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Access to Schooling and Employment in Cameroon

New Inequalities and Opportunities

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Report to SAGA Project

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Summary

This report examines recent trends in school and post-graduate employment in Cameroon over the last two decades. Cameroon's economic downturn in 1987-95 triggered secondary changes that transformed the environment under which families make decisions about children's schooling. The report examines the human capital responses to these transformations, focusing on (1) recent enrollment levels (2) trends in enrollments (3) access to employment, (4) the demand for schooling, and (5) risks and opportunities in improving educational outcomes. The analyses combine data from the Cameroon Ministry of Education and recent demographic surveys. The main findings are as follows:

(1) ***Levels***: School progression in Cameroon is marked by high rates of grade repetition and dropout, especially during the transition from primary to junior secondary level and from junior to senior secondary level. School survivorship data for the most recent years show that out of 1000 pupils who enter primary school, about 63 percent enter secondary school and 19 percent overall will reach the final grade of secondary school. At the height of the crisis years, up to 46 percent of dropouts were reportedly due to lack of money. However, pregnancy-related dropouts also account for 22 percent of all female dropouts within junior secondary school. Cameroon would greatly narrow its gender gap in educational attainment, if these pregnancy-related dropouts were reduced.

(2) ***Trends.*** Cameroon's economic crisis has stalled the country's growth in school enrollment in the late 1980s. It also affected schooling inequalities, especially those associated with gender and large family size. While it did not appear to raise the enrollment inequalities associated with SES, there are growing differences in the quality of schooling received by children from different socioeconomic backgrounds.

(3) ***Access to employment***: The crisis-related freeze in public sector hiring has raised the levels of graduate unemployment. Employment rates are now greater among the more educated, even if *formal-sector* employment continues to depend on education. This high graduate unemployment poses fundamental questions about self-employment prospects and

the absorption capacity of the private and informal sectors of the economy. It also raises question about current curricula and the relevance to the job market.

(4) ***Demand for schooling***: The demand for schooling remains strong despite public perception that formal employment is no longer the prime avenue for economic mobility. Many adults (especially urban and higher SES families) are willing to trade large families for educated progenies.

(5) ***Risks and opportunities for improvement***: Numerous opportunities exist to improve educational outcomes in the country. These opportunities were classified in four groups, according to whether they involve State, market, civil society, or demographic factors.

At the State level, the democratization of the political debate forces urban elites to acknowledge the political clout of rural constituencies who can leverage their current demographic advantage to demand better access to public education. The global advocacy of education in the UN Millennium strategy and the African NEPAD can also foster an international exchange of education experiences and a dissemination of new tools of education research and planning. At the national level, greater collaboration is warranted between the Ministry and local research institutions, notably the National School of Education and CEREG in education research and policy.

With respect to market forces, high rates of graduate unemployment were expected to compromise university enrolments. Yet the demand for schooling remains strong because of a lack of viable opportunities outside the education system. At the same time, access to University education is becoming economically more selective. Although all Cameroonians face the same tight job market, middle-income families have more incentives and opportunities to invest in their children's education.

Cameroon's very active civil society can support the Ministry's efforts to raise enrollments and reduce educational inequalities. NGOs and village-level associations are a key resource in a context of decentralization but they can also foster regional inequality because of existing disparities in NGO activity.

Demographic trends also matter. First, current declines in average fertility levels can boost education outcomes by reducing age-dependency ratios and fostering savings and investment in education. This boost requires containing the AIDS epidemic but also

reducing unintended fertility among the poor. Second, future trends in teen fertility will also shape future levels of gender inequality in education. According to DHS data (CDHS 1998), 22 percent of all female dropouts in junior secondary school stem from unintended pregnancies. If these pregnancy-related dropouts were avoided, they would narrow the educational gap between boys and girls. Third, the current gains in women's will spill over to the next generation and planners can expect such positive feedbacks. Fourth are the current health crises (notably the AIDS epidemic) and their adverse effects on the schooling of children. Fifth and finally, the changes in family structure associated with delays in marriage and marital disruptions are placing many children at greater risk. Policies to support the education of vulnerable groups should increasingly consider children from single mothers and acknowledge the contributions of extended family systems.

Four considerations guided our policy recommendations. First one must envision a broad theory of education decision-making that goes beyond the *average* labor market returns to schooling. Even if formal education remained the best gateway to an average job, it might still lose its appeal for the most ambitious youth who seek access to power, prestige, or to the very top of the economic stratification system. Second, schools are a multifunctional institution. Rather than a simple a gateway to employment, schools are instrumental in building a national culture, protecting the labor market, or stimulating creativity. Third, Cameroon can draw from the experience of other nations while also building on its traditions. Several US institutions (National Academy of Sciences, Teach America, Personal Development Centers, High School All Stars, college athletics) are a source of selective insight. Additional programs can draw from traditional institutions such as savings groups, village associations, NGO activity, or traditional forms of apprenticeship. Fourth and finally, gradual reform, rather than radical transformation, is warranted. Reform must therefore begin with a reevaluation of existing institutions and the success of recent policy innovations, e.g., tuition waiver or the National Employment Fund.

Based on these considerations, recommendations were made in three areas to a) improving education outcomes, b) preparing students to employment and active life, and c) improving education planning and research capacity.

I. Introduction and Questions

This report is about recent trends in education and access to employment in Cameroon. It focuses on five questions about (1) current levels of schooling, (2) recent trends in enrolment, (3) recent trends in schooling inequalities, (4) access to employment, and (5) risks and opportunities to improve education and employment outcomes. Based on these analyses, the report discusses several challenges and opportunities in improving education and employment outcomes.

The report is organized in sections that mirror the above objectives. After some background on Cameroon, we review recent levels in enrollments along with the main causes of school attrition. Following this review, we examine recent trends in enrollments, at a time when Cameroon experienced important socioeconomic changes. We then describe trends in inequality and access to employment. We conclude by examining current risks and opportunities, and possible policy strategies.

II. Background on Cameroon

II.1. Geography and demography

Cameroon is a Central African nation of 475,650 km^2 bordered to the North-East by Chad, to the East by the Central African Republic, to the South by the Congo, Gabon, and Equatorial Guinea, and to the West by Nigeria. The country recognizes English and French as its official languages. It comprises 10 provinces, subdivided into divisions, sub-divisions, districts, and communes under the authority of governors, prefects, district chiefs and mayors, respectively. The population is about 16.3 millions and estimated by the UN to currently grow at about 1.8 percent per year despite recent declines in fertility rates. Such growth maintains a young age structure with 43% of the population being less than 15 years old. Urbanization is rapid and nearly half of the current population is urban, up from 38% in 1987. Douala and Yaounde, the two main cities, host over one third of the nation's urban population. Cameroon exhibits great diversity, with over two hundred ethnic groups.

II.2. National economy

The 1985-95 decade in Cameroon was marked by a severe economic downturn materialized by a steep decline in GNI per capita. The policy response, as in other countries at the time, was to enact adjustment policies including a 50% devaluation of the national currency in 1994, a freeze in public-sector hiring, and multiple salary cuts in 1993. These downturns reduced formal-sector employment while increasing the reliance on informal-sector occupations. The national unemployment rate stands currently at 8.4 % but it exceeds 30% in the major cities where the informal sector represents 46% of total employment. By reducing real incomes, these downturns have made schooling less affordable for many families. Since 1995, the Cameroonian economy has staged a mild rebound in GDP per capita, from GNI rising from US$ 604 in 1995 to $656 in 1999. How enrollments and access to employment respond to this recovery is important.

The country's economic crisis occurred at a time of rapid expansion in schooling. Between 1970 and 1985, the school-age population (5-19) increased roughly from 2.8 to 4.5 million in 1985. Over the same period, gross enrollment ratios at the secondary school level jumped from 8 in 1970 to 23 percent in 1985. This rapid growth created a growing imbalance in the supply and demand of graduates and this imbalance was only magnified during the crisis years.

II.3. Education system

Reflecting its bilingual heritage and its religious diversity, the Cameroon education system combines English, French and Koranic education. The national system comprises five different sectors that fall under the purview of three different Ministries: "The Ministry of National Education," the "Ministry of Education and Professional Training," and the "Ministry of Higher Education." After kindergarten, the school system breaks down into:

- Primary school (6 years in the Francophone system and 7 years in the Anglophone system, with the completion of this cycle sanctioned by the *Certificat d'Etudes Primaires* (CEP) and the First School Leaving Certificate (FSLC) respectively,
- Secondary school is sanctioned by the *Brevet d'Etude du Premier Cycle* (BEPC) after 4 years of schooling, then the *Probatoire* (2 years after the BEPC) and a baccalaureate (1 year after the Probatoire) in the Francophone system. In the Anglophone system, the BEPC corresponds to the General Certificate of Education Ordinary Level (G.C.E. "O" level) and the baccalaureate corresponds to the General Certificate of Education Advanced Level (G.C.E. "A" level),

- Post secondary education is sanctioned by a *licence* (3 years after the baccalauréat), a *maîtrise* (one year after the licence), and a doctorate (3 to 5 years after the *Diplôme d'Etudes Approfondies* (DEA), generally obtained one year after the Maitrise).

III. Theoretical Expectations

The private demand for schooling depends on a mix of personal, sociological and economic considerations. Children's abilities, social norms, parental values, schooling costs, and the returns to education all affect families' decision to invest in individual children. The costs and returns to schooling have gradually worsened since the late 1980s, with the rise in graduate unemployment and the institution of school fees at the university level. Such developments raised concern about possible declines in enrollment at the secondary and university levels. Many among the general public thus predicted the "*end of long crayons,*" a local idiom that meant a decline in (1) in enrollments, (2) meritocracy within schools, and (3) the socioeconomic payoff of education.

Yet how education levels change will also depend on demographic and sociological factors. Fertility levels have declined from about 6.1 in 1987 to nearly 4.1 today, and this was expected to ease budget constraints on low-income families. On the other hand, a recrudescence of single-parent families and the strains on extended family systems may foster educational inequalities. The country also continued its steady urbanization, with the urban population rising to 50 percent, up from 36 percent in the mid 1980s. NGO activity and political participation were expanding as well.

Schooling responses also depend on the public perceptions of the current socioeconomic transformations. Anecdotal accounts suggest the public's greater belief in "*débrouillardise*" or "*feymania*," i.e., systems of economic mobility based on informal-sector or crime-sector accumulation. Gambling and lottery have become popular among adults disillusioned about the prospects of capital accumulation through diligent saving. Many youth likewise lean to professional sports, arts, or internet marriage to foreigners as more viable avenues of economic mobility. Whether these alternatives continue to be perceived as viable will determine future trends in educational investments. Social norms and standards of educational investments are another consideration. The long-term rise in families' educational aspirations means that school participation

can be sustained even in the face of short-term unfavorable economies. On balance, we expect school enrollments to reflect this mix of socio-cultural, economic and demographic factors.

IV. Data Sources

A complete picture of Cameroon's schooling trends requires multiple sources of data. We combine data from the Cameroon Ministry of Education (MINEDUC), the Demographic and Health Survey (CDHS 1998) and two schooling surveys completed by the principal investigator in 1995 and 1999 (EPS). We also use focus group information obtained from parents and school administrators.

The MINEDUC data –from the Ministry's recording systems and contract work-- are well suited to describe enrollments at the university level where population-based surveys are often inadequate because of the small proportion of pupils entering university. The DHS are national representative surveys that have been fielded in many developing countries in the last three decades. While they focus on health and fertility, these surveys have begun to incorporate questions about school enrollment and reasons for school dropout. Our own surveys (EPS 1995-1999) were specifically designed to study recent changes in fertility and schooling in Cameroon. A relevant feature of these surveys is the use of life-history calendars to reconstruct the schooling histories of large samples of Cameroonian pupils. These histories afford a detailed analysis of trends and determinants in school participation. The surveys also include an index to study demand for schooling from a demographic perspective. This index serves to examine current propensities among adults to trade-off large families for better-educated progenies. Finally, we use focus group data to investigate current perceptions and attitudes about the continued value of education.

V. Levels and Patterns of Enrollment

Cameroon is median among African countries in terms of school enrolments. The most recent UN figures show gross enrollment ratios of 108 at the primary level, 20 at the secondary level, and about

5 percent at the tertiary levels in Cameroon. Our research sought to give a more detailed picture of schooling participation and attrition. These data underscore the high incidence of grade repetition, itself facilitated by large class size, limited budgets, and staff. The Ministry of Education estimates at about 30% the grade repetition rate in primary school. If one also considers school dropout, these data suggest that about 10.5 student-years are required to complete the 6 years of primary school. Success rates for the primary school examination have declined noticeably, and for the baccalaureate, the rate was 21% in the year 2002. Data from the Ministry of Education indicate that, within secondary school, 20 students-years are required before students complete their secondary education!!

The data from EPS also serve to describe school survivorship throughout the school system. Figure 1 shows dropout rates and the percentage of students remaining in school after each grade. Dropout probabilities are very low (below 2-3 percent) during the first years of primary school then they increase near the completion of that level, reaching 5.5% and 28% in 5^{th} and 6^{th} grades respectively. More generally, dropout rates are highest for the grades that represent key educational milestones: The 6^{th}, 10^{th}, 12^{th}, and 13^{th} grades are sanctioned by national diploma-granting examinations, and the dropout rates through these grades are considerably higher than for the adjacent "non-examination" grades. For instance, 28 percent of all pupils who reach 6^{th} grade (or 7^{th} grade in the Anglophone system) drop out before entering secondary school. This number is much higher than the dropout probabilities in 5^{th} grade and in 7^{th} grade (5.5% and 5.6% respectively). Overall, only 63 percent of all students in a cohort of students do enter junior secondary school, and only 37 percent enter senior secondary school. Ultimately, only 19 percent complete secondary school.

Figure 1a. Dropout probabilities and school survivorship by grade, Cameroon 1970-99

Figure 1b also summarizes data on grade progression probabilities during the post crisis period, from 1995-2000, based on Ministry data. The pattern is the same, with grade progression being lower at the transitions around grades that are sanctioned by national examinations (grades 10 and 12 for instance).

Improving school retention begins with a quantitative understanding of the main reasons why pupils drop out of school. Figure 2 shows respondents' reports about the main dropout reasons and it affords three insights:

(1) The primary reason for school dropout is the lack of money. About one third of families are forced to let children drop out because they cannot afford tuition and schooling expenses. Beyond underscoring the importance of resources, these data also question the notion that families may have become less interested in education. The lack of resources –not lack of interest-- drives divestment from schooling.

(2) Historically, the proportion of money-related dropouts has increased during the crisis years. Whereas roughly 25 percent of all dropouts in the early 1980s were attributed to lack of resources, the corresponding percentage in 1995 was 46 percent. Even if official tuition costs had risen only at the university level during that time, the crisis-related declines in family incomes made it more difficult for families to afford educating large progenies.

(3) Early pregnancies are also an important factor. Roughly 5 percent of all female dropouts in primary and 22 percent in secondary school are attributed to pregnancies (DHS data not shown here). A detailed analysis shows that Cameroon would significantly reduce its gender gap in secondary school completion if it averted these pregnancy-related dropouts. This analysis assumes, however, that pregnancies are not a mere symptom for other hidden socioeconomic problems and that they do not selectively affect girls from disadvantaged backgrounds who would have dropped out anyway.

[Figure 2. Main reasons for school dropout by year, Cameroon 1975-95]

VI. Trends in Enrollment

The trends in enrolments in Cameroon mirror the country's economic fortunes. Enrollments were rising steadily before the onset of the country's economic crisis. This growth was stalled during the crisis years, but the post 1995 recovery prompted a rebound in enrollments.

World Bank figures indicate that primary enrollment ratios grew from 98 in 1980 to peak and 105 in 1987 (the onset of Cameroon's crisis), these numbers then declined to reach 86 in 1996!! The stalling was less visible at the secondary level where growth may have simply slowed down. Figure 3a and 3b below, which distinguishes between long-term trends and the net changes in school participation during the crisis period, shows a similar pattern. As Figure 3b indicates the long term decline in the dropout probabilities occurred at all school levels.

[Figure 3. Trends in primary and secondary schooling, Central Cameroon (1970-1995)]

This figure indicates a long term decline in the rates of school dropout (i.e., a steady improvement in school participation) before the onset of crisis, both at the primary and the secondary levels. After the crisis however, dropout rates increased at the primary level, while a decline was less visible and perhaps delayed at the secondary level. In some sense, these findings (as well as those suggested by the World Bank data) may appear surprising. One would expect secondary school enrollments to be more sensitive to economic conditions, given the higher costs of schooling at the level and the lower normative expectations of secondary school completion. However, these results may reflect the stiff selection in the transition from primary to secondary schooling. High school pupils are predominantly recruited from non-poor families and such families were able to weather the crisis-induced hardship. Our analyses (data not shown) also indicate a gradual decline in the median age of school entry among both boys and girls.

Cameroon's economy began to recover after 1995. A key question is how the end of the sustained period of economic downturn affected school enrollments. Figures 4a through 4e show the recent trends in enrollment at various levels of schooling. At the pre-school level, there was a remarkable growth in numbers, from 80,648 pupils in 1995 to 124,674 in 2000, i.e., nearly a 55 percent growth during this five-year period. While some of this growth is attributable to population increase, it also reflects a substantial increase in participation rates and in early enrollments. The growth in private enrollments was particularly impressive, totaling a 113% growth during that time period, against 10% for the public sector.

[Figure 4a. Trends in pre-school enrollment, Cameroon 1995-2000

Post-1995 growth was equally steady at the primary level, with the numbers rising from 1,873,361 in 1995 to 2,686,052 in the year 2000, i.e., a 43.5 percent growth. Here again, the overall growth was stronger in the private (62%), rather than the public sector (38%). However, the growth in public sector enrollment was quite remarkable during the last two years in this period. More remarkable is that this growth occurred before the subsequent institution of tuition waiver at the primary school level. Despite the rapid growth in the private sector however, the public sector still accounts for a lion's share in enrollment (about ¾ of all enrollments in 2000).

