

**HOUSEHOLDS AND SCHOOLING IN BURKINA FASO:  
SOME INSIGHTS FROM THE 1996 CENSUS**

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**INTRODUCTION**

Education for all remains a distant goal for several African countries where the major problem remains access to schooling. For sub-Saharan Africa, the proportions attending school was 83.3 percent for boys and 67.1 percent for girls in 1999; they were 47.1 and 33.6 percent respectively in Burkina Faso. If a growth in the supply of schools is obviously a necessary condition for schooling to increase, experience shows that it is not a sufficient condition. There are many examples of schools, predominantly in the rural areas, where students are lacking. In order to understand the relationship between family and schooling, it is necessary to look at the demand side.

In Africa, however, the available information on the educational system remains centered on supply (analysis of education policies, of the organization of the school system, etc.) Beyond a general awareness of the lag of rural and female education, little is known about the schooling practices of families: What children are sent to school?

What is the impact of factors such as the family status of the child, the characteristics of the head of household, the structure of the household, the housing conditions, the labor needs for domestic and productive uses, and so on?

On the one hand, the administrative statistics on schooling are intrinsically unsuited for a study of educational demand. On the other hand, censuses and surveys, which are mostly not focused on the study of schooling but collect relevant data, have a great potential for analysis but are largely neglected by researchers as well as by policy makers in the area of education (ministries, technical and financial partners). The secondary analysis of census data constitutes a research area that may yield a wealth of insights.

The present study, which is part of the activities of the FASAF network (Family and Schooling in Africa),<sup>1</sup> illustrates this approach through the analysis of the 1966 population census of Burkina Faso. In a first section, we describe the present status of secondary analyses of census data on schooling, and provide a critical assessment of the relevant census data. A second section will successively examine the differences in schooling at the primary school level by relationship of the children in their household of residence (a variable that indicates their family status), by sex and level of education of the head of household, and by language spoken in the household. Because the major

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<sup>1</sup> The goal of the FASAF network is to promote the secondary analysis of existing census and survey data. In doing so, it aims at innovating in the scientific study of the demand for education, at improving the collection of data on education, at strengthening national research capabilities, and at reinforcing the collaboration between research institutions and national services in the areas of statistics and education. The network involves researchers, statisticians and planners in the education field originating in nine African countries (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Mali, Morocco, Niger, Democratic Republic of the Congo, and Togo), as well as researchers from industrialized countries (France, Canada, the U.S.). It collaborates with the UNESCO Institute of Statistics. It published a "Guide for the compiling and analysis of schooling data from censuses and Surveys" (CEPED/UNFPA/UNESCO, CEPED Documents and Textbooks nr. 9, Paris, 1999), and a survey of the demand for education in Africa (Pilon and Yaro, 2001)

interest of censuses resides in their exhaustive coverage, the analyses presented here will emphasize the spatial dimension of schooling. Schooling will also be examined at the household level, particularly as a function of the following indicator: the proportion of households involved in schooling, having all their children in school, or having none

## **THE SECONDARY ANALYSIS OF CENSUS DATA ON SCHOOLING: STATE OF THE QUESTION**

### **Inadequate school statistics**

Almost exclusively on the basis of school statistics, education specialists study the evolution of the numbers enrolled (by grade and by sex), and evaluate the productivity of the educational system (drop-outs, repetition of grades, success rates in exams...) Except for the age and sex of the students, these statistics provide no information on the individual and family characteristics of the enrolled, such as place of birth, family status, whether they are living with their parents; marital status, age, ethnic group, religion, education level, economic activity, etc. of the head of household, of the father and of the mother; size and composition of the household where the children are living.

As a result, they do not allow an examination of the factors influencing family behavior in the area of education. All these items of information are collected in the censuses and in most demographic and socio-economic surveys (those that use the household as sampling unit), or can be derived from them.

