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# SENEGAL

## SUMMARY ASSESSMENT OF THE EDUCATION SECTOR IN SENEGAL

**A Report to USAID/Senegal**

September 28, 1990

Learning Systems Institute  
Florida State University  
Improving the Efficiency of Educational Systems

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Improving the Efficiency of Educational Systems**

**September 28, 1990**

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## EXECUTIVE SUMMARY

This is a summary assessment of the education sector in Senegal, prepared to assist USAID/Senegal in designing its overall program for the coming five years.

The information presented here comes almost entirely from secondary sources published by the National Ministry of Education, USAID/Senegal, the World Bank and other donors, organizations and individuals, and from interviews with people in these organizations.<sup>1</sup> We spent one week in Washington, D.C. in mid-August, 1990, reviewing documents, interviewing, and formulating the assessment. Based on what information was available, we drafted a preliminary report to USAID/Senegal during the last weeks of August, and spent the last two weeks of September in Dakar, reviewing the draft report with the mission, collecting additional information and completing the report.

In the first chapters, we describe the structures and programs of all significant formal and nonformal education activities, the costs and financing of education, the relationship between education and employment, education as an investment, and activities of other donors in the education sector. In the concluding chapters, we identify and analyze the problems most apparent in primary education and nonformal education programs in which basic skills are taught, with particular emphasis on girls and women. Based on this analysis, we suggest eight options for USAID to consider in planning its program.

The general rationale for this focus is that progress towards USAID/Senegal goals in the domains of agriculture, health, population and an active market economy depend upon the availability of Senegalese people with literacy, numeracy and other basic skills that are taught in primary school and nonformal education programs.

Specific premises that influence our analysis and recommendations are:

(1) The attitudes, knowledge and skills that take form among young Senegalese between the ages of 7 and 15 in the 1990s are critical for development efforts in the foreseeable future.

The demographic pyramid of Senegal illustrates a predominance of young people in the population, who are critical to the future of the country, because the perceptions and understandings developed in the formative years preceding marriage directly influence how health, family and income-producing decisions will be made as adults. Insofar as the amenability to reform makes it possible to affect such social, economic and cultural values through the formal education system (at present overly academic in orientation), the support and appropriate reform of primary education becomes an efficient means for reach-

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1 As our information comes largely from second-hand sources, many of which are dated, and as time did not permit us to review many documents that would add depth to our analysis but are not directly related to education and development, we caution readers against using this report for any purposes other than that for which it is intended.

ing this age group. In view of the current constraints on access to and quality of formal primary schools that affect the impact of this system on the population, especially in rural sectors, complementary nonformal educational strategies designed to reach this age group become important.

(2) The adult performance in new roles associated with most development plans and projects requires preparation, and to neglect early modeling and educational support for expected change is to program for failure.

The tendency of many development interventions to underestimate human and cultural factors, in particular the time and admixture of knowledge and attitudes needed to enable and sustain change, is a major cause of disappointing results. In addition to this conceptual recognition of the type and the extent of human resources required for effective development activities, appropriate training of trainers and development of materials that engage—rather than merely instruct—adult learners are essential.

(3) Women play a critical role in the foundations of child, family and community development, as well as in economic activities, and their literacy and basic educational level affects the quality of their contributions.

Development activities in agriculture, health/population and income generation have traditionally been oriented toward men and male-dominated institutional and bureaucratic channels. Yet, in actuality, women make and influence decisions in these sectors. There is compelling evidence that development gains in these areas are significantly furthered by female literacy and schooling. Conversely, women's attitudes and perceptions that counter such change can be decisive bottlenecks to attainment of development goals.

Major problems addressed in our analysis include:

- (1) the irrelevance of primary schooling to Senegal's development needs;
- (2) the insufficient resources available to primary schools;
- (3) the inadequate conceptual base and resources committed to most earlier attempts at large-scale nonformal education programs;
- (4) the lack of special attention paid to the educational needs of girls and women.

USAID/Senegal's options for addressing these problems which we consider most worthy of further examination are:

- (1) in primary schooling:
  - cooperation with other donors in persuading and supporting the government to implement its 1984 reform measures;
  - improvement of the quality of primary schooling through assistance to INEADE and other channels in the areas of in-service school director and teacher support and materials development;
  - direct assistance to school/community groups to enhance community support of primary schools and integration of schools into the community in order to im-

prove the school's role as a provider of basic education to children in the community.

(2) in nonformal education:

- improvement of the capacity of nonformal education trainers and facilitators;
- support for NGOs that have grassroots-level educational programs;
- development of materials for new literates in maternal languages.

(3) in girls' and women's education:

- support for increased access for girls to primary school and nonformal education programs;
- adopt and promote non-formal education programs that have proven effective for women's literacy training and basic education;
- building adult education around early childhood concerns.

## **INTRODUCTION**

This summary assessment of the education sector in Senegal is intended to help the USAID/Senegal mission formulate its Country Program Strategic Plan for the next planning period, 1992-97. The purposes of this report are:

- to describe the education sector, both its formal and nonformal aspects,
- to discuss constraints on development imposed by the current status of the education sector, and
- to point out opportunities for USAID/Senegal to invest in the education sector in order to help alleviate those constraints, and to bolster its own programs.

We look at options for investment in education through the lens of AID's current development goals and strategies. The first of these is USAID/Senegal's goal to increase per capita growth and food security through an orderly process of financial stabilization, structural reform and project activities, and its specific objectives: to promote a dynamic market economy; to increase cereals production, and to improve family health. The second goal is that of the Development Fund for Africa, which targets the development of market economies and the private sector, and is implemented through the various sector strategies, including education. And the third is AID's trend toward non-project assistance, which can help missions to promote structural reforms and provide other opportunities to assist nations in their economic and social development.

### **Approach and methodology**

Although we present a summary description of education as an investment in development,<sup>1</sup> our primary focus is on the particular circumstances in the education sector in Senegal and its relationship to USAID/Senegal's goal and objectives.

In preparing the report, we have striven for brevity, and we refer readers interested in particular matters to the more complete documentation that is available to the mission. For this draft we have relied entirely on secondary sources--documents provided by USAID/Senegal, the National Ministry of Education (MEN), non-governmental and other organizations, including donors, in Senegal, and AID/Washington, and interviews with officials of those organizations and others in Dakar who are knowledgeable in various aspects of the education sector. A complete list of people interviewed is appended.

### **Organization of the report**

The report is divided into the following sections:

- Overview of the education sector
- Formal school system
- Nonformal education
- Costs and financing of education
- Donor activities

- Analysis of key problems and issues
- Options for USAID/Senegal investment

At the end of the sections on formal education, nonformal education, and costs and financing of education, we discuss the constraints in those areas. After reviewing what other donors are contributing to education and how the patterns of donor assistance may also constrain the effectiveness of education programs, we identify major problems of Senegal's education sector and analyze the constraints to educational development. Finally, based on our analysis, we summarize what we see as potential opportunities for USAID/Senegal investment in education.

## OVERVIEW OF EDUCATION IN SENEGAL

### General Description

The education sector in Senegal resembles that in other Francophone countries in West Africa: most resources go into the formal school system; French is the language of instruction; and schools at the post-primary level are heavily concentrated in urban areas. Nonformal education programs operate on a small scale in both urban and rural areas, and many students, whether or not they attend formal schools, receive their religious education in Koranic schools. Senegal houses the University of Dakar, which is older and more prestigious than universities in other Francophone countries, and a second university is about to open in Saint Louis.

The literacy rate in 1987 in Senegal is estimated at somewhere between 10 and 30 percent, depending on how the term is defined and how people are counted. This compares roughly with a 25 percent literacy rate throughout the Sahel, and a 50 percent rate throughout Africa.

In its enrollment rates in primary, secondary and higher levels of education, Senegal also falls above rates throughout the Sahel, but below those of Africa (Table 1).

**Table 1:** Enrollment in Senegal compared to that in the Sahel and Africa

	PRIMARY	SECONDARY	HIGHER
SENEGAL	57%	14%	2.8%
SAHEL	52%	11%	1.8%
AFRICA	68%	30%	4.3%

Of those who attend primary school 40 percent are girls, of those who attend secondary school 33 percent are girls, and of those who attend vocational school 27% are girls.<sup>2</sup> The rate of girls in urban areas who attend school is far higher than that of girls in rural areas.

Private schools are an increasingly important part of the education sector. Over half of the pre-primary schools are private, and about half of the schools on the secondary and higher levels are private. The government subsidizes private schools to a small extent, and qualifies many of them to grant degrees recognized by the state.

### History

While Senegal was still a colony, and well into the 1960s, the French developed an education system for the dual purposes of training an elite corps of Senegalese civil servants and of teaching them the French language and culture. Although Senegal's constitution states that education is to be free, universal and compulsory, a lack of teachers and classrooms has made this impossible. In 1969 the Government of Senegal introduced the first major reform of the

education system, generally intended to set realistic targets for universal education, to make education "specifically African", and to train a technologically competent staff.<sup>3</sup> This reform, however, was never effectively implemented.

In the mid-1970s the government began to experiment with nonformal education as a means of teaching basic skills (reading, writing and counting) to youth and adults in rural areas who did not have access to the formal school system. Many of these programs were conducted outside of the ministry of education. While some of those that were heavily funded by donors (mainly France and the World Bank) did not succeed, others continue on a small scale throughout the country.

In the late 1970s dissatisfaction with schooling grew among several interested parties. Recognizing the urgent need for its people to be able to read, write and count, and under pressure from parents and others, the government organized for representatives of parents and teachers, as well as of the government, the *Etats generaux de l'enseignement*. Participants in that conference agreed that the curriculum should be more practical, that primary school instruction should be given in national languages, and that foreign teachers should be replaced by Senegalese.

In 1984 the government instituted a major reform of the school system. The World Bank took note of the proposed reforms, and two years later lent its weight to the reform and agreed to help finance a sectoral adjustment that included specific strategies:

- Major structural changes: The school system would include three years of pre-primary education, ten years of compulsory education in primary and lower secondary schools, three years of upper secondary education, and higher education.
- Full enrollment of children ages 7-12 by 2000, and the expansion of secondary schools to a level that would accommodate primary-school graduates: The government would improve the efficiency of primary school by training cadres of assistant teachers (paid at a lower rate) and introducing multi-grade classrooms in rural schools and double shifts in urban schools. And, importantly, funds previously allocated to higher education would be diverted to primary education.
- Major innovations in the content of education: Instruction would be given in national languages, productive work would be integrated into the curriculum, and moral and religious education would be given.

### **Current policies**

The reforms put in place in 1984 still guide the policies of the education system, although they have been implemented selectively and only to a minor extent. In particular, funds have not been diverted from higher to primary levels to the degree prescribed in the reform, and the resources put into the sector continue to be imbalanced in favor of higher education. The section of this report on educational costs and financing, which follows, elaborates on the allocation of resources.

The World Bank is now asking other donors to cooperate in pressing the government to plan a subsequent reform. The current reform has concentrated on primary education; the next reform will focus on post-primary education from a perspective of human resources

development. Plans are to be finalized by the summer of 1991. Since the considerable amount of resources being invested in higher education now result in many unemployable graduates, objectives and plans for this subsector continue to evolve.

## THE FORMAL SCHOOL SYSTEM

### Organization

The Ministry of Education (MEN) dominates the formal school system. Founded in 1986 through the consolidation of three ministries, it is organized in 12 directorates, through which most operations take place, a cabinet with oversight and liaison functions, and a general secretariat, with administrative functions (see Annex). Although in theory the MEN is decentralized, operating in departments and regions, in reality even minor decisions are made in Dakar. Major decisions are enacted through national legislation, and are the product of strong political pressures.

Units critical to the support of the entire system (which are being built up with World Bank assistance) are:

- the Directorate of Studies, Human Resources and Planning (DERP), responsible for educational planning, school mapping, and relations with external agencies, and
- the National Institute of Study and Action for the Development of Education (INEADE), responsible for the development of curricula, in-service teacher training, teaching materials, tests and student assessment measures.

Members of the cabinet have under their charge Arabic education, private education and educational radio and television, seeming to indicate that these aspects of the system are not at all integrated into the operation of the school system.

The inspectorate plays an important role in any French-based school system. To contrast such a system with schooling in the U.S., where school boards and superintendents are ultimately accountable to students and their families, in Senegal, the inspectors and their staffs, selected from among experienced teachers, are the deputies of the minister, and all authority travels through them. Inspectors of elementary schools report to the Directorate of Elementary Education. Most inspectors are field based and, theoretically, work in a structure that parallels that of the government administration. All departments and almost all *arrondissements* have at least one school inspector, whose job it is to visit the schools to evaluate their compliance and performance. But in a country where a rural infrastructure and spare parts are often missing, locally based inspectors do not play an active role, and as a consequence, communication between individual schools and their support system is weak.

The University of Dakar is administered under the authority of the MEN by the rector and the University Assembly, composed of government officials, teachers and student representatives. Other institutes of higher education are headed by directors who are responsible to the ministry under whose jurisdiction they operate.<sup>4</sup>

**Administration and management.** Like most institutions with French roots, the education system in Senegal is highly centralized. In contrast to schools in the U.S., where local districts contribute to their financial basis, hire teachers, set standards, and, to a large extent, determine the curriculum and select textbooks, schools in Senegal are the extremities of a large central body, the Ministry of Education (MEN), which determines their budgets, their

staff and their curricula, and establishes the standards and examinations used to pass students from one level to the next. The exceptions are private schools, including religious schools, which are relatively autonomous, and training institutes on the secondary and higher levels which are directed by other ministries.

The decision-making processes within the MEN and its schools, appears to be cumbersome and involve many levels of management and advisory committees. As an illustration, the MEN was able to redeploy 400 primary school teachers who had been working in administrative positions back into the classroom as part of a reform in 1984. This indicates how thickly padded the administrative hierarchy has been.

**Flow chart of the formal education system.** Although the education system is composed of only four general levels (pre-primary, primary, secondary and higher), the flow of students through the system, and their (theoretical) options at each level are complex (see Flow Chart).

Pre-primary school serves children of ages 3-5; primary, ages 6-11; lower secondary, ages 12-14; upper secondary, ages 15-17, and higher, ages 18 and beyond. Many students, however, repeat grades, so this breakdown represents only a rough accounting of where each age-group (or cohort) sits in the system.

Pre-primary school is not a pre-requisite for primary school. The first diploma granted is at the end of primary school (grade 6), and is required for entrance into lower secondary school. Those with a diploma have four choices--assuming that they are in the vicinity of operating schools with space available:

- lower secondary general school (four years)
- lower secondary technical school (four years)
- professional training leading to low-level civil service jobs
- practical training.

Entrance exams must be passed before the first year of professional training and the second year of lower secondary school; none is required for the practical training course, which is generally found in rural areas and does not lead to a degree.

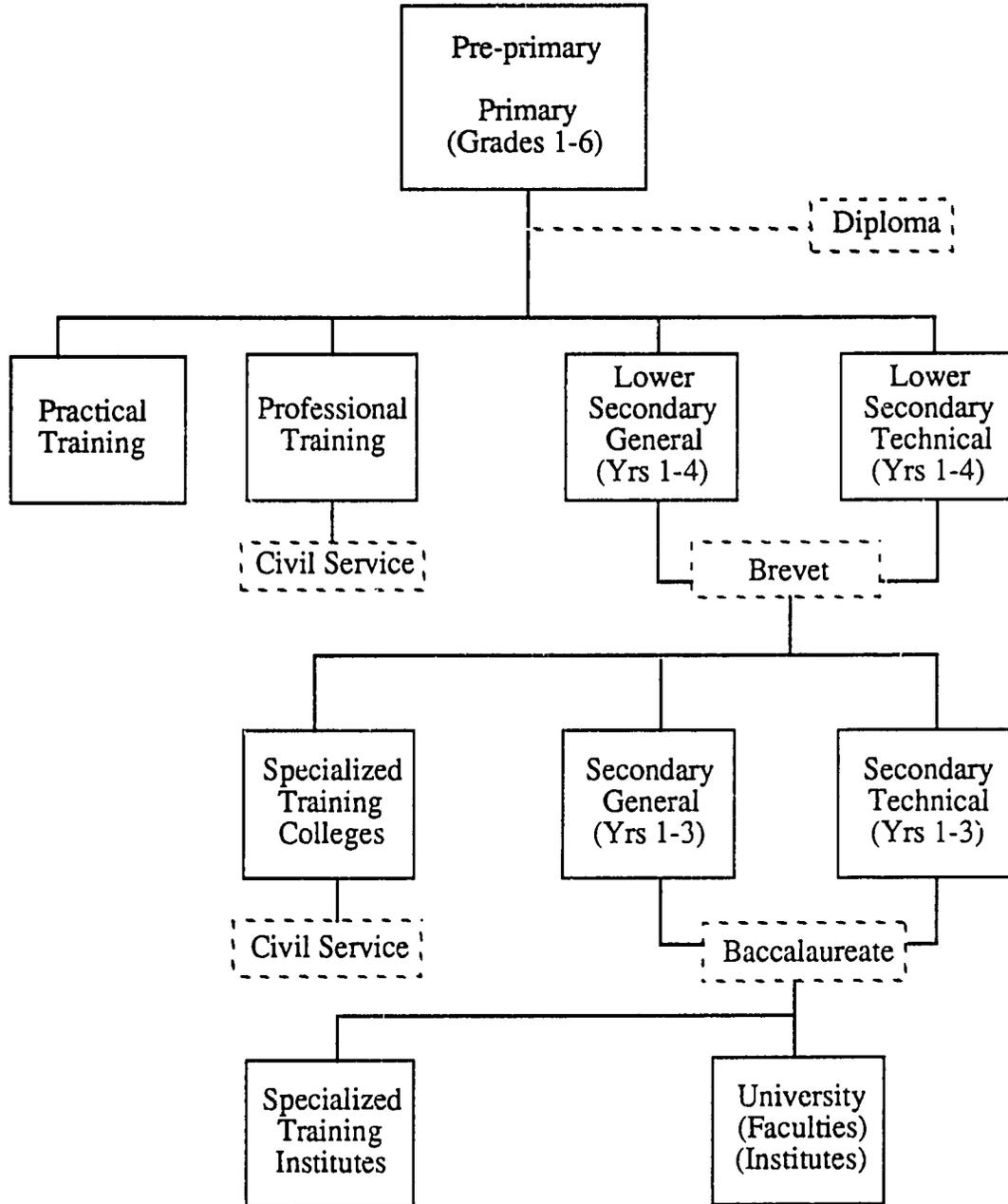
Students who complete professional training receive a certificate; those who complete the fourth year of lower secondary school (grade 10), either general or technical, receive a second diploma (brevet); and, under the same assumptions, these students can continue with:

- upper secondary general school (3 years)
- upper secondary technical school (3 years)
- specialized training schools or colleges, including assistant teacher training colleges, that lead to mid-level civil service jobs.

An entrance exam is required for specialized training, and a certificate is granted upon graduation. Students who complete the third year of upper secondary school (grade 13) receive a baccalaureate, and are eligible to enter:

- the university
- specialized training schools, including teacher training colleges, that lead to high-level civil service and private sector jobs.

### FLOW CHART OF THE SCHOOL SYSTEM



Graduates of training schools receive certificates and are eligible to take entrance exams for university degree programs. Those who go through the university's courses can receive degrees roughly equivalent to bachelor's, master's and doctor's degrees: a *license*, a *maitrise*, and a *doctorat d'Etat*.

Having described how the school system is intended to work, let us look at the actual numbers of students who have been in the school system during the past 15 years, numbers of teachers, enrollment rates, and the rates at which students pass through the system. We will look at the years 1978, 1982, and 1987 to see what changes there have been over these intervals. (We have not had access to comprehensive data for years subsequent to 1987).

**Students and teachers.** In Table 2<sup>5</sup> we see the numbers of students enrolled in primary school and secondary school, and of those enrolled on these levels, the percent that are male and female, and the percent that go to school in rural and in urban areas. We also see enrollment rates for students on the primary, secondary and higher levels (although the data available to us is incomplete in some of these areas). The numbers in the table illustrate that, during the past 15 years, total enrollment of students on all levels has risen from approximately 437,000 in 1978 to 765,000 in 1987. The percent of the primary-school-age population who attend school has risen from 40.9 percent in 1978 to 54.6 percent in 1987, and of the secondary-school-age population from 10.2 percent in 1978 to 13.1 percent in 1987.