[Figure 4b. Trends in primary enrollment, Cameroon 1995-2000

Enrollments also grew during this period at the secondary level, whether one considers general (Figure 4c) or technical training (Figure 4d). Enrollments in the general training sector grew over this period by (43%), with again a faster growth registered in the private (79%) rather than the public sector (28%), but with still the public sector accounting for the lion's share in enrollment

(about 2/3). It is remarkable however that enrollments at the secondary level did not pick up as fast as those at the primary level. Indeed, the numbers were declining or stagnant during the early years in this period. Together with the findings noted during the crisis period, such data suggest that surprisingly secondary enrollments seem less responsive than primary enrollments to economic conditions! Growth is also noted in enrollments in secondary technical-training, even if the increase is a little more modest. The numbers increased by 34 percent, with a percentage increase of 23% in the public sector versus 52% in the private sector. It is noteworthy that growth in technical training would pale in comparison to growth in general training, at a time when it was expected that families would increasingly prefer practical training and be more sensitive to the demands of the job market!

[Figure 4c. Trends in secondary (general) enrollment, Cameroon 1995-2000

[Figure 4d. Trends in secondary (technical) enrollment, Cameroon 1995-2000

Also remarkable are the overall growth and the patterns in university enrollments. Overall, University enrollments grew by 44%, from 43,775 in 1992 to 63,135 in 2000. Much of this growth is attributable to the development of new universities centers and the decentralization of the main campus in Yaounde. While the numbers for Yaounde I and II declined by 20 and 24 percent respectively, all other universities experienced remarkable growth especially because they were starting from a very small base. The change in enrollments was far from linear during that period. Indeed, the 1992-2000 period can be broken into two distinct periods, one of substantially negative growth from 1994 until 1996 (-12 percent) and another period of rapid expansion until 2000 (63%). These trends reflect the changes in the economy but other factors may have contributed as well, as the universities increasingly began to enroll non traditional students, including professionals seeking additional training. The main point however, is that university enrollments have remained high and increased despite the high rates of graduate unemployment. The post-1996 rebound in enrollments suggests that affordability is the main constraint to enrollments and families still invest in education despite the high rates of unemployment among graduates.

[Figure 4e. Trends in university enrollments, Cameroon 1992-2000

VII. Educational Inequalities

Our analyses of inequality focus on four risk factors, including the child's sex, parental residence (rural or urban), family size, and socioeconomic status. Previous studies have documented the

importance of these gender and socioeconomic factors but not how socioeconomic inequality changes over time. Studies have also highlighted the buffering influence of the extended family system but this system may have weakened during the country's economic crisis. In examining the long-term trends in inequality, we focus on gender and SES and how they interact with other factors such as family size, rural residence, maternal education, and family structure.

VII.1. Gender inequality

Gender inequality in education has narrowed historically in Cameroon but this progress stalled during the crisis years. At Figures 5a through 5c show, the inequality in school participation (as measured by the relative risk of dropout among girls versus boys) had steadily declined over the years. This historical decline is visible at the primary as well as the junior and secondary school levels. At the primary level for instance, whereas girls had a 30% higher risk of school dropout than boys in the early 1970s, this percentage was less than 5% in the mid 1980s. Over the same period, the relative risks of girls dropout was similarly falling from 18% to 5% at the junior secondary level and from 13% to 5% at the senior secondary level. It is apparent however that the onset of economic crisis in 1987 stalled this trend. During much of the crisis period, the relative risk of female dropout increased, especially at the primary and junior secondary levels, by a factor ranging from about 4 to 9 percent above trend. The notion that girls were more vulnerable during this period of economic hardship was corroborated by other survey qualitative data. Many households reported having attempted to cope with economic hardship by selectively divesting from girls' education.

Figure 5 a. Historical trend and net crisis effect on the schooling inequality associated with gender (Primary school).
Figure 5 b. Historical trend and net crisis effect on the schooling inequality associated with gender (Junior secondary).
Figure 5 c. Historical trend and net crisis effect on the schooling inequality associated with gender (Senior secondary).

Much attention has focused on boys versus girls, but inequalities among girls –especially between urban and rural girls-- deserve some attention as well. Our data show that while gender inequalities in schooling have virtually closed in the main urban centers, they remain within rural communities. The main drivers of gender inequality in schooling are well understood but they require better quantification. Life table methods make it possible to decompose gender inequality into three sources: cultural discrimination, economic discrimination, and pregnancies. Cultural discrimination occurs when families favor boys simply because of cultural prescriptions about

gender roles. Economic discrimination occurs when families wish to invest in their daughters' education but favor boys because they expect bigger payoffs from investments in boys' rather than girls' education. Pregnancy-related dropouts, the third factor, are gender-specific. The relative contribution of these factors to the size of national gender gap in schooling is shown below, for several African countries. In Cameroon, pregnancy-related dropouts account for nearly a third of the gender inequality in secondary school progression. This gap would be significantly reduced if pregnancy-related dropouts were avoided. Researchers recognize however that these reported pregnancies may not always be the true reason for their dropout, but rather a mere symptom of more fundamental socioeconomic difficulties that must be addressed.

Figure 6. Components of the gender gap in schooling, Cameroon and selected neighboring countries.

VII.2. SES inequalities

Cameroon society has become increasingly differentiated since the 1960s. In the 1960s, Cameroon was largely rural and it exhibited relatively little economic inequality. The absence of a rigid (national) class system along with the demand for educated workers fostered some upward mobility within the first post-independence generation. Much of this mobility was structural however, i.e., it was a response to new employment opportunities in the urban sector and it did not involve a displacement of members of an upper class. Over time however, economic clusters have emerged and the competition for good jobs has intensified. Socioeconomic inequality is likely to crystallize under this more competitive environment.

Schools can unwittingly serve to reproduce inequality, if education access and participation become increasingly selective on the basis of resources. The historical trends in SES-related inequalities in enrollments are relatively complex. These inequalities have historically tended to narrow over time at the primary and junior secondary level. This trend seemed to be stalled (albeit not significantly) during the years of crisis (Figures 7a and 7b). At the senior secondary level on the other hand, inequality was growing so much that a pattern of negative equalization was observed at during the crisis year. Since the poor had not strongly participated in secondary schooling, their enrollment at this level could hardly be affected by economic hardship (Figure 7c). In other words, the pre-existing inequalities were already severe enough to preclude any further widening of the SES inequality.

Figure 7a. Historical trend and net crisis effect on the schooling inequality associated with low SES (Primary school).

Figure 7b. Historical trend and net crisis effect on the schooling inequality associated with low SES (Junior secondary)

Figure 7c. Historical trend and net crisis effect on the schooling inequality associated with low SES (Senior secondary)

These inequalities in enrollment may only be the visible tip of an iceberg, and one should consider differences in the quality of education. The ratio between the most expensive and the least expensive primary school in Yaounde for instance is about 1000:1. Tutoring has become a cottage industry, catering to the status anxieties of middle class families seeking to give every advantage to their offspring. In this environment, the playing field is far from level and policies to equalize educational opportunities are necessary to permit a modicum of socioeconomic mobility.

VII.3. Inequalities associated with large family size

The effects of gender and SES work through –and interact with— other factors such as family size, parental education, residence, and family structure. Studies in the 1980s and early 1990s questioned the notion that large family size had deleterious effects on children's schooling. A few researchers predicted however that these effects would emerge over time, as the costs of schooling rose and as the extended family system eroded. Our evidence from Cameroon data (Figures 8a through 8c) is consistent with these predictions. Both at the primary and the secondary levels, the inequalities associated with large family size were eroding over time. With the onset of the economic crisis, however, the penalty associated with large family size has been noted to increase, especially at the junior secondary school where the costs of schooling are higher (Figures 8a and 8b). The trends at the senior secondary level mirror those found for SES, i.e., inequalities were growing over time but there has been some negative equalization after the onset of difficult economic conditions. Overall, having a large number of school-age siblings has become a greater hindrance to children's education especially in secondary school. While later-born children still benefit from the resources of their older siblings, these chains of sibling assistance work only when the older siblings are employed.

Figure 8a. Historical trend and crisis effect on the schooling inequality associated with family size (Primary school).

Figure 8b. Historical trend and crisis effect on the schooling inequality associated with family size (Junior secondary)

Figure 8c. Historical trend and crisis effect on the schooling inequality associated with family size (Senior secondary)

VII.4. Inequalities associated with rural residence

Extended family systems have typically supported the schooling of rural children. Whether these support systems have changed in recent years is critical for the future development of socioeconomic inequality. The evidence presented in Figure 9 suggests that rural urban inequalities

were historically declining at the primary and junior secondary school, perhaps the results of public policy to build rural infrastructure. From being nearly 30 percent higher than the dropout risk of urban pupils in the early 1970s, the dropout risk among rural pupils (at the primary level) was close to 5% in the mid 1980s. While this trend was relatively unaffected by the onset fothe economic downturn (Figure 9a), the secular decline in rural urban inequality at the junior secondary level seemed to stall during crisis years at the secondary level (Figure 9b). This finding suggests that fosterage of rural children trend into urban households may have been reduced. The levels of rural-urban inequality in senior secondary schooling --adjusting for fosterage—(Figure 9c) were relatively flat over this entire period and seemed not to be affected by the onset of crisis. Overall, any effect that the economic downturn may have had on the level of rural-urban inequality operated on the transition from primary to secondary school.

Figure 9a. Historical trend and crisis effect on the schooling inequality associated with rural residence (Primary school).

Figure 9b.Historical trend and crisis effect on the schooling inequality associated with rural residence(Junior secondary)

Figure 9c.Historical trend and crisis effect on the schooling inequality associated with rural residence (Senior secondary)

In addition to these four risk factors, other considerations matter as well. Having an educated mother is associated with better education outcomes. By implication, the current gains in raising girls' schooling can spillover to the next generation. Every thing else equal, children born to single mothers also have higher odds of school dropout, at all schooling levels (data not shown here). While studies have analyzed the effects of family size and maternal education, greater attention is needed on the consequences of single motherhood, given the rise in premarital fertility and single-headed households in this region.

VIII. Access to Employment

Access to employment has declined in the last two decades. Until the early 1990s, graduates from key professional schools (Education, Medicine, Administration, Technology, and Agriculture) were automatically hired with guaranteed life-long employment in the civil service. While not guaranteed automatic employment, most graduates from the main university were also hired into the public service as well. A crisis-related freeze in public sector hiring in the late 1980s fuelled unemployment,

but there were two important unknowns. One was the change in the employment gradient by education, i.e., whether the risk of unemployment would remain lower for the highly educated. The other unknown was the absorption capacity of the informal and private sectors, i.e., whether these sectors would be able to provide strong employment outlets for the new graduating cohorts. The data show a marked rise in unemployment. Remarkably, there is a positive gradient between education and unemployment, with university graduates having the higher rates of unemployment. Unemployment levels are about 2.9 among those with no education, 12.6 among those with primary education and an impressive 34.4 percent among those with a secondary or higher level of education (Figure 10). However, these numbers largely reflect differences in occupation, as the bulk of workers with low levels of education is employed in agriculture and in the informal sector. Still these high rates of graduate unemployment are an important change.

[Figure 10. Current rates of unemployment, by level of education]

IX. Demand for Schooling

The current demand for schooling is an important driver of future enrollments. To estimate this demand, we designed and applied an index (inspired from a classic index of fertility demand by Coombs (1978)) and desired to measure parental willingness to trade large families for smaller but better educated progenies. Scores on this index are obtained as follows: First, respondents are presented with two extreme scenarios in which they must choose between having six uneducated and a single but highly educated child. Based on the respondent's answer to this first question, two new options are presented including the option previously chosen in the first round and a less extreme version of the option not chosen in the first round. The final score is obtained after four iterations and the respondent ranked on a continuum from 0 to 14, which higher numbers representing a greater preference for smaller but better educated progenies. Specifically, a 0 on tis value indicates a person who would prefer to have many (at least six) children even if that means that they will be unable to send any of these children to school. On the other hand, a person with a score of 14 is someone who would be willing to have a single child if that meant that it would almost guarantee that this child would get a university degree. Scores on this index are used to assess the overall demand for schooling but also how this demand varies across socioeconomic categories.

Results showed an even spread on this scale with some clustering at both ends. About 13% of all Cameroonian women scored 0, i.e., chose large (even if uneducated) progenies under any circumstances but a higher percentage (27 percent) scored 14, i.e., they would prefer having a single child if that meant that the child would be able to obtain a university degree. Nearly 46 percent of all women are clustered on the three highest scores on this scale. The mean score on this scale (8.6) exceeded the midpoint on the scale (7) meaning that most parents now lean slightly on the side of favoring smaller but educated progenies. Figure 11 describes the effects of SES on respondents' scores. Respondents are grouped roughly in four quartiles representing increasing levels of socioeconomic status (based on ownership of consumer durables). As expected, there is a positive SES-gradient. The mean propensity score increases from 8.1, 8.4, 8.6, and 9.3 as one moves gradually into higher SES levels. Although these differences are statistically significant, they are not as large as one would expect. Remarkably, even in the lowest SES group, the mean propensity score (8.1) lies above the midpoint on the scale (7), suggesting an inclination toward smaller but better educated families. Again, despite the substantial reductions in the economic returns to education, much of the public –regardless of socioeconomic background- still prefers to have fairly educated children.

Figure 11 Index of demand for schooling by SES group

When asked more specifically about the value of education, respondents are evenly split. About 37 percent value "general knowledge," 28 percent value "wisdom and capacity to reason," and 35 percent value "practical skills." To further probe the salience of education as a day-to-day concern, we present data from focus group discussions held in 1995, during the country's economic crisis. Participants were asked to discuss the areas of behavior where the ongoing crisis was raising the greatest concern. The grid in Figure 12 summarizes the content of a typical focus group conversation. Participants are listed horizontally while time units unfold along the vertical axis. Each of the grid cells thus represents a person-time data point and summarizes the concern(s) highlighted by the participant at this point of the conversation. The grid offers a visual summary of how frequently, how early, and how consensually education was acknowledged as a problem in the discussions.

Figure 12 Focus group data

It appears that schooling was mentioned often as a prime concern during the period of crisis. It was mentioned 6 out of 38 possible times, which makes it one of the concerns most frequently mentioned. Perhaps more importantly, it was raised early in the discussions, by the first three participants. An additional sign of consensus around schooling was also that it was mentioned by a majority (5 out of 7) of the participants in this specific discussion.

Overall, our data suggest a high demand for schooling, despite anecdotal suggestions that families are losing interest in educating their children. To be sure, other routes to status attainment are being considered. Yet many urban families in fact increase their educational investments in children in order to boost their children's life chances under this more competitive environment.

X. Risks and Opportunities

This section reviews new challenges and opportunities stemming from recent socioeconomic changes. Instead of focusing on endemic problems, we attempt to focus on recent challenges and opportunities. To facilitate review, the challenges are identified at four levels, including (a) State initiatives, (b) market forces, (c) societal factors and civil society, and (d) demographic forces.

X.1. State actors and factors

- To accommodate its large and growing student population, the Cameroon government envisions a policy centered around five key interventions: (1) create a school planning grid to guide the location of future schools (2) institute a half-time system in some primary schools; (3) build multi-level schools in the largest cities with the cooperation of the Japanese government; (4) transform some of the existing "parent schools" into public schools; and (5) grant permits for an additional number of private schools. In the area of staffing, the government envisions (1) reopening teacher training schools, (2) hiring temporary staff paid from a special Government Fund and ultimately, permanently hiring some of these temporary staff; (3) hiring university graduates on a contract basis; and (4) developing a systematic career plan for teachers.

- ***Budgets***. The Ministry of Education consistently receives the largest share in national budgets, but 85% of the Ministry's budget goes toward salary payment. This explains the lack of teaching supplies and equipment, a situation that has worsened in the last decade.

- ***Information Technologies.*** The Cameroon government seeks to promote computer literacy among students. Strategies toward this goal involve (a) training of computer scientists both through the Institut Africain d'Informatique, (b) equipping model schools with computers, and (c) facilitating importation of computer equipment through special customs arrangements. Additionally, the Ministry of Labor will grant new licenses to private operators to train professionals and students in computer applications.

- ***Curricula.*** Globalization and the rapid transformations in family structure mean that youth are often alone in facing the changes in their new world. Many parents are unprepared to guide their children in this new global world. Current curricula emphasize instruction and formal knowledge, rather than life skills training. The Cameroon education system envisions playing a more active role in building work ethic, self-awareness, cooperation, and life planning. Thus, educational programs plan to address such issues as sexually-transmitted infections, family and domestic life, human rights, decision-making, environmental awareness, goal setting, entrepreneurship, conflict resolution and management. The idea is to equip students with life skills that will foster their personal growth and improve their life chances. The role of school counselors in that respect is essential and has become a national imperative.

- ***Electoral politics.*** The evolution of the political debate has forced urban elites to acknowledge the political clout of rural constituencies that still represent the majority of the population. How these constituencies negotiate their political leverage will determine future rural-urban inequalities in access to schooling and economic opportunities.

Global policy environment and political will. Today's global policies support setting ambitious goals in the area of education. This global consensus on education should foster an exchange of experiences and keep countries focused on specific education targets. Within the framework of the

Millennium Development Goals, the UN has set ambitious goals to be met by 2015, especially in basic education, gender equity, and poverty reduction. While most sub-Saharan countries are unlikely to meet the specific targets set by the UN, substantial progress can be accomplished. Meeting these targets requires improved access to schooling and a full acknowledgment of regional disparities and poverty enclaves within urban centers and border zones. It is also important to address the persistent discrimination against girls' schooling in some regions.

- ***Education research institutions.*** Key research institutes have closed after the onset of the country's economic crisis and the surviving ones publish very little. Thus the "'Institut des Sciences Humaines" has closed while the "Centre National de l'Education" (CNE) and the Institut de Pédagogie à Vocation Rurale (IPAR)" face serious difficulties. National universities have yet to create strong education departments and few work in policy research. The "Ecole Normale Superieure" produces many student memoirs but these receive little policy application. The country could benefit from greater collaboration between the Ministry and local research institutions (notably the National School of Education and CEREG) in education research and policy. Dozens of students at these research institutions work on education. Funding of research activities at these institutions, with a joint supervision by the institutes and the Ministry is warranted. Summer workshops organized by experienced analysts should be considered to enhance the analytical training of student-researchers at the National School of Education.

- ***Research and planning capacity within the Ministry***. The analytical opportunities in education research and policy have improved in recent years. At the national level, the Ministry has been active since 1995 in documenting trends in education. The local administrations are gradually modernizing and developing their computing environment in ways that make them more capable to take advantage of existing data sets and analytical tools. Building analytical capacity at the level of Education Ministries and closely related administrations is necessary. Workshops similar to the one described above for student-researchers are also important.

