Luc Nembot Ndeffo,
Faculty of Economics and Management
University of Dschang, Cameroon

Tagne Kuelah Jean Réné,
National Institute of Statistics
Yaoundé

and

Makoudem Téné Marienne,
Faculty of Economics and Management
University of Dschang

AERC Research Paper 272
African Economic Research Consortium, Nairobi
2014

THIS RESEARCH STUDY was supported by a grant from the African Economic Research Consortium. The findings, opinions and recommendations are those of the authors, however, and do not necessarily reflect the views of the Consortium, its individual members or the AERC Secretariat.

Published by: The African Economic Research Consortium
P.O. Box 62882 – City Square
Nairobi 00200, Kenya

Printed by: Signal Press (K) Ltd

Nairobi, Kenya

ISBN 978-9966-023-54-4

Contents

List of tables

Abstract

The study aims to establish the link between poverty and access to education in different regions of Cameroon. The target is to demonstrate, from the ECAM III Census data of 2007, the influence of monetary and non-monetary variables on access to primary and secondary education according to the sex of children, on the one hand, and the socio-demographic characteristics of the households, on the other.

The main results show that the influence of monetary and non-monetary variables on access to education varies with region; sex of children; and the residence of households. Thus, the northern regions are less schooled than the southern ones. Marginalization of girls, to the benefit of boys, is very pronounced in the northern regions. Children from female-headed families have more chances of schooling than those from male-headed households.

From the results, we get policy recommendations, especially public awareness campaigns in favour of the schooling of girls, in particular in the northern regions; more training, especially in rural areas; and the construction of boarding schools in regions with low population densities.

1. Introduction

Since the early 1980s, poverty has been a recurrent topic in the discourse of international development organizations. The World Bank devoted its 1990 report on development to poverty. The United Nations Development Programme (UNDP) introduced the concept of human development in the course of the 1990s. It defined the notion of human poverty by proposing some indicators in order to better assess it (UNDP, 2000). The complexity which characterizes the phenomenon of poverty could explain the different definitions and interpretations which are attributed to the two institutions. Human poverty is presented as the absence of basic human needs (capabilities): illiteracy, malnutrition, reduced longevity, shaky maternal health and illness, which can be avoided (UNDP, 2000). It is comparable to lack of elementary functional capabilities to reach some acceptable minima, inasmuch as welfare is a function at the same time as the availability of physical goods and of the broadening of the possibilities of choice (UNDP, 1997).

Given that attributes such as to be educated, to be well-fed, and to be in good health are key elements of well-being, capabilities[1] or faculties express the freedom of individuals to look for these attributes (Lachaud, 2000). If having resources does not always ensure freedom, it is less relevant to characterize poverty only by the insufficiency of resources, given that poverty thresholds are those that permit generating a minimum level of functional capabilities (Sen, 1992).

We observe, from the National Institute of Statistics, that, between 2001 and 2007, the poverty rate in Cameroon stabilized at around 40%. However, in terms of residence, we observe that the poverty rate reduced between the two periods, dropping from 17.9% to 12.2% to the detriment of rural poverty rate, which has deteriorated from 52.1% to 55%. These results could justify either the transfer of wealth from rural areas to urban centres, or an unequal allocation of resources between the two places of residence. As to the severity and the depths of poverty, we observe the same trend.

On the other hand, an analysis of the accessibility of basic education in Cameroon shows that the net rate of schooling went from 73.1% in 1987 to 76.3% in 1996 and 78.8% in 1999. Despite this increase, performances remained spatially unequal. In terms of residence, the net rate of schooling is higher in urban areas than in rural ones. In the three northern regions, and especially the Far North region, the net rate of schooling barely reached 41% in 2001, while it was more than 90% in some southern regions. These inequalities persist in 2007 as shown in Table 1. In fact, the ECAM III statistics reveal that the net rate of schooling was 79.8% in Cameroon in 2007. This rate is 73.3% in rural areas and 93.3% in urban zones. With respect to the sex of the child, this rate is 82.1% for males and 77.5% for females. Differences between the regions persist. Thus,

the Extreme North and the North regions, which are the least schooled have schooling rates of 51.5% and 60.5%, respectively, while the Centre, South and West regions have rates above 95%. In the northern regions, the male-female gap is more pronounced. Thus, only 42.6% of young girls in the Far North region have access to primary education, while the percentage for young boys is 59.4%. It is, therefore, clear that Cameroon is far from attaining the Millennium Development Goals (MDGs) on the spatial level as concerns education.

Table 1: Net primary schooling rates by region, gender and residence in 2007

Region	Males	Females	Average
Douala	96,8	99,0	98,0
Yaoundé	97,5	97,0	97,2
Adamaoua	75,4	51,3	62,8
Centre	96,1	94,9	95,5
East	76,4	74,2	75,3
Extreme-North	59,4	42,6	51,5
Littoral	93,0	96,3	94,6
North	66,4	54,0	60,5
North-West	90,3	92,3	91,3
West	95,2	95,7	95,5
South	94,9	96,6	95,8
South -West	93,9	95,0	94,4
Cameroon	82,1	77,5	79,8
Urban	93,5	93,1	93,3
Rural	77,3	70,4	73,9

Source: ECAM III

In the face of unequal distribution of the net percentage of children in full-time education, of the deterioration of households living conditions and its spatial differential, should we not question ourselves on the existence of relations between poverty and access to education in Cameroon?

The main objective of this study is to design a model, and estimate the monetary and non-monetary determinants of the access to education in Cameroon based on residence and sex of the children.

The specific objectives are:

1. To assess the influence of the standard of living of households (income) on access to education based on the sex of the children.
2. To estimate the influence of households' socio-demographic variables on access to education based on the sex of the children.

This study is organized in five sections. The introduction is followed by Sections 2 and 3, dealing with literature review and methodology, respectively. Section 4 presents the results of the study, followed by conclusion and policy recommendations in Section 5.

2. Literature review

Theoretical aspects

Several authors have formalized the relation between non-monetary poverty and the capabilities of an individual through utility function. Singh et al (1986) developed a household production function which permits a link to be established between the households' income and human development. We present, below, the most simplified version of Appleton and Song (1999). They consider a household having an individual which maximizes the following utility function:

$$U = U(H, L, S, Z, X) \quad (1)$$

Where H represents health; S stands for education; Z stands for health input goods such as consumption goods; L stands for the labour supply and X represents other goods and services. Maximization of the utility function is done under several constraints:

The first constraint is related to health production function given below:

$$H = H(Z, L_h, d, U_h, V_h) \quad (2)$$

where:

- L_h the time that the household allocates to health;
- d the socio-demographic variables of the household (age, sex, education, etc.);
- U_h the characteristics of the community where the household lives;
- V_h the household's non-observable characteristics

The second constraint focuses on the rate of wages:

$$W = W(d, U_w, V_w) \quad (3)$$

where:

U_w the characteristics of the community such as the impact of local infrastructures on supply of labour;

V_w the household's non-observable characteristics such as the ability to work.

Appleton and Song (1999) assume that the goods Z produced by the household are tradeable. The household can have, for example, a plantation of food products and produce quantity Q_x of goods.

$$Q_x = \mathrm{Q}\,(L_q, L_o, A, d, U_q, V_q) \tag{4}$$

where:

L_q the household labour force assigned to production;

L_o the labour force out of the household assigned to production;

A physical asset of the household which are assumed to be fixed;

U_q local determinants of the productivity such as the climate;

V_q non-observable determinants of productivity at the household's level such as the soil quality.

The third constraint related to the income is as follows:

$$P_z.Z + P_s.S + X = W.L_w + P_q.Q - W_oL_o + Y \tag{5}$$

where:

W_o the rate of wages

P_j the price of the good j

Y the income of the household

The time constraint is as follows:

$$I = L_h + L_w + L_1 + S \tag{6}$$

Maximization of Equation 1 under these constraints generates a set of reduced demand functions for health, education, and other goods.

$$H, S, X, Z = f\,(P_s, P_z, P_q, d, A, T, U_h, U_w, U_q, V_h, V_w, V_q, Y) \tag{7}$$

From Equation 7, we better apprehend the relation between the households' expenditures and the human capital development. An exogenous increase of income *Y* could enhance health demand and the children school attendance. However, the strength of this formalization of welfare could have some insufficiencies[2] formulated by Ruggeri-Laderchi (1997). Despite these limits, this conceptualization of welfare has served as a theoretical foundation stone (anchorage point) to estimate the empirical relation between households' expenditures and the human capital development.

Empirical works

Several authors have had an interest in the education problem in the development process. The different works which relate poverty and education have focused more on school performance, and on efficiency of education. The centre of interest for many researchers has been the identification of variables which could favour acquiring of knowledge at a lower cost.

As a matter of fact, empirical works on the performance of education systems go against a number of related problems, as well as to the nature than to the opportunity and the relevance of this exercise. That is why works carried out on this topic have taken several orientations: some authors have used the productivity rate in order to assess the performance of education (Siphambe, 2000; Bemmel, 1996). Others have analysed the performance in term of a comparison between the public sector and the private sector of education (Thomas, 1998; Arum, 1996; Awung, 1999); between the two sexes or in comparison with residence (Noumba, 2002). Other authors have had an interest in the impact of invested costs on performance in the education sector (Marlow, 1999).

Despite their pertinence, the main limit of all these works derives from the fact that they are all interested in children who have already had a chance of going to school. They do not address access to knowledge. This aspect, which is at the centre of our concerns, has held the attention of authors such as Glick and Sahn (2000), Glewwe and Gaag, (1990), Appleton and Song (1999), Lachaud (2000). They have the merit of establishing a relation between the monetary and non-monetary aspects of poverty and education.

The relation between poverty and education is, very often, analysed in terms of access to education (the rate of illiteracy, the percentage of children in full-time education) and on the capacity of households to satisfy the education needs of their children. The problem is also addressed in terms of gender discrimination. Families with restricted financial means tend to favour the schooling of boys to the detriment of the girls. Several authors have examined how the relationship between poverty and education is structured at the families' scale. They have looked into the effective demand of families in terms of education to understand the family and social logistics which determine the school practices. If some works have emphasized on the residence milieu of the households, others have had an interest in the gender aspects.

It is demonstrated that in urban centres the problem on families, mainly in terms of access and poverty, is the major obstacle to schooling. The schooling of children appears both as the necessity and a strategy to social rise (Deleigne and Miauton, 2001).

In rural areas, however, the problem comes up to families in terms of equilibrium between the costs and benefits of the school. The school appears as a place where it

is possible to acquire a competence (acquiring of reading and writing skills) and as a means of social rise (promotion). Parents, essentially, request the school to justify the investment, financial weight, and what is more in the organization of the family life. The households poverty – except for the extreme cases of poverty – is questioned less than that of the school system which, very often, is unable to convince the parents on its real utility (Deleigne and Miauton, 2001). In this case, the responses to bring up come under the improvement of the functioning and the quality of school services.

As to the gender aspect, a study carried out in Tanzania by Oxaal (1997), showed that the combined effect of poverty and education produces a great disadvantage to girls in poor families. Learners coming from poor families are penalized twice as much as far as public grants are concerned; at the level of the higher education, they (girls) are underrepresented (as poor and as girl/woman). In poor families, girls are more penalized due to cultural and social attitudes. It should be noted that the direct costs of education as well as the opportunity costs, increase the disadvantage of the girls from poor families. In this manner, their registration rates are very low; the desertion rate is high and their school performances poor for they contribute to the family support (Oxaal, 1997). Girls from poor families are at a very high risk of precocious pregnancies.

Another important factor to point out here is the return on private education. Due to wage inequalities, the inequality of chances during recruitment, this return is then very low for girls than for boys. The investment in education of the woman/girl has a great social productivity (output). As a matter of fact, according to the World Bank (1995), the more a woman is educated, the lower the infant mortality rate and the better the health of the child.

One of the aspects of education of a young girl is the reduction of birth rate. The more a girl goes to school, the less she will have children early in life. Moreover, she will get married late. For example, the rate of birth in Tanzania stands at 6.5 for girls who have not gone to school and 4.2 for those who have gone to school up to secondary/higher education (Wedgwood, 2005). It should be pointed out that the interaction between education and fertility is done through the environment (depending on whether she is in the urban or rural zone).

Some studies (Mingat and Tan, 1996; Appleton, 2001) arrived at the conclusion that, the return on investment in basic education relatively reduces with respect to that of secondary education when the rate of registration at the primary stage of education increases and that the employment market conditions vary.

Glick and Sahn (2000) have particularly emphasized the discrimination in terms of gender in the analysis of the determinants of schooling in a country in West Africa. They have used an organized logistic model. Their results have shown that an increase of monetary incomes favours the schooling of girls while it remains unchanged for that of boys. An improvement in the father's schooling leads to that of the children without any distinction of sex, while improvement of schooling of the mother produces a significant impact on the schooling of girls only.

Sexual discrimination and residence are two aspects of the problem that concern us in this study.

Several authors have estimated the relationship between poverty and education in terms of human capital development (Schultz, 1963; Becker, 1964; Barro, 1991). In this

manner, education allows an individual to get job opportunities which could permit him or her to get necessary incomes for their vital needs. The standard of living is then a function of the level of education of the individuals. That is why Omari (1999) shows that there are few differences between the incomes of the poor and the non-poor having gone to the primary school, but a very marked difference when we are at the post primary level; and there are few poor in that category. But, primary level of education is not sufficient to enable an individual to get out of poverty.

Secondary education is not, however, within the reach of everyone, even for those with an average level of income. Consequently, most of the poor find themselves in the poverty trap (Wedgwood, 2005). There exits, also, a parallel relation between economic development and school development (Rwehera, 2004). Due to that, we formulate the following hypothesis that there is a correlation between the level of income and the percentage of children in full-time education. That is why the authors conclude that the employment productivity is explained partly (about 54%) by seven factors, among them education (increase of the level of education per worker) and improvement in knowledge.[3] It should also be pointed out that it is not sufficient to go to school to ameliorate one's productivity, but that the acquired knowledge during schooling have an important role to play.

Glewwe and Gaag (1990) have considered the consumption per equivalent adult as the best indicator of welfare. They have studied, from survey data of Côte d'Ivoire, to what extent the choice of other indicators[4] could permit to consider the same individuals as poor. They concluded that the determination of the profile of poverty based on these indicators has a bias.

It is why, from another angle, the studies have determined the relation between education and some welfare indicators. Education remains a vital factor of the development of human capital. It permits an individual to adapt his/her labour force to the market demand and to easily fit into the productive system. That is why many studies (Nembot et al., 2006; INS, 2002) have shown that households with educated heads are less poor than those with illiterate heads. The study by Michalos (2007) shows that the impact of education on welfare depends on the definition that one gives each of these concepts. If education is defined in relation to the level of education (primary, secondary, and higher) and welfare as the material satisfaction, then education has very little influence on welfare. If, on the other hand, education is viewed as a set of knowledge, of life experience, of the individual culture which are quite different from school degree course, and welfare as good life, easy access to essential goods, freedom, peace, security, and social stability, then education tremendously influences welfare.

Taking everything into consideration, most of the studies presented above are based on the monetary aspect of poverty, which has many limits. This approach remains insufficient when looking at other phenomena capable of hindering the welfare of households, and especially in term of schooling. This study will then take into consideration the households' socio-demographic characteristics in order to fill these inadequacies.