The ratio of male to female students has not changed much during those years; about 60 percent of students enrolled in school have been male (40 percent female), and about 60 percent of those enrolled are in urban areas (40 percent rural).

In 1985 the ratio of students to teachers in primary school was 47:1 (61:1 in urban areas and about 44:1 in rural areas). The student to teacher ratio in secondary school was about 27:1 on the lower level and 17:1 on the upper level (excluding teacher training colleges, where it was about 7:1). Secondary school teachers--on the lower level--have come only recently to rural schools, where, in 1984 there were no more than 74 secondary school teachers, and all were in lower-level secondary schools. On the higher education level, the student to teacher ratio is about 16:1.

### Measures of internal efficiency

The internal efficiency of a school system, or of a certain level of that system, is characterized by a series of measurements that indicate what proportion of the school-age population stays in school and graduates from school, and how long it takes for students to pass through the system. The totally efficient school system would take in each year 100 percent of the age 7 cohort into the first grade of primary school, and graduate 100 percent of the age 19 cohort from the final grade of secondary (or higher) school 12 years later, with no student ever having repeated a grade. Even more important, no student would drop out of a totally efficient school. The loss of students through drop-outs and repeaters is called "wastage".

In Senegal, although enrollment rates have increased, the efficiency of the system has not changed much during this 15-year period (See Table 3). In 1981, it took an average of 8.1 years<sup>6</sup> for a student to pass through the six-year primary school, and an average of 5.3 years to pass through the four-year lower secondary school. Relative to other countries in Africa, these wastage rates are not high. Neither dropout rates nor repetition rates appear to have changed

dramatically during the past ten years. Their stability is a result of the absence of any standardized exam until the end of primary school. Policy allows a student to repeat a grade only once, and it appears that most students flow through the primary school grades with relative ease. It is only at the end of that time when they must pass an exam in order to continue to secondary education.

**Table 2: Description of Student Population: 1978, 1982, 1987**

	1978	1982	1987
STUDENTS	437,211	586,866	765,400
MALE	272,433 (62%)	352,544 (62%)	466,607 (61%)
FEMALE	164,778 (38%)	216,322 (38%)	298,793 (39%)
URBAN	--	--	459,240 (60%)
RURAL	--	--	306,160 (40%)
PRIMARY	346,373 (79%)	452,675 (80%)	610,946 (80%)
SECONDARY	78,468 (21%)	99,705 (20%)	136,873 (20%)
SCHOOLING RATE			
PRIMARY	40.9%	47.2%	54.6%
SECONDARY	10.2%	11%	13.1%
HIGHER	13.6%*	11.8%**	--

\*1980

\*\*1983

### Pre-primary schooling

Pre-primary school is not compulsory, and, until recently, does not seem to have been a high priority for the government. Well over half of the pre-primary schools are private, and most are in urban areas, although many of the newer schools have been built in rural and suburban areas. Of the approximately 10,000 students attending pre-primary school in 1986, 6,000 attended private schools and 4,000 attended public schools. Attendance in pre-primary schools grew at a rate of about 11 percent between 1980 and 1988, the rate of growth being higher in the public sector than in the private.<sup>7</sup>

**Table 3: Measures of Internal Efficiency: 1978, 1982, 1987**

	1978	1982	1987
<b>ENROLLMENT RATE</b>			
PRIMARY	40.9%	47.2%	54.6%
SECONDARY	10.2%	11%	13.1%
<b>DROPOUT RATE</b>			
PRIMARY	7%	7%	8%
SECONDARY	11.8%	10.6%	11.4%
<b>REPETITION RATE</b>			
PRIMARY	16.4%	17.2%	15.6%
SECONDARY	14.7%	19.8%	18.7%

The MEN has stated its intention of making this subsector more efficient by providing one teacher to every 24 students rather than one to every 12--a ratio that makes pre-primary education as expensive, per student, as university education.

Little information is available on the purpose, curriculum or quality of pre-primary schools. The government's interest in them, however, seems to be growing.

### Primary schooling

Far more students are enrolled in primary school than in schools at any other level (pre-primary, secondary, or higher), and since basic education (reading, writing, and counting) became a high priority in the reform of 1984, the ratio of primary-school students to others continues to increase. Over 655,000 students were in primary school in 1989.<sup>8</sup> As shown in Table 2, the number of primary school students grew from 346,373 in 1978 to 643,477 in 1988. The enrollment ratio grew from 40.9 percent to 54.6 percent during that time period.

Unfortunately, as we will discuss in more detail below, even though both the **numbers** of those enrolled in primary school have been growing, as well as the **enrollment ratio**, the numbers of students about to enter primary school is growing so fast now that the enrollment ratio will soon decline, unless the numbers of schools and teachers is dramatically increased within the next few years.

**Enrollment and urban/rural demographics.** In Table 4, which shows gross primary-school enrollment ratios by regions, we see that enrollment over the past 15 years, has been highest in the urban Dakar region, where in 1988 nearly 90 percent of primary-school age students were enrolled in school, and lowest in remote rural regions, such as Diourbel, Tambacounda and Louga, where hardly more than 30 percent of primary-school age students

are enrolled. Table 5 also illustrates, on the positive side, that growth rates outside of Dakar have been higher than those in the Dakar region. Enrollment ratios in the Ziguinchor region increased over 40 percent during that time, and in the Fatick and Kolda regions over 20 percent. This phenomenon is partly due to the near saturation levels of urban enrollment.

**Table 4: Primary School Enrollment Rates by Region: 1978, 1982, 1987**

	1978	1982	1987
SENEGAL (AVERAGE)	40.9%	47.2%	44.7%
DAKAR	87.1%	90.1%	89.7%
ZIGUINCHOR	60%	86.3%	102%
DIOURBEL	14.6%	21%	31%
SAINT LOUIS	39.5%	45.1%	46.2%
TAMBACOUNDA	20.6%	29%	31.3%
KAOLACK	22.6%	30.3%	40.4%
THEIS	30.9%	43.3%	56.1%
LOUGA	17.6%	20.8%	32.8%
FATICK	20.5%	33.3%	43.3%
KOLDA	25.2%	34%	45.4%

**Efficiency.** The dropout rate of around 7 percent and the repeater rate of around 16 percent during these years is somewhat better than the wastage rates in other countries in Francophone Africa (though much worse than in Anglophone African).

Although 80 percent of recent cohorts who enter primary school reach the sixth grade, only 40 percent of those who enter are allowed to pass the exam that qualifies them to graduate (receive a diploma) and enter secondary school.<sup>9</sup> This 80 percent figure is surprisingly high, and we think it might be attributable to a policy of automatic promotion from one grade to the next in primary school. But the fact that only 40 percent of those who enter primary school receive their diploma is largely a function of the inaccessibility of secondary schools; the number of graduates is held down to that which can be accommodated in secondary school, because a primary-school diploma qualifies one to enter that level.

In primary school, the dropout rate is higher for girls than for boys, yet the graduation rate is also slightly higher for girls.<sup>10</sup>

**The effects of the 1984 reform on primary schooling.** Although the 1984 reform of the school system contained structural readjustments of the entire system, its major thrust was

toward primary education. On this level, the MEN planned a number of specific measures to directly affect the accessibility and quality of primary education without greatly increasing its cost.

Those measures which seem to have been implemented most successfully were taken to improve children's access to primary schooling by making more teachers available and by increasing class sizes, thereby making more efficient use of teachers (although this measure raises serious questions about the quality of education in large classes). The specific measures taken to increase access were these:

- The ratio of associate teachers (who have one year of training) to teachers (who have four) was increased from 1:1 to 4:1;
- 800 primary school teachers who were holding administrative positions were put back into the classroom;
- Multigrade classrooms were introduced (mainly in rural schools), helping to increase the ratio of students to teachers;
- Double sessions were introduced (mainly in urban schools), helping to increase the ratio of students to teachers and make more efficient use of physical plant.
- Teacher-training colleges, whose enrollment fell drastically in 1983, would take in and graduate more teachers;

According to a MEN official, these measures resulted in greatly increased access:

The introduction of [double-session] teaching and multigrade classes, together with the redeployment of teachers previously assigned to administrative duties, have made it possible to increase the number of children enrolled in elementary schools without adding resources. Out of 641,977 students enrolled in 1988, 56,862 were able to come to school because of the [double session] system and 7,984 because of multigrade classes.<sup>11</sup>

Another measure planned for increasing access (and also addressing the inequity in access between rural and urban children) was to have more schools built in rural areas, with materials furnished by donors and labor by parents and community members. But in the past few years, several hundred rural schools have had to close for lack of teachers.

Less successfully implemented have been the measures planned to increase the quality of education. There were four:

- Practical training was to be introduced into the curriculum;
- Textbooks were to be written based on Senegalese rather than French experience, published in Senegal and distributed to all students free of charge;
- Students were to be taught in their maternal languages during the first years;
- Religious training was to be introduced.

Practical training has been introduced in pilot projects in 25 classrooms during the past few years, and these projects are to be extended during the next year to several classrooms in

25 schools. They have been evaluated and judged to be successful. Textbooks in reading, writing and math on the first level have been published and distributed to almost all students, as planned. Textbooks on the second level are in draft form.

Neither maternal languages nor religious training have been introduced, except for some small-scale efforts in maternal language teaching in Dakar (where it is probably least needed). Teaching in maternal languages, regardless of its pedagogical value, has political dimensions in Senegal because all people do not have the same maternal language, and it is difficult to offer instruction in some and not others. No attempt has been made to introduce religious training, probably also because of the political ramifications of such an effort.

The office of the MEN charged with responsibility for implementing and evaluating all of these measures is INEADE. INEADE has evaluated the effect of double shifts and found that the quality of instruction has not deteriorated, but that neither teachers nor parents are happy with the change--teachers because it increases their workload, and parents because it shortens the amount of time each day their children are in school. INEADE has also found the pilot projects in practical training to be effective. We have no other sources of information on how the quality of education has changed in primary school as a result of practical training.

A shortage of teachers is the greatest constraint on access to primary schooling. Progress in the supply of trained teachers, however, is not so positive. The number of graduates from elementary teacher training institutes peaked in 1981 at 631 teachers and 748 assistant teachers. In Table 5, the severe drop in the supply of new teachers since Senegal's economic crisis in the early 1980s is illustrated.<sup>12</sup>

**Table 5: Teacher College Graduates: 1978-88**

	1978	1980	1982	1984	1986	1988
Of Institutes (Teachers)	281	411	530	180	173	98
Of Centers (Assistants)	433	404	740	20	70	77

The evidence from many countries (developed and developing) demonstrates the importance of well managed classrooms and schools, and of training and supporting staff in their management responsibilities. INEADE has been responsible for providing in-service training to teachers, school directors and inspectors in respect to measures introduced by the reform. For this, they have had some technical assistance from the French government, as well as monetary aid from the World Bank. We do not have enough information to judge how useful the in-service training provided by INEADE has been.

## Secondary schooling

The state of secondary schooling in Senegal is more complicated to review than that of primary schooling in that:

- on the secondary level are several courses, each with its own objectives, curriculum and demographics, which are sandwiched between the products and constraints of primary schooling on the one side, and the demands of both higher education and manpower requirements on the other;
- although many new secondary schools were built in the late 1960s and early 1970s, at present the system on that level resembles more an imbalanced hodgepodge of programs than an intelligible whole, and little up-to-date information on it is available.

The MEN, with major support from the World Bank and other donors, is expected to launch its reform of post-primary schooling in 1991 or 1992.

**Courses and demographics.** As we indicated above in describing how students pass through the school system, the secondary level is characterized by three different courses (or tracks) spanning lower secondary (sometimes called middle) and upper secondary school. Students in two of these courses, general and technical, are aiming toward a baccalaureate degree and a university level education. Students in the third course, professional training, expect to leave school with a diploma that terminates their education and qualifies them for civil service jobs. Students can take this terminal professional training on either the lower or upper level, qualifying for either lower or higher level civil service and private sector jobs, including teaching.

In spite of the government's long-expressed interest in making education relevant to Senegal's economy and society, and in providing manpower for various levels of jobs in both the rural and urban sectors, the high prestige of the baccalaureate degree, and the pressure on the MEN to make the courses leading to that degree more accessible to students, have resulted in the continuous growth of the lycee system, at the expense of lower level practical training schools, especially in rural areas.

Since 1984, lower secondary schools have expanded into rural areas. By 1988, of the 231 public and private lower secondary schools (excluding practical training schools) in the country, 11 were in rural areas, enrolling about 3,600 students and employing about 130 teachers. This enrollment is less than 5 percent of national enrollment, showing that most rural students who want more than a primary school education must leave home for the city. There are no upper secondary schools or teacher training institutes in rural areas.

This is not to say that practical training for rural youth has not been tried. Such a program (*Enseignement Moyen Pratique*) was initiated, for example, in the 1970s, but it failed for several reasons, not the least of which was parental and student lack of interest in a course that did not lead to any kind of certificate.

**Enrollment.** Between 1965 and 1972, when the government expanded secondary and higher education, the average annual rate of growth for lower secondary enrollment was about

12 percent, and for upper secondary about 14 percent. Table 6 illustrates how the system has expanded since 1978 by showing the number of graduates from each level.

**Table 6: Secondary School Graduates: 1979, 1982, 1988**

	1979	1982	1988
<b>STUDENTS</b>			
<b>BREVET</b>	3,607	7,174	14,334
PUBLIC	2,467	3,871	9,098
PRIVATE	1,140	3,303	5,236
<b>BACCALAUREATE</b>	3,632	2,136	3,910
PUBLIC	2,141	1,751	3,016
PRIVATE	1,491	385	894

We see that there has been a steady increase in the number of students graduating from both public and private lower secondary schools, and that, after a dip in the mid-1980s, a small increase in the number of upper secondary graduates, particularly from public schools.<sup>13</sup> Nonetheless, lower secondary enrollment is still limited to less than 12 percent of the eligible population, and upper secondary to less than 5 percent.

**Efficiency.** To a large extent, the internal efficiency of the school system on the secondary level is constrained by insufficient opportunities for students to pass to the next level. The number of graduates each year from practical training courses is supposed to be determined by the government's estimate of how many employment opportunities will exist for those graduates, and the number of lycee graduates is determined largely by the number of places available in the faculties of the University and higher level training institutes. Following this rationale down to the secondary level, the number of lower level graduates depends much on space available in the upper levels. Thus:

- Although about 80 percent of primary school students reach grade 6, only about 40 percent are allowed to pass the exam which qualifies them for the diploma that will allow them to enter lower secondary school;
- Although 75 percent of lower secondary students reach grade 10, only about 44 percent are qualified to enter the upper level;
- About 50 percent of those who finish the upper secondary course receive a degree allowing them to enter higher level courses.

**Curricula.** The curriculum of a secondary school varies from one course to the next. Basic education skills are in principle still being taught to students through age 14. In addi-

tion to those skills, general secondary education includes literature, languages, math and science. Until the 1980s, classical languages were emphasized. Since then more attention has been paid to African literature and culture, but French is still the language of instruction. Technical secondary education concentrates more on math, science and technical training. Of those students in the lycee courses, about 80 percent are in general and 20 percent in technical courses.

In 1966 the baccalaureate degree granted in Senegal was de-linked from the degree granted in France and adjusted to Senegalese objectives and standards. One effect of this change was to increase the success rate of students who took the "bac" exams from 3 percent to almost 50 percent.<sup>14</sup> The success rate of those taking the exam for a *brevet* is about 32 percent.<sup>15</sup>

The curriculum of a practical or professional training school, on both the lower and upper secondary levels, depends on the nature of its training objectives. Because these are in continual flux and are about to become a target of the next reform, we will not discuss particular training schools. As we will discuss in a subsequent section, the external efficiency of the system is extremely low; many students who complete training courses cannot find jobs.

**Progress.** In brief, while enrollments are growing in secondary schools, their importance has taken a back seat to primary education in the government's priorities since 1984. The MEN has now begun to focus on post-primary education, and, with support from donors, will soon begin some structural adjustments. In particular, the reforms will aim toward addressing the perceived mismatch between Senegal's manpower needs and its unemployed school leavers, and the potential unity in goals and activities among the education, training, family planning and health sectors.

#### **Private schooling: Primary and secondary**

Private schools, which (except for Koranic schools) are mostly in urban areas, play an important role in Senegalese education. On each level, the percent of students in school who were enrolled in private schools in 1985 is shown in Table 7.

**Table 7: Percent of Total Enrollment that is in Private Schools**

LEVEL OF SCHOOLING	% IN PRIVATE SCHOOL
Pre-primary	60%
Primary	8.9%
Lower secondary general	35.3%
Lower secondary technical	--
Upper secondary general	21%
Upper secondary technical	21.1%

In total, about 94,000 students were enrolled in private schools that year.

Among non-Koranic private schools, about 70 percent of the primary schools are Catholic, and most of the others are not religious. Similarly, about 35 percent of the lower level secondary schools are Catholic, as are about 60 percent of the upper level schools.

The MEN's control over private schools is limited to the authority to qualify those schools so that their students can sit for the national exams. Students in private schools who pass exams receive state diplomas and are allowed to pass to successive levels of schooling, from primary on through university, like public school students. Private school teachers are hired and paid by the schools, the revenues of which come mainly from student fees and subsidies of religious or other institutions.

The government is supportive of private schools, and, to a small extent, subsidizes those that are qualified to grant state diplomas. There is interest within the government and among donors in boosting the private school sector as a means of cutting down government expenditures on education. As we will discuss, data shows that private schools have much lower unit costs, and that the rate of success on state exams is considerably higher among private school students. Anecdotal evidence, however, indicates that in order to meet an increased demand for private schooling, the class size in private schools is increasing, thus compromising the quality of the instruction.

In addition to private schools that are Catholic, protestant or non-demoninational and have a Western orientation, Islamic-oriented private schools have been increasing in number in recent years. Many of these are traditional Koranic schools which exist throughout the country.

In a traditional Koranic school the religious teacher and his students gather beneath a tree or in a building, using whatever materials might exist. The curriculum consists of studying the Koran in Arabic, and thus it encompasses reading and writing skills in Arabic. A traditional Koranic school is similar in function to that of a Sunday school, Hebrew school or other religious school in the U.S., except that for many children, especially in rural areas, Koranic school is the only school they attend.

Particularly in rural areas, some parents prefer Koranic schools to public schools, because they see the education as more relevant to their children's lives.

While government primary schools have been losing students [in rural areas], Koranic schools have experienced a dramatic increase in their enrollments: in 1979 they reported 49,291 students of whom 27,647 were boys and 21,644 girls. This total represented a increase of 40 percent over the previous year. These schools are supported by parents, local religious leaders and Arab states. Therefore, even though the government indicates an interest in introducing elements of the national curriculum within these schools...it would be politically difficult to impose key components of the national curriculum in them. Koranic schools outnumber traditional schools by as much as ten to one in much of the countryside.<sup>16</sup>

Some traditional Koranic schools arguably provide practical education as well, in the sense that students are charged with working in the fields of their teacher as a sort of payment for their education. In urban areas, where there is support from wealthier elements of the Is-

lamic religion, including sources from outside of Senegal, some Islamic schools combine instruction in French with instruction in Arabic, and some include practical and vocational skills. Some of these non-traditional schools (often called Franco-Arab schools) are accredited by the MEN.

The MEN does not appear to subsidize Koranic schools.

### **Higher education**

Institutions of higher education in Senegal are abundant and well supported. In 1989 they included:<sup>17</sup>

- The University of Dakar, its four faculties and six institutes (some are called institutes, some centers and some schools)
- Six institutes (schools, centers) that are under the jurisdiction of the MEN;
- Ten or more institutes (schools, centers) that offer degrees but are under the jurisdiction of other ministries.

These faculties and institutes are criticized on two grounds: First, in relation to the economy of Senegal, graduates of higher education institutes cannot find jobs that use their high-level knowledge and skills. Second, in relation to the efficiency of the whole education system, institutes of higher education absorb a severely inequitable amount of available resources.

**Universities.** The University of Dakar was founded in 1957 as the French university of Africa, and has become "one of the most prestigious and best equipped establishments of higher education in Francophone West Africa."<sup>18</sup> Following student strikes in 1968, the University was detached in 1972 from the university system in France, and underwent some reforms in its administration, including changes in the curricula, a greater voice for students in making decisions about its policies and operations, and replacement of expatriate (mostly French) teachers with Senegalese. The teaching staff at the university (and the other institutes of higher education) shifted in composition between 1970 and 1986 from about 45 percent to 75 percent African.