- ***New Information Technologies.*** New information technologies stand to change both the content and the form of education, as they increasingly position teachers not as a source but

as a guide to information. However, much remains to be done in training teachers so as to make computers an integral and useful tool in the training process.

X.2. Market actors and factors

While governments partly fund and regulate access to schooling, families remain the ultimate decision-maker. Whether these families continue to invest in their children's schooling depends on future patterns of employment, on the costs of schooling, and on the socioeconomic inequalities in schooling opportunities.

- ***Graduate employment.*** Higher rates of graduate unemployment were expected to reduce the demand for graduate schooling but this has not been the case thus far. Data from the Ministry show a steady rise in university attendance over the last 7 years. Some of this persistent demand occurs by default. In the absence of viable opportunities outside the school system, many families continue to invest in their children's education. Families are also motivated by the hope of an economic turnaround, such that these children will be ready to compete for existing jobs when the economy fully recovers. Finally, norms play an important role, as most parents want their children to at least match their own educational attainment. Although such norms still sustain the demand for schooling, future trends in employment may increasingly matter. More important than employment levels *per se* are the employment patterns and whether they involve an education premium.

- ***Schooling costs.*** Given limited national budgets, the government reconfirmed in 1996 the principle of cost sharing in education. Annual tuition rates are as follows: 50,000 FCFA at the university level; 10,000 to 15,000 FCFA in secondary technical schools, 7,500 to 10,000 FCFA within secondary general schools; 1,500 FCFA and 7,500 in primary and kindergarten. In addition to basic tuition, families must pay insurance and PTA contributions, books and school supplies, food and transportation. According to focus group discussions, many poor families invest in few children only while depriving the least gifted children and their daughters of schooling.

- ***Tuition waiver.*** Tuition was suppressed for primary school in the year 2000, but the effects of this waiver on school participation still require a full evaluation. Reports from other

countries suggest that fee (waivers) have been associated with large increases in enrollment but there are many reasons to withhold such optimism in the context of Cameroon. Tuition waivers at the primary school level can only be a partial solution: They represent only a small proportion of the full schooling costs and they ignore the substantial opportunity costs of schooling for many low-income families that depend on their children's labor. Further, although many students reportedly leave school because of lack of money, such cases are in fact more frequent at the secondary (rather than the primary) school level where the costs of schooling are higher.

X.3. Sociological factors and civil society

Sociological influences will also motivate future enrollments.

- **Norms and perceptions about the value of education.** Families respond to peers' perceptions of what is an acceptable standard of educational investment. Students themselves will respond to their peers' perceptions of acceptable role models. Our focus group discussions suggested that youth increasingly embrace material success regardless of the means to achieving it. Rather than education, some youth envision economic mobility through emigration, marriage to foreigners, sports and arts. With the few success stories being unwittingly extolled in the local media, this only reinforces the illusion of easy success through these channels. Teachers lament the lack of motivation and effort among students and predict a fundamental decline in morals. They point to low success rates in secondary school graduation are illustrative of youth disillusionment with formal education. In July 2002, the success rate for the Baccalauréat was only 21%, i.e., 8,710 out of the 41,528 candidates admitted. Of course, this lament might only be the classic pessimism that each generation tends to display toward the next generation.

- ***Teaching as a profession.*** The growing lack of interest for teaching as a career and the closing in 1987 of teacher training schools (ENI) have contributed to shrink the availability of teachers nationwide around 1993/1994. Within primary school, the number of teachers declined from 38,429 to 34,146 in 1993/1994, i.e., a relative decline of about 11%. Given the low salaries, teachers are reluctant to accept posting in remote areas and this creates profound imbalances in staffing between rural and urban schools. It is not uncommon in rural areas to see multi-grade classrooms. Teaching has become less of an avocation and a

matter of necessity. The social status and prestige once accorded teaching has eroded and teachers are moving towards other job sectors. This exodus is further facilitated by a lack of clear guidelines about posting and promotion.

- ***Non-governmental organizations.*** UN statistics on NGO activity rank Cameroon among the three most active in the sub-Saharan region. Many NGOs in Cameroon have an education component and they complement village-level associations that have been quite active in promoting schooling at the regional level. These NGOs represent an important resource (in a context of decentralization). At the same time, given the regional basis on which they operate, they contribute to greater inequality in schooling across regions.

X.4. Demographic factors

Preamble

- ***Fertility decline and the demographic bonus.*** Current demographic trends also represent an opportunity. Fertility rates are declining in Cameroon, from 6.1 births per woman in 1987 to nearly 4.1 today. Such declines are expected to reduce age-dependency ratios in ways that can foster savings and investment in education. Cameroon's education can benefit from this demographic trend over the next 25 years. Doing so however requires containing the AIDS epidemic and averting unintended fertility among the poor if the country is to avoid growing educational inequalities among the current generation of children.

- ***Teen fertility and impact on gender equality in education.*** Despite substantial progress at the primary level, the inequality in educational attainment between boys and girls remains high in many African countries. This inequality stems from many sources that can be summarized in to "cultural discrimination," "economic discrimination," and "pregnancies." Pregnancies make a substantial contribution to the gender inequality in education in Cameroon. Our estimates suggest that the education gap in secondary school completion between boys and girls in Cameroon could be reduced by a third if one averted all pregnancy-related dropouts.

- ***Maternal education and its feedbacks.*** Some of today's progress in female education can be expected to spill over to the next generation. This spillover occurs either directly because educated mothers are more supportive of their daughters' education, or indirectly because educated women are likely to have lower fertility, which in turn is associated with better education outcomes for all children, including daughters.

- ***Urbanization.*** The rapid urbanization of the two major cities of Douala and Yaounde translates into rapid increases in the school age population and it challenges the education system's capacity to meet this expanding demand for schooling. Gross enrollment ratios are highest in these two cities (nearly 92%) but the average class size ranges from 82 to 120 for primary schools and 70 to 140 for secondary schools.

XI. Summary

School enrolments and access to employment in Cameroon have changed considerably over the last two decades. Some of these changes were the predictable responses to economic downturns and to current declines in fertility. Enrollments thus declined during the country's economic crisis but the lack of alternative paths to socioeconomic status and a mild economic rebound after 1995 have combined to spur continued growth in university education. Contrary to anecdotal accounts of a generalized disillusionment about education, we find little evidence that many families have turned to their backs to education.

Substantial inequalities remain, however. The demand is stronger among higher SES groups. Enrollments and participation are lower among female and poor students, and among children from large families, single mothers, and less educated parents. Supporting these high-risk groups, i.e. providing opportunities for underprivileged pupils, is the best way to raise the country's overall enrollments while also reducing inequalities as prescribed in the UN Millennium goals. Improving enrollments and equity requires a quantitative understanding of the determinants of educational outcomes in Cameroon. It also requires integrated policies that build on the contributions of several actors and influences. Education policies must also extend beyond a concern for enrolments. The quality of education and its economic returns must be improved as well. One goal in this area would

be to expand efforts to connect curricula to the demands of local and global labor markets. Another is to maintain a meritocracy in access to both schooling and employment.

As a contribution toward these goals, this study makes several policy suggestions. Some of these suggestions stem directly from research evidence about the stages in the school system where pupils are most vulnerable (e.g., the transitions from primary to secondary and from junior to senior secondary school). Others stem from evidence about the main proximate causes of dropouts, notably lack of resources and pregnancies among some girls. The proposed suggestions also recognize the need to integrate the contributions of State, market, or civil society actors.

State-level factors include political processes and their effects on public investment decisions. They also include the global policy environment which currently favors investments in education in developing countries. Finally, they include administrative efforts to coordinate the work of national research and policy institutions, learn from the experiences of other countries, and apply modern tools of education research and planning.

Market factors include the costs of education and the returns to graduate education. Labor markets can play a critical role in forcing a reform in curricula, but they cannot be relied upon to contain the socioeconomic inequalities that are likely to grow in a context of stiff competition for scarce employment.

Civil society can be a counterweight to markets although this role is by no means guaranteed. Indeed, civil society organizations and NGOs might in fact exacerbate regional and rural-urban inequality, given the patterns of concentration of these organizations.

XII. Policy Recommendations

Considering the current schooling and employment trends, the following policy suggestions are made, focusing on the actors and factors identified at the level of the State, market, and civil society, as well as with respect to socio-demographic factors.

XII.1. Key Actors

XII.1.a. The State. Education planning institutions can benefit from advances in information, research and planning technology. The last decade has witnessed remarkable improvements in

research methods, notably the ability to collect and analyze schooling histories that afford detailed and policy-relevant understanding of school transitions. At the same time, researchers and global development institutions are designing computer systems for education planning. Short-term training or technical workshops should be planned to train the Ministry's mid-level staff in recent tools of education research and planning. Within Cameroon, steps should be taken to foster collaboration between the Ministry and local research and training institutions, notably CEREG and the National School of Education.

XII.1.b. Market factors and private sector actors. The Cameroon government has already enacted education policies that recognize the interactions between schools and the labor market. Schooldays and workdays have been reorganized to leave more time for work activity. The government also made education free within public primary schools. Several challenges remain, however. First, one must sustain meritocracy within the school system and in access to employment. Whether public sector employment is based on merit can go a long way in sustaining the levels and the quality of education even in a context of scarce employment. Second, one might consider credit schemes for pupils from underprivileged backgrounds. Third, current curricula might consider increased involvement in non-traditional sectors of economic activity. An obvious example has already been given by private initiatives to integrate sports academies with schooling. Drawing from the US experience with college athletics could expand the effort. More broadly, however, any extension of the government curricula should begin with a detailed inventory of market activities where additional training would be warranted and economical.

XII.1.c. Civil society. The energy from NGO activity can be harnessed to improve enrollment levels, reduce schooling inequalities, and raise the quality of educational experience. NGOs, village associations, and private sector initiatives in building school infrastructure and in supporting schools should be fostered. The national government and funding agencies must, however, recognize the most effective and broad-based NGOs to avoid the inequalities associated with differential NGO activity across regions. NGOs will be most useful if they focus on redressing schooling inequalities, especially those associated with gender and SES. There must be increased attention to inequalities among girls, in particular, the special disadvantage of rural girls.

XII.1.d. Demographic factors. Cameroon can benefit from several demographic trends including the current decline in fertility and the increase in maternal education. The current decline in fertility opens a window of opportunity for raising enrollments because of reduced age-dependency. Today's improvement in women's educational attainment can be expected to spillover to the next generation, as the education of the current generation fosters lower fertility in the next generation and raises educational aspirations.

On the other hand, the country may be adversely affected by other demographic trends, such as the rise in teen and premarital fertility, the fertility differentials between rural and urban areas, and the current health crises. Pregnancies among teens contribute to the gender inequality in educational attainment. Current health crises challenge the education sector in multiple ways that have been documented. While much of the emphasis is on AIDS, many adults have succumbed to sheer poverty during the crisis years. Increased adult mortality in the region compromises the economic boost that is typically expected to accompany the early periods of fertility decline. Marital disruptions are also placing many children at greater risk. Policies to support the education of vulnerable groups should increasingly consider children from single mothers. The breakdown of the extended family system is a particularly relevant concern in sub-Saharan societies where this system has traditionally buffered schooling inequalities, especially between urban and rural areas. Because of these various demographic influences, strategic investments in population activities can yield important benefits in the area of education.

Below is a list of specific policy recommendations. In selecting these recommendations, we considered several principles and guidelines. First, we assumed a broader theory of education decision-making that goes beyond economically-rational responses to average labor returns to education. In other words, families invest in education because of a mix of reasons that may include employment, but also access to positions of power and prestige, as well adherence to peers' norms. Second, we also tried to keep in mind the multiple functions of education institutions. Schools are not merely a gateway to employment but they play many other critical functions that remain essential even when employment is scarce. Third, Cameroon can draw from the experience of other nations while also building on its traditions. Several US institutions are a source of selective insight, as are several traditional institutions. Fourth and finally, we favor gradual reform rather than radical transformation. Any attempts at improving the current situation must therefore begin with a

reevaluation of existing institutions and recent policy initiatives, e.g., tuition waiver or the National Employment Fund.

XII.3. Specific suggestions

(1) Improving education outcomes

- **Sustain meritocracy in promotion** within schools and jobs. Greater transparency and control of national examinations, including professional schools is warranted. Even in a context of scarce employment, the education system benefits from the reality and perception of a relatively level playing field in access to education and employment.

- **Consider credit schemes for pupils from underprivileged backgrounds.** The US experience in that area could be useful, although the resources and the mechanisms for enforcing repayment would have to be adapted to the circumstances of the Cameroon economy.

- **Expand curricula to non-traditional sectors of economic activity.** An obvious example has already been given by private initiatives to integrate sports academies with schooling. The US experience with college athletics can inform further integration in that area. To integrate education to other area of economic activity, research must first inventory the market activities where additional training would be warranted and beneficial.

- **Identify and encourage the most effective and broad-based NGOs** to avoid the inequalities associated with differential NGO activity across regions. NGOs can effectively support or even lead government activity in some areas of education intervention. Yet, NGOs are concentrated in urban settings and they are unequally distributed across regions. This could indeed exacerbate rather than reduce schooling inequality.

- **Encourage NGO focus on redressing schooling inequalities**, especially those associated with SES then gender. There must be increased attention to inequalities among girls, and to the special disadvantage of rural girls.

- **Invest in population programs.** Efforts to prevent teen fertility and unintended fertility among rural and poor segments of the population can pay off in terms of reducing schooling inequalities, especially those associated with gender and socioeconomic status.

- **Institute national-level annual awards to recognize meritorious high school students.** These need not be funded publicly, but there must be strong symbolic support from the government. The French cooperation has been active in this area but activities have been spotty. Local elites can contribute to this effort, if it is well organized and administered.

- **Open the school system to private endowments**. There is no systematic national-level mechanism for successful alumni to contribute to their schools. The prospects for a national system of private endowment must be considered, while also anticipating potential problems with inequalities across schools.

- **Selective support broad-based NGOs**. NGO activity is remarkable in Cameroon but it often has narrow regional bases or a focus on major cities. Further, many are forced to shift priorities with funding winds. The experience of the last ten years should make it possible to evaluate the track record of various NGOs and support those that have consistently been active in supporting education activities.

- **Recognize the buffering influence of extended family systems** and support it perhaps through tax reductions or education subsidies to foster families.

(2) Preparing access to employment and active life

- **National Corps of Mentors.** Many students upon graduation must face a period of unemployment and inactivity. How they manage that interim period can be decisive in their future. A mentoring system at this critical juncture can help the new graduates in several ways, including (a) job search, (b) life planning, (c) professional and personal development, (d) risk avoidance, and (e) possibilities of involvement in community service.

- **Create and facilitate the creation of personal and professional development centers** (PDCs). Related to the point above, professional development centers would be instrumental in supporting recent graduates through the initial post-graduation spell of unemployment. The USAID has created one such center in the 1990s at the University of Dschang. The time is apposite to renew and extend this experience.

- **Train preceptors and tutors**. Because of the increased competition for scarce employment, the relatively affluent families are increasingly willing to invest additional resources to give the best education possible to their children. There is thus a potential demand for tutors. In some cases, tutors can go the extra step and serve as preceptors. Recent graduates are uniquely equipped to fill this niche, but they may require additional professional training to fill this role. There is thus room for training and certifying tutors.

- **Savings and investment schemes for adolescent students**. Saving groups are already a salient feature of the Cameroon urban culture but they have been most common among adult women. Extending this practice to school-age students can serve to build capital that later serves to foster self-employment, but also to training youth in responsible life planning and spending.

- **Guarantee employment to best students**. It may be worth revisiting the guarantee of employment to some of the best students in professional schools, especially if merit-based selection. The benefit would be two-fold. One, it would

give an opportunity to the most talented youth to really focus on their education during their period of training. Second, it would facilitate the retention of talent within the system.

- **Take stock of the unemployment experiences of recent cohorts of graduates.** Ten years after the freeze in public sector hiring, the time is opportune for a full evaluation of survival and employment strategies of recent cohorts of graduates. Insights from such evaluations will point to areas where public investments can expand opportunities for self-employment. They will also serve to get a better grasp of the nature and duration of unemployment spells and the extent to which the informal sector has served as a viable outlet for these cohorts.

(3) Improving education planning and research capacity

- **Improve access to information technology in both research and planning.** There has been great progress in the last decade in the collection and the analysis of education data. The national education systems in Cameroon have yet to take full advantage of these advances because of limited access to information technology. Equipping the ENS, the CEREG, and the Education Ministries with computers and appropriate software is warranted.

- **Foster collaboration between the Ministry and local research and training institutions**, notably CEREG and the National School of Education. The National School of Education has a tradition of involving students in field research but much of this work is based on small data sets and rudimentary statistical analysis. The CEREG is well positioned to train University students in advanced research techniques and the Ministry may also be involved in this work to make it more policy-relevant. Where needed, outside expertise can be relied upon for short term training.

- **Provide training workshops to staff at the Ministry and National School of Education**. Specific areas of interest include education data management; statistical analysis; education policy simulation.

- **Create a National Academy of Science or a Board of Policy Advisors** that involve Cameroonian scientists in the formulation/evaluation of public policy. The US experience with public think tanks, the National Academy of Sciences and the Economic Advisory Board to the President are relevant in this area.

- **Provide post-graduate internships** to give further training in policy analysis to students.

- **Evaluate the success of the National Employment Fund.** An external evaluation of this important experience is useful to build on its success areas.

This short list of policy initiatives is clearly not exhaustive. However, each of these initiatives, well administered has the potential to make a sizeable difference in improving enrollments or other outcomes of the Cameroon education system.