### **Underused census data...**

In the published volumes that provide the results extracted from censuses, the chapter devoted to schooling does not go beyond the tabulation of classical but very limited indices: the proportions enrolled, by age and sex, according to area of residence (urban or rural), and sometimes by ethnic group and administrative unit (region, district, etc.) The analysis of the determinants of schooling does not usually go beyond these factors. Beyond the general conclusion that schooling is lower among girls and in the rural area, little is known about the schooling behavior of families: Who among the children does benefit from schooling, and who does not? What is the effect of the family status of the children, of the characteristics of household heads, of the structure of the households, of housing characteristics, of the labor needs for domestic or productive roles, etc.?

It is generally observed that data from surveys, and even more from censuses, are under- exploited. In Africa, the census is primarily an institutional and political operation, and its potential for scientific analysis and for planning is usually underestimated or even ignored. There exists a ready skepticism with regard to the quality of the collected data. For demographers, schooling is not by itself a subject of study. Information on education (literacy, school attendance, level of schooling) is primarily collected so the variables can be used as explanatory factors of the differences in individual behavior in the area of fertility, health, migration, etc.

### **...but a rich analytical potential**

Several studies using census data have yielded very interesting results and show a vast potential for analysis. They have shed light on differences of schooling by family status of the children (relationship between fosterage and schooling), the sex of the household head, the demographic and economic structure of households, housing conditions, etc. A consideration of gender issues appears essential to the understanding of behavior.

A study of school attendance among children aged 6-14 based on a national sample drawn from the 1981 census of Togo highlighted the importance of considering together the family status, sex and place of birth of children, as well as the sex of the household head (Pilon, 1995). On the basis of a ten percent sample of the 1987 census of Cameroon, Jean Wakam (1999) investigated the effect of demographic structure (number of school-age children, number of adults, etc.) on the level of schooling among children aged 15-24 years.

Because these analyses are based on samples, they do not demonstrate the advantages inherent in the exhaustive nature of the census, such as its use for spatial analysis or for the study of small population groups.

## **CRITICAL ASSESSMENT OF THE 1996 CENSUS OF BURKINA FASO**

### **Definitions, census questions, and instructions to the interviewers**

According to the interviewer's manual (BCR, 1996:10):

“The **regular household** is generally considered to be the basic socioeconomic unit comprising various related and non-related members of the household. They

live together in the same compound, pool their resources, and satisfy in common their requirements for food and other vital commodities. In general they recognize the authority of one of the members of the household as household head, independently of his or her sex.”

(...)

NOTE. In compounds or houses that are inhabited by parents and their married children, you must consider that the parents are living in a different households than the one formed by their married children (...)

If the wives of a polygamous husband do not live in the same compound, each wife constitutes a distinct household.”

The “collective households” include, among others, “pupils housed in a public or private boarding schools at the reference date of the census” as well as “students housed on university campuses.” (BCR, 1996:11). All the others students, be they in institutions of primary, secondary, or higher learning, were thus enumerated in their “regular household” through questions concerning members aged six years or more. Since there are no boarding schools at the primary, and very few at the secondary level, the number of pupils enumerated in “collective households” is very small, and they are not included in subsequent analyses.

The above quoted NOTE in the interviewers’ instructions introduces a restrictive definition of the household that would include only one family nucleus. Yet it is not infrequent that a father and a son or two brothers live in the same compound and work together. This is quite common in the rural areas. The definition tends to simplify the family structure of households, and therefore to result in smaller sizes. With respect to

schooling, it leads to a smaller number of school age children. At the same time, we know for sure that the children who are not the children of the household head do not reside with their parents, and therefore they are probably fostered.

The questions concerning education distinguish the following aspects: ability to read and write (literacy), level of education (last completed grade), last diploma obtained, and finally, occupational status. Information concerning school attendance at the time of the census is collected through the category “pupil or student” under the question concerning occupation: “Has [name] worked at least three of the seven last days (OCC) or has he/she worked and lost his/her job (CHO)?” The interviewer’s manual provides the following details concerning students:

They consist of persons of either sex who are not economically active and who attend a public or private teaching institution to receive complete instruction at any level. For this category of person, you will refer to the persons situation during the school year 1996/97.