The University has four faculties: Law, Economics, Letters and Social Sciences, and Sciences. The enrollment in each faculty in 1985 was between 2,000 and 4,000 students. In each faculty, for every 1000 students that enter, less than 400 finish their degree.

In 1975, about 18 percent of the University students were female, and of those, 11 percent were Senegalese.<sup>19</sup>

In 1982 a second university was built in Saint Louis, but has been idle until this Fall, when it plans to open its doors. Although the President of Senegal is strongly supportive of the new university, donor interest is only mild. The French and Italian governments appear to be giving assistance, but others, including the Canadian government, are not interested in supporting additional activities in higher education.

**Institutes.** In addition to the professional training institutes on the lower secondary and upper secondary levels, there are numerous professional training institutes on the higher level

(see Tables 8 and 9). Each of these has been built to furnish certain perceived or actual needs for high-level skills in the public and private sectors. Recently the trend has been more toward private-sector manpower training, and institutes have been built to serve these needs. (See the next section on nonformal education for more discussion of private sector training.)

**Table 8: Institutes of the University**

ACRONYM	NAME (FRENCH)	NAME (ENGLISH)
CESTI	Centre des etudes de sciences techniques de l'information	Institute for Information Science
EBAD	Ecole de bibliothecaires, archivistes et documentalistes	School for Librarians, File Clerks, and Documentation Specialists
ENS	Ecole normale superieure	Advanced Teacher Training College
ENSET	Ecole normale superieure d'enseignement technique	Advanced Technical Teacher Training College
ENSUT	Ecole nationale superieure de technologie	National Advanced School of Technology
IFE	Institut francais pour les etudiants etrangers	French Institute for Foreign Students
EPT	Ecole polytechnique a Thies	Polytechnical (engineering) school in Thies

Each of these institutes has peaked and ebbed to some extent since opening in 1974. Several of them have been heavily supported by foreign donors. The coordination of institutes and between institutes and faculties at the university has never been strong. In 1989 another reorganization of institutes was being proposed, so any inventory, such as the one from 1989 that we present here, is only a snapshot of an evolving system.

In addition to the institutes of the MEN, about a dozen institutes fall under the auspices of other ministries, including the prominent CESAG (*Centre d'etudes Africain superieures en gestion*, or African Center for the Study of Higher Management), the School of Fine Arts, the

School of Architecture and Urban Planning, and the Center for Vocational Training and Upgrading. Presumably, these institutes will also come under review during the forthcoming reform of post-primary education.

**Table 9:** Institutes of the MEN (non-university)

ACRONYM	NAME (FRENCH)	NAME (ENGLISH)
ENAES	Ecole nationale des assistants sociaux et des éducateurs spécialisés	National School for Social Assistants and Specialized Instructors
EISMV	Ecole inter-etats des sciences et médecines vétérinaires	Interregional School of Veterinary Sciences and Medicine
ENCR	Ecole sociale des cadres ruraux	School for rural technicians
ENEA	Ecole nationale d'économie appliquée	National School of Applied Economics
INDR	Institut national de développement rural	National College of Agriculture
INLA	Institut national de linguistique appliquée	National Institute of Applied Linguistics

**Teacher training colleges.** Among the institutes of higher education and of upper secondary education are the teacher training colleges. Most primary school teachers enter a four-year course of study in a teacher-training college after completing the lower level of secondary education. Those who complete the upper level (and receive a *baccalaureate*) take a one-year training course at a higher teacher-training center. Assistant teachers take a one-year course following completion of lower level secondary school.

Secondary school teachers must hold a *baccalaureate*. Thereafter they can take either one, three or four years in an institute of higher education for teachers, and receive, respectively, either a *certificat*, *license*, or *maitrise*.

This level of qualification required to teach secondary school represents high standards, roughly equivalent to those in much of the U.S.

Teacher training colleges have been heavily supported by French technical assistance for many years.

**Efficiency.** In spite of the reputedly high quality of much of their faculty and curricula, higher education institutes, particularly the University of Dakar, are characterized by low efficiency and high cost. Students receive generous subsidies, and are not discouraged from prolonging their student years, sometimes moving from one course to another. During the past decade, an annual average of only 20 percent to 25 percent of the students graduated, and it took on average seven to twelve years to complete a four-year course.<sup>20</sup>

In 1985, of the 11,800 students in higher education, 7,000 received financial assistance from the government, and much of that assistance is for study abroad, the unit cost of which is five times greater than that of a student at the university.<sup>21</sup>

The low ratio of students to teachers, which in principle adds to the quality of higher education, also adds to its cost. In 1985, there were about 475 teachers in the University faculties and another 244 in higher education institutes, plus 875 on the payroll in non-teaching positions. This results in a ratio of 16 students per teacher, or seven students per staff person. Teacher-training institutes in particular have recently had high student teacher ratios (7:1), as the government's curtailing of civil service employees pushed down the number of enrollees in these colleges.

In sum, the higher education sector in Senegal is rich in resources, relative to the primary and secondary sectors. The overriding imbalance in the formal school sector is between the poverty of access and quality in primary schools and the extravagances evident in some aspects of higher education. The political pressure put on the government to maintain high subsidies to university education overpower those, including foreign donors, that lobby for a stronger primary school system.

### **Constraints in the formal school system to development**

As we will discuss in detail in a subsequent section, there is abundant evidence that education plays a strong role in a nation's economic development. Senegal, like all countries, developing and developed, invests in education primarily through its formal school system. Therefore, constraints on the effectiveness and efficiency of Senegal's school system are also constraints on the development of its economy.

As we have discussed, in the years after independence Senegal invested heavily in secondary and higher education. But by the late 1970s it was clear that this policy had led to a school system that was top-heavy: it met the desire of a narrow stream of elite to receive *baccalaureate* degrees and even higher education, but did not begin to provide even a few years of schooling to the urban and rural masses. Even now, though schools in urban areas have become more accessible, most students who complete primary school in rural areas must move to a city to enroll in secondary school.

The result has been a surplus--in terms of what the economy can support--of students graduating from the university and institutes of higher education, and a dearth of people who can read, write and count. The constraints on the school system are not on the higher levels, but on the primary and lower secondary school levels. And these constraints are tightest on girls and on those in the rural areas. In effect, in an economy dominated by agricultural production, and in which women and girls are increasingly the producers, these same women and girls receive the least schooling, and learn the least in basic skills and low level technical skills.

## NONFORMAL EDUCATION

Nonformal education (NFE) comprises those programs that are not certified by the government to grant diplomas or degrees recognized in the formal school system. In this section our discussion focuses on training, basic education and community education strategies for out-of-school youth and adults; it excludes those professional training programs on the secondary and higher levels of the formal system as well as informal education that occurs in the process of growing up and living in Senegalese society. Nonformal education means different things to different people, and we will begin by briefly reviewing some of the different concepts held.

### Four concepts of nonformal education

Nonformal education activities in Senegal have typically been governed by one of two concepts of development. One holds that development is constrained by inadequate performance of tasks, and uses nonformal education to train people in specific skills related to development as quickly as possible. The other holds that development is constrained by individuals not having enough basic education to function effectively in many tasks related to development, and uses nonformal education to train people in a broader range of knowledge, attitudes and skills, including literacy. Both approaches focus on the individual and his or her role in the modern sector.

Two other concepts of development and the role of nonformal education, which appear in some other countries, are less prominent in Senegal. One stresses social justice and liberation, and approaches nonformal education in the light of consciousness-raising and empowerment. The other emphasizes that development depends on social cohesion and participation, and must build on, not be imposed on, grassroots cultures and resources. Within this context, the formal education systems, fostered by former colonial governments, are viewed as still promoting individualism, modern elitism, and a dependence on modern sector employment and foreign resources. Nonformal education in this case is used as a part of community development efforts to reinforce traditional values of self reliance and sharing of community resources.

In Senegal, where development priorities include agricultural productivity, population control and family health, and a functioning market economy, it is not enough to simply teach specific task skills. Adults, as well as youth, need at least the knowledge, attitudes and skills associated with basic education--a necessary but not sufficient precondition for development. It may be that, for sustained development, some elements of the community education and the empowerment approaches are more crucial than at first meets the eye.

### Profile of illiteracy in Senegal

An important constraint on development, and concern in nonformal education, is illiteracy. Statistics on literacy rates can only be approximate at best, given variations in census conditions, definitions of literacy and the languages considered (ability to read passages of the Koran in Arabic is sometimes not counted as literacy). The illiteracy rate for those 15 years

old and above, as exhibited this year at the International Literacy Year fair in Dakar, is supposedly 56.6% for men and 75.9% for women.

In order to show how this constraint affects regions where USAID has agricultural, health and other projects, the following illiteracy rates for 15-55 year olds, as exhibited at the same fair, are given by region:

Dakar	43.8%	Kaolack	75.0%
Ziguinchor	54.9%	Thies	67.9%
St.Louis	74.9%	Louga	83.2%
Diourbel	83.1%	Fatick	75.6%
Tambacounda	83.2%	Kolda	82.1%

### Classifying nonformal education activities

Because nonformal education activities are not systematically organized, it is helpful to discuss the activities going on in any one country by first classifying them. In other country surveys of NFE conducted by AID, nonformal education activities have been classified according to organizing body (Table 10) and by principal content (Table 11).

**Table 10: NFE According to Organizing Body**

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#### **Governmental Organizations (Public Sector)**

National-Level: Ministerial or Head of State's Office  
 National-Level: Semi-Autonomous Organizations  
 Regional, District, State or Departmental Level Organizations  
 City, Town or Village Level Organizations

#### **Non-Governmental Organizations (Private Sector)**

Agricultural Institution  
 Community Development Organizations  
 Trade and Crafts Organizations and Groups  
 Commercial or Industrial Organizations  
 Child Development Organizations  
 Women's Organizations  
 Religious Organizations  
 Volunteer Organizations, Youth Groups  
 Other Organizations and Groups

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**Table 11: NFE According to Principal Content**


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Agriculture  
 Animal husbandry  
 Community development  
 Cooperatives  
 Crafts  
 Factory and construction skills  
 Commercial, office & other work-related skills  
 Migrant education  
 Literacy  
 Numeracy  
 Basic education  
 Nutrition  
 Health, hygiene, & sanitation  
 Home economics  
 Recreation & sports  
 Cultural or religious education  
 Other

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In discussing NFE in Senegal we will group examples under two general headings:

- Self-contained activities (training units such as literacy programs and basic education centers), and
- Components of other activities (enterprises such as funded projects and community development activities).

Within these two groups we will make distinctions based, first, on the organizing body (as in Table 10); here we will distinguish between activities organized by (a) public, (b) private, (c) donor and (d) community organizations.

Next, we will make distinctions based on the content (as in Table 11). In the interest of simplicity, we will distinguish only between content areas of (a) vocational/technical education, (b) literacy and adult basic education, and (c) community education.

### **Profile of NFE activities**

It appears that a systematic national survey of NFE activities has never been conducted in Senegal. At this writing, however, UNICEF has one person doing a census of nonformal education in Senegal, and tables showing a national pattern should be available by the end of the year. While awaiting this report, the most recent documentation is on business and management skills training programs in the private sector, and training for employment,<sup>22</sup> which focus mainly on formal institutional structures in the Cap Vert/Dakar region. So even

though, the profile presented here cannot be comprehensive, it does provide a sense of the nonformal education sector in Senegal.

The most visible activities are typically organized by government or non-governmental organizations, although some arise out of communities (traditional forms) and places of work (modern forms).

During the 1980s, government programs have been organized under the *Secrétaire d'Etat de la Promotion Humaine*, formerly responsible to the Prime Minister but transferred in 1990 to the Ministry of the Interior. Programs have included *Animation Rurale*, practical education (literacy, homemaking and *Enseignement Moyen Pratique*), *Maisons Familiales*, *Condition Feminine*, and sometimes the *Centres d'Expansion Rurale* (CERs). The Ministry of Rural Development, which has primary responsibility for agricultural development and oversees the semi-autonomous rural development agencies (ADRs) and their nonformal training components, embraces cooperative education and rural development-related training. Some nonformal youth education comes under Ministry of Youth and Sports.

Non-governmental organizations (NGOs), which are a growing phenomenon in Senegal as government services become limited by restructuring measures, usually have nonformal training components. Of the 65 NGOs which are members of CONGAD (the official NGO consortium in Senegal), 75 percent include training activities.<sup>23</sup> In addition, the federation of NGO's in Senegal (FONGS), the principal coordinating organization for village-level organizations, which has 17 departmental and regional unions with 100,000 members, provides training along with organizational and technical support.

Many other NFE activities take place outside of these official coordinating structures for nonformal education (which do not even include all of the government or NGO activities). Some are initiated in donor-sponsored projects and implemented by mixed teams under a ministerial banner. Others are instituted by NGO's to strengthen not only their programs but also their case for funding (90 percent of NGOs are reportedly dependent on outside funding). Finally, training programs are beginning to emerge within commercial and industrial enterprises.

#### **NFE as a self-contained activity**

**Public sector.** When the government sponsors an NFE activity, it usually leaves the program implementation to specific agencies or institutes. The National Office for Professional Training (ONFP, established in 1984 with a World Bank loan) coordinates vocational training activities that are implemented at various training institutes. Most vocational and managerial training is urban-based, and more formal than nonformal in structure. For example, CNOP offers professional training and internships; ENSUT and CESAG offer degree-granting management training courses.

Most direct governmental interventions in rural vocational training have been under the auspices of the Ministry of Rural Development. These include the Centers for Rural Vocational Training (CFPR), through which different centers offer training in different agricultural skills. The experience with the Centers of Rural Expansion (CER) is particularly instructive. These multipurpose centers were supposed to help farmers learn technical knowledge on different facets of agriculture. Each was staffed by a team of professionals in agriculture, animal

husbandry and health, who came mostly from towns and had typically been trained in the National School of Applied Economics (ENEA). The effectiveness of the CER as a separate nonformal education conduit was seriously constrained by its top-down, bureaucratic and technocratic nature, and by the inability of staff members to establish linkages with the leaders and voluntary service systems of rural communities.

The Department of Literacy Services during the 1980's coordinated literacy activities, many of which were implemented through rural development agencies. Recently moved from the Ministry of Human Development to the Ministry of Education, it is now called the Department of Literacy and Basic Education (DAEB; see description in later chapter). In 1989/90 it listed 879 literacy centers in Senegal under its jurisdiction, with 41,265 enrolled in classes.

Adult basic education, now under the Ministry of Education, has been a part of programs such as Maisons Familiales or diffused by way of rural educational radio and television and the rural press. Aside from the once active Animation Rurale, there seems to have been little government involvement in nonformal community education.

Among parastatal organizations, the oldest skills training center in the country is run by the Chamber of Commerce, now adding computer training to the curriculum for secretarial and accounting skills.

**Private sector.** One type of technical or management training in the private sector is represented by the Association for Training in Senegal (AFORS). A training cooperative run by more than 60 businesses, AFORS trains managers and technicians in human relations as well as in applied skills. Self-supporting, it offers an assortment of workshops and longer courses. Its objectives include changing worker mentality, behavior and attitudes as well as imparting specific skills. Most training programs in the private sector, such as the one at SENELEC, however, are within businesses and are pointed at personnel recruited for specific jobs.

In literacy training, NGOs played an important role early on. For example, in the 1960s the Research Institute for Tropical Agriculture (IRAT) ran the first experiment in functional literacy (in French) through a campaign in three regions. The Society for Agricultural Development (SODEVA) followed with another experimental functional literacy program for farmers. By involving farmers in a needs survey before starting the training, those who directed the program boosted attendance initially, but the authoritarian manner of the literacy monitors eventually nearly destroyed the program. A recent example of an NGO-like organization that provides youth volunteers as literacy tutors is the Unesco Martin Luther King Club.

In adult basic education, donor agencies and committed individuals have made important contributions. An active innovative program funded by UNICEF that combines literacy with a range of other basic and technical skills in model villages is based in the Thies area and is under the auspices of the former Ministry of Social Development. This integrated village development/literacy program have evolved from ten years of work by an American and Senegalese team and is carried out in Wolof and Pulaar. It combines general knowledge and development skills (planning, problem solving, group organization, marketing, health, small project development, and so on) with literacy and numeracy. Villagers make personnel decisions and direct the focus of development activities. Materials are adapted to local culture, and educational theater and games are employed. The design includes a cascading training strategy in which trainees, after a period of learning, begin to teach others.

Within the traditional village, nonformal education was provided in initiation "schools" attended at the time of circumcision, that included instruction in nonverbal communication and observation. While these are dying out, Senegal has active associations, ranging from the traditional mutual aid societies (M'Botais) to those encompassing people originating from a given village ("associations des ressortissants de.."), which can play informal educational support roles.

### **NFE as a component of other activities**

**Public sector.** The Ministry of Rural Development, the government's main arm in rural areas, has training components within many of its activities. These are implemented by the parastatal Rural Development Agencies (ADRs), which report to the Ministry and are responsible for different rural regions. Each ADR reportedly has a nonformal education component and does some literacy training. Presumably other government agencies also have nonformal training components, but information is lacking.

**Private sector.** In the 300 or so firms that make up the industrial sector in Senegal, most include in-house training for their own employees to perform specific tasks. Some, such as the SOCOPAO shipping company, offer summer internships and managerial training, but also send employees out to separate institutions like AFORS and CESAG. A recent study done for the World Bank deals with functional literacy activities in enterprises, and the ONFP is scheduled to sponsor an upcoming study of literacy in rural areas.

Non-governmental organizations often have training integrated into their programs. Particularly active are CARITAS, the Catholic NGO with numerous branches, the large agro-business RADI, and ENDA, an international NGO devoted to the environment and development which is also publishing "photo-novellas" (illustrated magazines) in Wolof aimed at urban street youth.

Development projects funded by foreign donors place far greater emphasis on training components than do other development projects. Participant training and study tours abroad, seminars and workshops are typical means of building staff capacity. Some projects provide training services at critical junctures, such as in the ILO-supported *Entreprendre Project* in which training in entrepreneurial development is given to persons seeking loans. Others seek a multiplier effect by training trainers of trainers. In a UNDP project, for example, trainees travel around the country to train artisans.

The importance placed on literacy and other basic skills varies from project to project. The USAID Community and Enterprise Development Project (CED), which broke new ground for a major donor by reaching villagers through NGOs without going through the government, included a functional literacy and numeracy component in its early stages. In the forthcoming USAID PVO-NGO Support Project, training is viewed as "the most important means of providing institutional support". A component for training of trainers in literacy is included.

Sometimes basic and community education components emerge in a more narrowly conceived project. For example, a village social center founded in Senegal by a Protestant mission started as a medical service center with two paid staff and eight volunteers from educational and cultural associations in the neighborhood. Eventually the content and objectives of the

project were modified to include sewing courses for women, instruction in hygiene, and so on, in response to local demand. In the process, the community took over ownership, and the project became a seedbed for new activities as well.<sup>24</sup>

An analysis of problems and constraints in this sector, as well as further description and assessment of some selected examples and an identification of conditions for success, is included in a later chapter.

## COSTS AND FINANCING OF EDUCATION

We will review in this section the macro-economic situation in Senegal, its education budget, the cost and financing of its education system, and the relation between educational investment and economic and social productivity. The section concludes with a discussion of the major economic and financial constraints facing Senegalese education today.<sup>25</sup>

### Macro-economic context

At Independence in 1960, Senegal enjoyed a relatively privileged position vis-a-vis other newly independent nations in the region as a result of its status as the colonial administrative center for French West Africa which had served to develop both its physical and administrative infrastructure and industrial sector. Following Independence, Senegal continued to profit from its close ties to France through significant financial assistance. Further, as a promising new democracy in the region, it attracted large amounts of funds from other international donors. In 1987, Senegal received over US\$640 million of official development assistance, over 14 percent of GDP and highest among Francophone African countries.<sup>26</sup>

Despite these advantages, from 1960 to the mid-1980's Senegal's economy stagnated and declined. Average annual GDP growth rate for the period was 2.3 percent, the lowest of any African state not affected by war or civil strife.<sup>27</sup> Like many countries in the region, Senegal faces many constraints to development. Its limited resource base is increasingly menaced by drought and environmental degradation, and its economy remains vulnerable to external terms of trade. Agriculture is dominated by the production and processing of groundnuts, and technological adaptation/innovation has not advanced significantly. Agricultural productivity is low, representing only 20 percent of GDP while employing over 70 percent of the population, and agricultural output per capita is declining. Droughts in the early and late 1970's brought famine and devastated the agricultural economy. Even in good rainfall years, less than 50 percent of the staple food supply is produced domestically. The industrial sector, whose share of national output has grown only 9 percentage points over the past thirty years to account for 27 percent of GDP, is inefficient, an artifact of earlier production ties to France. Exports, concentrated in groundnuts, fish, phosphates and tourism, account for 37 percent of GDP; while imports represent 50 percent of GDP, a large proportion going to food supply. Unemployment, estimated at 30 percent, is a serious and growing problem, exacerbated by a steadily mounting population growth rate (3 percent annually) and by an influx of job seekers from neighboring countries.