3. Methodology

The methodology is inspired by the works of Appleton and Song (1999) and Lachaud (2000). In the model, monetary variables are combined with socio-demographic characteristics of households.

Testable empirical model

This study aims to analyse monetary and non-monetary determinants of accessibility to education in Cameroon. As accessibility to primary or secondary school (*Y*) is a qualitative dependent variable, a probit model is specified. It permits to explain access or not to primary and secondary school, given the characteristics of the child and household.

The first series of regressions are those on primary education (access to primary education) and the second on secondary education (accessibility to secondary schools). For the specification of the model, let us consider a sample of *n* children whose ages range from 6 years to 11 years or between 11 years and 19 years represented by subscript i = 1, ….., n. For each child *i*, we determine if he goes to school or not and we state that:

$$Y_i = \begin{cases} 1 & \text{if the event occurs (the child has access to school)} \\ 0 & \text{if the event does not occur (the child does not have access to school)} \end{cases}$$

As such, access to school is given by the following function:

$$Y = \alpha + X\beta + e$$

$$\text{where : } e \approx N(0, \sigma^2)$$

X represents household and child characteristics. The household characteristics are both monetary and non-monetary, and include age, sex, standard of living, level of education of parents, household income, and proximity of household to a primary or secondary school. At the level of the child, these characteristics include sex and age. In a probit model, the probability of the event occurring is the expectation of variable *Y*.

In fact

$$E\left[Y\right] = 1 \times \mathrm{P}\left[Y = 1\right] + 0 \times \mathrm{P}\left[Y = 0\right] = \mathrm{P}\left[Y = 1\right] = \pi$$

and (8)

$$P\left[Y = 1\right] = \Phi\left[\alpha + X\beta\right]$$

where: Φ is the distribution function of the normal curve,

X is the vector of the characteristics of the child, parents and the household.

α and β are coefficients to be estimated.

The coefficients of the model are estimated using the Maximum Likelihood method and the Fisher test used to verify the robustness of the results.

The age intervals of children in primary and secondary schools were defined based on the official school ages in Cameroon. In the documents of the educational sector, the net school enrolment rate is used. For the primary cycle, it is the ratio of children aged 6-11 years registered in primary schools and all children of this age group. For the secondary cycle, it is the ratio of children aged 12-19 years registered in secondary schools and all children of this age group. Our codifications were made on the basis of these considerations. In practice, there are children aged less than 12 years who are enrolled in secondary schools and others of more than 11 years still enrolled in primary schools. Being unable to deal with these categories of children, they were excluded from the analysis. This constitutes a limitation, but they make up only about 4% of the sample.

We run many series of regressions, considering the socioeconomic division of Cameroon, with accessibility to primary and secondary school as dependent variable:

- the first series of regressions use data at the national level, which is divided into two sub-groups (urban and rural regions);
- the second series concerns the 12 regions delimited in the survey taken individually;
- the third series distinguishes two sub-groups according to the sex of the child; and
- the last series is concerned with the impact of the sex of the family head on the schooling of the child.

Data and sources

The main database for the estimations and analyses is the file of individuals of ECAM III. It is a question of a national survey carried out in 2007 with the main aim of bringing up to date the poverty profile and the different indicators of the living conditions of households established at the conclusion of ECAM II in 2001, and to evaluate the pertinence of the poverty alleviation policies implemented. The realization of ECAM III is to, among others:

- Study poverty in all its forms, on the national as well as regional level to establish correlations between the different forms of poverty;

- Study the dynamics of poverty in Cameroon, especially between 2001 and 2007, in order to estimate the impact of the economic policies on the living conditions of the households;
- Evaluate the demand of education and to justify its major determinants; and
- Produce basic data for the improvement of the various official statistics to put at the disposal of the needy persons and essential for the sectorial strategies elaboration.

The investigation is national. The statistical unit is the ordinary household defined as a set made up of one or several persons living in the same concession (house) and putting together all or part of their resources to meet everyday expenditures and acknowledging the authority of one person as the head of the household. The different analyses were focused on the categorized households according to their residence milieu, their composition, their size, the activity of the head of the household, his/her level of education, etc. The units of observation are the households (housing, living conditions, individual expenditures of the households, etc.) and the individuals (demographical characteristics, individual expenditures, etc.).

In view of having strata which are homogenous with regard to the phenomenon of poverty and for the purpose of harmonisation of the stratification, the two biggest towns, Douala and Yaoundé, have been considered as (urban) strata. Each of the 10 regions has been divided into two strata (one rural and one urban). The results of the investigation were divided into 22 strata (12 urban and 10 rural).

In order to produce results which are compatible with those from the previous ECAM, the construction of the indicator of the standard of living was based on the national accounting viewpoint.

We employed the stratified random, with two degrees. We drew the first degree of each stratum some zone of counting (ZC), proportionally to their size to take into consideration the existing disparities. At the second degree, a sample of households was drawn from each selected zone of counting at the first degree.

Many observations have been made from examining the investigations (surveys). They include information related to the demographic composition of households, the main job, the jobs of minor importance and previous jobs for persons whose age allow them to work, the health, the education, the incomes and other household properties. Annex 1 shows the list of the potential variables used in the regressions.

4. Results of the study

We first compare the results in terms of the sex of the child; then residence of the household and, finally, the 10 regions of the country. These comparisons focus on the monetary income, the characteristics of the children, the parents and of the household, as well as infrastructure.

Comparison of the results in relation to the sex of the children

From Table 2, we notice that for the variable "age of the child", its increment is favourable to education. One more year increases by 11.6 percentage points the probability of a 6-11-year-old child, irrespective of the sex, to be sent to primary school. As far as the variable "sex of the child" is concerned, the results show that for male children, the probability that they go to school is superior by 4.78 percentage points, in comparison with female children. In general, the parents have the tendency of sending more boys to school to the detriment of girls. As far as the logarithm of income is concerned, a one-percentage point increase leads to an increase of 13% in the probability of girls being sent to school instead of an increment of 4.95% only for the male children. These results are very significant. They can be explained by the fact that the parents, having first taken care of the schooling of the boys, are interested in that of the girls only when they have an additional income.

For the characteristics of the parents and the households, as a general rule, the results show that children coming from households led by a man have less chances of being sent to school than those who are in households led by women. We observe that female children are penalized twice, given that their probabilities of going to school decreases by 17 percentage points while that of male children diminishes by 8.5 percentage points only. We, however, observe that in the households where the parents live together, the probability of female children going to school increases by 5.65% in comparison with that of children from single parent households, while the probability of male children of the same age diminishes by 1.57%. As far as the education of the head of the household is concerned, children coming from educated parents have a greater probability of going to school than those coming from households where the head of the household is not educated. We observe that educated parents send children to school irrespective of on of sex.

Table 2: Summary of the results of primary education according to the sex of the child

Variables	National		National boy		National girl	
	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	0.375***	0.116***	0.399***	0.116***	0.357***	0.116***
Log. Income	0.290***	0.0900***	0.170	0.0495	0.402***	0.130***
Sex H H: male	-0.450***	-0.126***	-0.315*	-0.0852**	-0.592***	-0.170***
Household cple	0.0645	0.0200	-0.0539	-0.0157	0.173	0.0565
Prim Educ	0.637***	0.182***	0.493***	0.135***	0.795***	0.233***
Second Educ	0.825***	0.216***	0.817***	0.199***	0.868***	0.240***
Higher Educ	0.903***	0.194***	0.922***	0.179***	0.945***	0.213***
More than 2kms School	-0.302**	-0.0995**	-0.214	-0.0656	-0.381**	-0.132**
More than 2kms hospital	-0.123	-0.0380	-0.178	-0.0515	-0.0618	-0.0200
Household/elect	0.312***	0.0945***	0.448***	0.126***	0.221	0.0710
Comm: tel	0.161	0.0494	0.171	0.0494	0.142	0.0457
Urban milieu	0.000627	0.000194	-0.101	-0.0300	0.0723	0.0232
Sex of the child: Male	0.155**	0.0478**				
Sample size	2 119 204	2 119 204	1045606	1 045 606	1 073 598	1 073 598

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

For infrastructure, the distance separating the house and the school tend to penalize girls more in comparison with boys. Girls coming from households situated at more than two kilometres away from the nearest primary school have their probability of going to school diminish by 13.2%, while that of the boys is reduced only by 6.5%. The results show that the probability of going to school for boys coming from the households using electricity as a source of light increases by 12.6% in comparison with children coming from households without electricity. This result is significant at 5% confidence level. However, for tgirls, their probability increases by 7.1% only.

Comparison of the results in relation to residence of the households

Table 2 shows that one point increase of the logarithm of income only increases by 2.2 percentage points the probability of going to school for children living in urban zones while that of the children living in rural area increases by 13.8 percentage points. This result is significant at 5% confidence level. As to the children characteristics, we observe that, one more year increases by 6.2% the probability of going to school for city dwelling children, and by 13.5% that of children living in rural zones. Moreover, we note that, in the urban centres, the probability of a male child going to a primary school reduces by 1.5% to the benefit of the female child; while in the rural areas, the probability that the male child goes to school increases by 9.43% in comparison with that of girls. This last result is very significant.

Table 3: Summary of the results of primary education according to residence

Variables	National		National urban		National rural	
	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	0.375***	0.116***	0.456***	0.0625***	0.354***	0.135***
Log. Income	0.290***	0.0900***	0.160	0.0219	0.364**	0.138**
Sex H H: male	-0.450***	-0.126***	-0.526***	-0.0594***	-0.463**	-0.166***
Household cple	0.0645	0.0200	0.274*	0.0400*	0.0395	0.0150
Prim Educ.	0.637***	0.182***	0.716***	0.0809***	0.598***	0.219***
Second Educ.	0.825***	0.216***	0.845***	0.116***	0.847***	0.275***
Higher Educ.	0.903***	0.194***	1.087***	0.0819***	0.727*	0.231**
More than 2kms school	-0.302**	-0.0995**	0.236	0.0274	-0.349**	-0.135**
More than 2kms hospital	-0.123	-0.0380	-0.164	-0.0239	-0.0818	-0.0310
Household/elect	0.312***	0.0945***	0.416***	0.0715**	0.264	0.0970
Comm.: tel.	0.161	0.0494	0.171	0.0255	0.161	0.0603
Urban milieu	0.000627	0.000194				
Sex of the child: Male	0.155**	0.0478**	-0.110	-0.0152	0.248***	0.0943***
Sample size	2 119 204	2 119 204	640 252	640 252	1 283 342	1 283 342

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

The analysis of the characteristics of parents and households shows that the educated parents are sensitive to the education of their children in both zones (urban and rural), even though we note that the chances for children living in town are higher than of those who live in rural areas. In the households where the parents live together, the chances of going to primary school for the children living in town increases by 4% in comparison with the children coming from the households having one parent, while that of children living in rural areas increase by 1.5%. In respect to sex of the head of the household, if he is a man,it leads to 6% lost chances of going to school for the urban children and 16.6% lost chances for the rural children, in comparison with if she were a woman.

At the level of infrastructure, the results show that the households' access to electricity as a source of light increases the chances of going to school for the city dwelling children by 7 percentage points; while in the rural areas, the increment is about 10 percentage points. As to the distance to the nearest primary school, the children living in rural areas are more penalized by the long distances. Children living in the rural areas, and whose school is located 2-5 kilometres away from their house, lose 13.5% chances of going to school in comparison with children whose school is located less than one kilometre away. As to the city dwelling children, these long distances do not have any influence on their schooling. This result can be explained by the fact that in the rural areas, the number of schools is very limited and the absence of means of transport penalizes some children. In towns, the multiplicity of schools, and the existence of transport means, offer many opportunities to children.

Comparison of results between the regions

In the descriptive statistics function, we have classified the regions into levels of schooling. They range from the regions less provided with schools (Table 3) to the most provided regions (Table 4).

Generally speaking, the results show that in Cameroon, an increase of one point of the logarithm of incomes leads to an increment of 9% of the probability of children to be sent to primary school. This result is very significant. Though this trend is observed for most regions, we notice that in the Far North the trend is reversed. An increase in spending per equivalent adult reduces the probability of children going to school. These results show that the low percentages of children in full-time education observed in this region (the less provided with schools in the country) are dependent or reliant on factors other than monetary incomes. It is in the South West region that the increment in incomes has the strongest influence on the schooling of children. An increase of one point of the logarithm of incomes leads to 22.4% increase in the probability of children to be sent to school. These very significant results show that the level of incomes of households is a determinant for the schooling of children in this region.

As to the characteristics of the children, globally speaking, the results show that the probability of going to school increases as the age of the child increases. The same trends are observed in all the regions, i.e., 12% for the regions which are not less provided with schools and 8% for the regions which are less provided with schools. As far as the sex of children is concerned, we point out that, it is in the North regions that the chances of boys going to school is very high in comparison with those of girls. Moreover, we notice that in some regions like those of the South West, the North West, the Littoral and the West, the probability of girls going to school is greater than that of boys, even though these proportions are low.

As far as the characteristics of the parents and the households are concerned, the results vary from one region to another. According to Table 2, households led by men, children have less chances of being sent to school than in households led by women. These results are valid for the Far North, the North, the Adamaoua and the South regions. In the other regions of the country, the trends are reversed. In the North and South regions, children coming from households where parents live together have a higher probability of going to school than that of children coming from single parent households, while in the other regions, the trends are reversed. As to the level of education of the parents, it is favourable to the education of children irrespective of the region.