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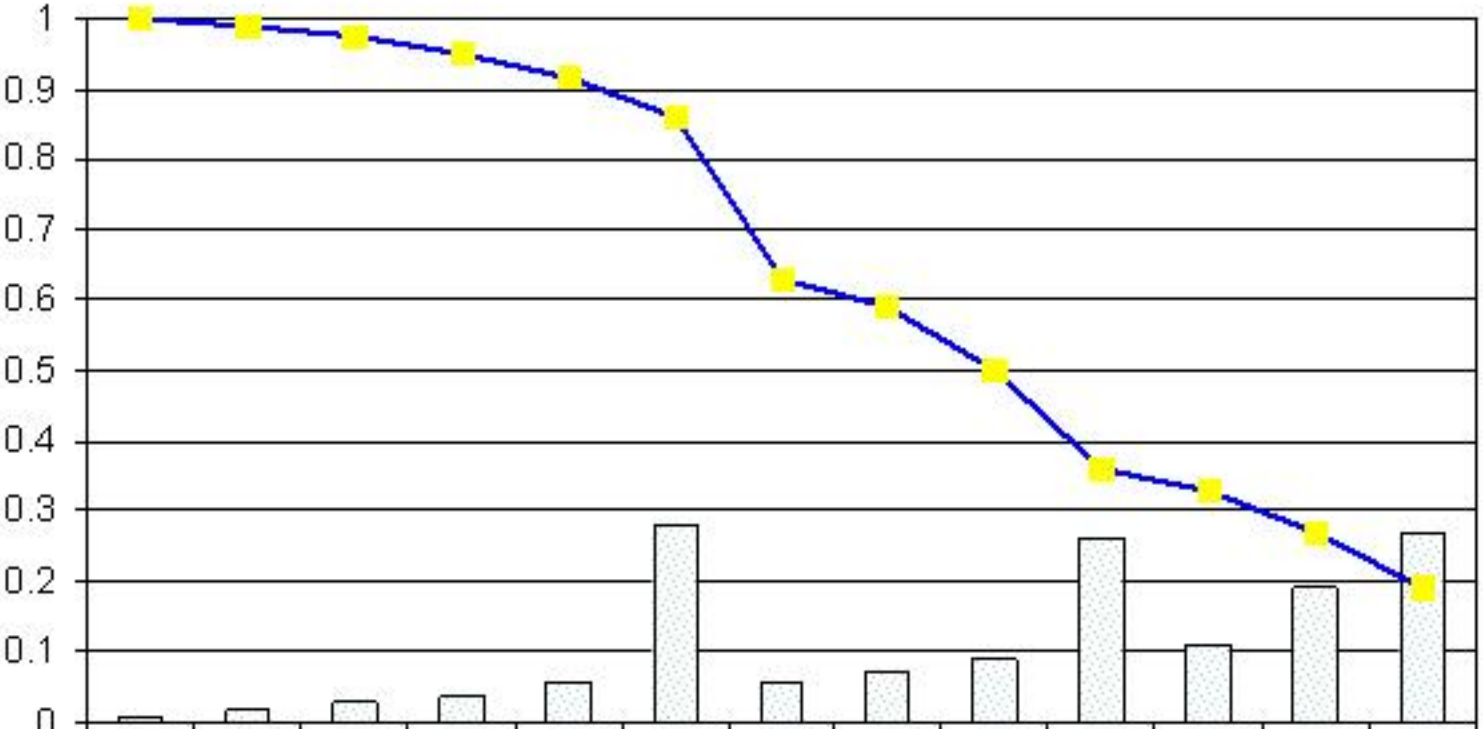
Figure 1a. Dropout probabilities and school survivorship by grade,

Cameroon 1970-1999

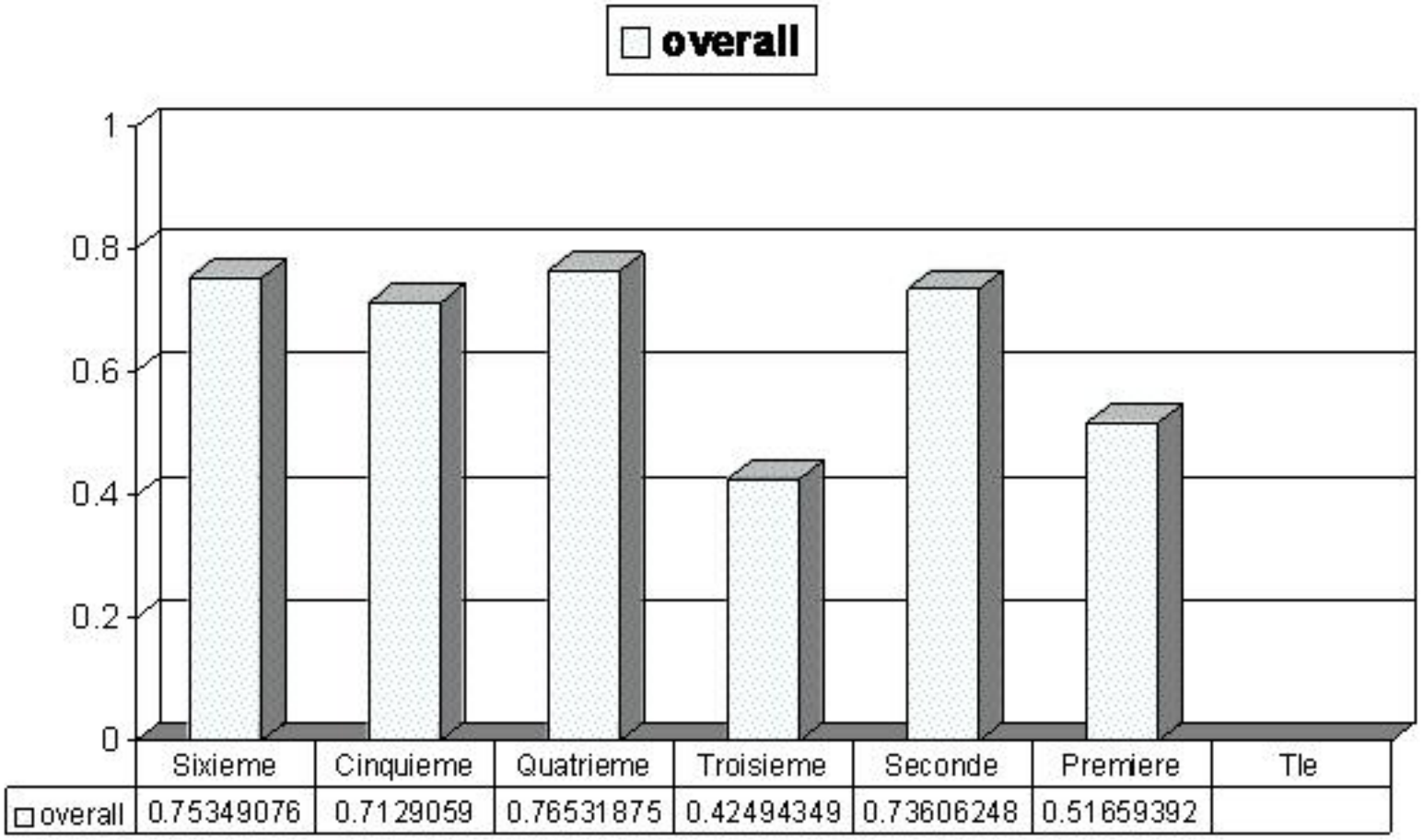


	1	2	3	4	5	6	7	8	9	10	11	12	13
Dropout	0.008	0.017	0.028	0.036	0.055	0.28	0.056	0.073	0.09	0.26	0.11	0.19	0.27
Survivorship	1	0.99	0.975	0.95	0.915	0.86	0.63	0.59	0.5	0.36	0.33	0.27	0.19

Source: EPS 1999

Figure 1.b. Grade progression probabilities, secondary school

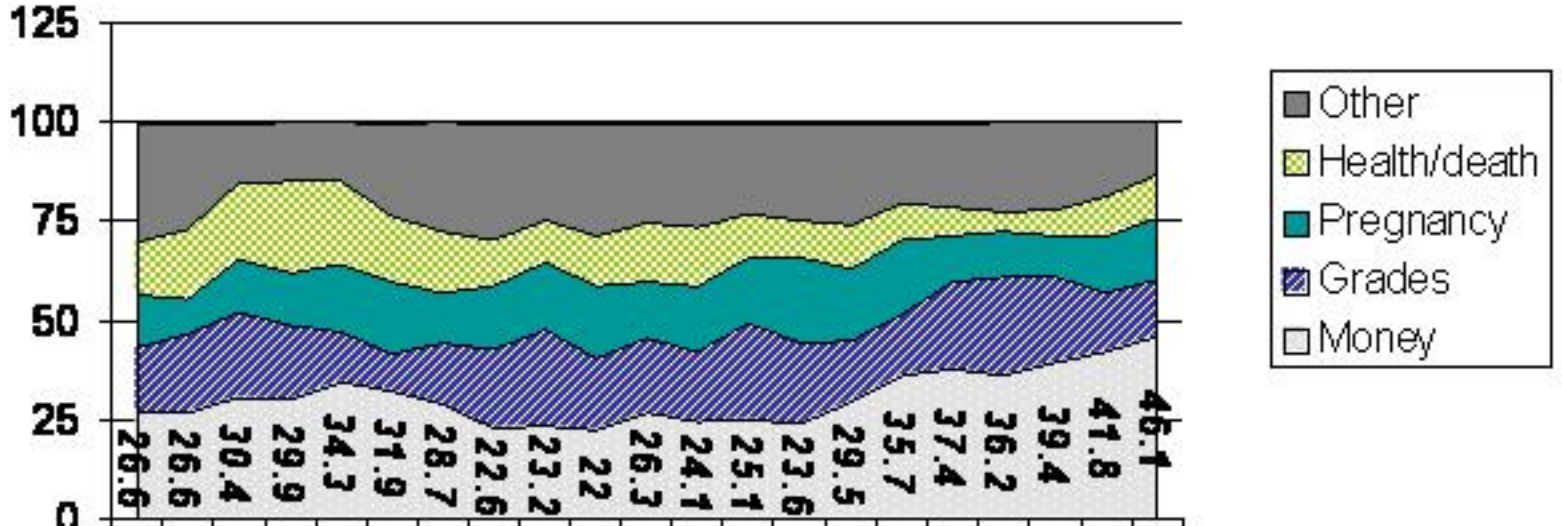
Cameroon 1995-2000



	Sixieme	Cinquieme	Quatrieme	Troisieme	Seconde	Premiere	Tle
overall	0.75349076	0.7129059	0.76531875	0.42494349	0.73606248	0.51659392	

Source: *Estimated from Enquête Spéciale MINEDUC 1999/2000*

Figure 2. Main reason for school dropout by year, Cameroon 1975-95



	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Other	30	27	15	15	15	23	27	29	25	28	25	26	23	25	26	20	21	22	22	19	13
Health/death	13	18	19	23	21	17	16	12	10	13	15	15	11	9.5	11	9.5	7.3	5.1	6.4	9.7	11
Pregnancy	13	8.9	13	13	17	18	13	16	17	18	15	16	17	22	18	19	12	12	11	15	15
Grades	17	20	22	19	13	9.5	15	20	25	18	19	18	24	21	15	16	22	25	21	15	14
Money	27	27	30	30	34	32	29	23	23	22	26	24	25	24	30	36	37	36	39	42	46

Figure 3a. Trends in the probability of dropping out of school

Cameroon 1970-1995

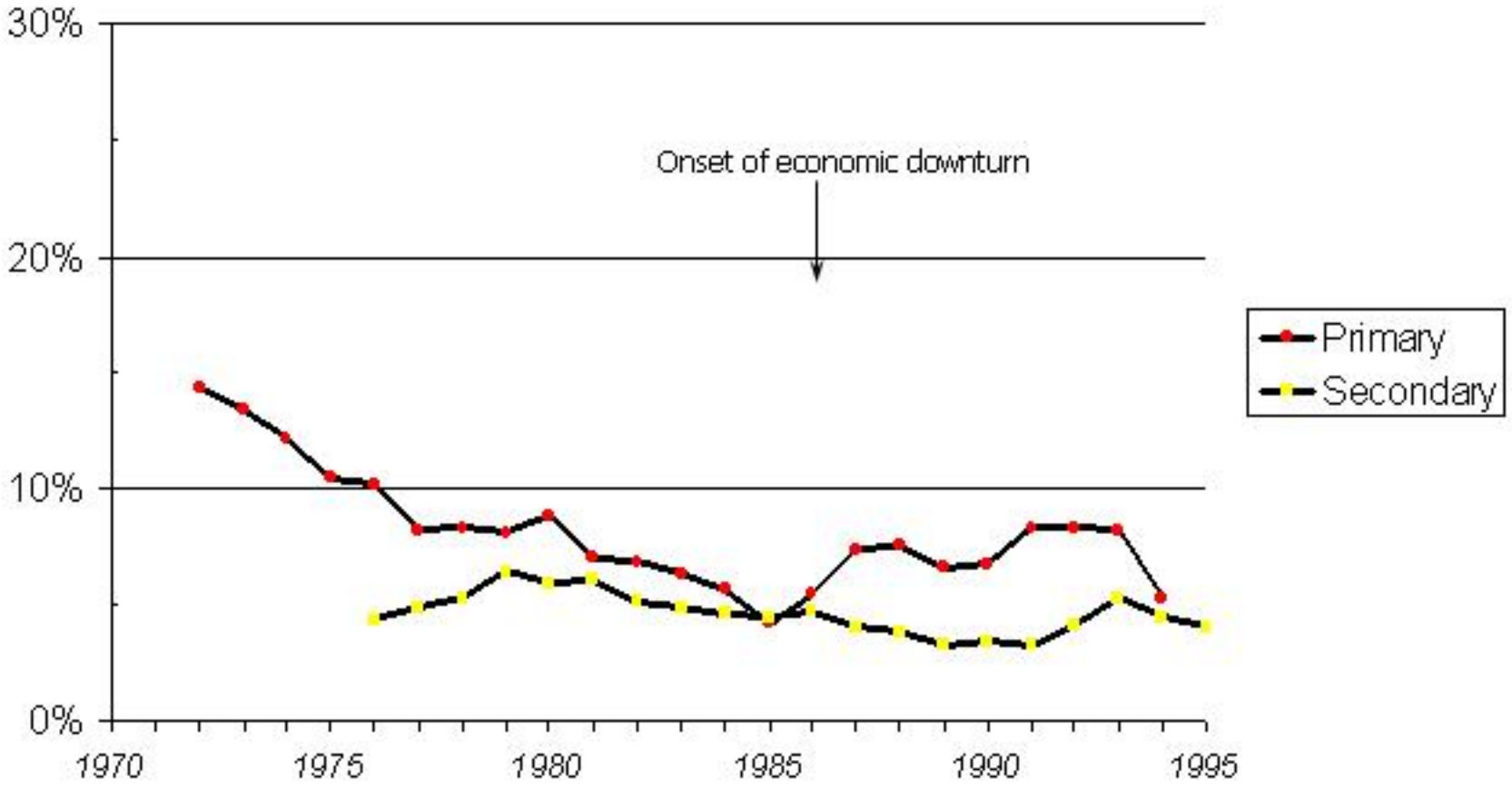


Figure 3.b. Long- term trend in the probability of school dropout and net deviation during crisis years, Cameroon 1970-95

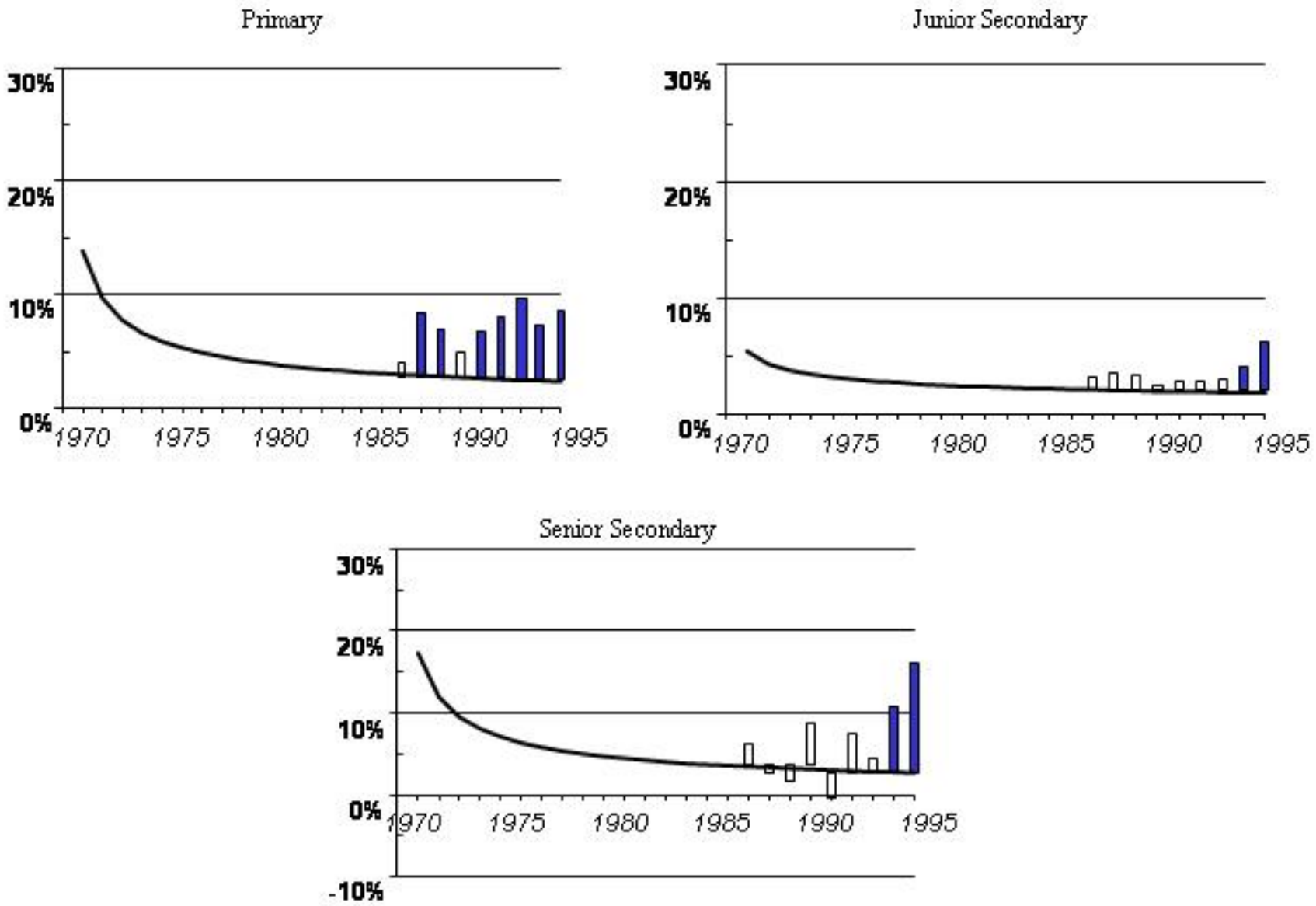
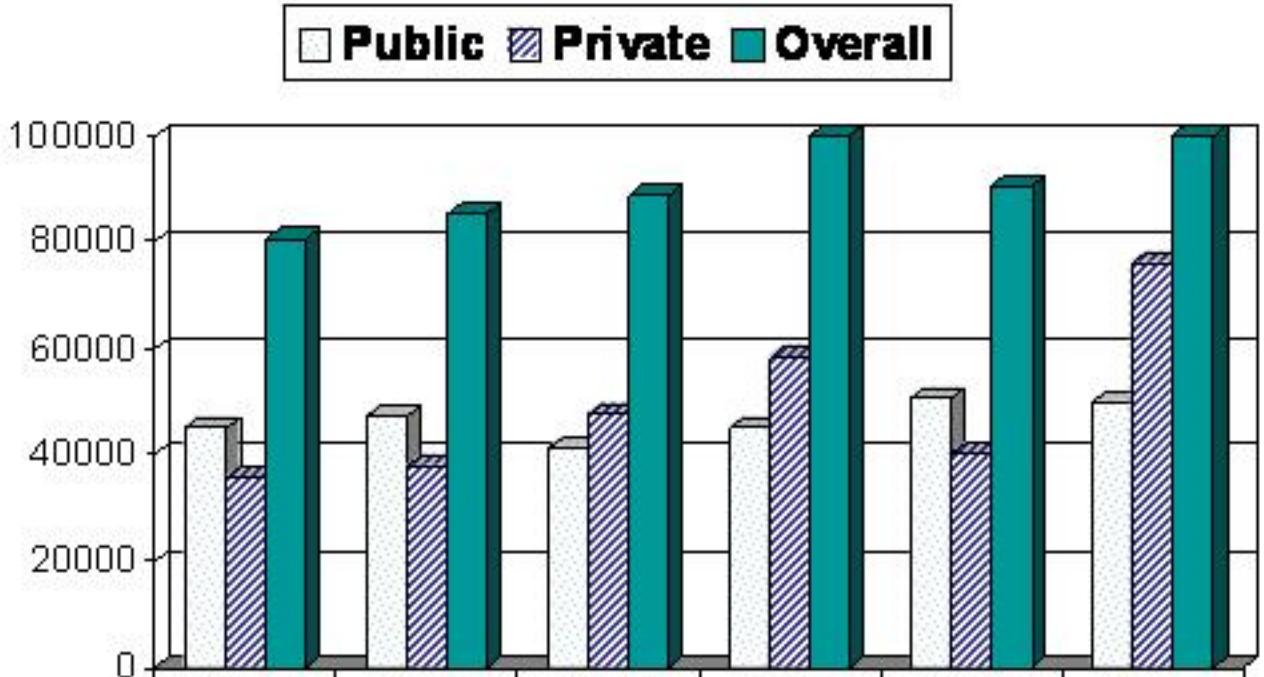