The worsening economic situation in Senegal has its main roots in three factors:

- structural factors, such as the limited resource base;
- external factors, such as the droughts and oil shocks of the 1970's; and
- domestic policy deficiencies.

The highly planned economy of the past decades has emphasized agricultural market controls, low agricultural product prices, and state-owned and highly protected industrial sector which resulted in declining industrial and agricultural output. Notwithstanding general

economic stagnation during the mid-1970s and 1980s, private consumption was maintained with GDP per capita remaining among the highest in Sub-Saharan Africa and government expenditure continuing to grow.

By the early 1980's, the Senegal economy was close to collapse: the annual GDP growth rate in 1983/4 was (negative) -4.0 percent and the current account deficit reached nearly 25 percent of GDP. Uncontrolled government spending and excessive borrowing to finance consumption created a debt service requirement of 6 percent in 1980.<sup>28</sup>

Recognizing the need to stabilize its financial situation, the government developed a structural adjustment program with World Bank and IMF assistance, aimed at increasing savings and productive investment, liberalizing trade and reducing the state's role in the economy. Although slow to start, since 1985, Senegal has been considered a "star performer"<sup>29</sup> among adjusting countries. From 1984 to 1988, GDP has grown at 4 percent, achieving positive per capita increases; the current account deficit has been reduced 10-14 percent in the early 1980's to 4-6 percent of GDP, while the budget deficit fell from 10 percent to 5 percent; inflation has decreased to 4 percent. Government expenditures have fallen from a peak of 32 percent of GDP in 1980/81 to 18 percent in 1988, and investment totals 15 percent of GNP while Gross Domestic Savings have increased from 0 in 1980 to 9 percent in 1989.

While the economy's performance over the past several years provides encouraging indications of economic reform, there is cause for concern. While national production has been bolstered by good rainfall and favorable oil and grain prices, the government has been slow to implement reform measures in certain key areas — in lending and loan recovery programs, in public and para-public sectors and in tax reform — due to political and clientele loyalties. Ongoing governmental concern over growing unemployment has been primarily addressed by programs aimed at the privileged, while government containment of expenditures is threatened by wage concessions gained by civil servants following strikes in 1988/89 and food price cuts following violent demonstrations in 1988 which appeared to threaten Senegal's social and political order. With the current rate of economic growth by no means assured and reform measures unimplemented or undermined, the government's ability to finance additional social programs is doubtful. The substantial amount of foreign aid received by Senegal also places in doubt the sustainability of development gains by the government.

### **Senegal's education budget: Resources, allocation and enrollments**

**Educational resources and budget share.** Despite the economic problems faced by Senegal and the economy's overall low rate of growth, Senegal's education budget has grown significantly since Independence. The education sector's share of current expenditures rose from 15 percent in the 1960s to a high of 25 percent (or from 1.1 to 5.5 percent of GDP) in the early 1980s. This was due partly to government expenditures outpacing economic growth, and partly to the increasing emphasis placed on education.

But with the declining economic situation, the growing deficit and the parallel education sector reform initiated in 1984, governmental educational expenditures have declined both in terms of budget share (22.8 percent in 1987/88), proportion of GDP (3.6 percent in 1987/88) and real expenditure per capita (25 percent less in 1987/88 than 1983/84 level).<sup>30</sup>

At 1987 levels of expenditure, Senegal ranks in the upper ranges among Francophone African countries for educational expenditure as a proportion of government spending and GDP, and exceeds the 1983 weighted mean for proportion of total expenditures in Sub-Saharan Africa (12 percent).<sup>31</sup>

Its relatively liberal policy of educational investment over the years has not, however, yielded striking results. At Independence, Senegal had one of the highest enrollment ratios in West Africa. Now it ranks below average for low-income West African countries, with a 28 percent adult literacy rate and a gross primary enrollment ratio of 55 percent<sup>32</sup>. Nonetheless, increased educational inputs – a 57 percent increase in teaching personnel and a 55 percent increase in the number of public schools in the early 1980s – have expanded educational opportunities: overall enrollment increased by 50 percent between 1980-87, with primary enrollment ratio rising 10 percentage points between 1981 and 1988, secondary school enrollments increasing from 11 to 13 percent and university enrollments doubling. So in the short-term, then, educational status in Senegal has improved on aggregate as real expenditure fell.<sup>33</sup> Not surprisingly, however, since 1984 there has been a general slowing of the annual average growth rate of enrollments, corresponding to diminishing educational expenditures (see Table 12).

**Table 12:** Central Government Expenditures on Education as a Share of Central Government Budget and GDP

	1965/66	1980/81	1983/84	1987/88/ <sup>1</sup>
Total Expenditures – Central Government (in CFAC billion)	5.5	28.3	41.7	47.1
% Share – Central Government Budget	16.6%	24.5%	25.0%	22.8%
% Share – GDP	0.9%	5.5%	5.1%	3.6%
Total/Capita on Ed. (1970 CFAC)/ <sup>1</sup>	–	2326	2345	1814
Gross Enrollment Ratios/ <sup>1</sup>				
Primary	–	42.9	53.9	55.7
Secondary	–		11.8	13.3

Source: Staff Appraisal Report: Republic of Senegal Primary Education Development Project, World Bank (1986)  
<sup>1</sup> Figures for 1987/88, total/capita and gross enrollment ratios from Berg, Social Dimensions of Structural Adjustment in Senegal, Confederation Suisse (1990)

**Resource allocation by level of education.** Throughout the 1970s, Senegal — like most Francophone countries — emphasized secondary and higher education to fill national administrative requirements. This priority is reflected in both the high resource allocation level for higher levels of education compared to primary education and in the associated enrollment ratios. From 1960-85, university and upper secondary enrollments grew at rates of 15.2 and 8.8 percent, while primary school enrollments grew at a rate of 4.8 percent.

After 1984, the policy reforms that emphasized lower levels of education are reflected in funding allocations (see Table 13):

- In 1984/85, primary education received 47.4 percent of the education budget compared with 32.6 percent in 1980/81, while the shares for higher education and vocational education fell from 20.5 and 7.8 percent in 1980/81 to 18.1 and 4.1 percent in 1984/85.
- Investment in secondary education has increased from 22.1 percent in 1980/81 to 23.0 percent in 1984/85.<sup>34</sup>

Enrollment growth rates correspond to the investment distribution: using figures for 1980-84, we see that primary annual enrollment growth rate increased from 7.6 to 9.1 percent, while for higher education it fell from 3.0 to (negative) -1.7 percent.<sup>35</sup> Nevertheless, with the exception of higher education, Senegal's 1987 enrollment ratios (primary-55 percent, secondary-13 percent) lag far behind 1986 Sub-Saharan Africa weighted averages (69 and 22 percent respectively).<sup>36</sup>

**Table 13: Education Expenditures by Level of Education as a Percentage of GOS**  
Education Expenditures

	1977/78	1980/81	1984/85	1986/87/ <sup>1</sup>	1987/88/ <sup>1</sup>	1988/89/ <sup>1</sup>
Primary	38.7%	32.6%	47.4%	46.0%	45.0%	44.0%
Secondary	24.4%	22.1%	23.0%	25.4%	25.8%	26.8%
Higher	20.4%	20.5%	18.1%	19.9%	22.5%	22.5%
Vocational	7.7%	7.8%	4.1%	-	-	-
Other	8.8%	17.0%	7.4%	5.2%	5.1%	7.4%
Annual Enrollment Growth Rates	1977-80/ <sup>2</sup>		1980-84/ <sup>2</sup>		1986-89/ <sup>1</sup>	
Primary	6.7%		7.6%		2.1%	
Higher	14.0%	-	-1.7%		10.8%	

Source: Berg, Social Dimensions of Structural Adjustment in Senegal, Confederation Suisse (1990)  
<sup>1</sup> from Ndao, Senegal - Structure Budget Education, World Bank (1990)  
<sup>2</sup> from Mingat and Jarousse, Cost and Financing of Education in Senegal, World Bank (1986)

Post-1986/87 figures indicate that the 1984-87 period allocations which appear to correspond to the 1984 Reform's emphasis on primary education may be an anomaly or a short-lived phenomenon. Since 1987, the proportion allocated to primary education has steadily diminished, while the share to secondary education continues to rise and, most significantly, the share to tertiary education has surpassed its pre-Reform level.

**Resource allocation by type of expenditure.** Recurrent expenditures comprise 99 percent of the government annual education budget. Typical of Sub-Saharan African countries, the major share goes to salaries, representing 74.3 percent of the recurrent expenditures in 1987<sup>37</sup> (see Table 14). Although government figures indicate that only about 2.8 percentage points of this sum cover non-teaching salary expenses, the distinction is blurred by the use of teaching staff in administrative or non-classroom positions. Recent evidence tends to invalidate government figures:

- the redeployment of 800 teachers back to the classroom in 1986-88,<sup>38</sup> and
- at the university level in 1985, non-teaching staff (875) exceeded teaching staff (721).<sup>39</sup>

**Table 14:** Recurrent Expenditures by Function as a Percentage of Total Government Annual Recurrent Expenditures on Education

	1978	1980	1983	1985	1987
Salaries, of which:	66.9%	65.1%	71.3%	73.8%	74.4%
Non-teaching	3.3%	—	4.9%	4.4%	2.8%
Supplies, of which:	8.6%	8.2%	5.3%	4.9%	4.6%
Textbooks	1.1%	1.1%	1.0%	0.7%	0.7%
Transfers, of which:	24.5%	26.7%	23.4%	21.3%	21.0%
University Operations	6.2%	7.9%	7.7%	8.3%	8.2%
Higher Ed. Stipends	5.3%	5.2%	5.4%	4.3%	4.6%
COUD	2.3%	2.9%	2.6%	2.1%	2.1%
Secondary Stipends	2.8%	2.6%	2.0%	1.2%	1.1%
Student Grants-Tr'g Ctrs	5.1%	5.9%	4.2%	3.5%	3.0%
Subsidy to Private Schools	2.8%	2.2%	1.6%	1.9%	1.8%
Total Expenditures, of which:*	100.0%	100.0%	100.0%	100.0%	100.0%
Recurrent	92.7%	89.1%	95.6%	96.9%	99.2%
Capital (locally financed)	7.3%	10.9%	4.4%	3.1%	0.8%

Source: Ndao, Linking Government Expenditures to Delivery of Education, UNDP (1988)  
\*does not include expenditures by institutions reporting to other ministries

The large salary bill obviously leaves little for maintenance and supplies, which receive 4.6 percent of the recurrent budget. For example, less than 1 percent of the budget is allocated to textbooks--detracting from school quality and internal efficiency. The trade-off between teachers and textbooks is particularly acute at the primary school level where 99 percent of the budget was absorbed by salary expenses in 1985. The effort to place more and better trained teachers in the classroom in the early 1980s in order to maintain the favorable student-teacher ratios absorbed much of the materials/maintenance budget, resulting in a 50 percent reduction in the share allotted to these items.<sup>40</sup> It is estimated that there are two students to every book at the primary school level.<sup>41</sup>

The government has attempted to redress the problem of insufficient supplies with a materials distribution program aimed at disadvantaged students; in 1988, approximately 52 percent of the students were receiving supplies/texts.<sup>42</sup> Financing for this program, however, is not evident in most recent budget figures (1987) and MEN personnel have termed the program "unrealistic." Further, the government has recently announced a 40 percent reduction of its total non-salary recurring expenditure budget, which will further reduce the learning materials and textbooks available to schools.

Transfer payments (ie. student subsidies for tuition, board/lodging, transportation, medical care, etc.), at 21 percent of the 1987 budget, represent the second largest category of expenditure, with all but 1.8 percentage points (for private school subsidies) going to student scholarships, aid and services. In general, assistance for students at the lower levels of education is weak. At the primary level, student aid is limited to school-feeding programs in a few rural schools, reaching only about 3.4 percent of the primary school student population. About 5 percent of the student assistance budget is allocated to intermediate and secondary education levels. Although scholarships at the secondary level have been replaced with more restrictive "assistance" based on family needs, about 22 percent of the secondary school population are estimated to have benefited in 1985.

Like most Francophone countries, the government heavily subsidizes students at higher levels of education. Nearly 18 percent of the total national recurrent budget is allocated to higher education subsidies. In 1985, 40 percent of the higher education budget was earmarked for student scholarships, assistance and services. The COUD--the University of Dakar's service center offering students food, lodging and medical care--received only 17 percent of its funding from student fees; the remainder was underwritten by the government (60 percent) and other governments (23 percent).<sup>43</sup>

### **Financing and costs of education. Who pays and how much?**

Public schools are primarily financed by the government (87.6 percent), with limited contributions to recurrent expenses from communities (2.8 percent) and families (3.5 percent), totaling about 94 percent of total budgetary support in 1985 (see Table 15). Local governments are primarily responsible for school construction, renovation and maintenance. Between 1977 and 1985, municipal resources allocated to education grew from 2.4 to 20 percent of municipal budgets. Families also contribute to school maintenance and construction. From 1977-83, 71 percent of new classrooms constructed in rural areas were financed entirely by parents.<sup>44</sup> During the period 1980-87, 67 percent of new classrooms built in rural areas were provided entirely by local communities.<sup>45</sup>

**Table 15: Sources of Finance for Public Education by Percentage of Contribution (1985)**


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Government of Senegal	87.6%
Communities	2.8%
Parents	3.5%
Other (donors, etc.)	6.1%
 Total	 100.0%

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Source: Mingat and Jarousse, Cost and Financing of Education in Senegal, World Bank (1986)

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Parents also assume responsibility for other public school-related expenses, such as parent-student association dues, school supplies and transportation as well as enrollment fees for the *baccalareat* and higher education. A 1984 survey of parents with children in secondary school found they spent \$52-64 annually, a not inconsiderable amount given that GDP/capita was \$380.<sup>46</sup>

External donor assistance in education is difficult to quantify, given the fungibility of budgetary assistance — funds given to one sector may liberate funds for use in another. France, a major donor, provides financing mainly for post-primary levels in the form of fellowships for study in French universities, academic support to the University of Dakar and secondment of French teaching staff at secondary and higher education levels.

Private schools play an important role in Senegal's educational system, particularly at the intermediate and secondary levels where private institutions account for about 30 percent of enrollments. Although their operations are mainly funded by tuition payments, in 1985, an estimated 89 percent of private schools received government subsidies, with 70 percent going to Catholic schools and 30 percent to private non-denominational schools. The major share (90 percent) of the subsidies were allotted in proportion to teaching personnel and the remainder (10 percent) accorded on the basis of aggregate student performance on national exams. A later estimate, in 1988, indicates that only 42 percent of private institutions were receiving government subsidies. In 1985, it was estimated that 6.1 percent of the government education budget went to private schools. However, official budget figures throughout the 1980s indicate that less than 2 percent of the government education budget is noted as transfers to private schools.

On average, the unit costs (per student per year) for primary, secondary and higher education in Senegal on a GDP per capita basis are not higher than those in other Francophone countries in Sub-Saharan Africa, but they are far greater at the primary and secondary levels than in Anglophone countries due to high teacher salaries, lower student-teacher ratios, low

teacher-administrative staff ratios and structural rigidities. Higher education costs fall below average for Africa, but exceed costs in other Third World regions (see Table 16).

**Table 16:** Recurrent Cost Per Student/Year by Level of Education (1985)

	Total Unit Cost (US\$ 1985)	%Academic	% Subsidy	Ratio to Primary	Unit Cost/ GDP per capita 1984
Pre-Primary	\$245	100.0%	0.0%	2.2	0.6%
Primary	\$109	99.7%	0.0%	1.0	0.3%
Lower Secondary					
Colleges	\$288	91.6%	8.4%	2.6	0.7%
Lycees	\$427	94.3%	5.7%	3.9	1.0%
Upper Secondary	\$555	94.4%	5.6%	5.1	1.4%
Technical Secondary	\$574	84.8%	15.2%	5.3	1.4%
Teacher Training	\$3,142	78.5%	21.5%	28.8	7.6%
University	\$2,109	68.8%	31.2%	19.3	5.1%
in Francophone Africa					8.0%
in Anglophone Africa					9.2%
in other ldc					3.7%

(1980 figures)

Source: Staff Appraisal Report: Republic of Senegal – Primary Education Development Project, World Bank (1986)

Not surprisingly, the unit cost increases greatly with the level of education. In terms of cost/student/year, secondary education is four times the cost of primary education, while higher education is 20 times the cost of primary education.

At the primary level, costs are primarily a function of the relatively high cost of teacher salaries (more than 8 times GNP per capita) and a favorable student-teacher ratio (46:1). The latter, however, varies greatly among regions, accounting for the discrepancy in unit costs, ranging from \$78 in urban areas to \$158 in rural ones.

At the secondary level, costs differ by 50 percent between the lower and upper levels, mainly explained by the large proportion of non-teaching personnel (40 percent) and low student-teacher ratio (19:1 teaching staff, 11:1 total staff).

At the higher education level, low student-teacher ratios (16:1), high ratio of non-teaching to teaching staff (1.2:1) and a generous student subsidy package (31% of total unit cost) explain the high unit costs, five times GNP per capita. Cycle costs are even higher, as on average students take 7-12 years to complete the 4-year university cycle. At the teacher train-

ing level, the costs are strikingly high - nearly eight times the GNP per capita--due to major reductions in enrollments caused by civil service cutbacks with no corresponding reduction in staff, resulting in a 7:1 student-teacher ratio.

A comparison between private school costs at the primary and secondary levels reveal unit costs are nearly 40 percent lower in Catholic schools than in public schools, with primary education costing 27 percent less and secondary education 47 percent less. This is explained by the lower teacher salaries and higher student-teacher ratios. Quality-efficiency tradeoffs are not readily apparent as private school student performance surpasses that of public schools, although intervening factors -- such as socio-economic status, etc. -- have not been considered in the comparison.

### **Education as investment for economic development**

It is widely acknowledged that education contributes to economic development and is a vital factor in economic growth. Extensive experience from Africa and elsewhere provides strong evidence that increased investment in education can yield a broad range of benefits--in economic terms of increased productivity and higher individual and national incomes, and in social terms of lower fertility and improved health.

There are several methods for examining education's contribution to development:

- cost-benefit analysis to determine rates of return on educational investment;
- growth-accounting to examine the impact of education on GNP growth; and
- multivariate analysis to isolate the effects of education on a variety of development concerns, such as child survival, fertility and agricultural productivity.

**Rates of return to education: Education is a good investment.** Cost-benefit analysis weighs the costs of education (discounted costs of schooling and earnings foregone) against one measure of the benefits of education (discounted life-time income stream) in order to determine the external efficiency of schooling. Simply stated, it treats investment in people similarly to that of a factory or mechanical process, analyzing the cost of inputs and value of ensuing outputs or products, to derive the rate of return on the investment. Rate-of-return data serve two purposes: (1) to assess the soundness of investing in education compared with other sectors, and (2) to determine where best in the educational system to invest scarce resources to maximize benefits.

There are also two levels of analysis: the social rate of return and the private rate of return. The former counts societal costs (public financing of education and costs to the individual) against the gross, pre-tax income stream, whereas the latter considers only costs to the individual for education against net, post-tax earnings. Consequently, the social rate of return is almost always lower than the private rate of return.

Some general patterns are worth noting. Rates of return are higher for less developed countries, especially for Africa, than the developed world. Also, for developing countries, rates are generally higher at the primary level and diminish at secondary and higher levels of education. A number of studies done in Africa show high social rates of return to primary

education (averaging 26.6 percent), followed by secondary education (17.4 percent) and higher education (12.4 percent)<sup>47</sup> (see Table 17).