Table 4: Summary of the results of primary education of the regions less provided with schools regions

Variables	Far-North		North		Adamaoua		East		South -West	
	Coef.	E.M	Coef.	E.M	Coef.		Coef.	E.M	Coef.	E.M
Age of the child	0.309***	0.121***	0.392***	0.156***	0.332***	0.132***	0.447***	0.137***	0.566***	0.070***
Log. Income	-0.205	-0.080	0.357	0.142	0.340	0.135	0.158	0.0482	1.795***	0.224***
sex HH: male	-0.155	-0.061	-0.195	-0.0776	-0.328	-0.130	-0.0236	-0.0071	0.104	0.0134
Household cple	-0.154	-0.060	0.0813	0.0324	-0.299	-0.118	-0.0404	-0.0123	-0.0528	-0.0065
Prim. Educ.	0.374*	0.148*	0.238	0.0947	0.314	0.125	0.721*	0.197**	0.467	0.0620
Second. Educ.	0.461**	0.182**	0.441	0.173	0.296	0.118	1.459***	0.314***	0.0960	0.0116
Higher Educ.	1.233*	0.425***	1.226	0.403**	6.176***	0.533***	2.454***	0.298***	-0.738	-0.149
More 2kms school	-0.638**	-0.23***	-0.0949	-0.0377	0.492	0.194	0.203	0.0590	-0.385	-0.0619
More 2kms hospital	0.0970	0.038	0.385	0.152	-0.641	-0.251	-0.974**	-0.267**	0.390	0.0502
Household/elect	0.445*	0.176*	-0.174	-0.0688	-0.548	-0.210	0.0583	0.0177	-0.0192	-0.0024
Comm.: tel.	0.337	0.133	0.149	0.0592	-0.0732	-0.0292	-0.0521	-0.0161	-0.853*	-0.121*
Urban milieu	-0.121	-0.047	0.267	0.106	-0.165	-0.0649	-0.0574	-0.0178	0.0362	0.00445
Sex male	0.344**	0.135**	0.292*	0.116*	0.862***	0.333***	0.217	0.0664	0.589	0.0491
Sample size	450 086	450 086	224 736	224 736	136 312	136 312	87 112	87 112	131 862	131 862

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

Table 5: Summary of the results of primary education of the regions most provided with schools

Variables	North-West		Littoral		West		Centre		South	
	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	0.509***	0.135***	0.303*	0.0290*	0.617***	0.0534***	0.565***	0.0341**	1.015***	0.0633*
Log. Income	0.353*	0.0934*	0.179	0.0172	0.367	0.0318	0.250	0.0151	0.426	0.0266
Sex HH: male	0.0578	0.0154	0.110	0.0108	0.535	0.0543	0.152	0.00965	-0.260	-0.0143
Household cple	-0.0764	-0.0201	-0.171	-0.0164	-0.873*	-0.0763*	-0.806	-0.0465	0.114	0.00738
Prim. Educ.	0.398*	0.105*	0.372	0.0353	0.179	0.0155	0.535	0.0278	1.460	0.0605
Second. Educ.	0.196	0.0482	0.555	0.0489	0.385	0.0288	0.984	0.0722	2.101**	0.262
Higher Educ.	0.192	0.0467	5.363***	0.0223	-0.242	-0.0253	1.166	0.0283*	1.383	0.0366
More than 2kms school	-0.0016	-0.0004	0.111	0.00979	-0.176	-0.0170	-0.588*	-0.0439	-0.522	-0.0431
More than 2km hospital	-0.0385	-0.0102	-0.720*	-0.0808	-0.162	-0.0146	0.136	0.00851	0.0406	0.00254
Household/elect.	0.409	0.0988	0.505	0.0542	-0.377	-0.0324	0.820*	0.0585	-0.302	-0.0159
Comm.: tel.	0.359	0.0891	-0.932	-0.0823	0.0957	0.00838	-0.304	-0.0175	-0.187	-0.0113
Urban milieu:	0.246	0.0601	0.893	0.109	0.351	0.0256	0.178	0.0124	0.999**	0.0323
Sex of the child male	-0.0639	-0.0169	-0.107	-0.0103	-0.208	-0.0180	0.419	0.0257	0.667	0.0409
Sample size	281 414	284 414	36 297	36 297	205 084	205 084	134 116	134 116	59 620	59 620

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

For infrastructure, long distance between the schools and residence of households (more than two kilometres) diminish the probability of children going to school in relation to their classmates whose residences are less than one kilometre away. This result concerns all the regions except Adamaoua and the East. These two regions have several similarities. They are the biggest and less populated regions. They are also part of the regions with few schools. These results could indicate that access to the farthest schools iworks only for the strongest children, who can walk for long distances. The access of households to electricity and telephone, as a means of communication, is favourable to the education of children in almost all the regions.

Discussion of the results of secondary education

As in the primary stage of education, we are going to present the results according to the sex of the child, residence of the household, and the 10 regions of Cameroon.

Sex of the children

From Table 6, households income positively influences the schooling of children, with a slight advantage for girls. In respect to the characteristics of children, as they grow up, they have less chances of going to school. These results can be explained by the fact that many children, for various reasons, are interested in the active (working) life. Girls are more penalized than boys. As a girl grows from age 12 to 19, the probability that she furthers her studies reduces by 7% compared with 4.7% for the boy. This result, can be explained by the fact that many girls sacrifice their studies to get married.

For the characteristics of the parents and the households, we observe that, in households led by men, the children's probability of schooling drops without any distinction of the sex in comparison with those coming from households led by women. These results show that women are more responsible than men as far as education is concerned. In households where parents live together, the probability for girls to be sent to school increase by 20.6%, and those of boys by 4% only in comparison with children coming from single parent households. As far as the education of the parents is concerned, we notice that the educated parents send children to school without any distinction of the sex compared with parents who are not educated.

As to infrastructure, the results show that long distances between the school and residence of the households penalize boys and girls in almost the same proportion. However, access of households to electricity increases by 15.6% the probability for girls to go to school and by 6.4% for boys. The same trends are observed as far as the use of telephone, as a means of communication, is concerned.

Table 6: Summary of the results of secondary education according to the sex of the child

Variables	National		National boy		National girl	
	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	-0.163***	-0.059***	-0.145***	-0.047***	-0.178***	-0.069***
Log. Income	0.164*	0.0606*	0.165	0.0539	0.146	0.0571
Sex HH: male	-0.742***	-0.248***	-0.469***	-0.140***	-1.061***	-0.374***
Ménage cple	0.301***	0.110***	0.121	0.0394	0.532***	0.206***
Prim. Educ.	0.495***	0.173***	0.468***	0.142***	0.543***	0.205***
Secon. Educ.	1.056***	0.350***	1.232***	0.352***	0.859***	0.316***
Higher Educ.	1.018***	0.283***	1.386***	0.270***	0.765***	0.263***
More than 2kms school	-0.198	-0.0748	-0.293*	-0.102	-0.138	-0.0543
More than 2kms hospital	-0.219**	-0.0811**	-0.204	-0.0672	-0.208*	-0.0815*
Household/elec	0.308**	0.114**	0.194	0.0641	0.400**	0.156**
Comm.: tel.	0.313***	0.116***	0.208*	0.0682*	0.447***	0.174***
Urban milieu	-0.202	-0.0749	-0.535***	-0.178***	0.0526	0.0206
Sex of child:Male	0.379***	0.138***				
Sample size	1 728 459	1 728 459	918 247	918 257	810 212	810 202

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

Residence of the households

Like in the primary level of education, increase of incomes increases the probability of rural children going to secondary school (7%) than that of city dwelling children (2.3%). The rise of the age of children reduces their probability of going to school for both those living in rural area and the city dwellers.

Table 7: Summary of the results of secondary education according to the milieu

Variables	National		National urban		National rural	
	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	-0.163***	-0.059***	-0.21***	-0.06***	-0.135***	-0.053***
Log. Income	0.164*	0.0606*	0.0792	0.0229	0.175	0.0697
Sex HH: male	-0.742***	-0.248***	-0.62***	-0.16***	-0.989***	-0.373***
Ménage cple	0.301***	0.110***	0.309**	0.0897**	0.311*	0.123*
Prim. Educ.	0.495***	0.173***	0.292**	0.0801**	0.590***	0.232***
Secon. Educ.	1.056***	0.350***	0.698***	0.199***	1.281***	0.458***
Higher Educ.	1.018***	0.283***	0.686***	0.158***	1.566***	0.470***
More than 2kms school	-0.198	-0.0748	-0.132	-0.0400	-0.0888	-0.0353
More than 2kms hospital	-0.219**	-0.0811**	-0.0734	-0.0216	-0.378*	-0.150*
Household/elec	0.308**	0.114**	0.154	0.0469	0.487**	0.192**
Comm.: tel.	0.313***	0.116***	0.293**	0.0918**	0.452***	0.179***
Urban milieu	-0.202	-0.0749				
Sex Male	0.379***	0.138***	0.147*	0.0424*	0.622***	0.244***
Sample size	1 728 459	1 728 459	722 005	722 005	776 501	776 501

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

However, we observe that in rural areas, for a male child, the probability that he has access to secondary school is about 24.4% in comparison with the female child. This very significant result shows that in rural areas the desertion rate of girls from secondary education is high. In the urban areas, this probability is 4.24%. For the characteristics of the head of the household, the fact that he or she is educated increases the probability of schooling of the children. The comparison in terms of residence shows that the probabilities in rural areas are largely greater than those of urban areas. We can equally observe that, rural area children coming from households in which parents live together have a probability of going to school which increases by 12% while that of the city dwelling children increases by 9% only. Furthermore, children coming from rural households led by men lose 37 percentage points of going to school in comparison with those coming from households led by women. In the urban centres, the loss is about 16 percentage points.

As far as infrastructure is concerned, the distance to schools penalizes rural children and city dwellers in almost the same proportion. However, access to electricity increases by 19.2% the rural children's probability of having access to secondary stage of education and that of the city dwelling children by 4.6%. It should be emphasized that, in Cameroon, the proportion of rural populations having access to electricity is 23.1% while that of the urban populations is 90.4% (MINEPAT, 2009). This disparity shows that, in rural areas, electricity remains a scarce good whose access is reserved for the richest people who have sufficient means to ensure the schooling of their children.

Results by region

Generally speaking, the results show that in Cameroon, an increase of one point of the logarithm of incomes leads to an increment of 6.25% of the probability of children to be sent to secondary school. Though this trend is observed in most of the regions, we observe that in the Far North, the North and the North West, the increase of income does not influence the schooling of children. This result shows that the low percentages of children in full-time education in these regions are explained by factors other than the incomes of the households.

In respect to the characteristics of the children, we observe from Table 6 that in all the regions of the country, the probability of children having access to secondary education reduces as the age of the child increases. In relation to the sex of the child, the results show that on the national level, the male children have the probability of going to school which increases by 13.8% in comparison with that of the female. This result, which is very significant, hides some disparities between the regions of the country. In the North West and the Littoral regions, the trends are reversed. The probability of access to secondary education reduces by 3.5% and 13.3% for the male children in these two regions, respectively.

Table 8: Summary of the results of secondary education of the regions less provided with schools

Variables	Far-North		North		Adamaoua		East		South West	
	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	0.00943	0.0030	-0.100	-0.0316	-0.170**	-0.06**	-0.205***	-0.077***	-0.231***	-0.058***
Log. Income	-0.159	-0.0508	-0.0297	-0.00936	0.248	0.0916	0.301**	0.114*	0.661*	0.166*
Sex HH: male	-0.164	-0.0545	-1.46**	-0.531**	-0.754*	-0.287*	-0.520*	-0.202*	-0.644	-0.144
Household cple	0.0950	0.0304	0.279	0.0892	0.242	0.0908	0.397	0.149	0.473	0.117
Prim. Educ.	0.325	0.110	0.537*	0.179	0.390	0.148	0.924**	0.354**	0.258	0.0640
Second. Educ.	0.826***	0.30***	1.36***	0.483***	0.754	0.291	1.642**	0.586***	0.756*	0.164*
Higher Educ.	6.479***	0.74***	1.436*	0.527*	0.438	0.171	2.022***	0.627***	0.216	0.0492
More than 2kms school	-0.546*	-0.418	0.0482	0.0154	-4.38***	-0.14**	0.305	0.119	0.212	0.0484
plus 2kms hospital	-0.0899	-0.181	-0.145	-0.0459	-0.592**	-0.21**	-0.416	-0.156	-0.243	-0.0608
Household/elect	0.0108	0.0161	0.401	0.134	0.245	0.0906	0.464	0.173	0.0476	0.0120
Comm.: tel.	0.298	0.356	0.178	0.0576	0.00327	0.0012	0.534*	0.201*	0.292	0.0724
Urban milieu	0.821*	0.945**	0.0383	0.0121	0.255	0.0961	0.742	0.285	-0.586	-0.161
Sex male	0.663***	0.673***	0.728**	0.235**	1.293***	0.47***	0.277	0.105	0.607***	0.152***
Sample size	227 571	227 571	113 705	113 705	78 822	78 822	71 366	71 366	149 119	149 119

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

Table 9: Summary of the results of secondary education of the regions most provided with schools

Variables	North-West		Littoral		West		Centre		South	
	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M	Coef.	E.M
Age of the child	-0.25***	-0.078***	-0.207***	-0.0582***	-0.199***	-0.045***	-0.31***	-0.062***	-0.39***	-0.049***
Log. Income	-0.0023	-0.0007	0.300	0.0846	0.251	0.0575	0.119	0.0233	0.274	0.0339
Sex HH: male	0.0263	0.00815	-0.203	-0.0549	-0.617**	-0.133**	-0.945*	-0.151**	0.475	0.0682
Household cple	-0.143	-0.0444	0.737	0.200	0.115	0.0259	-0.0536	-0.0105	-0.885*	-0.104
Prim. Educ.	0.381	0.114	-0.460	-0.134	-0.384	-0.0931	0.844	0.138	0.452	0.0462
Second. Educ.	0.872**	0.233***	0.199	0.0550	0.403	0.0875	1.508*	0.336	1.961***	0.404**
Higher Educ.	0.255	0.0727	0.769	0.158	-0.258	-0.0666	1.613*	0.140**	2.533***	0.102**
More than 2kms school	0.234	0.0679	0.243	0.0625	0.515*	0.0953*	-0.269	-0.0572	-1.008*	-0.205
More than 2kms Hospital	-0.0456	-0.0141	-0.554	-0.175	0.117	0.0263	-0.492*	-0.092*	-0.313	-0.0393
Household/elect	0.598**	0.179**	0.0419	0.0119	-0.0838	-0.0190	0.432	0.0932	0.537	0.0926
Comm.: tel.	-0.0260	-0.0080	0.0661	0.0188	0.536*	0.130*	0.551*	0.110	-1.121*	-0.098**
Milieu: urban	-0.306	-0.0990	1.071**	0.309**	-0.0919	-0.021	0.0678	0.0137	-1.27***	-0.250*
Sex male	-0.114	-0.0355	-0.487	-0.133*	0.397**	0.0906*	0.684**	0.140**	0.656**	0.0897**
Sample size	212 109	212 109	58 077	58 077	176 615	176 615	132 249	132249	45 848	45 848

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

As far as the characteristics of the parents and the households are concerned, the results show that in all the regions of the country, the probability of going to school for children coming from educated parents is greater than that of those who come from households with parents who are not educated. With respect to the sex of the head of the family, we observe that the probability of going to school for the 12- to 19-year old children coming from households led by men reduces in comparison with that of children coming from households led by women. These trends are observed in all the regions of the country. Moreover, children of parents who live together have a higher probability of having access to secondary education than those who come from single-parent households.

For infrastructure, we observe that in all the regions of the country, long distances with respect to schools and to hospitals, reduce the children's probability of going to school. The probability of children from households which use electricity as a source of light going to school increases by 12.6% in comparison with that of children from households which do not have access to electricity. The trends are the same in all the regions of the country. Accessibility to the other types of infrastructure, such as the telephone, favours children education at the secondary level.

Impact of parents' level of education on the education of the children

Table 10 assesses the impact of education level of parents on the schooling of their children. The education level of parents favours the schooling of children both at the primary and the secondary level. We observe that the level of education of the mother is more favourable to the children's education than the father's at the primary stage of education. The probability of children having access to basic education increases by 15.6% when their mother has primary school education, while this percentage is about 13.9% when the father has that very level of education. The 6-11-year-old children of women who have reached the secondary stage of education have a probability of going to school increase by 22% in comparison with that of children whose mother is not educated, while that of children whose father has reached this level of education increases by about 16% only. As far as women who have had access to higher education are concerned, the probability that their children get primary education increases by 23.3% in comparison with the children of mothers without higher education. However, that of the children whose father has a higher education increases by 12.4% only.

As far as secondary education is concerned, the results are quite different. The 12-19-year-old children of fathers with primary education only see their probability of getting secondary education increasing by 12.7% in relation to the fathers without any education. The probability of the children of the same age whose mothers have had this level of schooling increases only by 10.5%. For the parents of both boys and girls, and having gone up to the secondary school, their children see their probability of going to school increase in the same proportion (18%) in comparison with that of the children whose parents are without any education. We can, however, observe that men with higher education are more concerned with the schooling of their children than women with the same level of education.