Figure 4.a. Trends in pre-school enrollment, Cameroon 1995-2000

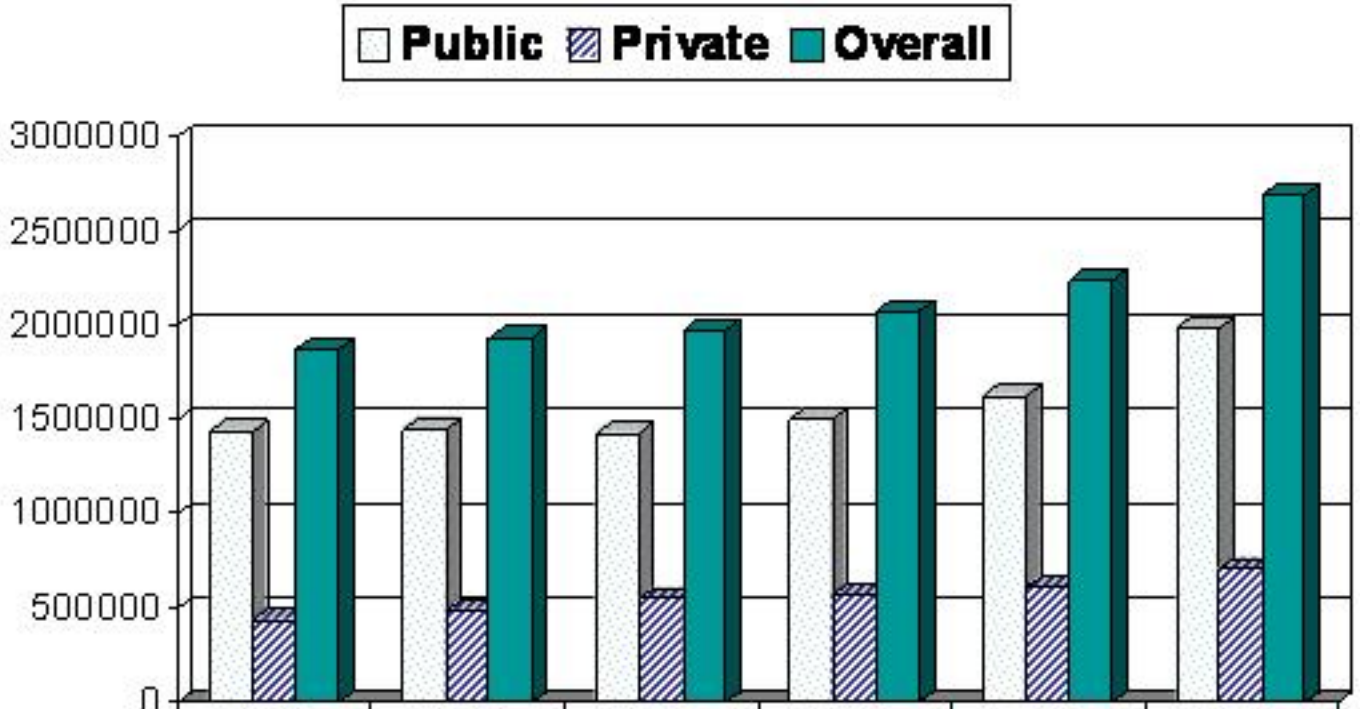


	1995	1996	1997	1998	1999	2000
Public	45055	47324	41336	44930	50537	49816
Private	35593	37906	47475	58231	40111	75858
Overall	80648	85230	88811	102161	90648	124674

Source: MINEDUC and DSCN (2000)

Figure 4.b. Trends in primary enrollment

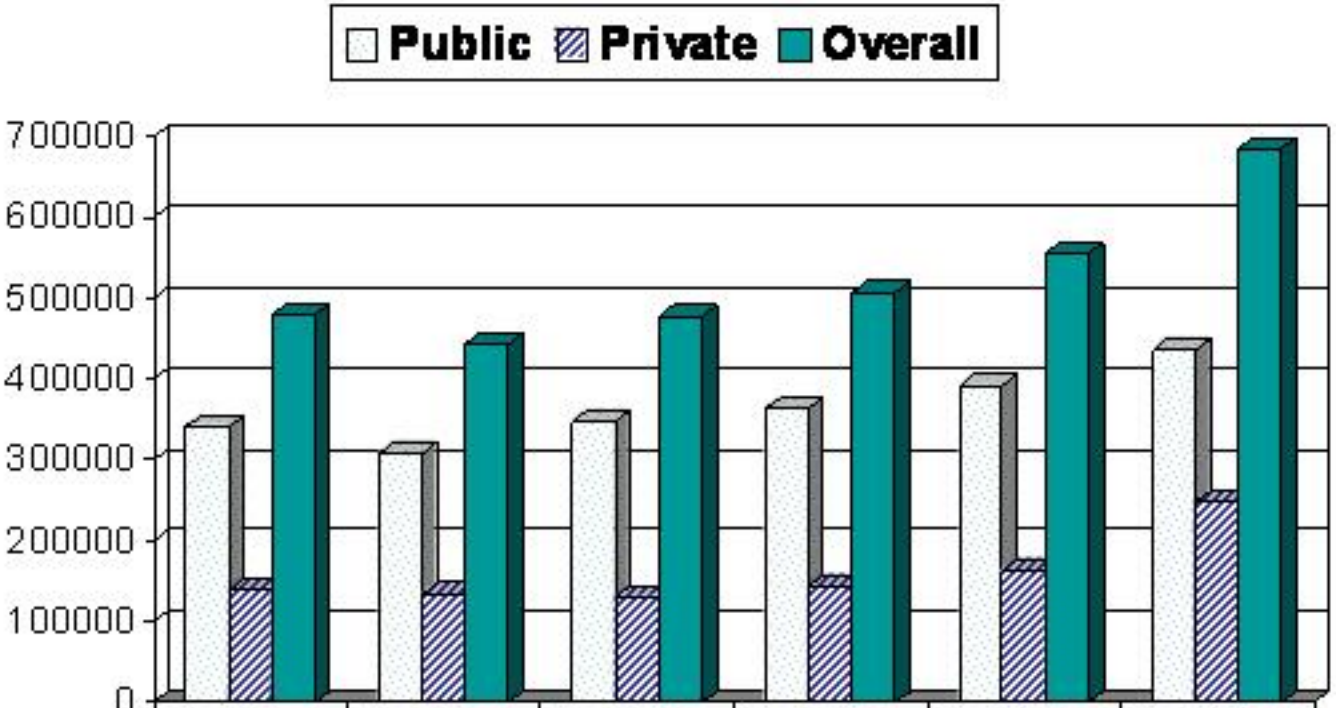
Cameroon 1995-2000



	1995	1996	1997	1998	1999	2000
Public	1435972	1447589	1428250	1501972	1627309	1980450
Private	437389	483948	547581	571294	609774	708602
Overall	1873361	1931537	1975831	2073266	2237083	2689052

Source: MINEDUC and DSCN (2000)

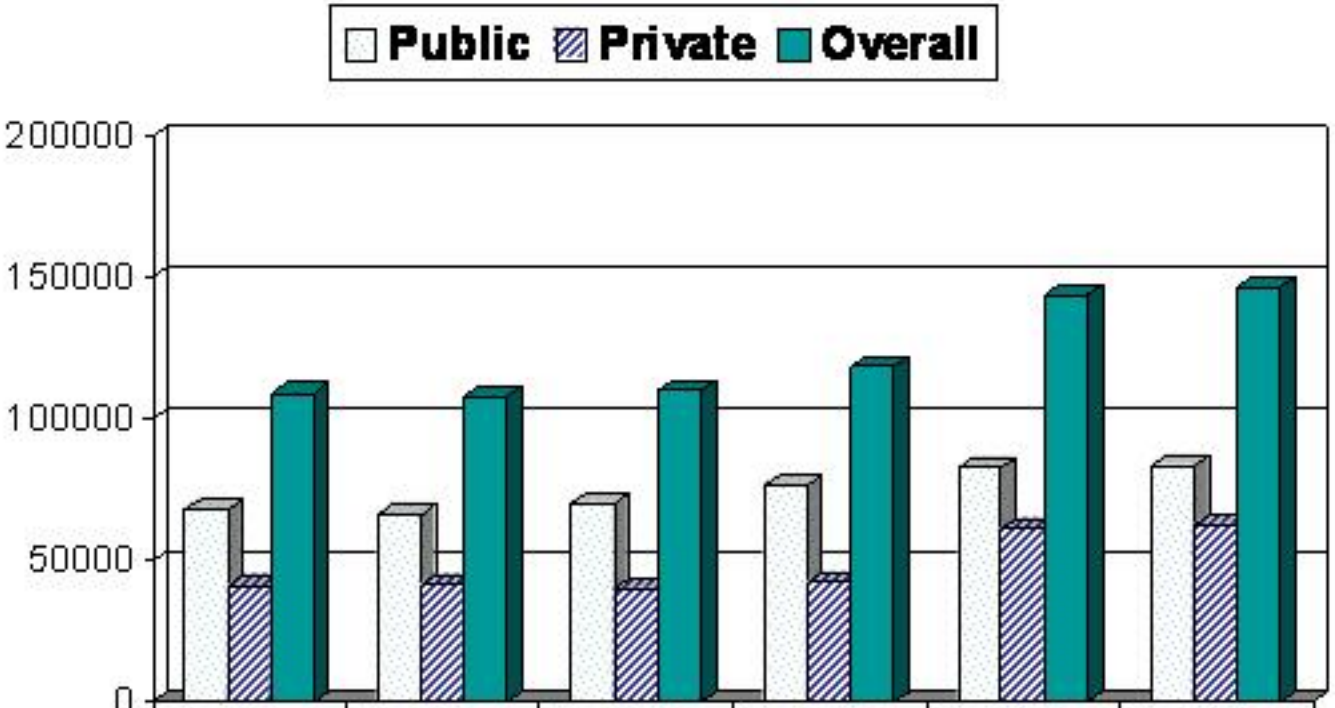
Figure 4.c.Trends in secondary (general) enrollment, Cameroon 1995-2000



	1995	1996	1997	1998	1999	2000
Public	341442	308882	347804	363335	391364	436028
Private	138748	134769	130191	144073	163466	248555
Overall	480190	443651	477995	507408	554830	684583

Source: MINEDUC and DSCN (2000)

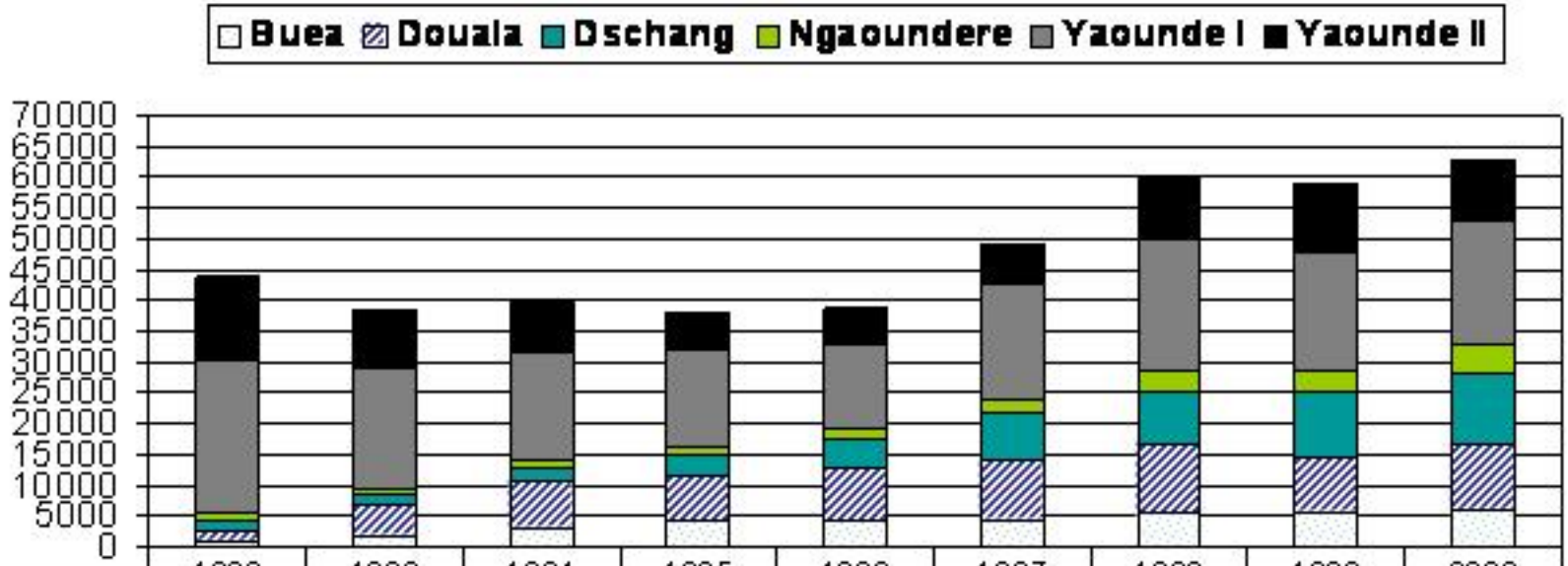
Figure 4.d. Trends in secondary (technical) enrollment, Cameron 1995-2000



	1995	1996	1997	1998	1999	2000
Public	68071	66552	70137	76578	82757	83675
Private	40991	41468	40007	42067	61082	62494
Overall	109062	108020	110144	118645	143839	146469

Source: MINEDUC and DSCN (2000)

Figure 4.e.Trends in university enrollment, Cameroon 1992-2000



	1992	1993	1994	1995	1996	1997	1998	1999	2000
Yaounde II	13279	9556	8382	5874	5747	6265	10657	11198	10084
Yaounde I	25166	19440	17756	15935	13947	19276	21263	19439	20167
Ngaoundere	776	789	950	1225	1526	2039	3082	3424	4695
Dschang	2092	1824	2248	3711	4880	7342	8776	10518	11291
Douala	1635	4782	7475	7301	8389	9744	11376	8847	10786
Buea	807	2005	3249	4099	4185	4599	5380	5834	6112

Source: Annuaire Statistique de l'Enseignement Superieur au Cameroun

Figure 5a. Historical trend and net crisis effect on the schooling inequality associated with gender (Primary school).