**Table 17:** Marginal Rates of Return to Education in Senegal (1985)

Incremental Level of Education:	Private Rate of Return	Social Rate of Return	SROR in Africa / <sup>1</sup>
Primary or less	33.7	23.0	26.6
Intermediate/Primary	11.1	7.7	
Secondary/Intermediate	17.3	12.0	17.4
2-Years Higher/Secondary	22.4	11.5	
3-Years Higher/Secondary	21.3	8.9	12.4

Source: Mingat and Jarousse, *Costs and Financing of Education in Senegal*, World Bank (1986)  
<sup>1</sup> from Psacharopoulos and Woodhall, *Education for Development*, World Bank (1986)

In Senegal, we see similar patterns: the higher social return is to primary education (23.0 percent) and secondary education (12.0 percent), and the lower is to intermediate (7.7 percent) and higher education (8.9 percent). Positive social rates of return indicate education is a productive investment (although they should be compared with similar data on other sectors). The higher rate for primary education (greater than the African average and 2.6 times higher than three years of university education) supports the reform measure that called for the transfer funds to primary education. The low return to intermediate education does not argue for eliminating expenditures at this level, but rather for making the curricula more relevant to labor market needs, as the low return is most likely an indication of its lack of value in the market place as a transitional level of education. Nor does it necessarily argue for neglect of higher education, but suggests a re-ordering of priorities.

The private rate of return includes only the cost of education to the individual. Thus, the more the public sector finances education, the less the cost to the individual, and the higher the private rate of return. A high private rate of return will determine the demand for education by encouraging families to seek out education for their children by sacrificing immediate consumption, and to invest in schooling. High private demand will also place pressure on the state to expand educational opportunities and government financing of education. In Senegal, the high private return to higher education (21.3 percent) is consistent with the continued demand for university education and strong student and parental lobbies for high subsidization, despite increasing unemployment of the educated. Indeed, the probability of remaining unemployed would have to be quite high before higher education becomes unattractive in Senegal. (Anecdotal evidence suggests that unemployment encourages university students to

continue their studies and apply for foreign-study scholarships in order to delay protracted job searches.)

Although private returns to primary education are highest (33.7 percent), the difference between social and private rates of return widens as the level of education increases. For example, while the private rate is only 1.46 times the social rate for primary education, the private rate is 2.4 times the social rate for higher education. The effect is that high private rates of return resulting from the government public subsidy structure push students to levels of education beyond what may be socially desirable or economically efficient. As in the case of secondary schools where private demand has compelled students to turn to the private sector, reduction of subsidies and privatization of higher education in Senegal could serve to both reduce excessive demand and lighten the financial burden on the government to permit investment of educational resources in more productive areas.

Rates of return change over time. Since the calculation of these figures (1985), two factors may have affected them (other things being equal). First, the continued expansion of the education system may have served to lower the return as a function of the larger number of educated persons in the labor market. Second, the increasing level of unemployment may serve to drive down the return as fewer of the educated will obtain jobs at previous higher salary levels (assuming no distortion in the wage market, which does not appear to be the case in Senegal).

**Growth accounting: Some conflicting evidence.** Rather than measuring the earnings of individuals and assuming an effect on national productivity (or income), growth-accounting attempts to measure the effect on real GDP of additional years of education. A recent study suggests that an increase in one year in average aggregate years of education may lead to a 3 percent rise in GDP. However, the results vary by region. Sub-Saharan Africa presents an exception: increasing education by one year from the average 3.25 (in 1985) to 4.25 appears to have a negligible effect on output, suggesting that there may be threshold levels in returns to education and that four years of education is required to attain functional literacy and thus increase productivity.<sup>48</sup>

What does this suggest for government investment in education? Rather than argue against investment in education, it may indicate that minimum threshold levels of investment should be considered in planning educational systems in order to ensure attainment of student achievement goals. It also argues for continuing and increasing investment in primary education and for less concentration of resources at higher levels so that more children are able to progress beyond the four-year threshold to attain functional literacy and numeracy. In Senegal, the expense of financing one year of university education for one student would provide four years of primary education for nearly five students.<sup>49</sup>

**Agricultural and informal sector productivity.** In Senegal, over 70 percent of the population are employed in the agricultural sector. Few receive wages for their work; most are self-employed and work on small family plots. Ninety-three percent of farmers have never attended school.<sup>50</sup> Education increases the productivity of labor. Educated farmers are more likely to adopt new technologies and seek more contact with agricultural extension workers, and virtually all studies on agricultural productivity show that better-educated farmers earn a higher return on their land. An analysis of 18 studies in low income countries showed a posi-

tive relationship between years of schooling and agricultural output. One study in Africa found that farmers having completed four years of education produce, on average, about 8 percent more than farmers who have not gone to school.<sup>51</sup> Another study observed that the effectiveness of specific training offered in conjunction with agricultural projects rose with the trainees' level of education.<sup>52</sup>

The leading role of the agricultural sector in Senegal's development strategy<sup>53</sup> argues for concomitant investment in basic education in order to optimize gains from the introduction of new agricultural technologies. A modernizing environment requires literacy and numeracy in order to exploit the benefits of agricultural research. For example, the ability to read and cipher is critical to the use of agricultural inputs such as fertilizer, which requires reading application instructions and calculating application levels. Education has been found to reduce variability in farm output and speed acceptance of new technologies. Basic education is also likely to ease the process of structural adjustment into export agriculture because it appears to accelerate the transition to the new efficient pattern of resource allocation when prices or technology change.<sup>54</sup> Basic education, extension and agricultural research should be seen as highly complementary, with no one element accomplishing much in isolation.

The emerging prominence of women in Senegalese agricultural production,<sup>55</sup> due to male urban migration, makes a strong case for investment in basic education in rural areas and programs aimed specifically at girls and women. Although increasingly responsible for farm output, Senegalese women are less prepared to maximize production or exploit agricultural innovations than their male counterparts, given the lower level of women and girls' education. In Senegal, only 19 percent of women are literate compared to 28 percent of men, and only 40 percent of girls are enrolled in primary schools compared with 66 percent of boys. (Rural enrollment ratios for girls are much lower – about 32 percent, falling as low as 19 percent in one region.)

Lack of absorptive capacity in the formal sector and increasing rural-to-urban migration has caused informal sector employment to grow significantly in Senegal. Recent data show that primary education has a strong positive influence on productivity in the informal sector. In Niger, informal sector entrepreneurs' incomes were positively affected by primary education, with private rates of return exceeding 50 percent. Primary education was also found to enhance the efficacy of apprenticeships.<sup>56</sup> Basic education also gives a worker a wider range of self-employment options and allows choice of more profitable alternatives.

With rising unemployment in Senegal, more wives of unemployed workers in urban areas are turning to trade and informal sector employment, while in rural areas there has been a notable increase in off-farm activities by women.<sup>57</sup> Education benefits women in the informal sector by increasing wage earnings and improving access to credit.<sup>58</sup>

**Non-economic benefits: Health, nutrition and population.** Education yields other important benefits that are not directly reflected in the form of increased productivity or increased earnings. Positive interactive or strengthening effects of schooling on various aspects of social policy – health, nutrition, family size and equity – are evidenced in a growing body of literature.

Population growth is considered a major impediment to economic progress in the developing world, necessitating the spread of limited resources among more people and result-

ing in little or negative growth in GDP per capita. In Senegal, where the population growth rate has steadily increased to 3 percent and the fertility rate is 6.6 percent, research findings on determinants of family size in Africa have particular relevance. Raising educational attainment in women beyond a three-year threshold point can reduce fertility by raising marriage age and reducing demand for children through improved employment opportunities and increased probability of child survival. The better educated woman will bear fewer children; she is also more likely to know about and practice contraception.<sup>59</sup>

Basic education contributes to better family health and longevity. Schooling increases the ability to improve nutritional status and health care, as well as to initiate effective diagnosis of illness. A one percentage point gain in literacy is associated with a two-year gain in life expectancy.<sup>60</sup> Fourteen demographic and health surveys conducted by AID in Sub-Saharan Africa confirm the direct relationship between female primary education and child survival. (We understand that such studies have actually been conducted in Senegal by the AID mission, although the data was not available for this report.) One year of a mother's education is associated with a nine percent decrease in under-five mortality. In Ghana, the rate of child mortality is twice as high for children of mothers with no primary schooling. Children of better educated mothers are healthier as well: they are better nourished and suffer from illness less frequently.<sup>61</sup>

Education of mothers also affects the physical and cognitive development of children. Children of more educated mothers are more likely to enroll and advance in school, and--ultimately--make better parents to children of their own. This "virtuous cycle" of education and social well-being presents a strong case for investment in girls' and women's education. Studies have found that not only does increasing girls' access to education reduce fertility and improve child survival and health status, but that the effects are cumulative--the more widespread education among women the greater its impact on the individual.<sup>62</sup>

Education may, under certain conditions, promote equity. Education of poor children may serve as a vehicle to allow them to move to higher levels in society's occupational and income structure. Greater access of the poor to educational opportunities certainly shifts to varying extents the flow of public resources to to disadvantaged strata of society. Education is also thought to promote participation in society. There is some evidence that hallmarks of pluralistic society--participation and integration in the political process, broad formation of interest groups, etc.--are enhanced by increased aggregate levels of education.

### **Education and unemployment**

As the 1990 census results have not yet been released, little current data were available on unemployment statistics during the preparation of this section. The following analysis draws heavily on research results from other developing countries in order to address the issue of and explore the linkages between education and unemployment.

**Unemployment in Senegal.** Data from 1979-80 show the overall unemployment rate to be about 7 percent among the economically active population. Consistent with data found throughout the Third World,<sup>63</sup> the distribution among levels of education follows an inverted U pattern with unemployment strongest at lower levels of education (primary, intermediate and secondary) and weakest at no schooling and higher levels (university). Unemployment is

also higher in the under-25 age cohort at 9.4 percent, following a similar pattern of distribution among education levels. In both cases, the rate of unemployment is the least (5 percent) for those with no schooling. This is not surprising as those workers with little education are generally found in rural areas and engage in some form of subsistence agriculture which complicates measurement of true unemployment versus under-employment – disguised unemployment (see Table 18).

**Table 18:** Unemployment Rates by Level of Education, Age Cohort and Formal Sector (1980)

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Level of Education:	Unemployment All Cohorts	Unemployment Age 25 or less	Unemployment Formal Sector
No school	5%	5%	43%
Primary	15%	19%	38%
College	27%	42%	35%
Lycee	19%	38%	22%
Higher	11%	27%	14%
All Levels	7%	9%	38%

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Source: Mondon and Thelot, *Le Succes de l'Ecole au Senegal*, Government of Senegal-MEN/DERP (1990)

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Wage unemployment, among the economically active population looking for wage compensation in the formal or modern sector, follows another noted pattern: unemployment rates decline with levels of education, from 43 percent for those with no schooling to 14 percent for those with higher education. Wage unemployment (38 percent) is also higher than the general unemployment rate (7 percent), which may indicate the relative inability of the formal sector to absorb labor in Senegal's weak and semi-subsistence economy.

By all accounts the employment situation has worsened over the past decade. Estimates place overall un- and under-employment at 40 percent<sup>64</sup> and urban open unemployment at 20 percent.<sup>65</sup> Employment in the manufacturing sector has been in decline for a number of years, since 1986.<sup>66</sup> In addition to the inherently limited absorptive capacity of the modern sector in a developing country, structural adjustment policies have contributed to rising unemployment, at least in the short-term.

The New Industrial Policy, with its emphasis on liberalization of trade, reorganization of the banking sector and elimination of industrial protection, has been linked to job lay-offs in industry and banking. Claimed job losses in these sectors are high – 5,000 in 1988/89; and Mondon and Thelot estimate only 300 new jobs are generated annually in the modern sector. The policy of containment of public sector employment and privatization of parastatals has

also affected employment opportunities. Since 1985, the civil service has been declining, from a high of nearly 69,000 employees to about 63,000 in 1989. Recruitment projections range between 1100-1400 per year, and the policy of guaranteed employment for university graduates has been discontinued.

**The educated unemployed.** Hardest hit (statistically, at least) appear to be those with higher levels of education and the young (often highly collinear), which has led some to conclude that Senegal suffers from "overeducation", to question the profitability of educational investment in Senegal and to attribute unemployment to the educational system. Although recent substantiating data on the distribution of unemployment is lacking and 1980 figures indicate that in general the higher educated do not suffer as much from unemployment, the following discussion assumes there is indeed a problem in these areas based on statements from other AID and World Bank documents.

Rising unemployment in the under-25 age cohort is a phenomenon seen throughout the world in both developed and developing countries. In large part it is due, straightforwardly, to demographic growth. The literature shows that unemployment is generally concentrated in the younger age cohorts, primarily because they are more numerous and include new groups entering the labor force, such as women. Of the annual 100,000 new labor force entrants in Senegal, the vast majority will be under 25 years old given the age structure of the population.<sup>67</sup> Unless labor market opportunities grow at the same rate as the population, there will be increasing unemployment. Slow economic growth and insufficient aggregate demand, in part, explain unemployment. Other factors, evident in Senegal, also restrict job opportunities for youths. Protected employment, especially in the modern and public sectors, combined with older adult reluctance to withdraw from the labor force, reduce employment possibilities. Artificially high wage levels and stringent employee protection policies prevalent in Senegal induce employers to avoid hiring new employees, turning instead to temporary labor and the informal sector. And, significantly, the growth model favored by most developing countries is greater investment in capital rather than labor.

Education will correlate highly with unemployment primarily because the young are better educated than previously. In the course of a generation--twenty years--Senegal's gross enrollment ratio for primary school has risen from 41 to 55 percent. More children are schooled simply because educational opportunities and private demand have expanded. More primary and secondary school graduates are unemployed because there are more of them (and because of displacement through creeping "credentialism", the escalation of educational requirements for employment). Given the stress on the formal sector labor market in urban areas, where education is highest, unemployment of the educated is not exceptional. Correlation is not causality in this case.

In view of the tremendous economic investment Senegal makes in its university students, concern over higher education ("graduate") unemployment is natural. Graduate unemployment in developing countries is a global phenomenon. Between 1975-83, higher education enjoyed a growth rate in enrollments of 10.8 percent in the Third World compared with 1.6 percent in industrialized countries. Senegal was little different with a tertiary education growth rate of 12 percent between 1960-80.<sup>68</sup> Today, there are 25,000 secondary and university level graduates seeking first-time employment in a modern sector labor market, representing perhaps 12 percent of employment and offering 4000-5000 jobs. Until 1982, the

public sector absorbed 200 new university graduates annually. Severe cutbacks have nearly eliminated employment possibilities in this sector for the 500 university graduates now produced annually.

A common cause of graduate unemployment is stagnation in economic growth in the face of an accelerating graduate growth rate. But graduate and educated unemployment is difficult to measure. Individuals reporting themselves as unemployed, in fact, often mean that they have not been able to obtain employment commensurate with expectations. Research shows a substantial number may indeed be self-employed in the informal sector while waiting for more desirable or "appropriate" employment. Lack of "suitable" employment for graduates is cited as a shortcoming of the Senegalese higher education system.<sup>69</sup> The force of tradition, government subsidies and distorted wage markets have conspired to maintain the employment aspirations of graduates. The relation between higher education and unemployment is a negative one, and youth and educated unemployment is not a "once-and-for-all" phenomenon--unemployment declines with time and with age. Neither the educated nor the young remain unemployed. Numerous studies have shown that, though unemployment for these groups is initially greater, nearly every graduate will find a job after some time.<sup>70</sup> IIEP surveys in Africa found that first-time job seekers waited between one month and one-year, depending on areas of discipline (law graduates took longest to find "suitable" employment).<sup>71</sup> The delay in finding a job largely reflects problems in transition between school and the workplace and adjustment of expectations. Yet in Senegal, expectations and private demand for higher education remain high, due to the high private rate of return, although anecdotal evidence suggests the waiting period can extend up to three years.

Beyond supporting economic growth, if the government wishes to reduce graduate employment, it must act to influence both the expected private costs and benefits associated with higher education through decreased student subsidies, reduced civil service pay scales and freer labor markets.

**Educational mismatch.** The source of employment is economic growth. Education does not directly generate employment (except for teachers), but instead enhances productivity and resource allocation mechanisms of the economy, contributing to growth and development--and job creation. A "mismatch" between the education system and the labor market--that the educational system failed to provide its students with marketable skills--is often cited as a cause of unemployment in Senegal.<sup>72</sup> This concept is related to manpower planning and implies that there is a correct skill mix for the economy which, if identified and attained, will lead to overall employment. The assumption is that there are jobs "out there" just waiting for the properly qualified individuals.

This is clearly not the case in Senegal. Educated manpower is -- and should be -- fungible, and even highly specialized training programs have not resulted in full employment of their graduates. The belief that educational systems can be fine-tuned to the economic demands of a dynamic economy has been refuted by the historical results of manpower planning studies. Thus, the concept of "mismatch" implies that both sides of the equation are known--economic needs and means to fill them.

A more appropriate concept in Senegal is tailoring the educational system to be more relevant to a developing economy and providing skills with greater "elasticity" or transferability

to changing needs to permit more workers to be more productive. This means educational investment in more productive levels of education, such as primary education, and aimed at more promising areas of the economy -- such as the agricultural sector.

While considered more supportive of economic development, there has been a strong tendency away from training in scientific and technical areas: most students at higher education levels are enrolled in law or social science programs.<sup>73</sup> Enrollment in the baccalaureate program in 1987 were five times higher than enrollment in more technical and vocational areas. Specialized training programs do not correspond to potential growth areas of the economy. For example, the agriculture sector--which employs 70 percent of the population and is considered the vehicle for economic growth--represents only 8.3 percent of training activities and only 10.7 percent of participants; scientific and technical training accounted for 41 percent of training activities, but only 25.8 percent of enrollments. However, training for the tertiary sector, the least promising area for labor absorption and growth, accounted for the majority of both the activities (50 percent) and enrollments (63.4 percent).<sup>74</sup>

Although the lower social rate of return to higher education in Senegal would argue for decreased investment, the government has actually increased public subsidization through its policy response to educated unemployment. The *maitrisand* program, aimed at insertion of new university and secondary graduates into the work force through entrepreneurship training and small enterprise development, has been established at tremendous cost: \$5000 per graduate and \$1050 per job generated. *Reinsertion* programs for the "disemployed" victims of structural adjustment, including university graduates, are even more costly--\$8000 per newly created job and resulting in a discouragingly high rate of failure.<sup>75</sup> Although social rate of return figures are not available, it is evident that government actions have served to increase the private rate of return to higher education and, thus, ensure continuing production of graduates and high expectations, despite limited labor market opportunities.

### **Economic constraints to educational development**

Previous studies<sup>76</sup> have identified obstacles to the development of the Senegalese education system and prescribed policy modifications to improve internal efficiency, subsequently officially adopted by the government. (Extent of implementation, however, is uncertain). Based on more recent--though meagre--data, we find that there are two main economic constraints to educational development in Senegal:

- government inability to sustain sufficient educational expenditure to maintain and increase enrollment ratios; and
- inequitable distribution of educational resources to the detriment of primary education, the poor, rural families and girls.

**Collision course: Dwindling education budget and demographic growth.** Recent data suggest the government will experience difficulty in continuing to finance education at levels necessary to maintain the expansion of the education system and to achieve its goal of universal primary education by 2000. Although GDP growth continued to increase from 1984 to 1987, capital formation appears to be declining and the economy remains vulnerable to drought and external factors. Its debt service ratio is the fourth highest in Africa, and as the debt is largely public, the government must pay, thereby reducing funds available for social ex-

penditure. The fixed nature of CFA currency prevents devaluation which implies fiscal constraint. More significantly, the share of education in the national budget fell to a decade low of 19.7 percent in 1988/89. (NDao) The rate of expansion achieved in the mid-1980s does not appear likely in the future.

The rapid rate of population growth also presents a demographic challenge. School-age cohorts are expected to grow at a rate of 3.1 percent.<sup>77</sup> In 1989, 45 percent of the population were in the 0-14 years age cohort, with three-quarters in the age range to expect primary education over the next ten years.<sup>78</sup> The clear implication is that the education budget share can not fall appreciably without adversely affecting the current enrollment ratio. In order to maintain the status quo (quality and enrollment ratios), the education budget must grow in absolute terms with lower levels of education receiving an increasingly greater share of the budget in order to accommodate incoming students.