Table 10: Summary of the results of the impact of parents' education on the education of the children

Variables	Primary stage of education		Secondary stage of education	
	Coefficients	M. E.	coefficients	M.E.
Age of the child	.3896615***	.127436***	-.178251***	-.069359***
Log Income	.1480834	.0484299	.0941846	.036648
Type of household: couple	-.059818	-.01935***	.3886438***	.152993***
Education of the father: primary	.4507615***	.13972***	.335925***	.127911***
Education of the father: secondary	.5348049***	.159697***	.4837276***	.182531***
Education of the father: Higher	.4394049**	.1240914	.6635384***	.230591***
Education of the mother: primary	.5055017***	.156258***	.2756503**	.105799**
Education of the mother: secondary	.8133927***	.221709***	.4949295***	.1849748***
Education of the mother: Higher	1.168686***	.23306***	.2858243	.1066281
Household situated more than 2kms away from school	-.3205623***	-.11075***	-.3068353**	-.12107**
Household situated more than 2kms away from hospital	-.0718025	-.0234224	-.2938695***	-.113956***
Household situated more than 2kms away from the market	-.0993044	-.0323994	-.1503614	-.058554
Household situated more than 2kms away from the road	-.1631704*	-.0531666*	-.0242076	-.00942
Household situated more than 2kms away from a source of water	.0372511	.0121377	.0267291	.010386
Household with electricity	.1105736	.0359033	.2489981*	.09685*
Household's means of comm : Tel	.159896	.0519653	.4970044***	.19287***
Household's means of info :Audio	.1337595*	.0439961*	.0598819	.023335
Household's means of info : audio-V	.0973662	.0314446	.0303161	.0117904
urban milieu	.0732384	.0237243	-.203609***	-.079435
semi-urban milieu	.1508625	.047306	.168353	.064345
Sex of the child: male	.1716621**	.0560812	.4672822	.178848***
Constant	-5.116279	.1274368	.7011351	
Sample size	2 119 204	2 119 204	1 728 459	1 728 459

Source: Constructed by the authors from the tables stemming from econometric estimations.
*** Significant at 1%; ** Significant at 5%; * Significant at 10% confidence level.

Taking everything into consideration, access to education in Cameroon is influenced by monetary and non-monetary variables. This influence varies from one region to another. It also varies with the sex of the children and residence of the households. We can also mention that, educated women are more concerned with the basic education of their children than educated men. These results form a basis for recommendation of policies in the education sector.

In the probit regression models used in all the estimations of the coefficients of the present study, the test of Hosmer and Lemeshow allows us to verify the appropriateness of the model with the data of the survey.

For each estimated model, we have obtained for the statistics of Hosmer and Lemeshow test, a p value greater than the significance level (5%). We can then conclude that all the probit regression models fit the data used for their specification and estimation.

5. Conclusion and policy recommendations

The aim of our study is to evaluate the impact of monetary and non-monetary variables on access to education by children in Cameroon. To achieve this, we used the probit regression model which explains the access or not to primary and secondary school knowing the k characteristics observed for each child I of the sample. Generally speaking, it emerges, from the results, that the monetary variable positively influences the access to schooling in the primary stage in all the regions of Cameroon apart from those of the East, the Adamaoua and the Far North which, however, have the fewest schools in the country. These results show that access to schooling in these regions is determined by factors other than income. Relative to the sex of the children, the results show that an increase in income is more favourable to the schooling of the girls than to that of the boys in several regions. It also emerges, from the results, that the increase in monetary income favours more the schooling of children in rural areas than that of children in urban zones. However, an increase in the income reduces the chances of going to secondary school for the 12-19-year old children.

As far as the non-monetary variables are concerned, results show that the parents' level of education is an important determinant in the schooling at the primary and secondary stages of education. With respect to the sex of the parents, we observe that, mother's education is more favourable to the schooling of children than that of the father. The more educated the mother is, the more the children's probability of having access to primary education increases. Generally, children from households led by women have more chances of going to school than those from households led by men. The results also show that the children from households where the parents live together have more chances of going to school than those from single-parent households. The comparison in respect of residence shows that these results are only valid for the rural zones. In the urban areas, we have the reverse situation. In respect to the sex of the children, boys have more chances of going to school than the girls. As for the school and sanitary infrastructure, their distance with respect to residence of the households is a real handicap to the schooling of children. Access to electricity as a source of lighting, to the means of communication and information is very favourable on schooling, irrespective of the sex and residence.

In order to improve access to education in Cameroon, it is necessary to carry out a critical analysis of the national policy on education and to suggest some new orientations.

The options of the sector-based strategy of education are structured, among others, around the following points:

1. To get at the universality of primary level of education so that by the year 2015, all the children finish their primary education with a marked improvement of the educational services offered. The achievement of this objective will be done through reduction of the rate of repeating a year, recruitment of qualified teachers, amelioration of the educational inputs and the rate of supervision which should be pegged at 40 pupils for one teacher.
2. To extend the coverage of nursery education to the rural populations, in particular to the underprivileged populations. To that effect, we should encourage the communities to develop the preschool supply in the rural zones.

We observe that different strategies improve quality of education of children. Unfortunately, no interest is shown on children who cannot access primary and secondary school education. In respect to the regions, the Far-North, the North, the Adamaoua have the fewest schools. In respect to residence, the rural zones have low rates of schooling. The results also show that the households prefer to take boys to school to that of girls. The initial recommendations are, therefore, formulated towards these discriminations.

As to the regions with fewer schools, they are characterized by low population density. The East and the Adamaoua regions are, for example, the widest and the least populated. The houses are very scattered in the rural zones and the pupils have to cover long distances to get to school. This is one of the handicaps in schooling. To increase rate of access to education, the state should create boarding schools in order to increase the chances of going to school for children living far from the schools. Given that the incomes of the rural households are very low, these schools should be subsidized.

For the specific case of the northern regions which are characterized by marginalization of girls, the strategy should focus on permanent awareness campaigns conducted by women from the region and in the local language to increase the chances of convincing the populations. The more young girls go to school, the more they are liberated and we shall experience a fall in early marriages.

Given that the education of the mother is favourable to the schooling of the children, this policy would contribute in the medium- and long-run to the improvement of the percentages of children in full-time education in Cameroon. Taking into account the fact that young girls are future mothers, it is necessary to reduce the men-women discrimination in terms of income distribution. This will permit the women to have sufficient financial means for the schooling of their children.

As for infrastructure, the authorities should improve the accessibility of the populations to electricity, drinking water, and health care, mostly in the rural areas.

The implementation of these actions, and many others, should contribute to the improvement of the percentage of children in full-time education in Cameroon in general, and in the regions less provided with schools in particular.

Notes

1. The concept of ‘’capabilities’’ was developed in 1992 by A. Sen.

2. First, the choice and the welfare of individuals can have some objectives and considerations which are above the only personal welfare; then the non-independence of the utility functions deteriorates the markets behaviour to reveal the satisfaction or the relative welfare to the choices made; finally, the perceptions of individuals can be contingent or influenced by external factors.

3. These studies were carried out in the United States in the 1970s.

4. It is a question of indicators such as the percentage of adults in full-time education, the surface of the house, the anthropometric status of children, ownership of land etc.

References

Appleton, S. 2001. *Education, Incomes and Poverty in Uganda in the 1990s.* Research Paper No. 01/022. Centre for Research in Economic Development and International Trade, Nottingham, University of Nottingham.

Appleton, S. and L. Song. 1999. "Income and human development at the household level: Evidence from six countries". Mimeo. The World Bank, Washington, D.C.

Arum, R. 1996. "Do private schools force public schools to compete?" *American Sociological Review,* 61:29-46.

Awung, W.J. 1999. "Economic analysis of private return to private investment in education in Cameroon". Work in progress, AERC Biannual Research Workshop,Accra.

Banque Mondiale. 1995. Rapport sur la pauvreté au Cameroun

Barro, R.J. 1991. "Economic growth in a cross section of countries". *Quarterly Journal of Economics,* 106(2): 407-44.

Becker, G. 1964. *Human Capital: A Theoretical and Empirical Analysis.* Chicago: University of Chicago Press.

Bemmel, P. 1996. "Rates of return to education: Does the conventional pattern prevail in sub-Saharian Africa?" Word Development, 24(1) : 183-99.

Deleigne, M.C. and F. Miauton. 2001. "Education et pauvreté à Madagascar: une problématique à revisiter"; séminaire international sur: La pauvreté à Madagascar: Etats des lieux, réflexions sur les politiques de réduction et leur mise en œuvre; 5, 6 et 7 février 2001, Antananarivo.

Glick, P. and D.E. Sahn. 2000. "Schooling of girls and boys in a West African country: The effects of parental education, income, and household structure". *Economics of Education Review,* 19: 63-87.

Glewwe, P. 1991. "Investigating the determinants of household welfare in Côte d'Ivoire". Journal of Development Economics, 35: 307-37.

Glewwe, P. and J.V. Der Gaag. 1990. "Identifying the poor in developing countries: Do definitions matter?" *World Development,* 18(6): 803-14.

INS. 2002. "Évolution de la pauvreté au Cameroun entre 1996 et 2001". Deuxième Enquête Camerounaise Auprès des Ménages ECAM2

Lachaud, J.P. 2000. "Dépenses des ménages, développement humain et pauvreté au Burkina Faso: substitution ou complémentarité?" Bordeaux, Document de travail no 49, Université Montesquieux-Bordeaux IV, Centre D'Économie du Développement.

Marlow, L.M. 1999. "Spending, school structure, and public education quality: Evidence from California". *Economics of Education Review*, 19: 89-106.

Michalos, A.C. 2007. "Education, happiness and wellbeing". Paper written for the International conference on "Is Happiness Measurable and what do those Measures Mean for Public Policy?" Rome, 2–3 April.

MINEPAT. 2009. Document de Stratratégie, de Croissance et pour l'Emploi.

Mingat, A. and J.P. Tan. 1996. *Full Social Returns to Education: Estimates Based on Countries Economics Growth Performance.* Washington, D.C.: The World Bank

Nembot, L., Ngwen, N., Nguetse, P.J., Kamdem, C.B., and Makoudem, M. 2006. "Impact des échelles d'équivalence sur la répartition spatiale de la pauvreté au Cameroun: une approche dynamique. " PMMA Working Paper 2007-04, Réseau PEP.

Noumba, I. 2002. "Une évaluation de la performance de l'enseignement secondaire au Cameroun". Rapport final présenté au Consortium Pour la Recherche Économique en Afrique. Nairobi, May.

Omari, I.M. 1999."The relationship between education and income in poverty alleviation strategies". Basic Education Renewal Research Initiative for Poverty Alleviation, Arusha, Faculty of Education, University of Dar Es Salam.

Oxaal, Z. 1997. "Education and poverty: A gender analysis". Institute of Development Studies, University of Sussex, BRIDGE, Report No. 53.

UNDP. 1997. Rapport mondial sur le développement humain, 1997. Economica.

UNDP. 1998. "La pauvreté au Cameroun". Rapport sur le développement humain au Cameroun.

UNDP. 2000. Rapport mondial sur le développement humain, 2000. Bruxelles, De Boeck. Université.

Ruggeri-Laderchi, C. 1997. "Poverty and its many dimensions: The role of the income as an indicator". *Oxford Development Studies,* 25(3), 345-60.

Rwehera, M. 2004. "Education, développement et pauvreté en Afrique subsaharienne". Séminaire international sur. Curriculum, compétences et lutte contre la pauvreté en Afrique Subsaharienne. Geneva, 10-13 November.

Schultz, T. 1963. T*he Economic value of Education.* New York: Columbia University Press.

Sen, A. 1992. *Inequality re-examined.* Oxford: Clarendon Press.

Singh, I., L. Squire, and J. Strauss. 1986. "The basic model: Theory, empirical results, and policy conclusions". dans l'ouvrage publié sous la direction des mêmes auteurs intitulé *Agricultural household models: Extensions, applications and policy.* Washington, Banque Mondiale.

Siphambe, H.K. 2000. "Rates of return to education in Botswana". Economics of Sociological Review, 61: 29-46.

Thomas, S. D. 1998. "Competition and the Quality of public Schools". *Economics of Education Review,* 17(4), 419-27.

Wedgwood, R. 2005. "Post-basic education and training". Working Paper Series No. 1 on "Post-basic Education and Poverty in Tanzania". Centre of African Studies, University of Edinburgh, July.

Annexes

Annex 1: List of the used and codified qualitative variables in the regressions

Variables	Code	Wording
Accessibility to the education:		
Primary or secondary school	0	does not go to school
	1	goes to school
Distance with respect to school (primary school for or away from the domicile	0	school at less than 2 kms
secondary according to the model) away from the domicile	1	School at more than 2kms
Distance with respect to the hospital away from the domicile	0	hospital at less than 2 kms
away from the domicile	1	hospital at more than 2 kms
Distance with respect to the market away from the domicile	0	market at less than 2 km
away from the domicile	1	market at more than 2 kms
Distance with respect to an asphalted road 2 kms away from the domicile	0	asphalted road at less than
2 kms away from the domicile	1	asphalted road at more than
Distance with respect to the point of water supply less than 2 kms point of water away from the domicile	0	supplying point of water at
more than 2 kms away from the domicile point	1	supplying point of water at
Access to the electricity	0	no electricity
	1	electricity
Access to the communication means (telephone)	0	no means of communication
(telephone)	1	has means of communication
Access to the audio means of information	0	no audio means of information
	1	has audio means of information
Access to the video means of information	0	no audiovisual means of information
	1	has audiovisual means of information

continued next page

Annex 1 Continued

Variables	Code	Wording
Accessibility to the education:		
Sex of the head of the household	0	woman
	1	male
Type of the household	0	single parent or one-parent family
	1	couple
Level of education of the head of the household	1	not provided with schooling
	2	primary school
	3	secondary school 1st and 2nd stages
	4	higher
Zone	0	rural
	1	urban
	2	semi urban
Sex of the child	0	female
	1	male

"Logarithm of income" and "age of the child" are continuous variables

Annex 2: Tables stemming from regressions

Primary stage of education

National

Survey: Probit regression

Number Of strata	=	32	Number of obs	=	5998
Number Of PSUs	=	649	Population size	=	2119204
			Design df	=	617
			F(19, 599)	=	43.29
			Prob > F	=	0.0000