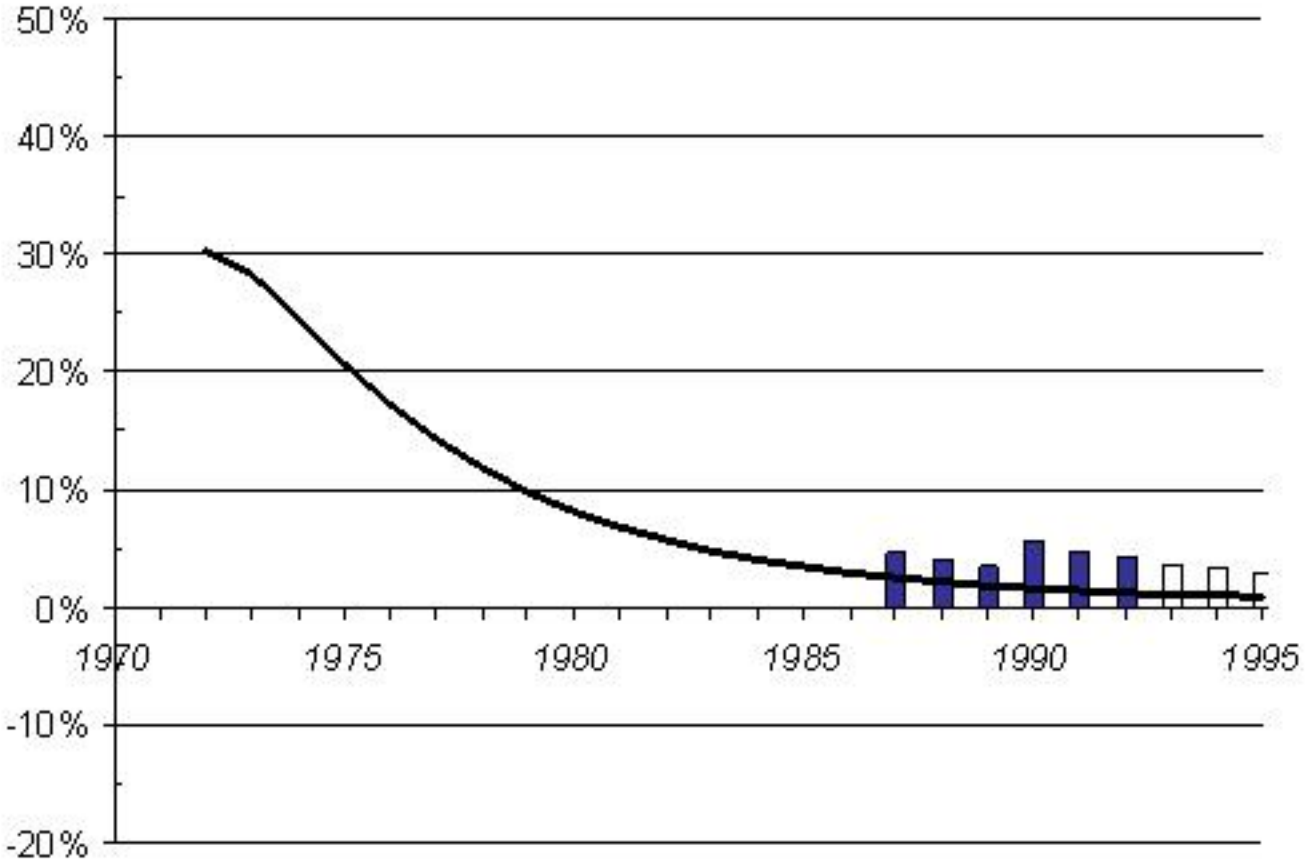


Figure 5b. Historical trend and net crisis effect on the schooling inequality associated with gender (Junior High school).

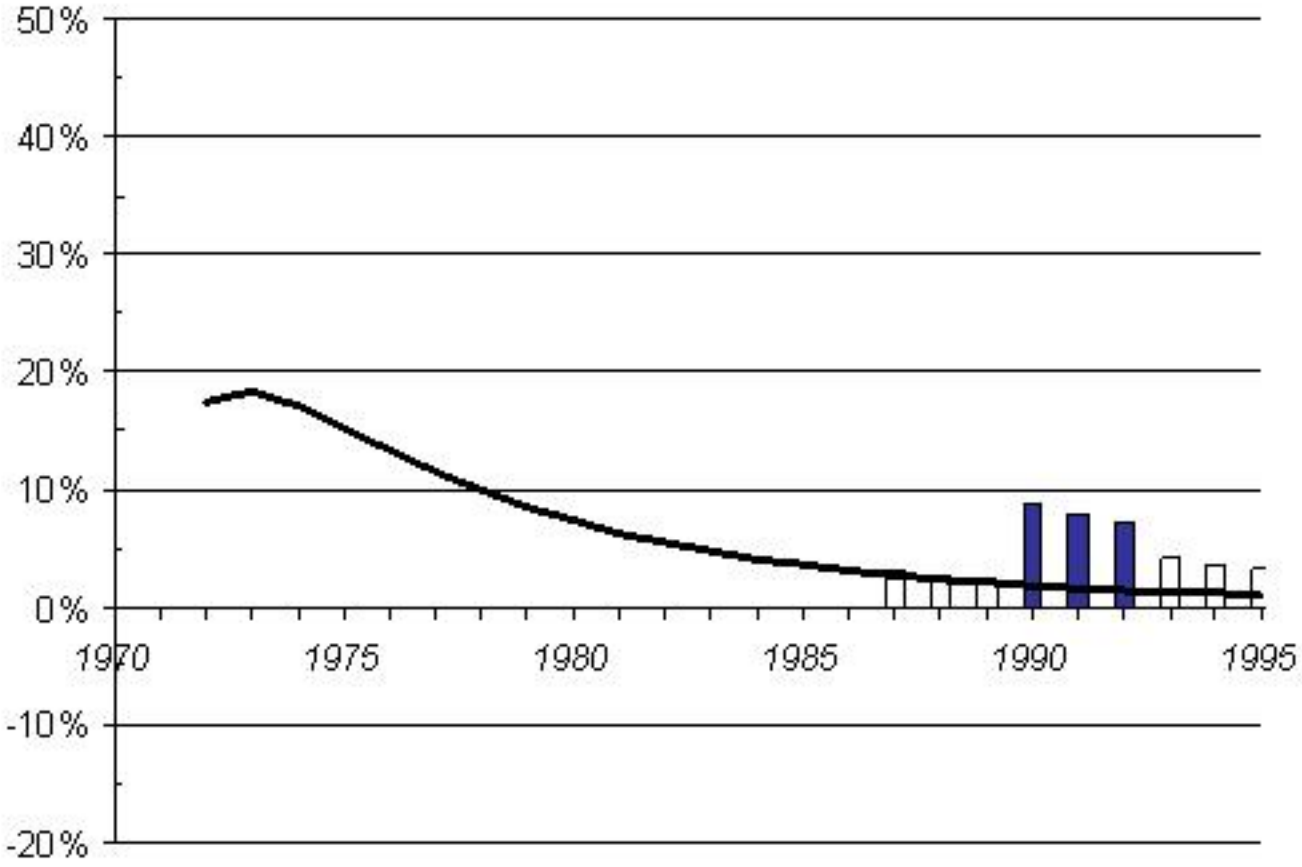


Figure 5c. Historical trend and net crisis effect on the schooling inequality associated with gender (senior high school).

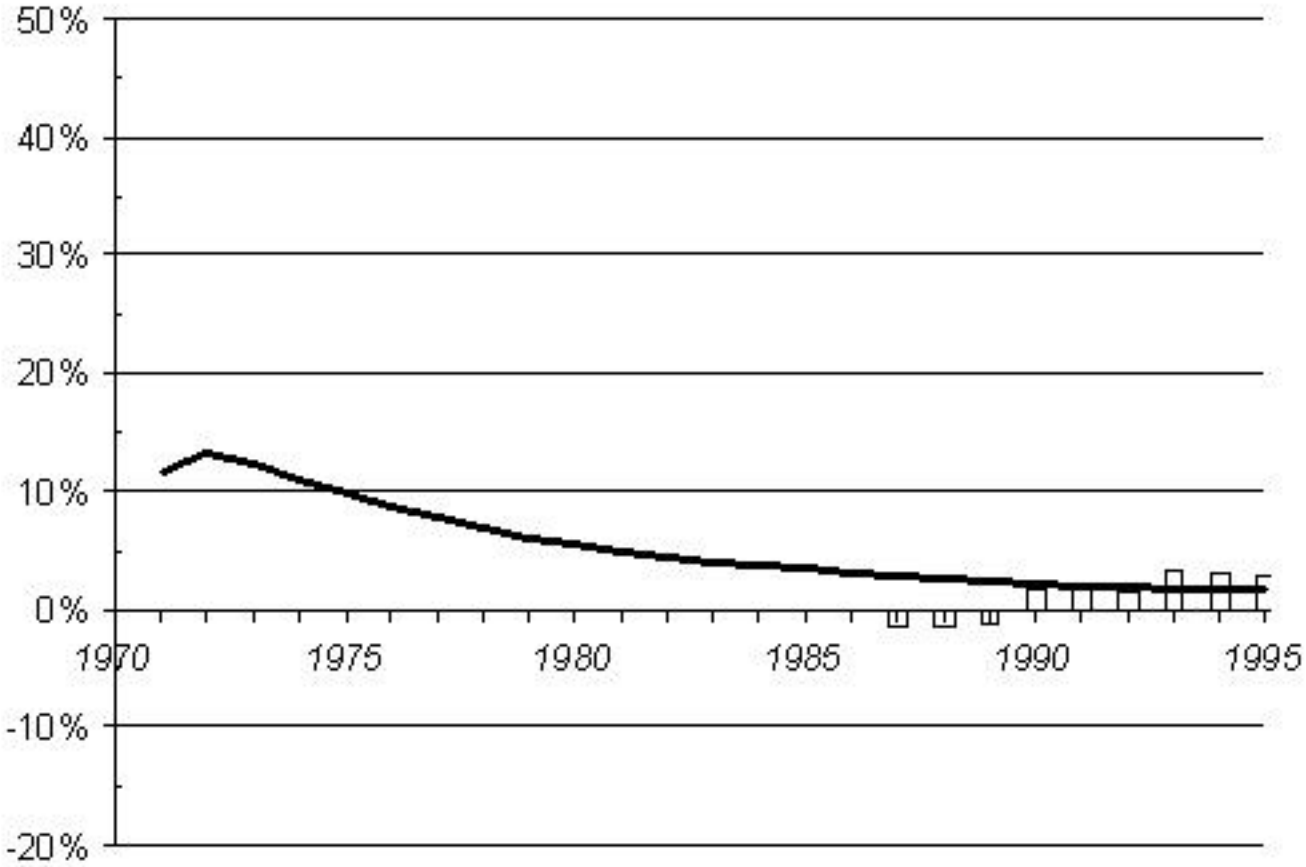


Figure 6. Components of the gender gap in schooling, Cameroon and selected neighboring countries

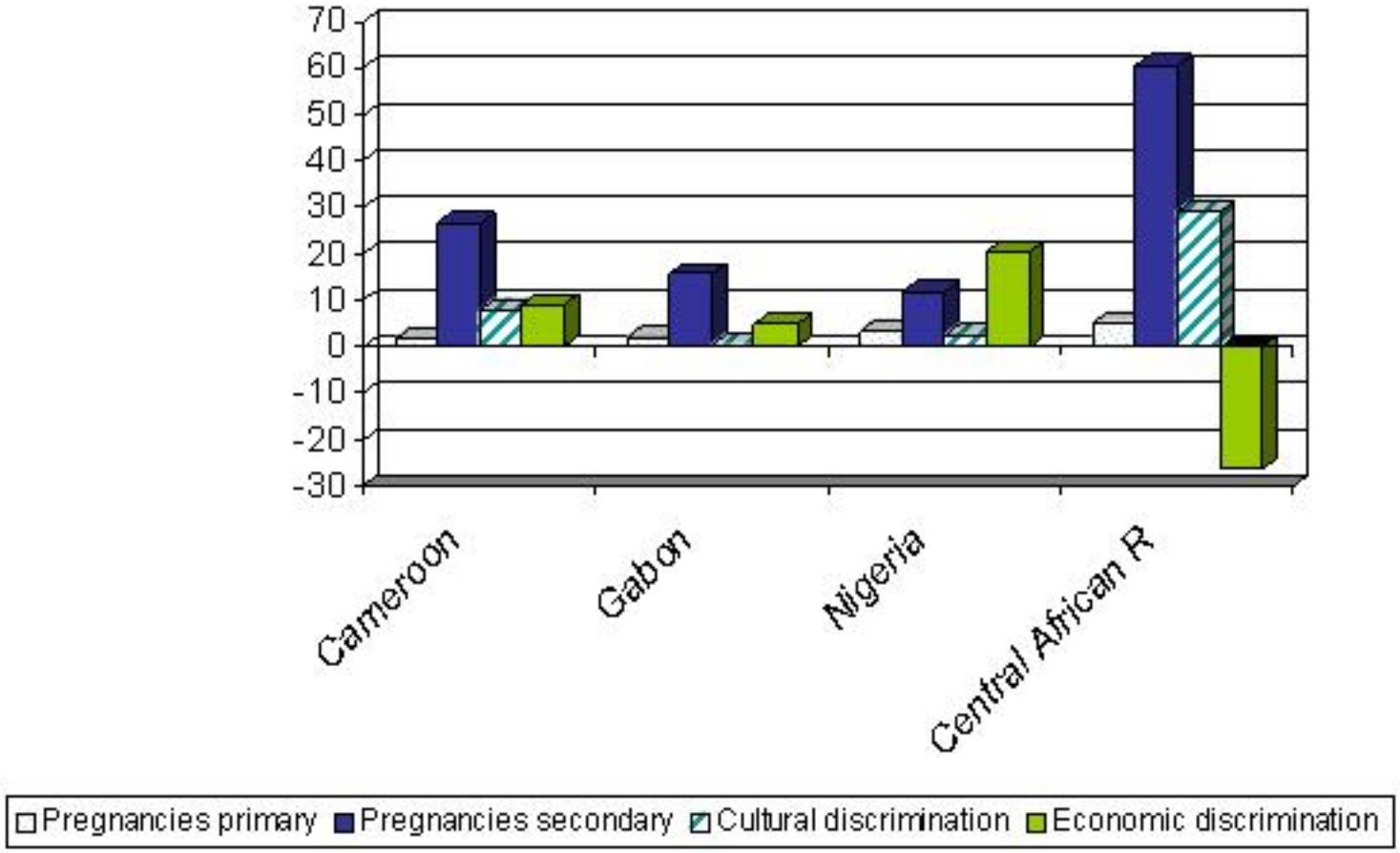


Figure 7a. Historical trend and net crisis effect on the schooling inequality associated with low SES (primary school).

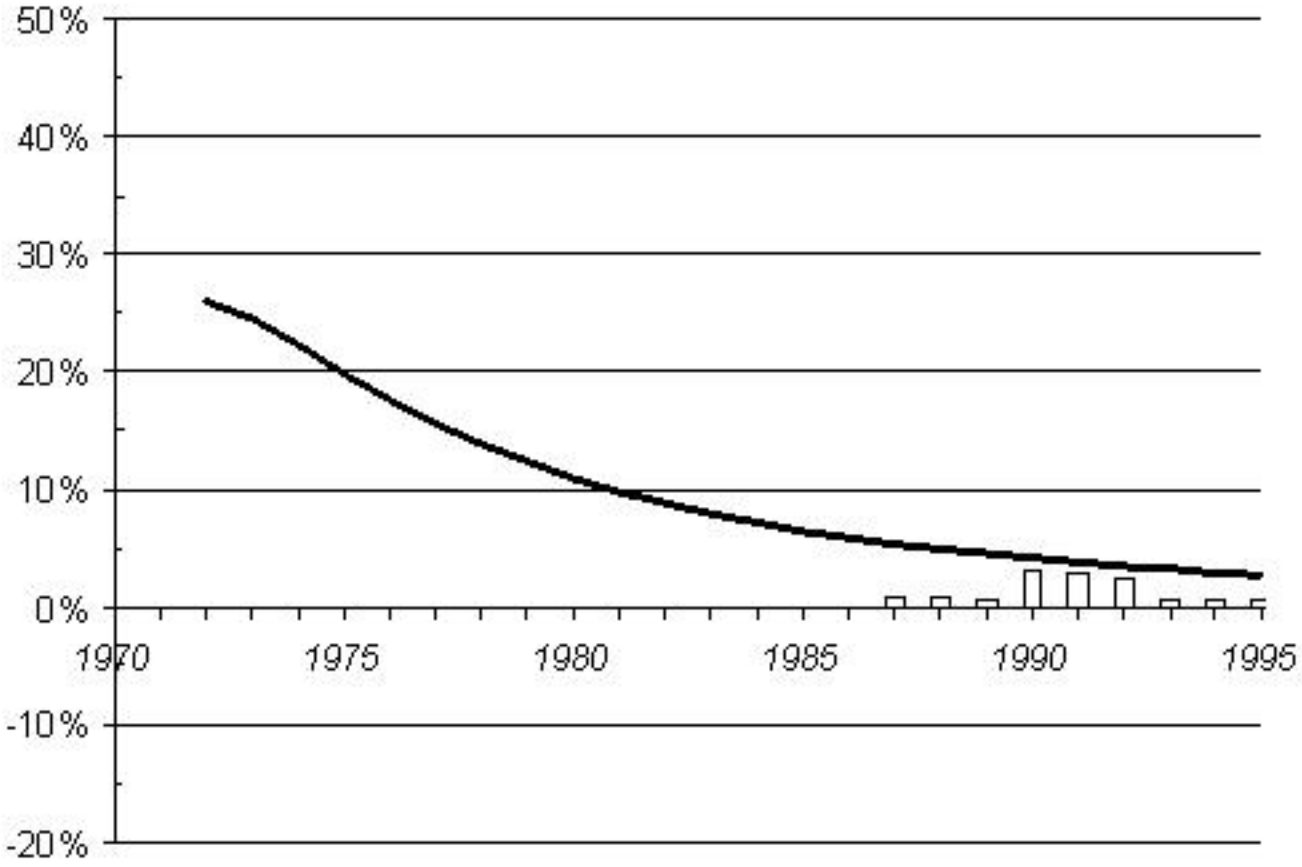


Figure 7b. Historical trend and net crisis effect on the schooling inequality associated with low SES (junior secondary school).