More schools, supplies and teachers will be required. Mingat and Jarousse (1990) optimistically project that if all recommended reform measures were implemented by the government, universal primary enrollment could be obtained by 2000, at a 3 percent budgetary growth rate (see Annex). These calculations, however, do not provide for unit cost increases which accompany enrollment rises, diminishing economies of scale or costs of implementing the recommended changes. NDao more conservatively estimates that to achieve a primary gross enrollment ratio of 65 percent by 1995 and 75 percent by 2000, a 5 percent growth rate in the education budget in real terms--or a 50-80 percent increase in actual levels--is required. Such investment increases appear unlikely.

The government has, in fact, implemented some of the policy reforms. According to NDao, introduction of double shift and multigrade classrooms allowed nearly 65,000 more students to attend school in 1987/88, about ten percent of the primary school students. Between 1984-8, about 1,262 teachers had been put back in classrooms. A policy of restraining teacher salaries permitted the government to employ large numbers of teachers to meet expansion goals.<sup>79</sup>

However, there are disturbing indications that the government's ability to execute policy reforms are limited, and that growing counter-pressures on the budget will mitigate their effectiveness. Teachers, whose salaries had dropped in real terms by 50 percent in the early 1980s, revolted against poor pay with strikes in 1988 and 1989 and won a 40 percent increase in wages and other benefits. Teacher opposition has also slowed adoption of reform measures. Government policy of civil service containment and perceived low wages (teacher earn nearly eight times the GNP per capita) has led to a dramatic dwindling in the supply of teachers: while only 175 new primary school teachers graduated from training institutes in 1988, an estimated 450 teachers per year are required to maintain enrollment ratios<sup>80</sup> and 1150 per year will be required to reach universal primary education by 2000. In 1988/89 and 1989/90, 843 classrooms were closed in rural areas due to the lack of teachers.

Further, many of the measures advocated to support policy reform may have limited utility other than a one-time panacea for the educational system. School consolidation due to multi-grade teaching can only extend so far in rural areas before distance adversely effect enrollments. Teacher redeployment to classrooms is finite. Quality implications have yet to

emerge from adoption of multi-grade teaching and double-shifting, and additional training requirements for teachers must be considered.

**Inverted pyramid of resource distribution.** Despite the notable resource shifts in the education budget in the 1980s to primary education, the enormous unit cost expenditures, as well as donor assistance, favor higher education students, resulting in an unequal distribution of public resources for education among members of a given generation. Data from 1985 show that the 4.5 percent of the age group whose final level of schooling is upper secondary or university receive 50.7 percent of the public resources, while 88.3 percent whose final level is primary school receive but 28.2 percent of the public resources.<sup>81</sup> In essence, the wealthy reap the majority of public funding.

Contrary to the stated objectives of the 1984 Reform to increase the proportion of the budget for primary education, there also appears to be a growing tendency of back-sliding since 1988 on the part of the government in allocating resources to higher levels of education. In 1988/89, primary education's share of the budget fell to 44 percent from its 1984/85 level of 47.4 percent, while the budget share for higher education increased from 18.1 percent to 22.5 percent for the same period. Scholarships for higher levels of education increased by 15.2 percent, and the budget of the COUD (student services center) increased by 20.4 percent, together totaling 50 percent of the higher education budget. Sixty percent of university students received fellowships or financial assistance. Recurrent budgets for secondary and higher education had growth rates of 18.2 percent and 22.6 percent between 1986 and 1989. Further, the initiation and support of university operations at St. Louis serves to swell the higher education budget.<sup>82</sup> Nor has the secondary school proportion of the budget fallen.

Disproportionate allocation of resources to higher levels of education not only reduces the amounts available to primary education, but places an extra burden on traditionally disadvantaged groups-- rural families, girls and the poor.

Rural populations have long been neglected in favor of more concentrated and politically powerful urban ones. In Senegal, there are several means of discrimination towards rural education. First, while over 60 percent of primary school-aged children live in rural areas, enrollment ratios have stagnated at 34 percent over the past four years, and 300 schools have been closed for lack of teachers. Second, in addition to more budgetary resources allocated to urban areas, urban centers enjoy more resources from other sources. Whereas rural municipalities may contribute something toward school maintenance, municipalities--such as Dakar--are able to fund bursaries, student services, equipment, libraries, etc. As donors to the education sector in Senegal focus on post-primary education, additional funds benefit urban areas where upper secondary and higher education institutions tend to exist. Girls' access to education suffers in rural areas for numerous reasons -- distance, work at home, cultural barriers, etc.

The poor, if they gain access to primary education, are less likely to progress to higher levels of education for a variety of reasons, and therefore will be less likely to benefit from the largesse of public resources devoted to higher education. They are also asked to make greater contributions as well. Rather than implementing cost recovery schemes at higher levels of education, it appears that the government has made greater inroads in applying such measures at primary education levels and in rural areas. Although, community contributions either in

cash or in kind to school construction are encouraging and offer alternatives to lighten the public finance burden, it should not be forgotten that this places a disproportionate burden on poor and rural families which their wealthier counterparts are not asked to pay at higher levels of education.

Furthermore, the implementation of a variety of efficiency measures has reduced the unit cost per student for primary education; the savings, however, have not been applied to increasing student access to primary education, as foreseen in the 1984 Reform. Rather these funds have been diverted to finance higher education, as evidenced by its growing share of the education budget. Thus, in a sense, both primary education and rural and poor families have been penalized by the government's interpretation of the 1984 Reform.

In summary, both policy and project options considered by AID should address means of assisting the government implement reform prescriptions which emphasize increased resource allocation to primary education and increased access to basic education for disadvantaged strata of the population--the poor, rural children, girls and women.

## DONOR ASSISTANCE

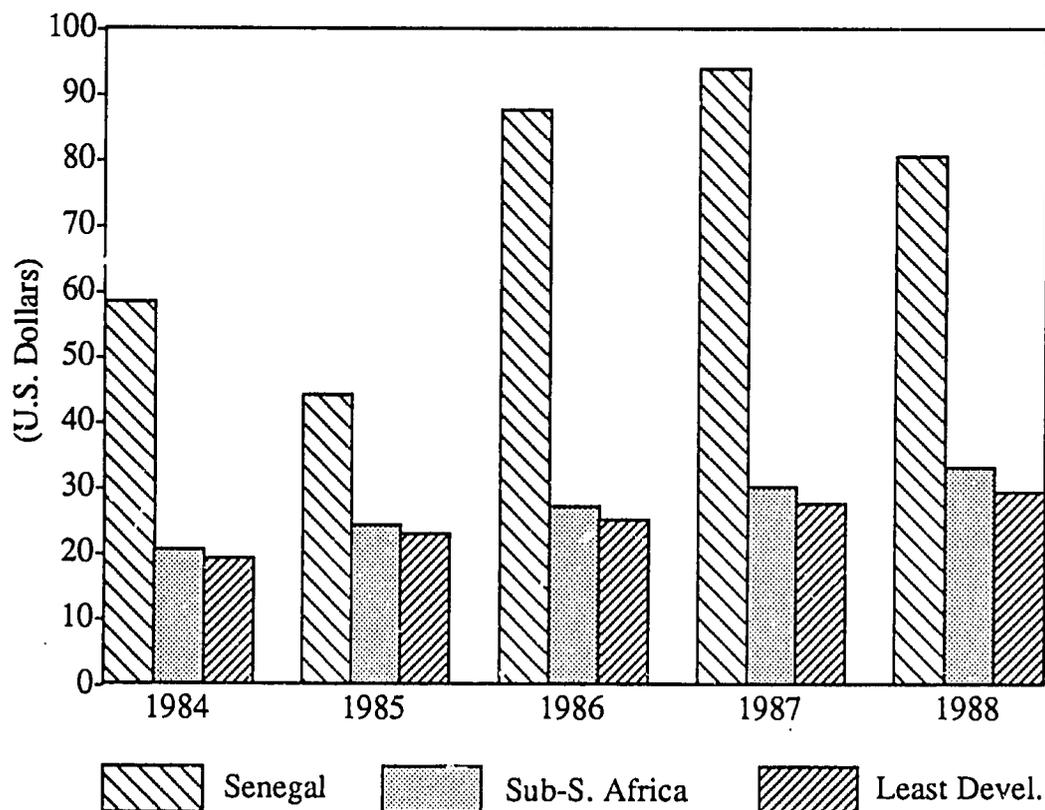
Since its independence from France in 1960, Senegal has attracted high levels of donor assistance for a variety of reasons: its historic eminence as the capital of French West Africa; its strategic situation for military purposes; the government's willingness to follow a path of moderation after independence, as evidenced by its continuance of close ties with France; the government's readiness to vote on the side of Western donors at the United Nations; its efforts to develop a democratic political system; and the country's vulnerability to natural disasters, such as draught, and ensuing need for humanitarian assistance.

While there are evident benefits to this abundant assistance, it also seems that the quantity and quality of foreign activity has led to mismanagement and waste.

### Recent levels of assistance

Information on actual 1989 and 1990 donor contributions is unavailable, but total amount (excluding military) for 1988 is above \$400,000,000. According to USAID Senegal's September 1990 analysis of OECD data during the past decade (1979-1988), donor contributions have grown at the rate of 8.8 percent per year, with Senegal receiving approximately three times the per capita assistance given to other sub-Saharan countries, and three times that received by countries the U.N. deems least developed.

**Figure One**  
Per Capita Net Disbursements of ODA, 1984-88 (U.S. Dollars)



### Trends in donor assistance

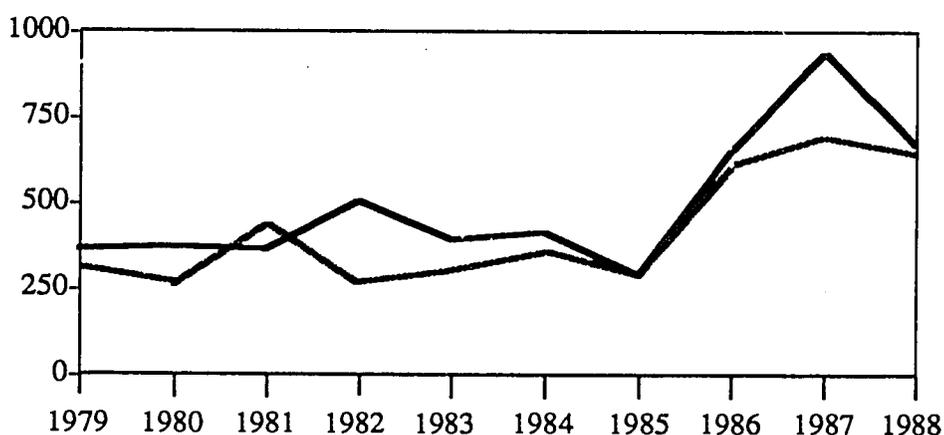
According to OECD data, the following modes of donor assistance are becoming more prevalent: joint initiatives, with two or more donors closely coordinating their inputs; and budgetary assistance which is conditioned on the government's meeting agreed-upon implementation targets in a given sector, or across sectors.

### Overview of recent donor assistance

The most recent data is for 1988, but is indicative of donor support in 1989 and 1990. According to the charts below, on the average assistance has increased over the past decade.

**Figure 2**

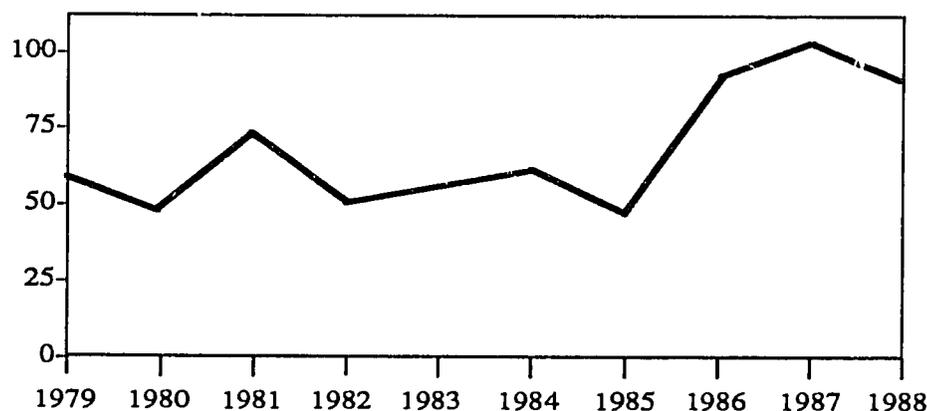
Senegal: Commitments and Disbursements of Gross Official Development Assistance, 1979-1988 (in Millions of U.S. Dollars)



Source: Tables 1 and 12

**Figure 3**

Senegal: Per Capita Disbursements of Gross Official Development Assistance, 1979-88 (in U.S. Dollars)



Source: Table 1, GOS Population Estimates 1979-88



As noted earlier, total assistance for 1988 (excluding military) exceeded \$400,000,000 (this figure excludes activities of countries such as the Soviet Union, which chose to withhold information on their contributions). The portion of grant assistance was greater than ever, at 46.6 percent; the rest was loan assistance, given with various conditions for repayment.

Foreign contributions provided approximately 88 percent of the government's public investment budget in 1988. Of this, 66 percent came from bilateral donors, with France contributing 27 percent of total assistance, followed by Italy, the United States, and Japan, all with contributions above 6 percent. Of this, 7.9 percent went to the education sector, for a total of \$47.5 million. By way of comparison, it is interesting to note that 7.4 percent went for health, and 26.8 percent for agriculture, fisheries and forestry.

Of the above \$47.5 million to the education sector, 25 percent was for technical assistance, as follows: in educational planning, 1 French technician; in teaching, 32 Belgians, 10 Canadians, 8 Americans, 666 French, 7 Japanese, 6 British, 23 Swiss, and 12 Russians; in non-formal education, 1 person sponsored by UNESCO.

Different categories of donors contributed the following proportions of their overall financial assistance to the education sector: bilateral, 2 percent; multilateral donors, 1.4 percent; and the U.N. organizations, 4.3 percent.

#### **More detailed view of recent donor assistance in education until 1988**

UNDP provides a more detailed overview of donor support to the education sector. France, Switzerland, and Canada, in order of decreasing contribution, are assuring a total of 36 different activities and 21 scholarships to evaluate the education system in terms of its linkages with employment needs and its capacity to handle additional education demands while maintaining quality.

This program continues to cover the entire country and involves a total of 766 technical assistants. This assistance has led to a 1989/92 public investment plan for education infrastructure as follows: 44.5 percent for elementary education; 24.8 percent for higher education; 13.8 percent for technical and professional education; 11.7 percent for lower secondary and secondary education; 3.3 percent for special education; and 2.1 percent for the preschool sub-sector.

In addition to the above, in order of importance, France, Switzerland and Canada provided in 1988 a total of 764 teachers to general, technical and professional secondary schools, as well as to the University of Dakar. Though concentrated in Dakar, these teachers worked in all the regional capitals as well. Although in the past France has provided almost all such foreign assistance, in 1986 86 came from other countries. In addition, to reduce costs, donors began to recruit younger professionals who required lower salaries. To complement this assistance, donors assured \$2.7 million worth of degree and in-service training abroad.

In terms of education infrastructure, in order of importance, the Swiss, the French, and the World Bank expanded and rehabilitated facilities, and provided equipment and learning materials. Primary education and scientific and technical education received the highest levels of this support. In addition, the World Food Program assured school lunch programs.



Turning to education and training especially for women, the UNDP report mentions that there are 7 different UNDP and UNFP sponsored initiatives which aim to stimulate economic productivity among females. While the level of this support is comparatively small, it is steadily growing as donor understanding of women's role in development is increasing.

Under the sub-sector of culture, and in the area of communications, the UNDP report notes that Japan and France are providing 20 technical advisors as well as financing to rehabilitate and expand radio and television infrastructure, a potential resource for all levels of Senegal's education and training system.

### **Current and planned donor initiatives**

Under the rubric of public administration, UNDP reports that France will continue to assure technical assistance to the Ministry of Education as follows: 2 technical advisors to the school administration division; 1 advisor to the division of literacy training; 3 technical advisors to central services; and 1 advisor to the study and career orientation office.

Under the category of education system support, France is providing technical assistance at all levels. Other donor activity is notable as follows: Belgium – environmental education and teacher training; Canada – civil engineering and biology; Peace Corps – secondary school teacher training; Japan – professional and technical training; Great Britain – English language training; Switzerland – forestry, agriculture, water and livestock training; Soviet Union - training in music and Russian; and the FED - training of rural development agents.

Under the category of scholarships the report notes contributions by the following countries, with specializations as noted: France, the FED, Canada (computer training), the U.S., South Korea, Belgium, Japan (Japanese language training), Switzerland (hotel school training, immunology and law), the Soviet Union, and UNDP.

Under the category of nonformal education, UNESCO assures training, technical assistance, and research in support of home economics. In addition, UNICEFF provides assistance for basic education in Dakar, as well as for literacy training in Thies and Kolda.

And, under the category of professional training, UNESCO appears to provide in-service training for primary school teachers.

Under the rubric of women in development, there are UNFP and UNDP initiatives to promote family and community education for women, including cooperative training.

Under the category of school infrastructure and technology, the UNDP report notes the following support for primary and non-formal education, and for women: France - primary school teacher guides and school books, teacher training, school inspection, and budgetary support for teacher salaries; World Bank - primary school construction and textbooks; UNICEF – school lunch programs, and school garden infrastructure and equipment; ADB - primary school construction.

In the areas of primary school, nonformal education, and women in development, the report notes unmet demands for primary school construction, primary school learning materials and equipment; construction of 8 lower secondary schools, equipment for rural training centers, and radio transmission equipment. In addition, Ministry officials in the planning

division stress the need for donor assistance with in-service training for primary school teachers to enable them to implement reform objectives such as instruction in maternal languages, practical training, and efficiency measures of multigrade and double shift classes.

### **Key donors in areas of primary education, non-formal education, and girls and women in development**

**Primary education.** The key players here are the French and the World Bank. The French are involved in one way or another in every aspect of Senegal's education and training system. They especially predominate at the secondary and higher levels of the formal system, where they assure large parts of the teacher training activities and textbooks, as well as provide teachers in areas where the number of Senegalese teachers is insufficient. In addition, the French provide many scholarships, both for studying in France and in other African institutions.

While the French predominate in terms of length of involvement, levels of technical assistance and other kinds of support, the World Bank appears to be the more innovative in seeking new ways to improve the relevancy, efficiency, access and equity of the primary education system.

According to a World Bank report on its programs in Senegal, it has financed four education projects, with IDA credits totalling \$51 million. The first three projects had multiple components dealing with all levels of education: primary, secondary, technical/vocational and agricultural, as well as teacher training and nonformal education. These projects have been completed and evaluated. The Fourth Education Project supports a sectoral adjustment program focusing on investments in primary education and adjustments to the structure of the entire education system, and is currently under implementation. In addition, a regional education project (\$5.5 million, approved in 1985) provides financing to the West Africa Economic Council for a regional management school located in Dakar. A fifth education project, to be called the Human Resource Development (HRD) project, is under preparation.

It is important to note that UNICEF has carried on a number of pilot projects which have experimented with ways to introduce practical health programs to the primary school curriculum. An example is the "adoption" initiative, which trains upper level primary school students to take charge of assuring that younger children in their communities are vaccinated. Potential is great for vitalizing the primary school curriculum with activities from other sectors as well, such as Swiss-led initiatives in forestry, fisheries, livestock and agriculture.

**Nonformal education.** UNICEF seems to be the donor who has had the greatest success in designing and testing non-formal education approaches to improving literacy and community organization for development. The following chart, though developed in 1985, indicates the quantity and diversity of non-formal education initiatives.

**Women in development.** Apart from UNFP and UNDP, donors largely appear to have taken little initiative to introduce policies and practices to increase education and training, both formal and non formal, for girls and women.

The chart on page 8 gives a rough summary of where various donors currently are focusing their efforts in the education sector.

## **Donor coordination**

**Background.** The Government of Senegal and its donors have as resources several institutions for donor coordination. The Club du Sahel, created in the mid-1970's and based in Paris, aims to assure that foreign contributions to the Sahel fit within a coherent development plan for the region. The African based counterpart of the Club is the CILSS, based in Ougadougou and charged with guiding and refereeing donor initiatives. The Sahel Institute, based in Mali, initiates studies and evaluations of regional interest. To date the Club, the CILSS and the Institut have worked largely on cross-cutting issues, such as government budgeting and decentralization, rather than on specific sectoral problems.