Schooling at the primary stage	Coef.	Linearized Std. Err.	t	P>t	Conf. [95%	Interval]
Age of the child	.3748258	.0193814	19.34	0.000	.3367644	.4128872
Log Income	.2904557	.0826985	3.51	0.000	.128051	.4528604
Household head: man	-.449780	.1071445	-4.20	0.000	-.6601923	-.239368
Type of household: couple	.0644501	.089596	0.72	0.472	-.1114999	.2404002
Education level of the household head: primary	.6368069	.0913642	6.97	0.000	.4573844	.8162294
Education level of the household head: secondary	.8247223	.0980704	8.41	0.000	.6321301	1.017315
Education level of the household head: higher	.9029876	.1733479	5.21	0.000	.5625641	1.243411
Household situated more than 2kms away from the PS	-.301990	.097565	-3.10	0.002	-.4935902	-.110390
Household situated more than 2kms away from the hospital	-.122927	.0837195	-1.47	0.143	-.2873373	.0414823
Household situated more than 2kms away from the foodstuffs market	-.053581	.0826418	-0.65	0.517	-.2158748	.1087117
Household situated more than 2kms away from the asphalted road	-.097204	.090835	-1.07	0.285	-.275588	.0811786

continued next page

...continued from previous page

Schooling at the primary stage	Coef.	Linearized Std. Err.	t	P>t	Conf. [95%	Interval]
Household situated more than 2kms away from a	.0682713					
.0896439	0.76					
0.447	-.107773					
.2443155						
source of water						
Household with electricity	.3116291					
.0924113	3.37					
0.001	.1301503					
.4931078						
Household's means of communication	.160602					
.0901788	1.78	0.075	-.0164926	.3376967		
Household's means of audio information	.1182312	.0708025	1.67	0.095	-.0208119	.2572744
Household's means of info : audio-V	.0472688	.0842842	0.56	0.575	-.1182499	.2127875
Urban milieu	.0006274	.0899514	0.01	0.994	-.1760205	.1772754
semi-urban milieu	.1078986	.1051583	1.03	0.305	-.098613	.3144103
Sex of the child: male	.1546203	.0515173	3.00	0.003	.0534499	.2557908
cons (constant)	-6.27123	.999181	-6.28	0.000	-8.233439	-4.30902

Marginal effects after svy:probit
y = Pr(Schooling at the primary stage) (predict)
= .76154112

Variable	dy/dx	Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	.1161139	.0053	21.89	0.000	.105719	.126509	8.22014
Log of Income	.0899776	.02561	3.51	0.000	.039775	.14018	12.2281
Household head: man*	-.1263351	.02696	-4.69	0.000	-.179182	-.073488	.774281
Type of household: couple*	.0200328	.02795	0.72	0.474	-.034752	.074817	.575653
Education level of the household head: primary*	.1816629	.02395	7.59	0.000	.134726	.228599	.342044
Education level of the household head: secondary 1st and 2nd stage*	.2162944	.02275	9.51	0.000	.171708	.260881	.2587
Education level of the household head: higher*	.1936383	.02296	8.44	0.000	.148646	.238631	.046086
Household situated more than 2kms away from the PS*	-.0994931	.03359	-2.96	0.003	-.165333	-.033654	.180644
Household situated more than 2kms away from the hospital	-.0379734	.02587	-1.47	0.142	-.088674	.012727	.528635
Household situated more than 2kms away from the foodstuffs market*	-.0165904	.02563	-0.65	0.517	-.066822	.033641	.511336
Household situated more than 2kms away from the asphalted road*	-.0300659	.02811	-1.07	0.285	-.085159	.025027	.519388
Household situated more than 2kms away from a source of water*	.0209838	.02737	0.77	0.443	-.03266	.074628	.341508
Household with electricity*	.0945014	.02776	3.40	0.001	.040093	.14891	.413806
Household's means of communication*	.0493742	.02732	1.81	0.071	-.004169	.102917	.438313
Household's means of audio information*	.0367037	.02193	1.67	0.094	-.006277	.079685	.528806
Household's means of info : audio-V*	.0145397	.02574	0.56	0.572	-.035918	.064997	.292237
Urban milieu*	.0001943	.02786	0.01	0.994	-.054412	.054801	.302119
Semi-urban milieu*	.0323572	.03059	1.06	0.290	-.0276	.092315	.092304
Sex of the child: male*	.0478401	.01606	2.98	0.003	.016368	.079312	.493396

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: boy

Survey: Probit regression

Number Of strata = 32	Number of obs	=	2968
Number Of PSUs = 601	Population size	=	1045606
	Design df	=	569
	F(18, 552)	=	23.18
	Prob > F	=	0.0000

Schooling at the primary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	.399108	.0271949	14.68	0.000	.3456933	.4525226
Log of Income	.1697796	.1112724	1.53	0.128	-.0487752	.3883344
Household head: man	-.314819	.1245454	-2.53	0.012	-.5594443	-.070194
Type of household: couple	-.053863	.1130003	-0.48	0.634	-.2758117	.1680855
Education level of the household head: primary	.4934883	.1195802	4.13	0.000	.2586159	.7283607
Education level of the household head: secondary	.8172346	.143367	5.70	0.000	.5356414	1.098828
Education level of the household head: higher	.9219568	.2210014	4.17	0.000	.4878787	1.356035
Household situated more than 2kms away from the PS	-.213988	.1207928	-1.77	0.077	-.4512424	.0232662
Household situated more than 2kms away from the hospital	-.177663	.10104	-1.76	0.079	-.3761206	.0207932
Household situated more than 2kms away from the foodstuffs market	.0366571	.0978264	0.37	0.708	-.1554879	.2288021
Household situated more than 2kms away from the asphalted road	-.143849	.1034373	-1.39	0.165	-.3470153	.0593156
Household situated more than 2kms away from a source of water	.1323905	.1052196	1.26	0.209	-.0742757	.3390567
Household with electricity	.4478663	.1018706	4.40	0.000	.247778	.6479547
Household's means of communication	.170776	.1122332	1.52	0.129	-.0496659	.3912179
Household's means of audio information	.1276521	.0853939	1.49	0.136	-.0400738	.2953779
Household's means of info : audio-V	-.025372	.1071353	-0.24	0.813	-.2358015	.1850566
Urban milieu	-.101013	.1158626	-0.87	0.384	-.3285839	.1265571
semi-urban milieu	.069528	.1248353	0.56	0.578	-.1756662	.3147221
Sex of the child: male	-4.88021	1.342409	-3.64	0.000	-7.516899	-2.24353

Marginal effects after svy:probit
y = Pr(Schooling at the primary stage of education) (predict)
= .78553736

Variable	dy/dx	Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	.116446	.0071	16.39	0.000	.102524	.130368	8.31785
Log of Income	.0495359	.03258	1.52	0.128	-.014316	.113387	12.2134
Household's head: man*	-.085235	.03109	-2.74	0.006	-.146178	-.024292	.780816
Type of household: couple*	-.015665	.03278	-0.48	0.633	-.079914	.048583	.573355
Education level of the household head: primary*	.1345938	.03072	4.38	0.000	.074379	.194808	.341525
Education level of the household's head: secondary 1st and 2nd stage*	.1986821	.02906	6.84	0.000	.141722	.255642	.251002
Education level of the household head: higher*	.1793127	.02527	7.10	0.000	.129791	.228835	.044247
Household situated more than 2kms away from the PS*	-.065612	.03873	-1.69	0.090	-.141517	.010292	.188147
Household situated more than 2kms away from the hospital	-.051514	.02933	-1.76	0.079	-.109006	.005978	.540742
Household situated more than 2kms away from the foodstuffs market*	.0106946	.02849	0.38	0.707	-.045151	.06654	.498528
Household situated more than 2kms away from the asphalted road*	-.041791	.02997	-1.39	0.163	-.100532	.016949	.534622
Household situated more than 2kms away from a source of water*	.0379789	.02963	1.28	0.200	-.020093	.096051	.342876
Household with electricity*	.1255815	.02778	4.52	0.000	.071127	.180036	.397914
Household's means of communication*	.0493526	.032	1.54	0.123	-.013374	.112079	.432937
Household's means of audio information*	.0373398	.02493	1.50	0.134	-.01152	.086199	.527936
Household's means of info : audio-V*	-.007434	.03155	-0.24	0.814	-.069276	.054406	.284135
Urban milieu*	-.029963	.03476	-0.86	0.389	-.098094	.038167	.287898
Semi-urban milieu*	.0198281	.03485	0.57	0.569	-.048472	.088128	.093443

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: girl

Survey: Probit regression

Number Of strata	=	32	Number of obs	=	3030
Number Of PSUs	=	613	Population size	=	1073598
			Design df	=	581
			F(18, 564)	=	24.60
			Prob > F	=	0.0000

Schooling at the primary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	.3570051	.0271314	13.16	0.000	.3037175	.4102927
Log of Income	.402485	.1044799	3.85	0.000	.1972808	.6076893
Household head: man	-.591895	.1409465	-4.20	0.000	-.8687221	-.315068
Type of household: couple	.1727699	.1083006	1.60	0.111	-.0399385	.3854783
Education level of the household head: primary	.7950122	.1027718	7.74	0.000	.5931628	.9968617
Education level of the household head: secondary	.867548	.1170101	7.41	0.000	.6377337	1.097362
Education level of the household head: higher	.9448616	.2308382	4.09	0.000	.4914826	1.398241
Household situated more than 2kms away from the PS	-.381080	.1242359	-3.07	0.002	-.6250869	-.137074
Household situated more than 2kms away from the hospital	-.061821	.107803	-0.57	0.567	-.2735522	.1499101
Household situated more than 2kms away from the foodstuffs market	-.172495	.1007991	-1.71	0.088	-.3704702	.02548
Household situated more than 2kms away from the asphalted road	-.042134	.1208423	-0.35	0.727	-.2794754	.1952067
Household situated more than 2kms away from a source of water	.0159099	.1115172	0.14	0.887	-.203116	.2349358
Household with electricity	.221417	.1335086	1.66	0.098	-.0408013	.4836352
Household's means of communication	.1418807	.1173509	1.21	0.227	-.0886031	.3723644
Household's means of audio information	.1037157	.0914834	1.13	0.257	-.0759627	.2833941
Household's means of info : audio-V	.1116096	.1309617	0.85	0.394	-.1456064	.3688257
Urban milieu	.0723267	.116986	0.62	0.537	-.1574403	.3020937
semi-urban milieu	.1400623	.1456002	0.96	0.336	-.1459046	.4260292
Sex of the child: male	-7.45558	1.28765	-5.79	0.000	-9.984596	-4.92656

Marginal effects after svy:probit
y = Pr(Schooling at the primary stage of education) (predict)
= .74025857

variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	.1157406	.00813	14.23	0.000	.099804	.131677	8.12498
Log of Income	.1304851	.03322	3.93	0.000	.06537	.1956	12.2425
Household head: man*	-.170200	.03527	-4.83	0.000	-.23933	-.10107	.767917
Type of household: couple*	.056452	.03584	1.58	0.115	-.01379	.126699	.577891
Education level of the household head: primary*	.2333757	.02732	8.54	0.000	.179823	.286929	.342549
Education level of the household head: secondary 1st and 2nd stage*	.2395884	.02874	8.34	0.000	.183255	.295922	.266198
Education level of the household head: higher*	.2132954	.03186	6.69	0.000	.150849	.275742	.047876
Household situated more than 2kms away from the PS*	-.132242	.04505	-2.94	0.003	-.22053	-.04395	.173336
Household situated more than 2kms away from the hospital	-.020027	.03489	-0.57	0.566	-.08841	.048362	.516843
Household situated more than 2kms away from the foodstuffs market*	-.0557344	.03266	-1.71	0.088	-.11973	.008269	.52381
Household situated more than 2kms away from the asphalted road*	-.013657	.03921	-0.35	0.728	-.09050	.063194	.504551
Household situated more than 2kms away from a source of water*	.0051495	.03604	0.14	0.886	-.06549	.075792	.340177
Household with electricity*	.0709721	.04246	1.67	0.095	-.01224	.154193	.429285
Household's means of communication*	.0457373	.03748	1.22	0.222	-.02773	.119206	.443548
Household's means of audio information*	.0336821	.02962	1.14	0.255	-.02437	.091737	.529654
Household's means of info : audio-V*	.0356483	.0413	0.86	0.388	-.04529	.116587	.300128
Urban milieu*	.0232431	.03735	0.62	0.534	-.04996	.096446	.315969
Semi-urban milieu*	.0436739	.04369	1.00	0.317	-.04195	.129303	.091193

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: urban

Survey: Probit regression

Number Of strata	=	12	Number of obs	=	3056
Number Of PSUs	=	400	Population size	=	640252
			Design df	=	388
			F(17, 372)	=	14.59
			Prob > F	=	0.0000

Schooling at the primary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	.4557619	.0393648	11.58	0.000	.3783669	.5331569
Log of Income	.1597517	.090475	1.77	0.078	-.0181309	.3376343
Household head: man	-.525698	.1366445	-3.85	0.000	-.7943552	-.257042
Type of household: couple	.2736015	.1199898	2.28	0.023	.03769	.509513
Education level of the household head: primary	.716483	.1111195	6.45	0.000	.4980114	.9349547
Education level of the household head: secondary	.8452405	.1220596	6.92	0.000	.6052594	1.085222
Education level of the household head: higher	1.087144	.1787719	6.08	0.000	.7356614	1.438627
Household situated more than 2kms away from the PS	.2355349	.2609764	0.90	0.367	-.27757	.7486399
Household situated more than 2kms away from the hospital	-.163769	.1029782	-1.59	0.113	-.3662349	.0386954
Household situated more than 2kms away from the foodstuffs market	.1049307	.0989343	1.06	0.290	-.0895838	.2994451
Household situated more than 2kms away from the asphalted road	.0058208	.1460893	0.04	0.968	-.281405	.2930467
Household situated more than 2kms away from a source of water	.1573326	.1244954	1.26	0.207	-.0874374	.4021027
Household with electricity	.4163403	.1238991	3.36	0.001	.1727427	.6599379
Household's means of communication	.1712003	.1327492	1.29	0.198	-.0897975	.432198
Household's means of audio information	.1655135	.094453	1.75	0.081	-.0201903	.3512173
Household's means of info : audio-V	.0802282	.1191589	0.67	0.501	-.1540498	.3145062
Sex of the child : male	-.110012	.0767321	-1.43	0.152	-.2608757	.04085
cons (constant)	-5.42705	1.11282	-4.88	0.000	-7.614967	-3.23914

Marginal effects after svy:probit
y = Pr(Schooling at the primary stage of education) (predict)
= .92800419

Variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	.0625299	.00446	14.03	0.000	.053798	.071262	8.13941
Log of Income	.0219177	.01236	1.77	0.076	-.002314	.04615	12.7377
Household head: man*	-.0593548	.01226	-4.84	0.000	-.083392	-.035318	.764044
Type of household: couple*	.0400465	.01805	2.22	0.027	.004665	.075428	.656274
Education level of the household head: primary*	.0808833	.0124	6.52	0.000	.05658	.105186	.292994
Education level of the household head: secondary 1st and 2nd stage*	.1163614	.01896	6.14	0.000	.079194	.153529	.475714
Education level of the household head: higher*	.0819385	.01043	7.86	0.000	.061503	.102374	.107636
Household situated more than 2kms away from the PS*	.0274389	.02521	1.09	0.276	-.021965	.076843	.032484
Household situated more than 2kms away from hospital	-.0239285	.01616	-1.48	0.139	-.055598	.007741	.237844
Household situated more than 2kms away from the foodstuffs market*	.0138864	.01285	1.08	0.280	-.011304	.039077	.263173
Household situated more than 2kms away from the asphalted road*	.0007959	.01991	0.04	0.968	-.038223	.039815	.105674
Household situated more than 2kms away from a source of water*	.0197424	.01444	1.37	0.171	-.008551	.048036	.113804
Household with electricity*	.0714965	.02534	2.82	0.005	.021823	.12117	.881628
Household's means of communication*	.0255085	.02148	1.19	0.235	-.016591	.067608	.83154
Household's means of audio information*	.0236085	.01366	1.73	0.084	-.00317	.050387	.657182
Household's means of info : audio-V*	.0112579	.01708	0.66	0.510	-.02222	.044736	.690637
Sex of the child : male*	-.0151747	.01035	-1.47	0.142	-.035452	.005103	.470171