For the persons in night school, the following cases may be encountered:

- the person has a day job. He or she will be recorded as employed (OCC);
- the person is not employed. He or she will be recorded as unemployed (CHO), in search of a job (QUE), homemaker (FOY), pupil or student (ETU), etc.” (BCR, 1966: 30-31)

APTITUDE A LIRE ET ECRIRE		NIVEAU D'INSTRUCTION		DERNIER DIPLOME OBTENU	STATUT D'OCCUPATION
Est ce que (Nom) sait lire et écrire couramment dans une langue ? Encerclez le code correspondant. <u>Etrangère</u> 0=aucun 1=Français 2=Arabe 3=Anglais 4=Autres lang.Etr. <u>Nationale</u> 0=Aucun 1=Mooré 2=Dioula 3=Fulfuldé 4=Autres lang.Nat.		Est ce que (Nom) a fréquenté une école ? Si oui, quelle est la dernière classe achevée dans le plus haut niveau d'études atteint ?  Encerclez le code correspondant. 0= Aucun 1. = CP 2. = CE 3. = CM 4. = Sec, 1er cycle 5. = Sec. 2è cycle 6. = Sup.		Quel est le diplôme le plus élevé que (Nom) a obtenu ?  Inscrivez en clair dans la colonne  Pour les diplômes du supérieur, préciser le domaine de formation	Est-ce que (Nom) a travaillé au moins 3 jours durant les 7 derniers jours (OCC) ou a travaillé et perdu son emploi (CHO) ? Si oui encerclez le code 1 ou 2. Si non Encerclez le code correspondant. 1. Occupé (OCC) 2. Chômeur (CHO) 3. Quitte 1er emploi (QUE) 4. Retraité (RET) 5. Occupé au foyer (FOY) 6. Elève ou Etudiant (ETU) 7. Rentier (REN) 8. Autres inactifs (AUT)
P13	P14	P15		P16	P17
Etrangère 0.Auc. 1.Fr. 2.Ara. 3.Angl. 4.Aut.	Nationale 0.Auc. 1.Moor. 2.Diou. 3.Ful. 4.Aut.	0.Auc 1.CP 2.CE 3.CM	4.sec1 5.Sec2 6.Sup		1. OCC 2. CHO 3. QUE 4. RET 5. FOY 6. ETU 7. REN 8. AUT

Excerpt from the questionnaire of the 1996 census

### Evaluating the quality of the data

In Burkina-Faso, the official primary school age band is 7 to 12 years. For the year 1996/97, the number of pupils provided by the school statistics of the Ministry of Basic Education and Literacy (MEBA) amounted to 600,804 pupils aged between 7 and 12 years, and the number according to the census was 454,728, for a difference of 146,076 representing close to one fourth (24.3 percent) of the MEBA number. The comparison over the entire school population (pupils and students) showed a slightly smaller gap: 139,480, or 15.5 percent when compared to the cumulated number indicated by school statistics for primary, secondary and higher education.

The comparison by single year of age, for all levels together, is only possible up to 19 years, as the statistics for higher education, starting officially with age 20, are not published by single year of age. It shows that the discrepancy is most marked at the primary level, particularly for ages 11 and 12 (Figure 1).

What accounts for those differences? In view of the various issues linked with the level of schooling in Burkina Faso, the school statistics should a priori be rather overestimated, but this appears not to be the case. The fact that the numbers derived from these statistics are larger than those of the census could be explained in part by the fact that the school statistics count registrations (at the beginning of the school year) while the census documents school attendance, that is to say, it counts the students who were attending school at the time of the enumeration (or more precisely during the seven previous days).

Other elements of an explanation are attributable to the census. It took place from 10 to 20 December 1996, and some primary schools were closed and the pupils placed on leave because of the massive involvement of primary school teachers as interviewers and supervisors. It is possible that these children were reported under a different occupational status. A certain degree of census undercount should not be excluded, as it is often encountered in many countries (remote villages and hamlets; the urban periphery). It is also likely that the recording of present school attendance as a category of occupation gives less accurate and reliable results than the usual direct question on whether the individual is attending school.

These are all possible reasons, and their effect may be additive, but cannot be measured separately. The issue is whether the relative underestimation in the census of

the numbers attending school constitutes a bias that would make any analysis impossible. The study of provincial differences does not appear to reveal such a bias.