Other donor coordination efforts relate directly to the education sector. In early 1988 the World Bank initiated the association of Donors to African Education (DAE) to ensure dialogue between the donor community and African nations interested in education sector improvements. The task force set up twelve working groups to study critical issues in education, such as female participation, education sector structural adjustment, and administrative decentralization. Within this framework, AID has helped to establish a data-base for tracking donor-funded activities by country (information on the current program for Senegal is still being collected and should become more useful with time).

**Overview of donor assistance to the education sector.** The Education for All (EFA) Conference, held in Jomtien, Thailand in March 1990, with assistance from donors that include AID, brought educators from nearly every country of the world to share experiences and to coordinate future efforts. The Sahelian Ministers of Education prepared a plan of action for this conference in January at a workshop in Mali. These two meetings helped Senegal's Ministry of Education compare its agenda with those of other nations, and to clarify its education goals, a key step towards winning and coordinating donor support.

Other meetings will bring African educators and donors together to implement EFA initiatives. A conference on distance learning took place in September in Tanzania. The agenda included the use of recently launched satellites (TF II, the French educational television satellite, and PACKSAT, launched by VITA for diffusing appropriate technology), and translations of television productions by the Children's Television Workshop into many languages. We expect these sessions to prompt requests to donors for related technical assistance.

Finally, The French and the World Bank are organizing a meeting in Dakar this November for donors and Senegalese to discuss issues in higher education.

## **Problems hampering donor assistance to the education sector**

There are a number of problems which hamper the efficient use of education resources in Senegal:

- A lack of an education strategy endorsed by all stakeholders. Senegalese and donor: A Senegalese education consultant with considerable domestic and international experience recently lamented that his country over the past thirty years has designed and then left unimplemented thirteen different education system reforms. A glaring

problem, therefore, for donors is the lack of a realistic and coherent national education strategy for guiding and measuring the effectiveness of donor inputs.

### Donor Assistance by Category

	<u>Bilateral</u>							<u>Multilateral</u>			
	US	FR	B	J	S	A	CA	BAD	FED	IBRD	UN
<u>Pre Primary</u>											
<u>Primary</u>		A	TT	IN	IN	IN		IN	IN	A	TT
<u>Secondary</u>	TT	A	TT			IN		IN	IN	A	
<u>Higher</u>	S	A	S	S	S	S	A		S	A	
<u>Vocational/ Technical</u>	A	A	A							A	
<u>Non Formal</u>	A									A	

#### Categories of Assistance:

BS	=	budgetary support
TA	=	technical assistance
EQ	=	equipment
LM	=	learning materials
IN	=	infrastructure
TT	=	teacher training/training of trainers
S	=	scholarships
A	=	all of the above

#### Donors

##### Bilateral:

US	=	USAID
FR	=	France
B	=	Belgium
J	=	Japan
SU	=	Soviet Union
AR	=	Arab
CA	=	Canada

##### Multilateral:

BAD	=	African Development Bank
FED	=	European Fund for Development
IBRD	=	World Bank
UN	=	Unicef/UNFP/UNESCO

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- A lack of organization among those Senegalese most deprived of educational opportunities: Another factor impeding the formulation and implementation of reforms is that, even though donor-initiated reforms often are aimed at those who are deprived and without a voice, more powerful and clamorous groups are usually more successful in securing funding for programs that benefit them. So in Senegal today we see organized university students drawing away donor contributions from the neglected and diffused primary school recipients who are the intended targets of donor assistance.
- Use of educational issues as a means of political destabilization: Certain groups opposed to the country's political leadership have an interest in hindering educational reform as successful reform might weaken opposition to the current government.

### **Donor efforts to date in education, and results**

It seems as though until recently there has been a lack of donor coordination in the education sector. For this reason, there are too many overlapping, unnecessary initiatives at the secondary and higher level of the system, and too little progress at the lower level; indeed, all agree primary school enrollment and adult literacy rates, for both sexes, are shocking in a country which has benefitted from such high levels of donor assistance for decades.

### **Needs for reforming the education system, and constraints to meeting these needs**

Senegalese education system stakeholders and donors must agree on a plan for educational reform. They must then coordinate their implementation of this reform.

In developing this plan, all must:

- Take a systems approach, and view education as a foundation for progress in all other sectors of development, and not as an end in itself.
- In the interest of equity, quality and sustainability, identify the roles of the government and the private sector in providing education.
- Profit from the understanding of those who have long dealt with the education system (e.g., the Senegalese themselves and the French), and at the same time benefit from the insights and ideas of relative newcomers (the World Bank, and other interested donors).

In implementing the agreed upon reforms, Senegalese and donors must:

- Use Senegalese capacity to the maximum. This translates into such practices as hiring host country experts rather than foreign ones.

- Make every effort to build on current successes. For instance, nonformal education for rural youth and children is proving effective in a number of areas. Can we replicate this success around the country? Are there lessons here for the formal sector?
- Assure joint monitoring and evaluation of progress and problems. This will foster the sharing of insights and resources, and avoid duplication of effort.

Key constraints to taking such an approach are:

- Education reform tends to require at least five or more years to demonstrate positive results. Those who decide whether or not to invest in reform often are under political and other pressures to demonstrate results in a shorter time frame.
- Reform requires coordination and cooperation among groups who otherwise are competitive and even hostile with each other.

## ANALYSIS OF KEY PROBLEMS AND ISSUES

### Introduction

We conclude from what has been presented in the preceding chapters that those areas of the education sector that are most in need of assistance are **basic education in primary schools and nonformal education**, particularly in **rural areas** and in the service of **girls and women**. As we have discussed, higher education, including vocational training on that level, has been receiving a disproportionate share of resources, and still produces graduates that cannot find jobs. Secondary education, while it could use more resources, is now nearly dysfunctional in terms of training youth to find productive work in both rural and urban areas. Until its aims and curricula are reformed, it only serves to funnel primary school graduates into higher education institutions.

The current activities and plans of other major donors in education, namely the French, the Canadians, the World Bank, Unicef, and UNESCO seem to reflect similar conclusions about where donors can best provide assistance. Although each donor agency approaches education with its own philosophy and policies, the major agencies express a willingness to cooperate with other donors in helping Senegal reform its education system, and all see the need for both reform of primary schooling and for nonformal education alternatives to schooling.

We have discussed in a previous chapter the importance of basic education to development in general, which has direct implications for USAID/Senegal's program goals in particular. Namely, for projects in agriculture, family health and planning and enterprise building to be sustained, the population that is expected to manage them must have sufficient basic skills in reading, writing, counting, problem solving and management, as well as technical skills.

Thus we will focus our analysis of constraints to and favorable conditions for USAID/Senegal assistance on basic education, which is delivered through primary schools and nonformal education programs. We will also analyze the constraints and conditions necessary for providing basic education to girls and women, for reasons that we will discuss further on in this chapter.

Our analysis of the problems, constraints and favorable conditions will move between macro-, institutional- and program-levels, in accordance with the problems that we have identified. Generally speaking, the analysis of the educational situation of girls and women is on the macro- level, that of primary schooling is on the institutional level, and that of nonformal education is on the program level. But at times, what we say about one level has implications for another. For example, while our discussion of primary schooling does not closely examine program concerns (curricula, teaching methods, management, and so on), what we say about program concerns in discussing nonformal education can apply to primary education as well.

Also, let us caution again, that in preparing this sector assessment we were not able to experience firsthand what schooling is like in Senegal, nor did we have time to read and digest more than a few in-depth studies of conditions. So we are not unlikely to have missed some

of the nuances of the constraints to various development alternatives. Nevertheless, we found much consistency among our sources and their outlooks on the status of and needs in the education sector, and we are confident that major impediments, problems and constraints to educational development in Senegal have been identified.

### **Primary School**

The problems in the primary school sector can be defined as two general (and not unrelated) problems: irrelevance of schooling to life and work, and insufficient resources in the schools. Let us look at each of these problems separately--their nature and causes, what has been done to alleviate them, and current constraints and conditions favorable to donor assistance.

#### **The problem of irrelevance**

First, despite years of attempted efforts at reform, the aim of primary school, as it is directed by the MEN and perceived by parents, is not to prepare most students for productive work in their communities, especially those in rural areas, but to prepare those who attend school for white collar jobs in the civil service and modern (urban) sector.

From the first day of school, classes are taught in French--the language of the elite in urban areas--not in the languages that students know. The entire school system is based firmly in the French educational system of many years ago, which has a heavily academic and theoretical orientation, and is designed to prepare a selected part of the population to receive a baccalaureate degree and continue on to university education. Little, if any, practical training is offered, either as courses (such as manual skills training, lessons in health, nutrition and safety) or as a context in which to learn basic skills (reading, writing, counting, problem solving, and so on).

Teaching methods are didactic--lectures by the teacher--and allow for little active participation by students. Teaching methods do not take into account learning theories that promote active participation by students, nor do they help students learn problem-solving and analytical skills, which are critical in developing economies.

The function of primary school is at odds with the values and expectations of parents in **rural** areas who want their children to learn the language and values of their own community and to provide their social security by maintaining the family. These parents view schooling as an institution that separates their children from them. The function of the school is coming increasingly in conflict with the aspirations of parents in **urban** areas who see that even students who succeed in receiving their baccalaureate cannot find productive work in their communities, even Dakar.

**Causes of the problem.** This problem of irrelevance of the purpose and function of primary school to Senegal's development needs continues to exist for several reasons.

First, since independence, the French have heavily influenced nearly two generations of policy in the Ministry of Education through providing technical assistance, training, and education in France to Senegalese personnel. The concept of education acquired by the Senegalese within the Ministry who have been educated in the French system continues to prevail in the MEN. This influence is due in part to its historical base, and in part to the relative absence of

guidance from anyone trained in other education systems. Alternative Anglophone models and pedagogical practices, and even current French models and practices, are not promoted within the Ministry.

Next, in spite of a significant attempt in 1981 by the *Etats Generaux*—a convention of representatives of parents, teachers, unions and the government—to reform the aim and content of the school system, the pressures on the government to implement such a reform are not as great as those in favor of maintaining the status quo. These pressures are said to come in part from the opposition to the present government. The opposition rallies around university students who take issue with any new government policies that might be construed as having a negative effect on university students (such as reducing student subsidies). Some have also suggested that these pressures come in part from some of those who have the political power to change the aim and function of the system, but who are a part of the elite fabric of the country, with vested interests in continuing the system that will allow their own families to profit from an exclusive educational system.

Next, the growing influence of Islam and the Muslim sects in Senegal pulls many families towards Islamic schools, both traditional Koranic schools and the more recently developed Franco-Arab schools, and away from the French orientation of public schools.

Finally, as long as the first years of school are taught in French, the basic reading and writing skills that a student learns in school have no relevance to his or her daily life at home. Although the advantages—both functional and pedagogical—of teaching in maternal languages in the early years are recognized within the MEN, little has been done in the schools to develop curricula and materials in maternal languages.

The obstacles seem to be mainly political. Some say that because Senegal's people come from groups that do not all speak the same maternal language, it is politically impossible to select one language for instruction in schools, and too costly and complicated to use more than one. Others say that this multi-language argument is a pretext used by those who want to maintain French as the language of instruction. Wolof, although not the maternal language of all people, is in fact a lingua franca in Senegal, and could be used as a language of instruction.

Another obstacle to teaching literacy in maternal languages is the lack of a technical vocabulary, materials and literature of any kind in most of these languages. The absence of available reading materials diminishes the usefulness of literacy in Wolof, in particular, as a lingua franca.

**Measures taken to address the problem.** This problem of irrelevance, which has been recognized on the part of some since the early 1970s, and which was brought to a head again by the *Etats Generaux* in the early 1980s, has been addressed from two perspectives.

More than a dozen attempts, some more significant than others, have been made to reform schooling and increase its relevance to the development of Senegal. Most recently, the MEN and the World Bank in the context of the 1984 reform—a structural adjustment of the MEN budget and accompanying measures to improve the efficiency and quality of primary education—appointed INEADE to introduce a series of pilot projects that would eventually lead to a revised curriculum and a cadres of teachers that would respond to educational needs and conditions in Senegal. These were to include, among others, instruction in maternal lan-

guages, practical training and religious instruction. So far it appears that pilot projects in practical training have taken place in 25 classrooms throughout the country during a two-year period. These are being proposed to continue, still on an experimental basis, in several classrooms in 25 schools.

From another perspective, the government has tried to offer an alternative to the "bac" course. In the early 1970s it initiated *Enseignement Moyen Pratique*, a program designed to give practical training to primary-school graduates who did not continue in the school system. Although this was not a direct change in primary schooling, it represented an attempt to adjust slightly the aim of the larger school system, and thus might have provided additional incentives for children to attend primary school. This initiative failed, however, in part because of a lack of teachers who knew how to teach practical skills in rural areas, and in part because families were not convinced that students could become successfully employed as graduates of the practical training course, which closed off the option of continuing toward a baccalaureate degree.

**Present constraints to donor assistance.** At present, then, primary schools still need significant reforms in their aim, orientation, curriculum and teaching methods so that they serve the needs of the local communities in which they exist. But the pressures on the MEN to reorient the schools continue to be weaker than the pressures on it to maintain the status quo. In these circumstances, further attempts by donors to put leverage on the government to implement its policies of making primary school more relevant to daily lives and conditions will be constrained by pressures to maintain schooling as the road to a baccalaureate degree, higher education and secure employment in the civil service or modern sector.

Second, any efforts toward making primary schooling relevant will be constrained by a huge deficit in teachers who have the appropriate skills, in texts relevant to Senegal, and in other materials that affect the quality of education. We will discuss these below.

### **The problem of resources**

The other major problem in primary schooling is that schools have not enough human and material resources to provide a quality education to the students who attend school, nor even enough resources to offer schooling to all those who might want it.

The resource that is needed most critically is teachers. In urban areas, where the demand for schooling is high, there are so few teachers that class size averages over 60 students per teacher. In rural areas, where the demand is somewhat lower, the average class size is over 40 students per teacher. But some students have difficulty even getting to a school. Several hundred rural primary schools have been closed during the past few years due to a shortage of teachers, making school impractical for many children because of the distances they must travel each day.

Exacerbating the teacher shortage is the inadequacy of in-service training and support they receive. There are few resources available to help either teachers or school directors in their jobs. Once they graduate from teacher-training college, they are without professional support.

Most other resources critical to quality teaching and learning are also in dire short supply, including classroom space, desks and chairs, pencils, paper, visual aids and, above all, textbooks. Even if the aim of primary schools were appropriate and relevant to the needs of the communities they serve, students cannot be expected to learn much when they sit three or four at a desk designed for two, with no books, nothing to write with, and in a class of 60 students with one teacher.

**Causes of the problem.** There are three kinds of obstacles that prevent resources from reaching primary schools: bureaucratic, political and budgetary.

In regard to bureaucratic obstacles, the resources available to primary education (funds and personnel) do not always reach the schools. The MEN and the school system that it administers is highly centralized (based on the French model). School directors and teachers have little say in matters of curriculum and management of the schools and classrooms. Moreover, they are accountable only to the MEN, not to the parents of their students or citizens of their communities (as in the case in the U.S., in contrast). Thus there is a one-way flow of information, policy and procedural guidance--from the highest level of the MEN to the schools.

This dynamic results in a gap between the outlook and interests of the decision makers within the MEN and those of teachers in schools. The bureaucrats see their own futures within the MEN, and look to the government and to foreign donors for security in their own offices. Their interest is in keeping the administration, not the schools, supported. As a consequence, the MEN fails to perceive the need for resources as school directors and teachers perceive them, and to allocate resources that are available to primary education in a manner that is responsive to the needs of schools.

In respect to political obstacles, we have said that primary schools do not receive a share of the funds available to the MEN in keeping with the importance of the role they play in providing basic education to the population. One of the most important measures of the structural adjustment initiated with the MEN by the World Bank in 1984 was to call for the reallocation of funds from higher education to primary education. For the apparent reasons we have already discussed, primary education is still not receiving the funds that MEN policy should provide.

Regarding budgetary obstacles, the funds available altogether to education are far from adequate, as a result of budgetary constraints on the government as a whole. Moreover, the amount of money available per child of primary-school age will fall during the coming years. While the government's total budget (as well as the MEN's) is not expected to grow during the coming five years, the current rate of population growth will result in even more overcrowding in schools during that time period.

**Measures taken to alleviate the problem.** To alleviate the problem of insufficient resources in the schools, various measures have been taken from time to time on different levels of the system.

The 1984 reform initiated by the World Bank attempted to address the problem on the Ministry level by augmenting the primary education budget with funds diverted from higher education, but, as we have discussed, these measures have not been implemented.

The reform also had as an important objective making more efficient use of the funds that were available to primary schools by lowering unit costs. Toward this end, two efficiency measures were implemented. In urban areas, double sessions were introduced, so that one teacher now taught two classes. In rural areas, multi-grade classes were created in order to increase the class size of a single teacher. Both of these measures have increased the student-teacher ratio, making the system more efficient (although we expect the corresponding effect on the quality of schooling has not been positive).

During the past decade, the government has continually increased the budget allocation to the MEN in efforts to keep up with the population growth. But these small annual increases (which the government can ill afford) will no longer suffice in the face of the "population rocket" about<sup>83</sup> to take off.

And evaluating reform measures). Although, in principle, funds from donors to other sectors of the education system could free up funds for primary education, that does not seem to be the case. (Since the government's policy does not allow us to see actual expenditures--as opposed to budgets--we have only indirect evidence of where money goes).

**Current constraints to donor assistance.** We have already alluded to measures that might be (but have not been) taken to increase resources in schools. In terms of personnel, these include in-service support of school directors and teachers, and, in rural areas, financial and other incentives that would attract and hold them. In terms of funding, school directors should have more control over their own budgets, with mechanisms that protect school budgets from being absorbed by bureaucratic MEN interests. Parents and communities should have more say about school management decisions. In addition to the constraints on these measures that we have just described, there are some others.

First, the MEN appears either to have sole authority for expenditures pertaining to its budget, or to take direction--regardless of the budget--from other parts of the government. These expenditures may or may not resemble the budget. In any case, they are not made available for public scrutiny or for donor scrutiny. Therefore, there is no guarantee that funds given to the ministry, earmarked for primary schools, will be spent on primary schools.

Second, the present political climate makes it difficult for the MEN, even with the best of intentions, to allocate much of its scarce funding to primary education, because there is too much political demand for funding in higher education. A second university is about to open in Saint Louis; university students in Dakar are expected to hold their third annual strike and disturbances when school opens in the fall, and the MEN has just announced that the budget for non-salary recurrent costs is being cut by 40 percent.

Third, the government does not yet have the means to sustain recurrent costs of salaries and operations. These represent the most important resources, and those that are the least appropriate for donors to provide.

**Conditions favorable for donor assistance to primary schooling.** In spite of the bleak picture that we have painted of primary schooling, and of what is being called the current crisis in schooling, we conclude that primary school is Senegal's most important means of providing basic education to its children, upon whom the country's long-term development will depend. Donors should not turn their backs on the MEN and its primary schools. Three conditions

seem favorable to turning the tide in primary education: the country's economic crisis, the search for alternatives to MEN schools, and the trend toward concerted donor efforts in education.

In regard to the economic crisis, many of those with whom we have talked and whose reports we have read have noted that people who cannot find work in Dākār or even in other countries are beginning to return to their homes (towns and villages) and seek productive work. Consequently, interest in acquiring basic education skills and practical training that did not seem to exist ten years ago, when the road out of the village still seemed paved with gold, is growing. Anecdotal evidence has indicated that parents and children welcome opportunities to learn to read and write and to manage the technology that will allow them to improve conditions in which they live. This change in the country's economy presents the schools with an opportunity to teach skills that are relevant to the rural economy and society.

We would caution, however, that we have only slight evidence that this phenomenon is actually occurring, and if it is, what forms it is taking. Any efforts to build on it through donor assistance to primary schools must keep a finger in the wind and pay close attention to what parents, communities, school directors and teachers expect from schools and how schools are responding to their expectations.