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: rural

Survey: Probit regression

Number Of strata	= 10	Number of obs	= 2231
Number Of PSUs	= 187	Population size	= 1283342
		Design df	= 177
		F(17, 161)	= 22.94
		Prob > F	= 0.0000

Schooling at the primary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	.3543386	.0237016	14.95	0.000	.3075646	.4011126
Log of Income	.3635371	.1253093	2.90	0.004	.1162447	.6108296
Household head: man	-.462556	.1409202	-3.28	0.001	-.7406562	-.184456
Type of household: couple	.0394657	.1102461	0.36	0.721	-.1781003	.2570317
Education level of the household head: primary	.5975336	.1136252	5.26	0.000	.3732992	.8217679
Education level of the household head: secondary	.8465799	.1429182	5.92	0.000	.5645369	1.128623
Education level of the household head: higher	.7271886	.3522818	2.06	0.040	.0319755	1.422402
Household situated more than 2kms away from the PS	-.348780	.1072723	-3.25	0.001	-.5604779	-.137083
Household situated more than 2kms away from the hospital	-.081805	.1157998	-0.71	0.481	-.3103317	.1467203
Household situated more than 2kms away from the foodstuffs market	-.133164	.1102699	-1.21	0.229	-.3507771	.0844486
Household situated more than 2kms away from the asphalted road	-.175110	.1145586	-1.53	0.128	-.4011874	.0509657
Household situated more than 2kms away from a source of water	.1066734	.1044477	1.02	0.309	-.0994497	.3127965
Household with electricity	.2639123	.1455764	1.81	0.072	-.0233764	.551201
Household's means of communication	.1609284	.1204007	1.34	0.183	-.0766772	.398534
Household's means of audio information	.1169928	.0949588	1.23	0.220	-.0704043	.3043898
Household's means of info : audio-V	.1925983	.1541873	1.25	0.213	-.1116837	.4968803
Sex of the child : male	.2482317	.0669204	3.71	0.000	.116167	.3802963
cons (constant)	-6.91115	1.520775	-4.54	0.000	-9.91234	-3.90997

Marginal effects after svy:probit
y = Pr(Schooling at the primary stage of education) (predict)
= .61981124

Variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	.1349368	.00852	15.85	0.000	.118248	.151626	8.23944
Log of Income	.1384397	.04778	2.90	0.004	.044787	.232092	11.9578
Household head: man*	-.1664079	.04702	-3.54	0.000	-.258565	-.074251	.788971
Type of household: couple*	.0150355	.04202	0.36	0.720	-.067317	.097388	.540379
Education level of the household head: primary*	.2187451	.03945	5.54	0.000	.141426	.296065	.369496
Education level of the household head: secondary 1st and 2nd stage*	.274584	.03894	7.05	0.000	.198265	.350903	.135044
Education level of the household head: higher*	.2310167	.0847	2.73	0.006	.065005	.397029	.017194
Household situated more than 2kms away from the PS*	-.1349876	.04159	-3.25	0.001	-.216501	-.053474	.273318
Household situated more than 2kms away from the hospital	-.0309765	.04361	-0.71	0.478	-.116457	.054504	.711371
Household situated more than 2kms away from the foodstuffs market*	-.0502985	.04141	-1.21	0.224	-.131457	.03086	.677838
Household situated more than 2kms away from the asphalted road*	-.065626	.04233	-1.55	0.121	-.148593	.017341	.759328
Household situated more than 2kms away from a source of water*	.0405906	.03973	1.02	0.307	-.037281	.118463	.488958
Household with electricity*	.0970077	.05149	1.88	0.060	-.00391	.197926	.1452
Household’s means of communication*	.0603301	.04418	1.37	0.172	-.026264	.146924	.220395
Household’s means of audio information*	.0444771	.03597	1.24	0.216	-.026022	.114976	.467267
Household’s means of info : audio-V*	.0712594	.05531	1.29	0.198	-.037143	.179662	.085721
Sex of the child : male*	.094339	.02538	3.72	0.000	.0446	.144078	.504053

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Secondary stage of education

National

Survey: Probit regression

Number Of strata = 32	Number of obs	=	5758
Number Of PSUs = 653	Population size	=	1728459
	Design df	=	621
	F(19, 603)	=	28.16
	Prob > F	=	0.0000

Estimations

Schooling at the secondary stage	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	-.162573	.0128569	-12.64	0.000	-.187822	-.137325
Log of Income	.1644482	.0655227	2.51	0.012	.0357753	.2931212
Household head: man	-.741708	.0826211	-8.98	0.000	-.903958	-.579457
Type of household: couple	.3008426	.0787973	3.82	0.000	.1461012	.455584
Education level of the household head: primary	.4954371	.0862193	5.75	0.000	.3261204	.6647539
Education level of the household head: secondary	1.055615	.1102138	9.58	0.000	.839178	1.272052
Education level of the household head: higher	1.01767	.1652713	6.16	0.000	.6931116	1.342228
Household situated more than 2kms away from the PS	-.197986	.1174363	-1.69	0.092	-.428606	.0326345
Household situated more than 2kms away from the hospital	-.219381	.0804929	-2.73	0.007	-.377452	-.061310
Household situated more than 2kms away from the foodstuffs market	-.078491	.0897593	-0.87	0.382	-.2547597	.0977773
Household situated more than 2kms away from the asphalted road	.1018058	.1114588	0.91	0.361	-.117076	.3206876
Household situated more than 2kms away from a source of water	-.02646	.1134931	-0.23	0.816	-.2493367	.1964168
Household with electricity	.3078945	.1104709	2.79	0.005	.0909526	.5248363
Household’s means of communication	.3129422	.0767862	4.08	0.000	.1621502	.4637343
Household’s means of audio information	.0814387	.0654049	1.25	0.214	-.0470027	.2098802
Household’s means of info : audio-V	-.090862	.07331	-1.24	0.216	-.2348281	.0531031

continued next page

Estimations Continued from previous page

Schooling at the secondary stage	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Urban milieu	-.202075	.1253146	-1.61	0.107	-.448167	.0440165
semi-urban milieu	.1015531	.1414265	0.72	0.473	-.176179	.3792853
Sex of the child: male	.3785908	.0569736	6.65	0.000	.2667065	.4904751
cons (constant)	.4047517	.8103178	0.50	0.618	-1.186543	1.996047

Marginal effects after svy:probit
y = Pr(Schooling at the secondary stage of education) (predict)
= .65438078

variable dy/dx		Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	-.0599386	.00487	-12.31	0.000	-.069485	-.050392	15.976
Log of Income	.0606296	.0241	2.52	0.012	.013386	.107873	12.5062
Household's head: man*	-.2477827	.02436	-10.17	0.000	-.295524	-.200041	.732027
Type of household: couple*	.1102844	.02874	3.84	0.000	.053951	.166618	.478752
Education level of the household head: primary*	.1733136	.02843	6.10	0.000	.117595	.229032	.297627
Education level of the household head: secondary 1st and 2nd stage*	.3503839	.03172	11.05	0.000	.288221	.412547	.35413
Education level of the household head: higher*	.2833594	.02976	9.52	0.000	.225039	.341679	.073003
Household situated more than 2kms away from the PS*	-.0747716	.0453	-1.65	0.099	-.163561	.014018	.143966
Household situated more than 2kms away from the hospital	-.0810633	.0298	-2.72	0.007	-.139471	-.022656	.454275
Household situated more than 2kms away from the foodstuffs market*	-.0290015	.03332	-0.87	0.384	-.094305	.036302	.422686
Household situated more than 2kms away from the asphalted road*	.0373499	.04074	0.92	0.359	-.042493	.117192	.388697
Household situated more than 2kms away from a source of water*	-.0097799	.04204	-0.23	0.816	-.092185	.072626	.257211
Household with electricity*	.114129	.04122	2.77	0.006	.033333	.194925	.573887
Household's means of communication*	.1156759	.02806	4.12	0.000	.060682	.170669	.549794
Household's means of audio information*	.0300853	.02426	1.24	0.215	-.017461	.077632	.569473
Household's means of info : audio-V*	-.0336051	.02714	-1.24	0.216	-.086807	.019596	.403761
Urban milieu*	-.0748764	.04618	-1.62	0.105	-.165378	.015626	.417716
Semi-urban milieu*	.0368526	.05056	0.73	0.466	-.062243	.135948	.133039
Sex of the child: male*	.1382288	.02037	6.79	0.000	.098308	.17815	.468748

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: boy

Estimations

Survey: Probit regression

umber	Of	strata =	32	Number of obs =	2806
Number	Of	PSUs =	588	Population size =	810212
				Design df =	556
				F(18, 539) =	16.50
				Prob > F =	0.0000

Schooling at the secondary stage	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	-.144915	.019161	-7.56	0.000	-.1825528	-.107279
Log of Income	.1651932	.0910241	1.81	0.070	-.0135999	.343986
Household head: man	-.468832	.1125141	-4.17	0.000	-.6898366	-.247827
Type of household: couple	.1211545	.1055337	1.15	0.251	-.086139	.328448
Education level of the household head: primary	.4675903	.1128831	4.14	0.000	.2458608	.689319
Education level of the household head: secondary	1.231749	.1315658	9.36	0.000	.973322	1.49017
Education level of the household's head: higher	1.386459	.2277561	6.09	0.000	.939091	1.83382
Household situated more than 2kms away from the PS	-.293320	.148381	-1.98	0.049	-.5847766	-.001864
Household situated more than 2kms away from the hospital	-.203697	.1046196	-1.95	0.052	-.4091954	.001800
Household situated more than 2kms away from the foodstuffs market	-.134833	.1008302	-1.34	0.182	-.3328886	.063220
Household situated more than 2kms away from the asphalted road	-.007894	.128138	-0.06	0.951	-.259588	.243799
Household situated more than 2kms away from a source of water	-.035297	.1232004	-0.29	0.775	-.2772928	.206697
Household with electricity	.1939638	.1248839	1.55	0.121	-.0513381	.439265
Household's means of communication	.2079343	.0912616	2.28	0.023	.0286747	.387193
Household's means of audio information	.1533	.0854429	1.79	0.073	-.0145304	.321130
Household's means of info : audio-V	-.024557	.0960982	-0.26	0.798	-.2133173	.164202
Urban milieu	-.535484	.1442791	-3.71	0.000	-.8188835	-.252086
semi-urban milieu	-.135359	.1587095	-0.85	0.394	-.4471026	.176384
_cons (constant)	.5976569	1.129839	0.53	0.597	-1.621618	2.81693

Marginal effects after svy:probit
y = Pr(Schooling at the secondary stage of education) (predict)
= .73711632

variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	-.0472727	.00639	-7.40	0.000	-.05979	-.03474	15.9597
Log of Income	.0538873	.02975	1.81	0.070	-.00442	.112199	12.5162
Household head: man*	-.1404836	.031	-4.53	0.000	-.20124	-.07972	.749145
Type of household: couple*	.0393997	.03441	1.14	0.252	-.02804	.106843	.464657
Education level of the household head: primary*	.1420523	.03202	4.44	0.000	.079293	.204812	.290518
Education level of the household head: secondary 1st and 2nd stage*	.3516219	.03245	10.84	0.000	.288027	.415217	.375799
Education level of the household head: higher*	.2699213	.02193	12.31	0.000	.226945	.312897	.074131
Household situated more than 2kms away from the PS*	-.1015785	.05414	-1.88	0.061	-.20768	.004524	.133864
Household situated more than 2kms away from the hospital	-.0671525	.03477	-1.93	0.053	-.13530	.001002	.408714
Household situated more than 2kms away from the foodstuffs market*	-.0442902	.03345	-1.32	0.185	-.10985	.02127	.412634
Household situated more than 2kms away from the asphalted road*	-.0025767	.04185	-0.06	0.951	-.08459	.07944	.383222
Household situated more than 2kms away from a source of water*	-.0115835	.04062	-0.29	0.776	-.09119	.068026	.229299
Household with electricity*	.0640873	.04189	1.53	0.126	-.01802	.146195	.613915
Household's means of communication*	.0682404	.03006	2.27	0.023	.009315	.127166	.554587
Household's means of audio information*	.0504061	.02819	1.79	0.074	-.004854	.105666	.588729
Household's means of info : audio-V*	-.0080214	.03143	-0.26	0.799	-.06961	.053571	.414441
Urban milieu*	-.1775558	.04684	-3.79	0.000	-.26936	-.08575	.427017
Semi-urban milieu*	-.0454083	.05449	-0.83	0.405	-.15221	.061398	.155679

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: girl

Survey: Probit regression

Number Of strata	=	32	Number of obs	=	2952
Number Of PSUs	=	622	Population size	=	918247
			Design df	=	590
			F(18, 573)	=	20.28
			Prob > F	=	0.0000

Schooling at the secondary stage	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	-.177588	.01762	-10.8	0.000	-.2121938	-.14298
Log of Income	.1457053	.0746199	1.95	0.051	-.0008475	.2922582
Household head: man	-1.06146	.1139038	-9.32	0.000	-1.285173	-.837760
Type of household: couple	.5323967	.0996595	5.34	0.000	.3366661	.7281273
Education level of the household head: primary	.5431254	.1043028	5.21	0.000	.3382755	.7479753
Education level of the household head: secondary	.8585584	.1258333	6.82	0.000	.6114226	1.105694
Education level of the household head: higher	.7653737	.1889345	4.05	0.000	.3943076	1.13644
Household situated more than 2kms away from the PS	-.137607	.1267233	-1.09	0.278	-.3864912	.1112761
Household situated more than 2kms away from the hospital	-.208217	.0981916	-2.12	0.034	-.401065	-.015369
Household situated more than 2kms away from the foodstuffs market	-.061982	.1116565	-0.56	0.579	-.2812747	.1573104
Household situated more than 2kms away from the asphalted road	.201342	.1297616	1.55	0.121	-.0535088	.4561927
Household situated more than 2kms away from a source of water	.0112948	.1380961	0.08	0.935	-.259925	.2825147
Household with electricity	.399924	.1380914	2.90	0.004	.1287134	.6711346
Household's means of communication	.4468928	.1034876	4.32	0.000	.2436439	.6501416
Household's means of audio information	.0566947	.0811766	0.70	0.485	-.1027355	.2161248
Household's means of info : audio-V	-.106007	.1056206	-1.00	0.316	-.3134455	.1014306
Urban milieu	.0526452	.1642712	0.32	0.749	-.2699823	.3752726
Semi-urban milieu	.2620528	.194537	1.35	0.178	-.1200164	.644122
cons (constant)	.7651199	.932867	0.82	0.412	-1.067024	2.597264