## **RESULTS**

### **Women heads of household appear to support schooling more than men do**

As in other surveys taken in Burkina and in other countries, it would seem that children (between 7 and 12 years), and girls in particular, are more likely to go to school if the head of household is a woman (Figure 2). This is true in rural areas (for all Provinces) as well as in the cities. Differences are smaller, however, in the cities, particularly in the large ones (Ouagadougou, Bobo-Dioulasso, Koudougou, Ouahigouya, Banfora).

This result may seem surprising in view of the fact that female-headed households are on the whole economically handicapped, and less stable. Tentative explanations can be advanced. Women, as a rule, invest more than men in their children, in terms of time, money and emotional support, particularly in matters of education. Because they have been victims of discrimination with respect to schooling, women are more aware of the rewards of education for their children's future. Moreover, they expect a return on their investment when their children have a job. This calls into question the so-called financial burden of schooling. The real issue is that men and women make different choices in the management of their resources.

It is also true that the status of "female household head" refers to very different familial and economic situations. When women are married, for example, the "residential absence" of their husband does not preclude his involvement in the schooling of his children. Further investigation in depth, of a qualitative nature, is in order.

### **Importance of school migration and the ambiguity of fosterage vs. schooling**

The distribution of students by relationship to the head of household for each education level (primary, middle, secondary and higher education) underlines the importance of school migration predicated on supply. Under the definition of household used in the census, the children who are not reported as the children of the head are likely to be living away from their parents, and to fall under the general heading of “fosters”.

The results indicate clearly that school migration increases with the level of education. For both sexes together, the proportions of children of the household head fall from more than 80 percent for primary school, to 65 percent for middle school, 48 percent for secondary school, and 31 percent for higher education. From secondary school on, the institutions of learning are located in the urban centers (for higher education, only in Ouagadougou and Bobo-Dioulasso). This forces students from rural areas to go to boarding schools if their families can afford it, or more often to live with relatives in the city, or to rent their own premises. One student out of four is head of household.

The decrease with level of education in the proportion of children living at home is more pronounced for males, particularly in secondary school and in higher education; the proportions are respectively 43 and 27 percent, versus 59 and 43 percent for females (Figure 3). Together with an increase in the sex ratio of the school-enrolled population with level of education, the figures indicate that this increase of the female deficit as higher levels are reached is particularly severe for rural families.

This situation must be kept in mind when we interpret the indicators of schooling that are computed by place of residence or level of living, particularly for the secondary

and higher levels of education. The results underestimate the level of schooling for households living far from educational establishments, that are predominantly rural. The schooling of children of the urban areas is correspondingly overestimated, because many among them come from rural areas and have moved into the cities because this is where the institutions of learning are located.

According to the census of 1996, a tabulation of the children by whether they are “children of the household head” or not shows that the proportions in school are not very different, for children aged 7 to 12 years, in the rural areas, although the former category is clearly privileged in the cities, particularly in Ouagadougou. Fosterage for the sake of schooling is practiced mostly in the rural areas. In the cities, it is family solidarity that motivates the fostering of children (from the countryside), and particularly of girls (Figure 4).

Census data provide no clues about the real reasons behind fostering, and interpretation can only be tentative. Nevertheless, these results seem to confirm the findings of other studies (Poirier et al. 19 ) suggesting that the triad school-work-fosterage constitutes one of the key elements in the process of schooling in Africa. The relation between fosterage and schooling is to some extent ambiguous. On one side, some children are fostered to attend school; on the other side, in competition with school, child labor satisfies domestic, productive or commercial needs, and its intensity and modalities vary as a function of the demographic makeup of the households at a given time, including the sex and the family status of the children. When girls are entrusted to an urban household for the purpose of schooling, they are expected to help with a number

of domestic tasks and cannot easily refuse. This may affect their school results, and often lead them to drop out.

A better understanding of the mechanisms at work is even more important in time of economic crisis, as fosterage in the direction of the cities is more a transfer of labor (sometimes verging on exploitation) than a practice aiming at socializing or educating the children. Even when they do not abuse of the situation, households have a real need for domestic help and no alternative for their labor requirements. When both spouses are working outside the home in a city where there are no pre-school facilities, how can they cope with the care of very young children?