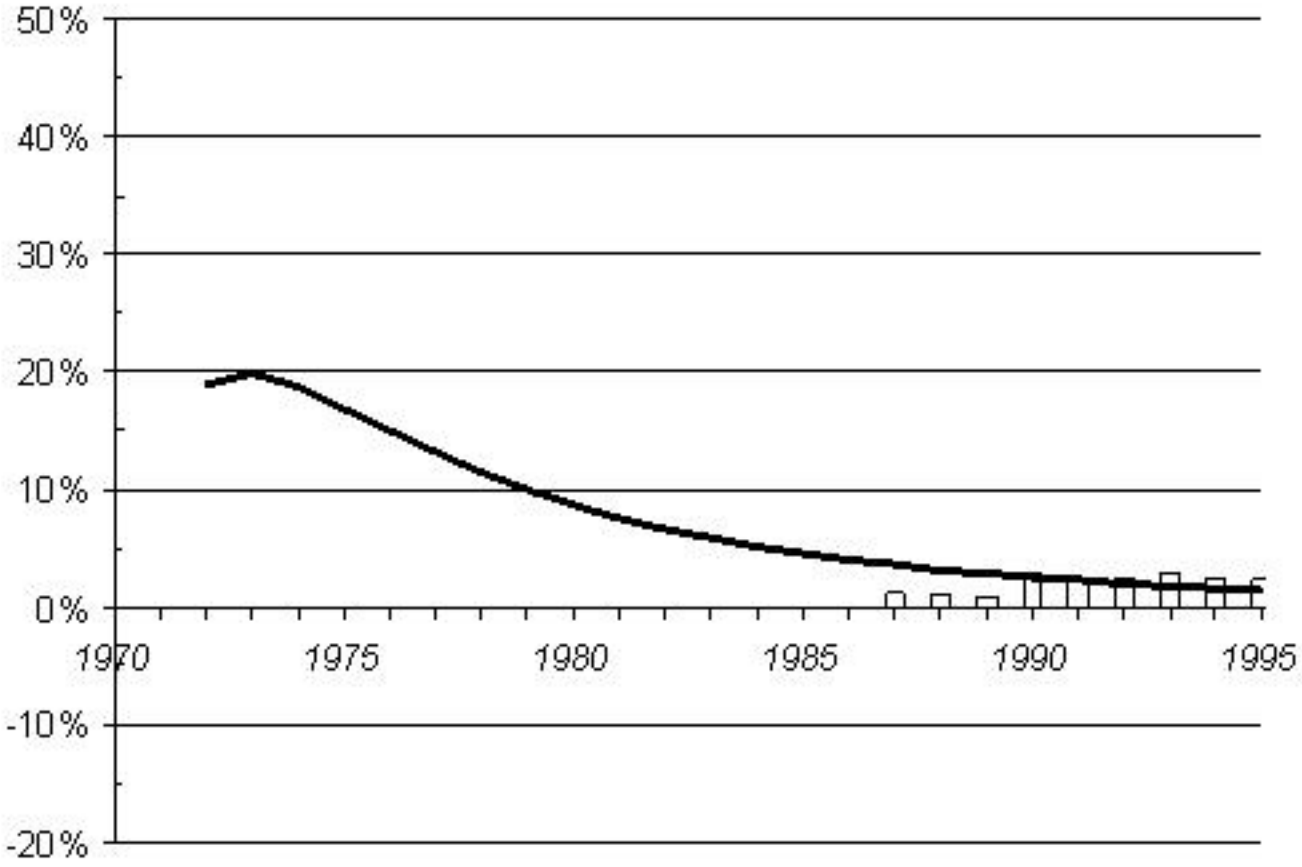


Figure 7c. Historical trend and net crisis effect on the schooling inequality associated with low SES (senior secondary school).

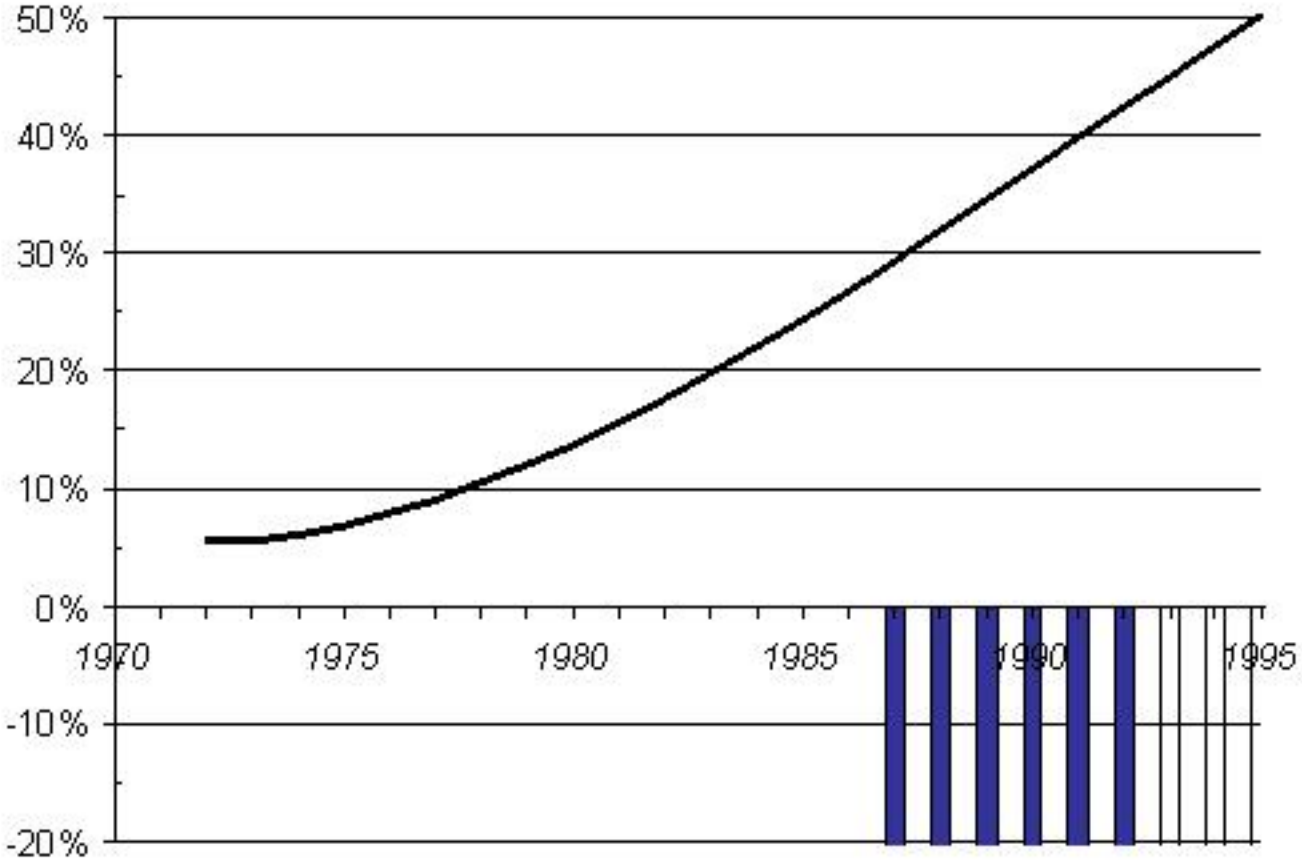


Figure 8a. Historical trend and net crisis effect on the schooling inequality associated with large family size (primary school).

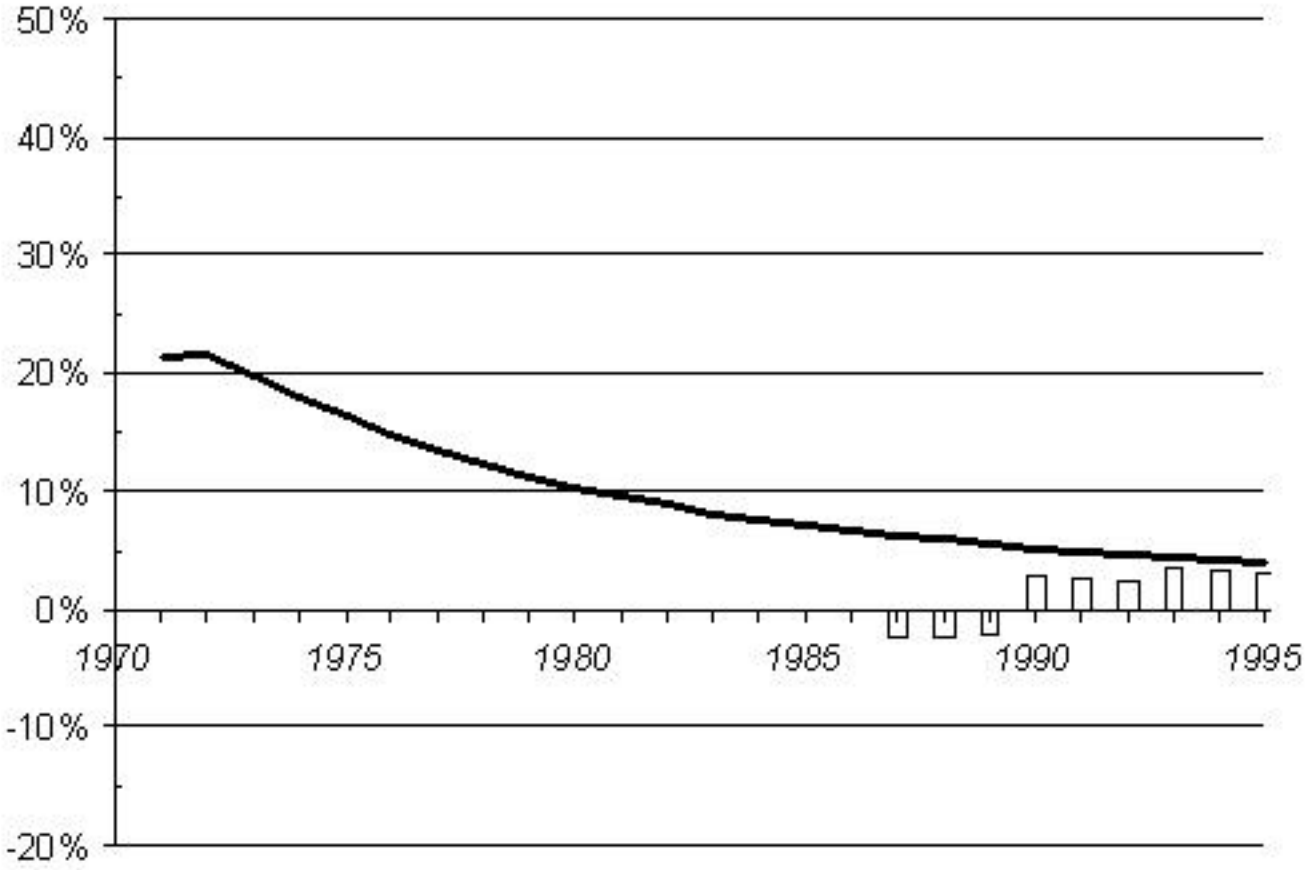


Figure 8b. Historical trend and net crisis effect on the schooling inequality associated with large family size (junior secondary).

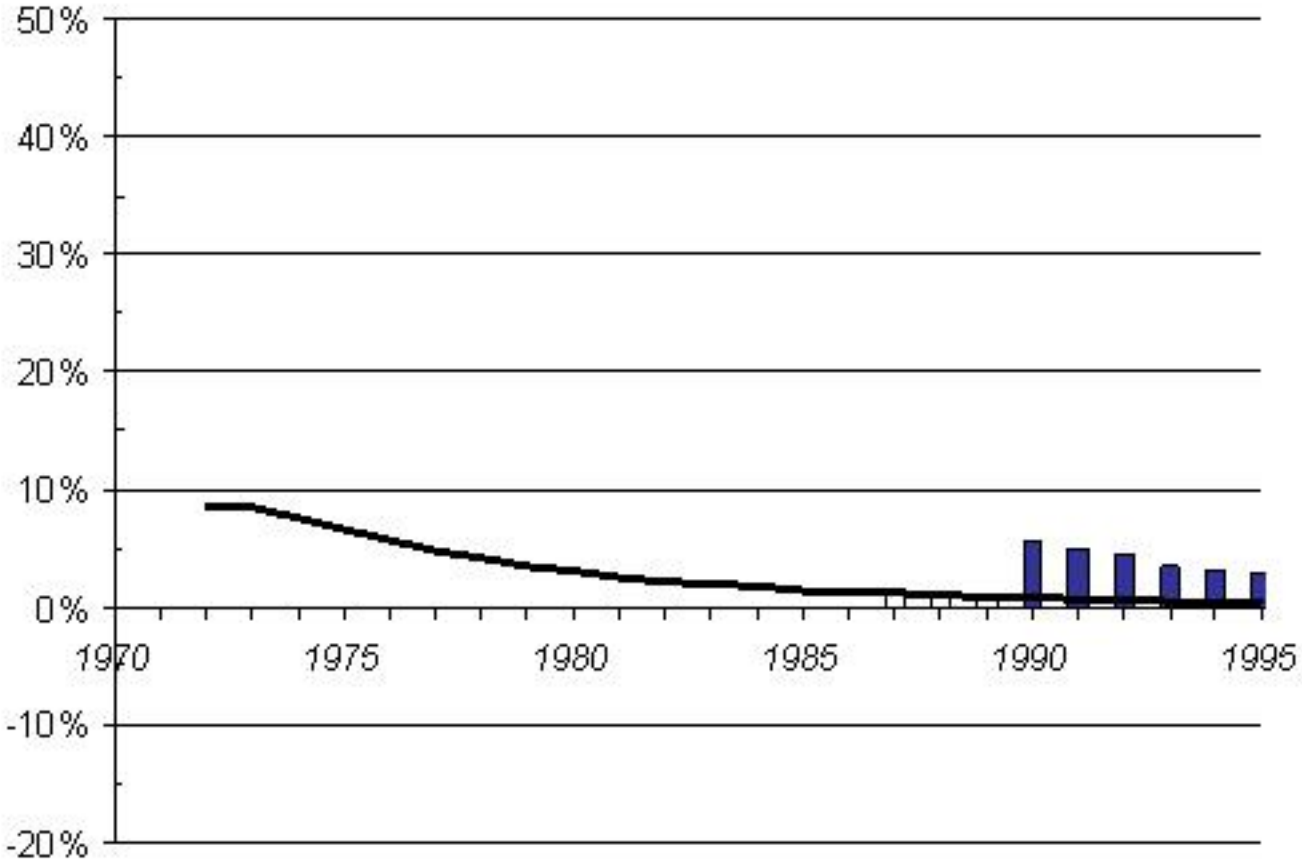


Figure 8c. Historical trend and net crisis effect on the schooling inequality associated with large family size (senior secondary school).

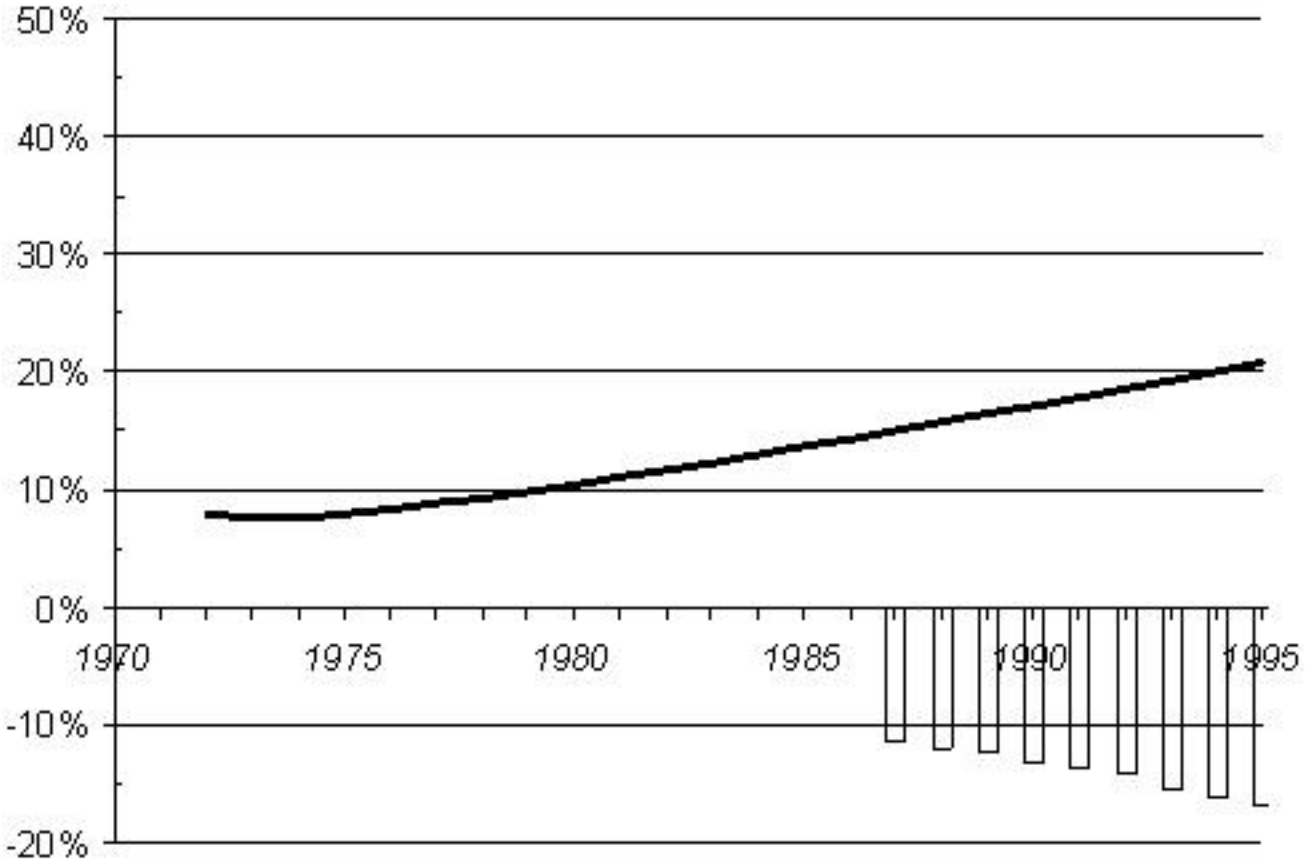


Figure 9a. Historical trend and net crisis effect on the schooling inequality associated with rural origin (Primary school).