Marginal effects after svy:probit
y = Pr(Schooling at the secondary stage of education) (predict)
= .57386907

variable	dy/dx	Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	-.0696294	.00698	-9.97	0.000	-.08331	-.055941	15.9904
Log of Income	.0571287	.02924	1.95	0.051	-.00018	.114442	12.4974
Household head: man*	-.3737152	.03321	-11.2	0.000	-.43880	-.308622	.716923
Type of household: couple*	.2062102	.03752	5.50	0.000	.132669	.279751	.491188
Education level of the household head: primary*	.205278	.03765	5.45	0.000	.13149	.279066	.3039
Education level of the household head: secondary 1st and 2nd stage*	.3159054	.0423	7.47	0.000	.232998	.398813	.335011
Education level of the household head: higher*	.2628456	.05237	5.02	0.000	.160203	.365488	.072008
Household situated more than 2kms away from the PS*	-.0543317	.05028	-1.08	0.280	-.15287	.044213	.15288
Household situated more than 2kms away from the hospital	-.0815138	.03837	-2.12	0.034	-.15672	-.006308	.494476
Household situated more than 2kms away from the foodstuffs market*	-.0243174	.04385	-0.55	0.579	-.110252	.061617	.431556
Household situated more than 2kms away from the asphalted road*	.0784834	.05034	1.56	0.119	-.02017	.177145	.393528
Household situated more than 2kms away from a source of water*	.0044265	.05409	0.08	0.935	-.10159	.110447	.281838
Household with electricity*	.1562247	.05354	2.92	0.004	.051287	.261163	.53857
Household's means of communication*	.1744359	.03954	4.41	0.000	.096944	.251928	.545566
Household's means of audio information*	.0222384	.03187	0.70	0.485	-.04022	.084704	.552482
Household's means of info : audio-V*	-.0416291	.04149	-1.00	0.316	-.12295	.039696	.394337
Urban milieu*	.0206205	.06433	0.32	0.749	-.10547	.146711	.40951
Semi-urban milieu*	.100045	.07186	1.39	0.164	-.04080	.240892	.113063

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: urban

Survey: Probit regression

Number Of strata	=	12	Number of obs	=	3565
Number Of PSUs	=	404	Population size	=	722005
			Design df	=	392
			F(17, 376)	=	17.12
			Prob > F	=	0.0000

Schooling at the secondary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	-.217117	.0179213	-12.12	0.000	-.2523511	-.1818832
Log of Income	.0791639	.0696348	1.14	0.256	-.0577405	.2160682
Household head: man	-.6192645	.1222126	-5.07	0.000	-.8595385	-.3789904
Type of household: couple	.3085515	.1072733	2.88	0.004	.0976484	.5194545
Education level of the household head: primary	.2919894	.1074117	2.72	0.007	.0808144	.5031643
Education level of the household head: secondary	.6982178	.1149172	6.08	0.000	.4722866	.924149
Education level of the household head: higher	.6861782	.1867137	3.68	0.000	.3190926	1.053264
Household situated more than 2kms away from the PS	-.1318946	.1437085	-0.92	0.359	-.4144305	.1506413
Household situated more than 2kms away from the hospital	-.073416	.0848899	-0.86	0.388	-.2403124	.0934804
Household situated more than 2kms away from the foodstuffs market	.0020832	.0774356	0.03	0.979	-.1501578	.1543243
Household situated more than 2kms away from the asphalted road	-.1204535	.1337907	-0.90	0.369	-.3834906	.1425835
Household situated more than 2kms away from a source of water	.3111209	.1134125	2.74	0.006	.0881481	.5340937
Household with electricity	.154075	.1491496	1.03	0.302	-.1391581	.4473082
Household's means of communication	.2931929	.1000996	2.93	0.004	.0963937	.4899921
Household's means of audio information	.2468492	.0833902	2.96	0.003	.0829013	.4107971
Household's means of info : audio-V	.0746824	.0841039	0.89	0.375	-.0906688	.2400335
Sex of the child : male	.1469341	.0716602	2.05	0.041	.0060477	.2878204
cons (constant)	2.332025	.9411189	2.48	0.014	.4817533	4.182297

Marginal effects after svy:probit
y = Pr(Schooling at the secondary stage of education) (predict)
= .78814388

Variable	dy/dx	Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	-.0628971	.0049	-12.84	0.000	-.072501	-.053293	15.9942
Log of Income	.0229331	.02022	1.13	0.257	-.016698	.062564	12.8915
Household head: man*	-.1602569	.02856	-5.61	0.000	-.216238	-.104276	.706514
Type of household: couple*	.0896919	.03162	2.84	0.005	.027718	.151666	.51992
Education level of the household head: primary*	.0800517	.02782	2.88	0.004	.025534	.134569	.277001
Education level of the household head: secondary 1st and 2nd stage*	.1987314	.03199	6.21	0.000	.136024	.261439	.481047
Education level of the household head: higher*	.1578485	.03188	4.95	0.000	.095357	.22034	.134143
Household situated more than 2kms away from the PS*	-.0400426	.04547	-0.88	0.379	-.129165	.04908	.034757
Household situated more than 2kms away from the hospital	-.0215865	.02531	-0.85	0.394	-.071192	.028018	.242368
Household situated more than 2kms away from the foodstuffs market*	.0006032	.02242	0.03	0.979	-.043332	.044538	.245072
Household situated more than 2kms away from the asphalted road*	-.0362765	.04189	-0.87	0.386	-.118375	.045822	.080938
Household situated more than 2kms away from a source of water*	.0810085	.02641	3.07	0.002	.029247	.13277	.104225
Household with electricity*	.0468849	.04742	0.99	0.323	-.046048	.139818	.919757
Household's means of communication*	.0918418	.03329	2.76	0.006	.026598	.157085	.865739
Household's means of audio information*	.0738891	.02587	2.86	0.004	.023191	.124587	.67599
Household's means of info : audio-V*	.0219323	.025	0.88	0.380	-.027071	.070936	.732561
Sex of the child : male*	.0424479	.0206	2.06	0.039	.002079	.082817	.479185

(*) dy/dx is for discrete change of dummy variable from 0 to 1

National: rural

Number Of strata	= 10	Number of obs	= 1368
Number Of PSUs	= 186	Population size	= 776501
		Design df	= 176
		F(17, 160)	= 14.59
		Prob > F	= 0.0000

Schooling at the secondary stage	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	-.1347091	.0207556	-6.49	0.000	-.175671	-.0937471
Log of Income	.1752669	.1259549	1.39	0.166	-.0733094	.4238431
Household head: man	-.9889113	.1352156	-7.31	0.000	-1.255764	-.7220587
Type of household: couple	.3108304	.1299139	2.39	0.018	.0544409	.5672199
Education level of the household head: primary	.5896502	.1274234	4.63	0.000	.3381758	.8411246
Education level of the household head: secondary	1.281025	.205888	6.22	0.000	.8746976	1.687352
Education level of the household head: higher	1.565895	.3654519	4.28	0.000	.8446636	2.287127
Household situated more than 2kms away from the PS	-.0887764	.1502181	-0.59	0.555	-.385237	.2076841
Household situated more than 2kms away from the hospital	-.3778409	.1540686	-2.45	0.015	-.6819006	-.0737811
Household situated more than 2kms away from the foodstuffs market	-.1205887	.1699497	-0.71	0.479	-.4559902	.2148128
Household situated more than 2kms away from the asphalted road	.0828575	.1628401	0.51	0.612	-.2385132	.4042281
Household situated more than 2kms away from a source of water	-.0963703	.1637101	-0.59	0.557	-.4194578	.2267173
Household with electricity	.4865968	.185334	2.63	0.009	.1208337	.8523599
Household's means of communication	.4521281	.1342009	3.37	0.001	.1872781	.7169782
Household's means of audio information	-.092625	.113722	-0.81	0.416	-.3170594	.1318093
Household's means of info : audio-V	-.0653101	.1988367	-0.33	0.743	-.4577211	.3271009
Sex of the child	.6218033	.0955128	6.51	0.000	.4333055	.8103011
_cons (constant)	-.0111562	1.546365	-0.01	0.994	-3.062961	3.040649

Marginal effects after svy:probit
y = Pr(Schooling at the secondary stage of education) (predict)
= .47179492

Variable	dy/dx	Std. Err.	Z	P>z	[95%	C.I.]	X
Age of the child	-.0536068	.00819	-6.54	0.000	-.06966	-.037553	15.9059
Log of Income	.0697465	.05016	1.39	0.164	-.028572	.168065	12.1375
Household head: man*	-.3725709	.04433	-8.40	0.000	-.459461	-.285681	.766682
Type of household: couple*	.1233035	.0512	2.41	0.016	.022944	.223663	.457425
Education level of the household head: primary*	.231771	.04854	4.77	0.000	.13663	.326912	.329087
Education level of the household head: secondary 1st and 2nd stage*	.457743	.05808	7.88	0.000	.343901	.571585	.197621
Education level of the household's head: higher*	.4702744	.05681	8.28	0.000	.358936	.581612	.02306
Household situated more than 2kms away from the PS*	-.0352586	.05951	-0.59	0.554	-.151897	.08138	.271039
Household situated more than 2kms away from the hospital	-.1498447	.0604	-2.48	0.013	-.268236	-.031454	.68407
Household situated more than 2kms away from the foodstuffs market*	-.0480095	.06758	-0.71	0.477	-.180469	.08445	.640993
Household situated more than 2kms away from the asphalted road*	.0329165	.06451	0.51	0.610	-.093522	.159355	.715409
Household situated more than 2kms away from a source of water*	-.038319	.06501	-0.59	0.556	-.165742	.089104	.440171
Household with electricity*	.1917206	.07095	2.70	0.007	.052655	.330786	.20402
Household's means of communication*	.1786848	.05174	3.45	0.001	.077283	.280087	.248052
Household's means of audio information*	-.0368406	.04521	-0.81	0.415	-.12546	.051779	.475798
Household's means of info : audio-V*	-.0259287	.07875	-0.33	0.742	-.180268	.128411	.102136
Sex of the child : male*	.2440139	.03633	6.72	0.000	.172799	.315229	.435421

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Influence of the parents' level of education on the schooling of the children

Primary stage of educations

Number	strata	32	Number of obs	=	4186
Number	PSUs	611	Population size	=	1514212
			Design df	=	579
			F(21, 559)	=	35.68
			Prob > F	=	0.0000

Estimations

Goes to school	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Age of the child	.3896615	.0215673	18.07	0.000	.3473019	.4320211
Log Income	.1480834	.093957	1.58	0.116	-.036454	.3326215
type of the household: couple	-.059818	.100857	-0.59	0.553	-.257909	.138272
Éducation of the father : primary	.4507615	.1054041	4.28	0.000	.2437405	.6577824
Éducation of the father : secondary	.5348049	.1169195	4.57	0.000	.3051668	.7644429
Éducation of the father : higher	.4394049	.1990179	2.21	0.028	.04852	.8302898
Éducation of the mother : primary	.5055017	.0907947	5.57	0.000	.3271746	.6838288
Éducation of the mother : secondary	.8133927	.1136375	7.16	0.000	.5902008	1.036585
Éducation of the mother : higher	1.168686	.2695508	4.34	0.000	.6392698	1.698103
Household situated more than 2kms away from the PS	-.320562	.108961	-2.94	0.003	-.534569	-.106555
Household situated more than 2kms away from the hospital	-.071802	.0929077	-0.77	0.440	-.254279	.1106747
Household situated more than 2kms away from the foodstuffs market	-.099304	.0929562	-1.07	0.286	-.281876	.083268
Household situated more than 2kms away from the asphalted road	-.163170	.0988362	-1.65	0.099	-.357291	.0309509
Household situated more than 2kms away from a source of water	.0372511	.0985935	0.38	0.706	-.156393	.2308955
Household with electricity	.1105736	.113364	0.98	0.330	-.112081	.3332285
Household’s means of communication	.159896	.1056419	1.51	0.131	-.047592	.3673839
Household’s means of audio information	.1337595	.0808808	1.65	0.099	-.025096	.292615

continued next page

Estimations Continued from previous page

Goes to school	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval]
Household's means of info : audio-V	.0973662	.1025976	0.95	0.343	-.104142	.2988751
Urban milieu	.073238	.105426	0.69	0.488	-.133826	.280303
semi-urban milieu	.1508625	.1339575	1.13	0.261	-.112239	.4139643
Sex of the child: male	.1716621	.0645083	2.66	0.008	.0449632	.2983609
_cons	-5.11627	1.137638	-4.50	0.000	-7.35067	-2.88187

Margina effects after svy:probit
y = Pr(goes to school) (predict)
= .73579248

Variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	.1274368	.00653	19.53	0.000	.114647	.140227	8.17891
Log Income	.0484299	.03071	1.58	0.115	-.011766	.108626	12.1971
type of the household: couple	-.0193558	.03231	-0.60	0.549	-.082687	.043975	.776817
Éducation of the father : primary	.1397269	.03081	4.54	0.000	.079348	.200106	.336048
Éducation of the father : secondary	.159697	.03237	4.93	0.000	.096246	.223148	.268257
Éducation of the father : higher	.1240914	.04727	2.63	0.009	.031454	.216729	.050006
Éducation of the mother : primary	.1562589	.02667	5.86	0.000	.103995	.208523	.348969
Éducation of the mother : secondary	.221709	.0248	8.94	0.000	.173109	.270309	.21217
Éducation of the mother : higher	.2330601	.02492	9.35	0.000	.184221	.2819	.016706
Household situated more than 2kms away from the PS	-.1107555	.03904	-2.84	0.005	-.187281	-.03423	.188419
Household situated more than 2kms away from the hospital	-.0234224	.03031	-0.77	0.440	-.08282	.035975	.553699
Household situated more than 2kms away from the foodstuffs market	-.0323994	.03023	-1.07	0.284	-.091649	.02685	.534171
Household situated more than 2kms away from the asphalted road	-.0531666	.03219	-1.65	0.099	-.116253	.00992	.529493
Household situated more than 2kms away from a source of water	.0121377	.03201	0.38	0.705	-.050599	.074874	.344234
Household with electricity	.0359033	.03664	0.98	0.327	-.035912	.107719	.401917
Household's means of communication	.0519653	.03399	1.53	0.126	-.01466	.11859	.444251
Household's means of audio information	.0439961	.02678	1.64	0.100	-.008495	.096488	.573784
Household's means of info : audio-V	.0314446	.03269	0.96	0.336	-.032633	.095522	.30156
Urban milieu	.0237243	.0339	0.70	0.484	-.042722	.090171	.298108
semi-urban milieu	.047306	.04027	1.17	0.240	-.031628	.12624	.083549
Sex of the child: male	.0560812	.02098	2.67	0.008	.014967	.097196	.496941

Secondary stage of education

Strata	=	32	Number of obs	=	3273
PSUs	=	594	Population size	=	1025015
			Design df	=	562
			F(21, 542)	=	22.54
			Prob > F	=	0.0000