The analysis could be extended to other age groups, and might then reveal other logic connections between fostering and schooling. Both the difference in schooling between boys and girls, according to their family status, and the different school practices of men and women raise the issue of gender differences and relations between the sexes.

### **Intra-urban differentials**

The analysis of spatial differences is usually limited to a general distinction between urban and rural areas, and to a description of the differences between large administrative units of the country (regions, provinces, etc.). The published results of the 1996 census of Burkina Faso do not go beyond the tabulation of the proportions in school by province (Dakuyo and Sanou 2000).

The urban areas are often considered as privileged and homogeneous in comparison with the rural areas. Little attention is paid to intra-urban disparities. While

surveys do not allow such an approach, the census provides the most adequate data to study the phenomenon.

For the capital Ouagadougou, the study of “sectors” provides a grid allowing a first order of differentiation between central and peripheral zones. Demographically speaking, urban growth has occurred mostly through spatial expansion and through the growth of peripheral sectors of the city by migration from the rest of the country.

The dynamics of settlement of the capital implied different demographic and socio-cultural make-up of the sectors. In 1996, the three peripheral sectors of the south (15, 16, 17) and the three situated east (28, 29, 30) represented 24.2 and 20.8 percent respectively of the total population. These six sectors together account almost for half of the city’s population. In addition to the large proportion of 0-4 year-olds, the proportion of 5-6 and 7-12 year-olds is also higher than average. The six sectors include almost half of the primary school-age population (or 46.7% of the children aged 7 to 12). (Map 1.)

With respect to schooling, the peripheral zones are clearly characterized by a larger potential of school-age population (in absolute and relative terms), by a large proportion of migrant families originating in the surrounding rural areas who are illiterate and Muslims and still involved in agricultural activities. This socio-demographic profile is not favorable to schooling. At the same time, the official school statistics show that the supply of educational facilities in the peripheral zones is insufficient for the needs of school-age children.

It is therefore not surprising that the level of schooling is below that of the central neighborhoods (Map 2). Conversely, the percentage of children who never went to school is higher in the peripheral sectors (Map 3). If it were possible to distinguish

between planned areas and squatter settlements, the distinction would also highlight the the inferior conditions of the squatters.

### **Schooling at the household level**

Measuring schooling in the usual way hides an important but trivial fact: children live in households. Their confrontation with school does not occur at the individual level, but in the framework of families or of households. First, in a perspective of family support policies, the basic information is how many and what proportion of households, at a given time for a particular geographical area (country, region, city), are involved in schooling as a function of the size of the school-going population. From this point of view, the exhaustive nature of censuses makes the use of their data particularly useful for planning purposes. Moreover, to the extent that all children are not in school, it is very interesting to know the school profile of the households: the average number of children in school, and the distribution of households according to whether all their children, a part of them, or none are in school.

Table 1 summarizes a number of these indices by sex of the head of household and place of residence. The computation of such indices requires special tabulations of the data (to move from the individual level to the level of the household) that are very time consuming when done for the whole census. The results shown here were obtained from a representative sample of 1 percent.

At the time of the census of 1996, close to two out of three households (57.3 percent) were concerned by schooling at the primary level, since they included at least one child of school age (7-12 years). The proportion was larger on the whole in the rural

areas, at least when the head of household was male (59.9 percent as against 49.4 percent for a female head). The gap was narrower in the urban areas, where female heads of household had a small advantage.

Table 1  
Indices of schooling (children 7-12 ans) at the household level, by sex of the head and area of residence.