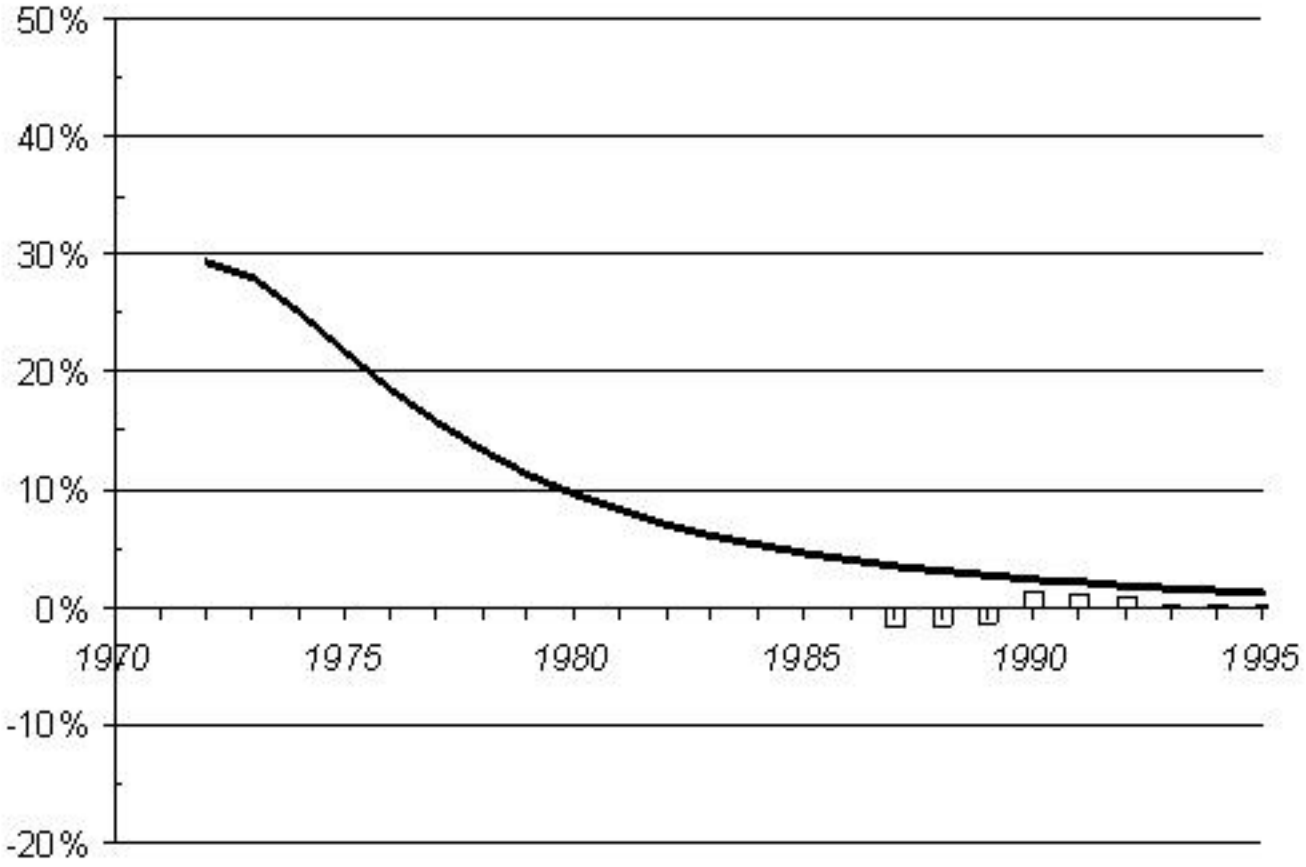


Figure 9b. Historical trend and net crisis effect on the schooling inequality associated with rural origin (junior secondary).

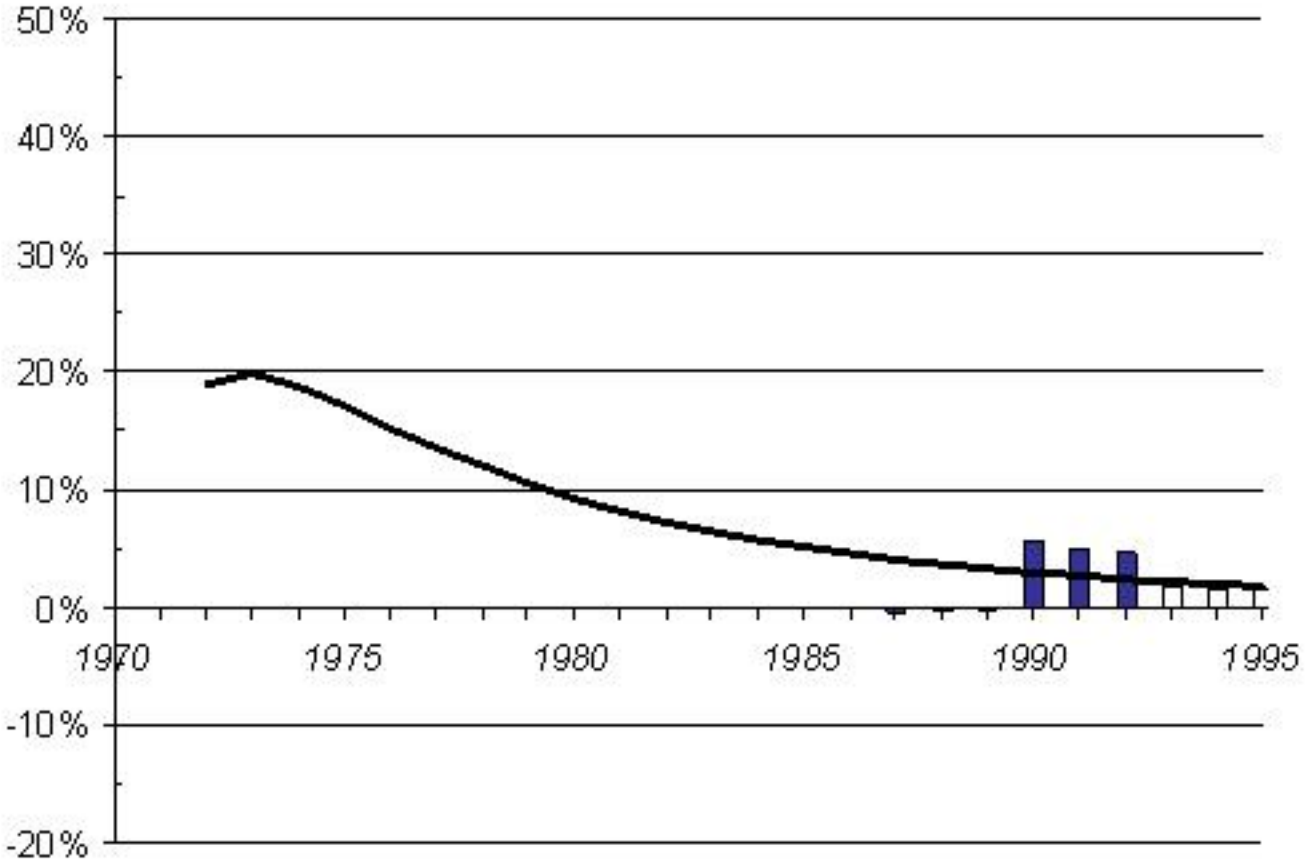


Figure 9c. Historical trend and net crisis effect on the schooling inequality associated with rural origin (senior secondary).

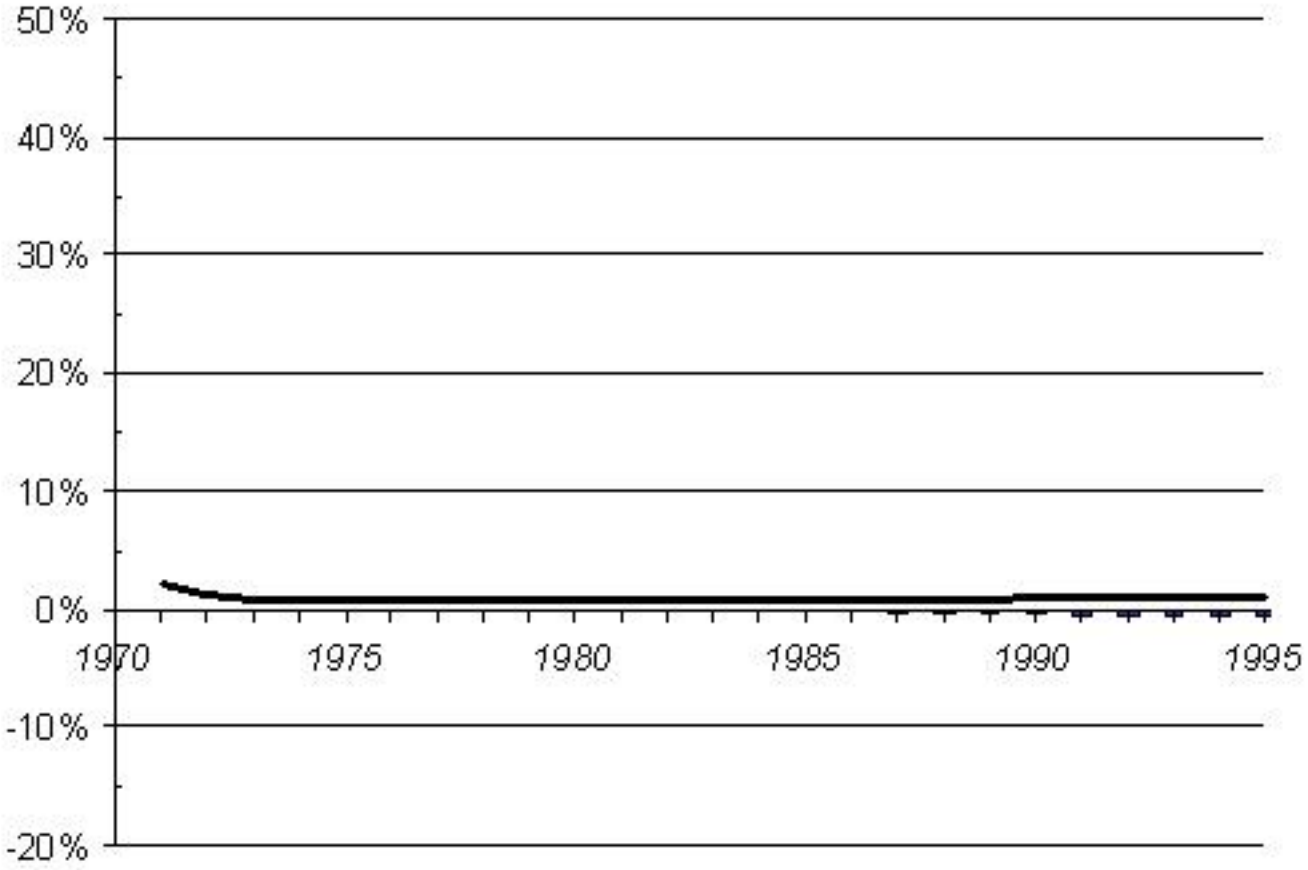
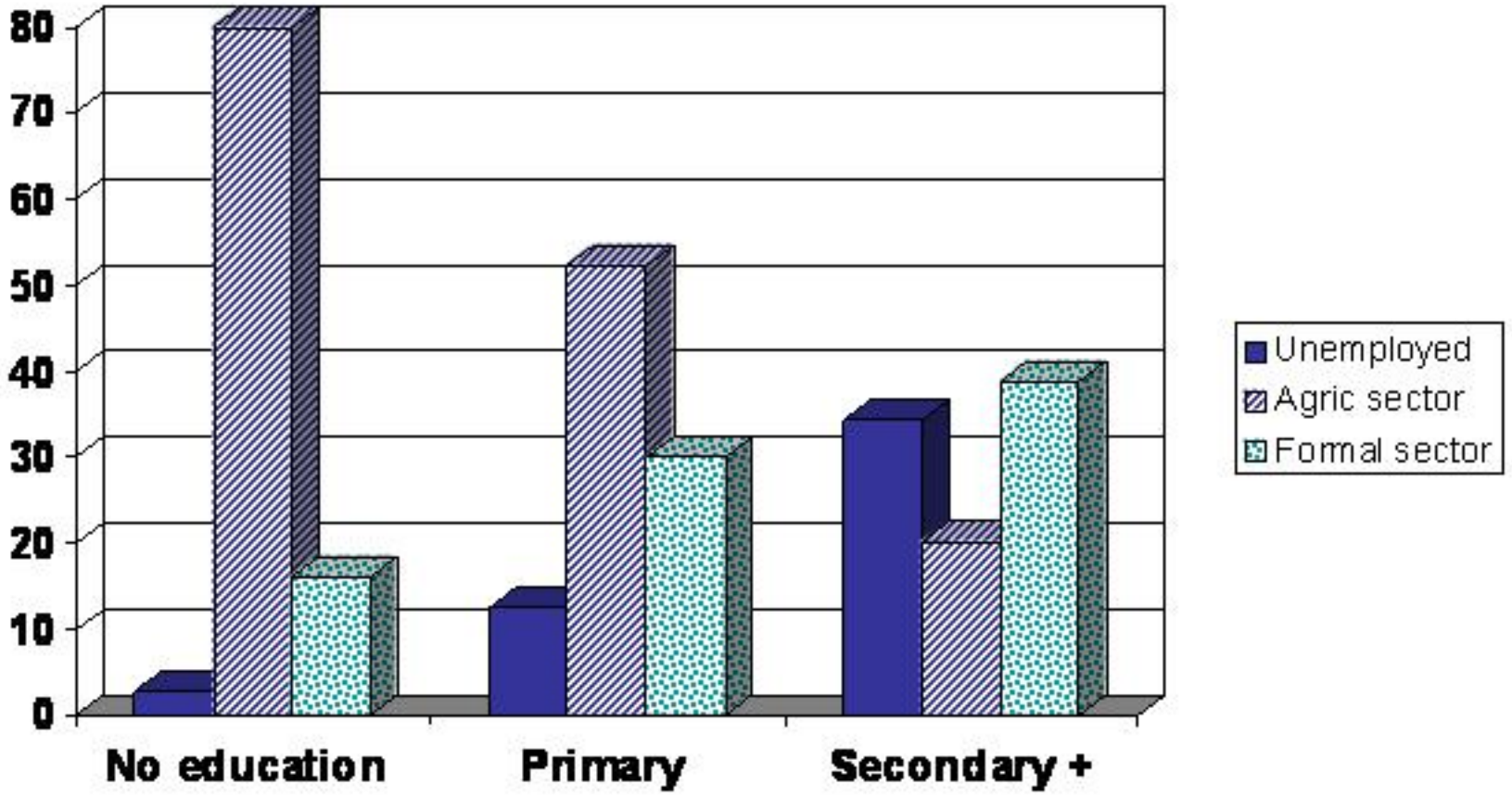
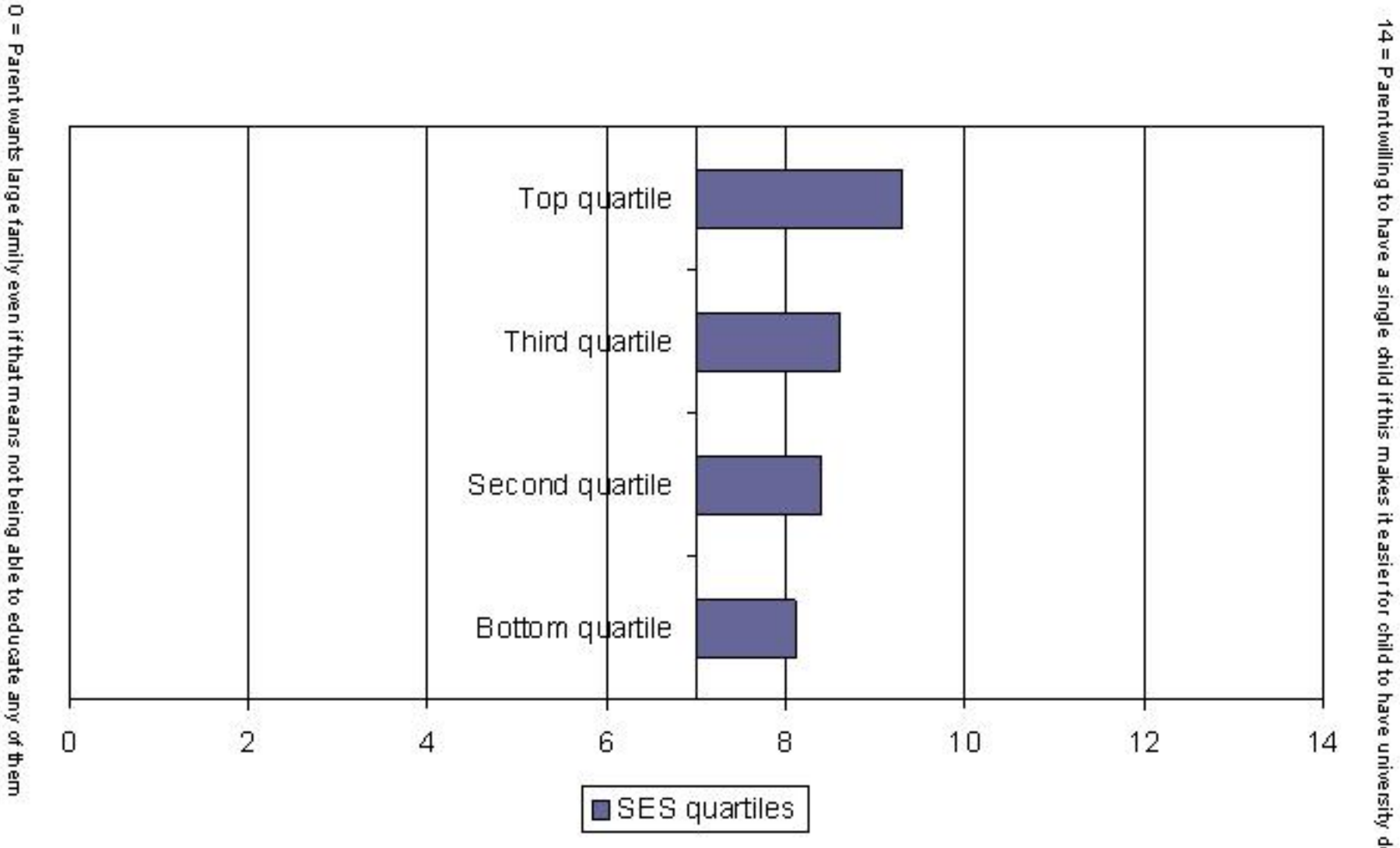


Figure 10. Employment rates by sector and education level, Cameroonian men, 1998



Source: DHS 1998

Figure 11. Parental propensity to trade quantity for child quality, Cameroon 1998



Source: DHS 1998