Estimations

Goes to school	Coef.	Linearized Std. Err.	t	P>t	[95% Conf.	Interval
Age of the child	-.1782511	.0171551	-10.39	0.000	-.211947	-.1445551
Log Income	.0941846	.0804953	1.17	0.242	-.0639239	.2522931
type of the household: couple	.3886438	.1048254	3.71	0.000	.1827464	.5945413
Éducation of the father : primary	.335925	.1268514	2.65	0.008	.0867643	.5850857
Éducation of the father : secondary	.4837276	.1396278	3.46	0.001	.2094714	.7579838
Éducation of the father : higher	.6635384	.1801936	3.68	0.000	.3096032	1.017474
Éducation of the mother : primary	.2756503	.111939	2.46	0.014	.0557804	.4955202
Éducation of the mother : secondary	.4949295	.1282259	3.86	0.000	.2430689	.7467901
Éducation of the mother : higher	.2858243	.2831379	1.01	0.313	-.2703135	.8419621
Household situated more than 2kms away from the PS	-.3068353	.1537247	-2.00	0.046	-.6087805	-.004890
Household situated more than 2kms away from the hospital	-.2938695	.0939695	-3.13	0.002	-.4784438	-.109295
Household situated more than 2kms away from the foodstuffs market	-.1503614	.1057444	-1.42	0.156	-.358064	.0573412
Household situated more than 2kms away from the asphalted road	-.0242076	.1279942	-0.19	0.850	-.2756131	.2271979
Household situated more than 2kms away from a source of water	.0267291	.1248396	0.21	0.831	-.2184801	.2719383
Household with electricity	.2489981	.1371428	1.82	0.070	-.020377	.5183732
Household’s means of communication	.4970044	.0994611	5.00	0.000	.3016436	.6923653
Household’s means of audio information	.0598819	.0854824	0.70	0.484	-.1080223	.227786
Household’s means of info : audio-V	.0303161	.1097934	0.28	0.783	-.1853394	.2459717
Urban milieu	-.2036099	.1509985	-1.35	0.178	-.5002002	.0929804
semi-urban milieu	.168353	.1757697	0.96	0.339	-.1768928	.5135989
Sex of the child: male	.4672822	.0705591	6.62	0.000	.3286904	.605874
cons	.7011351	1.04119	0.67	0.501	-1.343965	2.746235

Marginal effects after svy:probit
y = Pr(goes to school) (predict)
= .58838546

Variable	dy/dx	Std. Err.	z	P>z	[95%	C.I.]	X
Age of the child	-.069359	.0068	-10.19	0.000	-.082694	-.05602	15.9376
Log Income	.036648	.03131	1.17	0.242	-.024711	.098008	12.4482
type of the household: couple	.152993	.04121	3.71	0.000	.072227	.233761	.767342
Éducation of the father : primary	.127911	.04714	2.71	0.007	.035509	.220314	.299027
Éducation of the father : secondary	.182531	.05078	3.59	0.000	.083013	.282049	.328968
Éducation of the father : higher	.230591	.05357	4.30	0.000	.125596	.335586	.08531
Éducation of the mother : primary	.105799	.0424	2.50	0.013	.022698	.188901	.340886
Éducation of the mother : secondary	.1849748	.04551	4.06	0.000	.095771	.274178	.27379
Éducation of the mother : higher	.1066281	.09975	1.07	0.285	-.088886	.302142	.028615
Household situated more than 2kms away from the PS	-.12107	.0609	-1.99	0.047	-.240427	-.00171	.161132
Household situated more than 2kms away from the hospital	-.113956	.03624	-3.14	0.002	-.184983	-.04293	.500194
Household situated more than 2kms away from the foodstuffs market	-.058554	.04127	-1.42	0.156	-.139438	.022329	.448472
Household situated more than 2kms away from the asphalted road	-.00942	.04983	-0.19	0.850	-.107093	.088246	.413721
Household situated more than 2kms away from a source of water	.010386	.04844	0.21	0.830	-.084563	.105336	.282436
Household with electricity	.09685	.05329	1.82	0.069	-.007599	.2013	.538059
Household’s means of communication	.192877	.03787	5.09	0.000	.118657	.267098	.570745
Household’s means of audio information	.023335	.03338	0.70	0.484	-.042081	.088752	.623374
Household’s means of info : audio-V	.0117904	.04267	0.28	0.782	-.071848	.095429	.431276
Urban milieu	-.079435	.05871	-1.35	0.176	-.194501	.035631	.401457
semi-urban milieu	.064345	.06587	0.98	0.329	-.064758	.193449	.1099
Sex of the child: male	.178848	.02627	6.81	0.000	.127355	.230342	.428418

Other recent publications in the AERC Research Papers Series:

Poverty, Inequality and Welfare Effects of Trade Liberalization in Côte d'Ivoire: A Computable General Equilibrium Model Analysis, by Bédia F. Aka, Research Paper 160.

The Distribution of Expenditure Tax Burden before and after Tax Reform: The Case of Cameroon, by Tabi Atemnkeng Johennes, Atabongawung Joseph Nju and Afeani Azia Theresia, Research Paper 161.

Macroeconomic and Distributional Consequences of Energy Supply Shocks in Nigeria, by Adeola F. Adenikinju and Niyi Falobi, Research Paper 162.

Analysis of Factors Affecting the Technical Efficiency of Arabica Coffee Producers in Cameroon, by Amadou Nchare, Research Paper 163.

Fiscal Policy and Poverty Alleviation: Some Policy Options for Nigeria, by Benneth O. Obi, Research Paper 164.

FDI and Economic Growth: Evidence from Nigeria, by Adeolu B. Ayanwale, Research Paper 165.

An Econometric Analysis of Capital Flight from Nigeria: A Portfolio Approach, by Akanni Lawanson, Research Paper 166.

Extent and Determinnants of Child Labour in Uganda, by Tom Mwebaze, Research Paper 167.

Oil Wealth and Economic Growth in Oil Exporting African Countries, by Olomola Philip Akanni, Research Paper 168.

Implications of Rainfall Shocks for Household Income and Consumption in Uganda, by John Bosco Asiimwe, Research Paper 169.

Relative Price Variability and Inflation: Evidence from the Agricultural Sector in Nigeria, by Obasi O. Ukoha, Research Paper 170.

A Modelling of Ghana's Inflation: 1960–20031, by Mathew Kofi Ocran, Research Paper 171.

The Determinants of School and Attainment in Ghana: A Gender Perspective, by Harry A. Sackey, Research Paper 172.

Private Returns to Education in Ghana: Implications for Investments in Schooling and Migration, by Harry A. Sackey, Research Paper 173.

Oil Wealth and Economic Growth in Oil Exporting African Countries, by Olomola Philip Akanni, Research Paper 174.

Private Investment Behaviour and Trade Policy Practice in Nigeria, by Dipo T. Busari and Phillip C. Omoke, Research Paper 175.

Determinants of the Capital Structure of Ghanaian Firms, by Jochua Abor, Research Paper 176.

Privatization and Enterprise Performance in Nigeria: Case Study of some Privatized Enterprises, by Afeikhena Jerome, Research Paper 177.

Sources of Technical Efficiency among Smallholder Maize Farmers in Southern Malawi, by Ephraim W. Chirwa, Research Paper 178.

Technical Efficiency of Farmers Growing Rice in Northern Ghana, by Seidu Al-hassan, Research Paper 179.

Empirical Analysis of Tariff Line-Level Trade, Tariff Revenue and Welfare Effects of Reciprocity under an Economic Partnership Agreement with the EU: Evidence from Malawi and Tanzania, by Evious K. Zgovu and Josaphat P. Kweka, Research Paper 180.

Effect of Import Liberalization on Tariff Revenue in Ghana, by William Gabriel Brafu-Insaidoo and Camara Kwasi Obeng, Research Paper 181.

Distribution Impact of Public Spending in Cameroon: The Case of Health Care, by Bernadette Dia Kamgnia, Research Paper 182.

Social Welfare and Demand for Health Care in the Urban Areas of Côte d'Ivoire, by Arsène Kouadio, Vincent Monsan and Mamadou Gbongue, Research Paper 183.

Modelling the Inflation Process in Nigeria, by Olusanya E. Olubusoye and Rasheed Oyaromade, Research Paper 184.

Determinants of Expected Poverty Among Rural Households in Nigeria, by O.A. Oni and S.A. Yusuf, Research Paper 185.

Exchange Rate Volatility and Non-Traditional Exports Performance: Zambia, 1965–1999, by Anthony Musonda, Research Paper 186.

Macroeconomic Fluctuations in the West African Monetary Union: A Dynamic Structural Factor Model Approach, by Romain Houssa, Research Paper 187.

Price Reactions to Dividend Announcements on the Nigerian Stock Market, by Olatundun Janet Adelegan, Research Paper 188.

Intrahousehold Resources Allocation in Kenya by Miriam Omolo, Research Paper 220.

Volatility of Resources Inflows and Domestic Investment in Cameroon by Sunday A. Khan, Research Paper 221.

Efficiency Wage, Rent-Sharing Theories and Wage Determination in Manufacturing Sector in Nigeria by Ben E. Aigbokhan, Research Paper 222.

Government Wage Review Policy and Public-Private Sector Wage Differential in Nigeria by Alarudeen Aminu, Research Paper 223.

Rural Non-Farm Incomes and Poverty Reduction in Nigeria by Awoyemi Taiwo Timothy, Research Paper 224.

After Fifteen Year Use of the Human Development Index (HDI) of the United Nations Development Program (UNDP): What Shall We Know? by Jean Claude Saha, Research Paper 225.

Uncertainty and Investment Behavior in the Democratic Republic of Congo by Xavier Bitemo Ndiwulu and Jean-Papy Manika Manzongani, Research Paper 226.

An Analysis of Stock Market Anomalies and Momentum Strategies on the Stock Exchange of Mauritius by Sunil K. Bundoo, Research Paper 227.

The Effect of Price Stability On Real Sector Performance in Ghana by Peter Quartey, Research Paper 228.

The Impact of Property Land Rights on the Production of Paddy Rice in the Tillabéry, Niamey and Dosso Regions in Niger by Maman Nafiou Malam Maman and Boubacar Soumana, Research Paper 229.

An Econometric Analysis of the Monetary Policy Reaction Function in Nigeria by Chukwuma Agu, Research Paper 230.

Investment in Technology and Export Potential of Firms in Southwest Nigeria by John Olatunji Adeoti, Research Paper 231.

Analysis of Technical Efficiency Differentials among Maize Farmers in Nigeria by Luke Oyesola Olarinde, Research Paper 232.

Import Demand in Ghana: Structure, Behaviour and Stability by Simon Kwadzogah Harvey and Kordzo Sedegah, Research Paper 233.

Trade Liberalization Financing and Its Impact on Poverty and Income Distribution in Ghana by Vijay K. Bhasin, Research Paper 234.

An Empirical Evaluation of Trade Potential in Southern African Development Community by Kisukyabo Simwaka, Research Paper 235.

Government Capital Spending and Financing and Its Impact on Private Investment in Kenya: 1964-2006 by Samuel O. Oyieke, Research Paper 236.

Determinants of Venture Capital in Africa: Cross Section Evidence by Jonathan Adongo, Research Paper 237.

Social Capital and Household Welfare in Cameroon: A Multidimensional Analysis by Tabi Atemnkeng Johannes, Research Paper 238.

Analysis of the Determinants of Foreign Direct Investment Flows to the West African and Economic Union Countries, by Yélé Maweki Batana, Research Paper 239.

Urban Youth Labour Supply and the Employment Policy in Côte d'Ivoire by Clément Kouadio Kouakou, Research Paper 240.

Managerial Characteristics, Corporate Governance and Corporate Performance: The Case of Nigerian Quoted Companies by Adenikinju Olayinka, Research Paper 241.

Effects of Deforestation on Household Time Allocation among Rural Agricultural Activities: Evidence from Western Uganda by Paul Okiira Okwi and Tony Muhumuza, Research Paper 242.

The Determinants of Inflation in Sudan by Kabbashi M. Suliman, Research Paper 243.

Monetary Policy Rules: Lessons Learned From ECOWAS Countries by Alain Siri, Research Paper 244.

Zimbabwe's Experience with Trade Liberalization by Makochekanwa Albert, Hurungo T. James and Kambarami Prosper, Research Paper 245.

Determinants in the Composition of Investment in Equipment and Structures in Uganda, by Charles Augustine Abuka, Research Paper 246.

Corruption at household level in Cameroon: Assessing Major Determinants by Joseph-Pierre Timnou and Dorine K. Feunou, Research Paper 247.

Growth, Income Distribution and Poverty: The Experience of Côte d'Ivoire From 1985 to 2002 by Kouadio Koffi Eric, Mamadou Gbongue and Ouattara Yaya, Research Paper 248.

Does Bank Lending Channel Exist In Kenya? Bank Level Panel Data Analysis by Moses Muse Sichei and Githinji Njenga, Research Paper 249.

Governance and Economic Growth in Cameroon by Fondo Sikod and John Nde Teke, Research Paper 250.

Analyzing Multidimensional Poverty in Guinea: A Fuzzy Set Approach, by Fatoumata Lamarana Diallo, Research Paper 251.

The Effects of Monetary Policy on Prices in Malawi, by Ronald Mangani, Research Paper 252.

Total Factor Productivity of Agricultural Commodities in the Economic Community of West African States: 1961-2005 by Joshua Olusegun Ajetomobi, Research Paper 253.

Public Spending and Poverty Reduction in Nigeria: A Benefit Incidence Analysis in Education and Health by Uzochukwu Amakom, Research Paper 254.

Supply Response of Rice Producers in Cameroon: Some Implications of Agricultural Trade on Rice Sub-sector Dynamics by Ernest L. Molua and Regina L. Ekonde, Research Paper 255.

Effects of Trade Liberalization and Exchange Rate Changes on Prices of Carbohydrate Staples in Nigeria by A. I. Achike, M. Mkpado and C. J. Arene, Research Paper 256.

Underpricing of Initial Public Offerings on African Stock Markets: Ghana and Nigeria by Kofi A. Osei, Charles K.D. Adjasi and Eme U. Fiawoyife, Research Paper 257.

Trade Policies and Poverty in Uganda: A Computable General Equilibrium Micro Simulation Analysis by Milton Ayoki, Research Paper 258.

Interest Rate Pass-through and Monetary Policy Regimes in South Africa by Meshach Jesse Aziakpono and Magdalene Kasyoka Wilson, Research Paper 259.

Vertical Integration and Farm Gate Prices in the Coffee Industry in Côte d'Ivoire by Malan B. Benoit, Research Paper 260.

Patterns and Trends of Spatial Income Inequality and Income Polarization in Cameroon by Aloysius Mom Njong and Rosy Pascale Meyet Tchouapi, Research Paper 261.

Private Sector Participation in The Provision of Quality Drinking Water in Urban Areas in Ghana: Are the people willing to pay? By Francis Mensah Asenso-Boadi and Godwin K. Vondolia, Research Paper 262.

Private Sector Incentives and Bank Risk Taking: A Test of Market Discipline Hypothesis in Deposit Money Banks in Nigeria by Ezema Charles Chibundu, Research Paper 263.

A Comparative Analysis of the Determinants of Seeking Prenatal Health Care in Urban and Rural Areas of Togo by Ablamba Johnson, Alima Issifou and Etsri Homevoh, Research Paper 264.

Predicting the Risk of Bank Deterioration: A Case Study of the Economic and Monetary Community of Central Africa by Barthélemy Kouezo, Mesmin Koulet-Vickot and Benjamin Yamb, Research Paper 265.

Analysis of Labour Market Participation in Senegal by Abou Kane, Research Paper 266.

What Influences Banks' Lending in Sub-Saharan Africa? by Mohammed Amidu, Research Paper 267.

Central Bank Intervention and Exchange Rate Volatility in Zambia by Jonathan Mpundu Chipili, Research Paper 268.

Capital Flight from the Franc Zone: Exploring the Impact on Economic Growth by Ameth Saloum Ndiaye, Research Paper 269.

Dropping Out of School in the Course of the Year in Benin: A Micro-econometric Analysis by Barthélemy Mahugnon Senou, Research Paper 270.

Determinants of Private Investment Behaviour in Ugandan Manufacturing Firms by Niringiye Aggrey, Research Paper 271.