Indices	Urban areas		Rural areas		Total
	Male Head	Female Head	Male Head	Female Head	
% of households with at least one child of school age (7-12 years)	49.2	51.1	59.8	49.4	57.3
Distribution of households by number of children of school age (if any)					
1	44.6	57.7	39.4	53.7	41.4
2	35.6	28.9	32.5	34.5	33.0
3 +	19.8	13.4	28.1	11.8	25.6
Total	100.0	100.0	100.0	100.0	100.0
Average number of children of school age per household	1.86	1.62	2.06	1.64	2.0
Distribution of households by number of children of school age (if any)					
All children	49.1	5.4	10.1	19.4	16.7
Some children	23.1	19.1	14.4	13.8	15.7
No children	27.8	26.8	75.5	66.8	67.6
Total	100.0	100.0	100.0	100.0	100.0
% of households with at least one child in school (7-12 ans)	72.2	73.2	24.5	33.2	32.4
Average number of children of school age per household	1.14	1.06	0.34	0.44	0.48

For the whole country, households included two children of school age on the average, and a fourth of them included three or more. Whatever the place of residence, male-headed households included always a larger number of potentially school-going children. These differences by residence and sex of the household head reflect of different demographic profiles and family dynamics. Fertility and the incidence of polygyny are higher in the rural areas. Urban female heads of household are more likely to foster children. The restrictive definition of a household adopted by the census tends to reduce the differences.

The effort to send children to school (when the households includes one or more children of school age) is reflected by the following indices. Globally, a little less than a third of the households (32.4 percent) send at least one child to school; close to two thirds send none; and only one out of six (16.7 percent) sends them all. The latter proportion decreases with the number of children of school age, from 25.2 percent when there is one child, to less than 10 percent when there are two or more. On the average, only half a child (0.48) goes to school per household.

The distinction by area of residence and sex of the head of household confirms the general conclusions based on the overall proportions of children attending school. Schooling is more important in urban households and, (except in the city by a small margin), in female-headed households.

## CONCLUSION

Despite reservations on the quality of the data from the 1996 census of Burkina Faso, the results presented here demonstrate the analytical potential of these data, even if the study is limited to simple cross-tabulations.

Because the data are exhaustive, it is possible to look at the spatial dimension (using Provinces or urban sectors). This may be very useful for the purpose of planning and for policy implementation.

The results often raise more questions than they answer. They provide leads that can be investigated later in more complex statistical analyses and by focused qualitative surveys on one or the other geographical area (province, district, city) that presents special problems in the area of schooling.

Such data have inherent limitations that must be underlined. Since they are collected at the level of the household, which is a residential unit, they contain no information on the children sent away nor on the older children who have already left the home. They are cross-sectional data; they contain no information on income, etc. Since they were not specifically collected for the purpose of analyzing schooling, the collection and coding of census data may prove inadequate or imprecise (for example with respect to relationship and occupation). Additional variables that could be important for the understanding of schooling behavior, such as birth rank and income, are not collected.

The fact that they are period data that concern only individuals residing in the household limits the scope of an analysis of family strategies. The success or failure of the older children in school and in securing a job influences the educational strategies used by families for the younger children. It is not known, moreover, whether some

children of the household have been entrusted to other families precisely so that they can be enrolled in school; these children would then be enumerated elsewhere, in the household where they reside.

Further uncertainties concern the family status of children other than those of the head of household. Because family status is determined on the basis of the relationship to the head of household, its specificity depends directly on how kinship has been collected and coded. Moreover, even where it is possible to distinguish children whose parents are absent (whom we called “fosters”), the reasons behind this situation are unknown. It may have resulted from the departure of one or both parents of the child (by migration), or from their death, but these children may also have been entrusted by another household (for whatever reason). All these situations would reflect very different circumstances.

Finally, one may wonder whether the household is the appropriate unit of observation and analysis for family strategies with respect to schooling. The extended nature of family structures in African households (due in part to the phenomenon of child fosterage) accounts for the household head not necessarily being the decision maker and the person financially responsible for the school attendance of children who are not his, but live with him.

Nevertheless, the existence of a large number of censuses and surveys, often at different dates for the same country, allows comparative approaches in space and time that may provide many insights. They may reveal or shed light on differentials and changes over time of the schooling behavior or strategy that are related to the political, social or economic circumstances of the time. For example, a comparison of the period of increasing schooling (before the 1980s), with the era of decrease attending the economic

crisis and the policies of structural adjustment, and during the period after the devaluation of the CFA franc, might be instructive. In parallel with specific surveys that remain indispensable, the analysis of census data (even though they did not focus on schooling) may contribute a new perspective.