Then, because the MEN appears unable to respond to peaked interest in learning basic and practical skills, alternatives to public schools are receiving more attention: private Christian and Islamic schools as well as nonformal education programs designed as alternatives to schools. While we think that conditions are favorable for donor assistance to nonformal education programs, (which we discuss below), we would caution that further studies of the private Christian school sector, particularly on the primary level, should be taken prior to any investment in that sector. In particular, donors should learn more about the demand for private schooling--what in particular parents seek from private schools, how much they are willing to pay, and the extent to which an increasing demand might cause the quality of education in some schools to deteriorate as class sizes grow.

We would also caution against investment in either traditional Koranic schools or any other Islamic schools with the possible exception of any that can serve as unique models that integrate basic and practical education with the Muslim orientation of their clientele. The aim, far and above any other, of Koranic and other Islamic schools is religious teaching, and this is neither politically appropriate nor strategically sound for donors interested primarily in economic development. And because the characteristics and teaching abilities of the marabouts who teach children in Koranic schools are so varied, it would be nearly impossible to design a systematic way of assisting them.

The other condition favorable to donor assistance to primary schooling is what appears to be a concerted effort among donors in Senegal (as well as in other African countries) to use their combined leverage on the government to redefine the function of primary schools and perhaps even the role of the MEN in supporting primary schools. Some donors such as the Canadians have refused to give assistance to the MEN until its policies change. The World Bank recently organized a meeting of donors on this issue, and is preparing a major meeting of donors to discuss post-primary education this Fall. The French technical assistance agen-

cy seems willing to support concerted donor efforts to increase pressure on the MEN to implement its reforms.

We would caution, however, that when donors consider concerted efforts to effect structural adjustments within the MEN, they must assess accurately the nature and amount of pressure that must be put on the government to outweigh those pressures that maintain the status quo. The assistance coming from the World Bank and the French is apparently not enough, with the result that it has little effect on policy change.

### **Nonformal Education**

In recent years various donors and agencies in Senegal have exhibited an increased interest in nonformal educational strategies as a means for meeting basic educational and development needs. There are several reasons for this attention:

Structural and resource constraints mean primary schooling does not reach a large proportion of Senegalese youth or contribute to its integration into community life. This is particularly critical in the pre-marriage 10-15 year age group when patterns affecting socio-economic roles, health and future family practices are formed. For example, a recent study conducted for Unicef on the educational situation of Senegalese children displaced from Mauritania concludes that nonformal education is the most appropriate and feasible approach for such young people.

There is a need to reach adults whose knowledge, attitudes and skills affect how they raise children as well as contribute to economic and community development. Studies show, for instance, that a mother's literacy level is related to child survival.

There is increasing recognition that a major reason why heavy inputs into community and economic development do not work is that people are not prepared for new responsibilities. To invest in new agricultural, business or health programs without providing preliminary or concurrent educational preparation to help people with the knowledge, attitudes and skills needed to handle such tasks is to program for failure.

But activities in Senegal in the area of nonformal education and training have faced a number of problems or constraints that compromise their potential effectiveness.

### **Problems and constraints**

#### **Conceptual problems.**

- Scarcity of integrative models. Nonformal education is often too narrowly or mechanically conceived in Senegal. Training activities often focus on key technical or literacy skills without sufficient reference to the context of application or without awareness of attitudes needed to produce or sustain change.
- Program up-scaling or replicability. Conditions needed for expansion of pilot projects are not considered in follow-on program design.
- Post-training atrophy of skills. No allowance is made for reinforcement of skill following training or the need for post-literacy materials in languages taught.

### **Curricular problems of implementation.**

- **Sterile methods.** Authoritarian teaching methods of lecturing and rote learning often prevail in literacy and other programs, with teachers replicating the way they were taught or the way they teach in primary school.
- **Uncommitted teaching personnel.** Teaching is often done as a temporary job by government employees or primary school teachers in off-time rather than with long-term commitment to a program goal.
- **Unimaginative or insufficient materials.** Reading materials in literacy programs often do not reach classes, or do not engage adult interests and involvement. Didactic messages may be too heavy, culturally inappropriate or in an inaccessible language. Training materials typically try to transfer information rather than stimulate problem solving or adaptation.

### **Administrative problems of implementation.**

- **Top-down administration.** Hierarchical chains of command, and lack of decentralized decision-making, produces rigidity and passivity. Programs appear to be imposed on learners rather than being a serving as an instrument to help them realize their goals.
- **Focus on upper administration or development industry.** Administrators of literacy or training programs, and funding agencies, may focus more attention and resources on studies, coordination and securing additional funding than on substantive action and provision of local services.

### **Assessment of current initiatives and activities**

Much of the donor assistance for training, literacy and basic adult education is focused on central **coordinating, research and training support** bodies. The chief examples, located in Dakar, are (1) ENEA, for the training of rural development agents, (2) ONFP, for vocational and professional training, and (3) DAEB, for literacy and basic education.

The ENEA is a higher education institution with a staff of 30 that has a three-year training and workshop program, currently preparing 160 agents to serve as intermediaries in rural development. It also has developed short-term training modules and has apparently promoted the establishment of 12 village development associations. In the past its effectiveness seems to have been compromised by management problems, its general top-down approach to non-formal education, and its use of agents who are often foreign to rural settings. With the resumption of USAID support there will apparently be more emphasis placed on academic research and training of its own staff than on improving its rural training linkages.

The ONFP is an autonomous body attached to the Ministry of Labor, funded by the World Bank and assisted by CIDA. It deals with policy and planning studies, and coordination, rather than doing any direct training. It has recently completed a survey of training in 130 establishments and is in the process of assisting in the development of an overall plan for the training of trainers targeted for June 1991. In connection with the new agricultural policy of assisting farmers directly rather than working through old agricultural institutions, the ONFP, with

others, will be doing a study to determine the training needs among peasants. To date it has dealt largely with formal, urban-based training structures, and seems to use a rather narrow definition of "establishments" and training.

The DAEB is a department in the Ministry of Education charged with the supervision and coordination of all literacy activities in Senegal as well as developing policy, training and didactical materials in the national languages. It operates through regional representatives and offices whose personnel are supposed to be trained in linguistics, psychology, and inspection by the DAEB. The national literacy program, typically in French in urban areas and national languages elsewhere, is designed to cover 500 hours over three years and progressively includes content on agricultural, health and civic subjects. Even by its own account, the DAEB appears to be unable to provide effective supervision. Results of regular courses are at best irregular, and an experimental effort to teach literacy to women through a woman's association (NGO) eventually evaporated. Another experiment of using Arabic script for Wolof is controversial but being extended. For six years it published a bi-monthly booklet in Wolof, but it was too expensive for rural populations. Ironically, in this International Literacy Year (recently "celebrated" in Dakar), the publication was discontinued and replaced by a leaflet in French.

Generally, when these bodies have tried to move beyond centrally-directed studies, materials development and urban-based training they seem to have great difficulty with effective distribution or implementation. Nevertheless a recent technical report, done for the World Bank DRH project, on functional literacy among employees in the modern sector in Senegal proposes that the ONFP and DAEB provide direct training and pedagogical materials on French language instruction, numeracy, and technical skills for employees in enterprises.

In the recent past and projected future there are some types of **outreach programs** that attempt to provide rural nonformal education and development services. The *Maisons Familiales Rurales* (MFR) program had what appears to be a sound design, with one male and one female agent responsible to a given village, supported by the village, and charged with carrying out nonformal educational and development activities as identified by the village. However, it had problems with centralization and money, particularly when the government withdrew its support. The old *Animation Rurale* (AR) and the newer *Centres d'Education Rurale* (CER) were more bureaucratic versions of outreach programs with NFE components.

The *Caravane d'Alphabetisation*, planned by Unesco and a series of participating organizations for 1991, is a new and imaginative effort to mobilize institutional cooperation and village participation in every region, and to link weeklong fairs with new village demonstration/resource centers and literacy-plus-development activities. Problems still to be resolved with this strategy, which cuts across traditional organizational boundaries and seeks to release a new spirit, are those of sufficient preparation and follow-up, and if/how it can be coupled with local leadership (including marabouts) so that something more than another empty monument remains.

Then there are a few cases of **village-based projects** which combine some mixture of literacy, basic education and development action components. USAID's project in Kaolack and Fatick could be considered to be one innovative example of this approach carried out via PVO's and NGO's. The final evaluation is scheduled to take place in November, but preliminary indications are that a full test of this strategy was compromised by delays and

inconsistencies in articulating an effective functional literacy component in relation to local perceptions of needs as well as development tasks.

The version of the Culture for African Development (CAD) project in Thies represents an approach that builds upon village decision-making, and combines local language literacy, agricultural and health content with community action. Unicef, the initial funding agency, and CIDA which may provide further funding through Unicef, both consider this to be most innovative and promising approach developed in Senegal in the past decade. Following consolidation of the basic model village and program, this has potential as a training site for NGO's. The design includes plans for replication in other regions with model and satellite villages. Issues to be resolved include the extent to which trained personnel are able to function as committed facilitators on their own in applying the approach elsewhere.

### Conditions for progress

Previously we have made the distinction in nonformal education between the training model--activities that are primarily training in nature--and the community development and education model--activities that are development based with an integration of basic and literacy education with development skills and action.

One condition in Senegal that opens up new needs and opportunities for the **training** model is the relatively recent proliferation of NGO's and emphasis on the private sector that has come with restrictions on government-based initiatives due to financial cut-backs. Most NGO's apparently have training activities associated with them as a part of their program, and probably all have needs for the training of literacy trainers or of staff. The same might be said of private sector enterprises.

Needs that have to be met for advancing this mode of nonformal education are:

- trainers who are facilitators of adult learning rather than only lecturers who instruct adults as children ;
- training methods that engage interest and participation rather than produce memorization, passivity and boredom;
- materials that are fun, instructive and reinforce learning.

Conditions that make the **community education and development** approach timely are financial and structural limitations of formal education, and the widening perception that the usual road out of the village and into white collar jobs is not what it used to be. Paradoxically this closure of hope opens up new incentives for alternative education and greater interest in the alternative paths associated with it. Needs that have to be met for progress in this line, in addition to the above, are:

- community participation in decisions on goals and personnel involved and sufficient time-lines for programs to develop and take root;
- programs consistent with culture and learning styles of villagers, and learning modules or curricula that adequately encapsulate these aspects;

- investment of community resources for program support and appropriate structuring to allow the community to eventually assume full financial responsibility;

Perhaps the most critical condition that distinguishes successful innovations from unsuccessful ones in nonformal education is the existence of charismatic and dedicated leadership to guide the effort on a long-term basis. Thus the ability of a donor to identify, select and retain committed personnel, and to avoid the functionary or opportunist, is of central importance.

Another important characteristic of successful program support is the flexibility to take a risk in supporting innovative activities on a small scale, and – if results are promising – to replicate the activity on a larger scale.

## **Basic Education for Women and Girls**

### **Problems**

Studies of Third World development have consistently shown that female literacy is a key variable in explaining development gains in agriculture, human fertility, child survival and economic growth. Senegalese women are increasingly important as heads of households, and are significant actors in the agricultural, fishing and service sectors.<sup>84</sup> A primary challenge to Senegal's education sector is the extremely low rate of female literacy, approximately half the Sub-Saharan average for women. Two related and contributing problems exacerbate female illiteracy: low enrollment and persistence of girls in school; and women's lack of access to and participation in basic education and literacy training programs. The following discussion describes the magnitude of these problems and their causes, notes what is being done to address female illiteracy, and examines the constraints to and conditions necessary for basic education and literacy acquisition for women and girls.

**Low female literacy.** The low female literacy rate in Senegal is striking. While 37 percent of Senegalese men are literate, only 19 percent of Senegalese women attain literacy (compared with the SSA average of 35.5 percent). Only one out of five women in Senegal can read and write (see Table 19).

As age decreases so does the rate of illiteracy. For women of childbearing age (15-39 years), the rate ranges between 70.2 and 82.4 percent. Nonetheless, few young mothers are literate.

The disparity between men and women is considerable, averaging about a twenty point spread. The greatest discrepancy is between men and women in the fastest growing 15-19 age group, indicating that -- although the rate of literacy is improving amongst the young -- the differential of literacy attainment is widening between the sexes, to the detriment of women.

**Low girl's enrollment and persistence in school.** Gender is an important determinant of schooling in Senegal. Both girls' access to and continuation in the formal schooling system lag behind boys at every level. Recent (1988) gross enrollment ratios -- the percentage of the school-aged cohort in school -- show a 21 point gap between boys and girls at the primary school level, with the relative difference increasing at every level of education. For every girl

**Table 19: Female and Male Literacy**

Age Group	Illiterate		Literate-French		Literate-Arabic / <sup>1</sup>		Literate-Local Lang.		Literate-Other Lang.	
	F	M	F	M	F	M	F	M	F	M
15-19 yrs	70.2	48.6	26.1	41.7	2.5	0.2	0.2	0.2	1.0	1.3
20-29 yrs	76.9	56.7	20.6	34.7	1.3	0.3	0.2	0.3	1.0	1.4
30-39 yrs	82.4	61.0	15.6	31.8	0.8	0.3	0.2	0.3	1.0	1.5
40-49 yrs	93.3	72.8	4.5	19.5	0.7	0.2	0.1	0.2	1.0	1.5
50-59 yrs	96.0	78.2	2.2	13.5	0.5	0.2	0.1	0.2	1.2	1.7
60+ yrs	96.8	82.5	1.5	8.8	0.5	0.2	0.1	0.2	1.1	1.8
Total	82.0	62.6	15.6	28.9	1.2	0.3	0.2	0.3	1.0	1.5

Source: UNICEF, Status Report on Women and Children in Senegal, 1990 (unpublished)  
<sup>1</sup> These figures for literacy in Arabic are the inverse of those cited in another study.  
 See Ise, Jennifer, Women and Agriculture in Senegal, USAID, 1990

**Table 20: Girls and Boys Access to Schooling and Enrollment Rates**

Level	GER / <sup>1</sup>		Enrollment Rate		Girl:Boy	Enrollment Figures (1989/90)			
	Girl	Boy	Girl	Boy		Total	Girl	Boy	Diff=G-B
Preschool	--	--	49.9%	50.1%	1.00	13160	6564	6596	-32
Primary	45.0%	66.0%	40.6%	59.4%	1.46	610946	248198	362748	-114550
Middle	--	--	34.2%	65.8%	1.92	102771	35153	67618	-32465
Secondary -Techn	9.0%	18.0%	30.0%	70.0%	2.33	30005	9013	20992	-11979
			25.7%	74.3%	2.89	4093	1052	3041	-1989
University	1.0%	3.9%	20.9%	79.1%	3.78	--	--	--	--

Source: Figures derived from Ndiaye, Reflexion Critique sur la Reforme de l'Enseignement au Senegal, CIDA, 1990

<sup>1</sup> BRENDA-STATE, UNESCO-UNICEF, 1990 (1986 data)

NOTE: as the GER is based on 1986 data, it may not correspond to more recent data used in table.

enrolled in the first level of primary school, there are 1.5 boys, with the ratio increasing to 1:2 at the intermediate level, and 1:2.5 at the secondary level.

Enrollment rates — proportion of girls of total enrollments — show a steady but extremely modest increase in girl's enrollment in primary school over the past decade, from 39.7 percent in 1980 to 40.6 percent in 1986 to 41.4 percent in 1988. Over the period 1980-86, the growth rate of girls' enrollments in primary school (6.8 percent) increased at a slightly higher rate than the average (6.5 percent), but appears to be declining in recent years. A significant gender gap persists, with over 114,500 fewer girls currently in primary school than boys.

There is also a considerable regional variation in enrollment rates by gender. While in urban areas, girls make up about 50 percent of urban primary school students in 1988, they represent only about 32 percent of enrollments in rural districts. Even among rural areas, there is considerable variation, depending on a number of social factors: in the Casamance region with its high proportion of Catholic schools, girls' enrollment is high; while in the Sine Saloum and Littoral areas, enrollment is considerably lower.

Overall, the primary school drop-out rate in Senegal is relatively low, with about 80 percent of students reaching the last year of primary school. Data indicate that the girls' attrition rate is notably higher than the boys': only 70 percent of girls remain in primary school compared with 96 percent of boys.<sup>85</sup> There is no particular stage or point of attrition for girls in primary school; a steady erosion of enrollment appears to take place at all grades. Major changes take place at transition points from one level of schooling to another: thus the 37.3 percent enrollment rate for girls in the last year of primary school becomes 34.4 percent in the first year of intermediate school and 27.6 percent in the first year of secondary school. About 25.6 percent of girls move from primary to intermediate compared with 29.1 percent of boys, and 57 percent of girls from intermediate to secondary compared with 67 percent of boys.<sup>86</sup>

Repetition rates for girls appear to be slightly less than those for boys indicating that girls drop-out of school rather than repeat, except in the last year of primary school where girls' repetition rate (33 percent) appears to slightly exceed boys' (31 percent).<sup>87</sup> In general, the higher repetition rate among boys tends to reduce the number of spaces for incoming girls (see Annex).

**Low accessibility of women to basic education/training programs.** Although no data were available with percentage breakdowns of female participation in formal and nonformal education and training programs, anecdotal evidence suggests that women's participation is less than men's for two reasons. First, government-sponsored (ONFP-type) training programs aimed at the formal or modern sector will not reach as many women simply because women are not highly represented in organized businesses. Secondly, women's participation in nonformal basic education and literacy programs is inhibited by social, cultural and economic reasons, discussed below.

In summary, the problems detailed above result in the following:

- the vast majority of girls and women remain illiterate despite the gains made in the expansion of schooling and training opportunities;

- while less than one of every two girls starts primary school, less than one in ten completes the primary cycle and enters secondary school, and one out of one hundred enters university, resulting in a funnelling effect which prevents girls from successfully entering the formal labor market and, increasingly, the remunerative areas of informal labor market;<sup>88</sup>
- the low level of schooling and literacy of girls and women inhibits the effectiveness of other development efforts in the areas of income generation, agriculture, health and family planning. (See previous chapter for discussion.)

### **Causes**

In order to understand the low rate of female literacy, the barriers to female acquisition of literacy must be examined. From an education perspective, the obstacles to girls' and women's participation in basic education and literacy programs must be identified.

The obstacles preventing female access to and participation in education programs fall into three overlapping and complementary categories: institutional, socio-cultural and economic.

#### **Institutional barriers.**

- Primary education is not compulsory, leaving the choice of schooling girls up to parents, primarily the mother, who is responsible for her daughters' education. As discussed below, there are compelling socio-cultural and economic disincentives for parents — and particularly mothers -- to enroll girls in school.
- The MEN has no affirmative action program or progressive quota policy for recruiting girls into the formal education sector, although the Senegalese Constitution guarantees equal rights to women, equality of remuneration for work of equal value, the right to full employment, and equality in education and training. De facto and de jure discrimination continues to negatively affect women due to social and religious laws.
- The current resource allocation, configuration and management of the educational system limits access to schooling for both boys and girls at the primary level, with the result that boys are given preference by parents for limited places.
- School structure and classroom environment may inhibit both girls' enrollment and persistence. There are few female teachers — 23 percent at primary level and 33 percent at the secondary level.<sup>89</sup> Primary school instruction in French places girls at a disadvantage as they are less familiar with French than boys, having fewer opportunities to acquire it outside the school. Although no classroom level studies examining teacher-student interaction were available, based on the literature and studies done elsewhere in Africa (eg. Malawi) it would not be surprising to find that teacher behavior and expectations discourage girls' performance.

- The MEN's early pregnancy policy - requiring a girl to leave school during pregnancy and re-apply elsewhere following birth and present a marriage certificate - discourages female persistence in school. Although pregnancy has been cited as a notable cause of girls' school drop-out by MEN officials and sociologists alike, no data are currently available to indicate the magnitude of the problem. Pillsbury's study on women and health care implied a 5 percent unwed mother rate -- the difference between teenage girls who were married (47 percent) and teenage girls who had children (52 percent).<sup>90</sup> A study by IFAN and IDRC – "Adolescence et Fécondité" – which addresses the problem is in preparation. Further, it is difficult to determine the actual percentage of girls leaving school due to pregnancy as girls may withdraw without explanation.

### **Socio-cultural barriers.**

- A heavy household chore load for women and girls competes with time required for schooling/basic education activities and reduces the time for study or practice of literacy skills. Women are responsible for a myriad of time-consuming and exhausting tasks in both urban and rural areas, with little time for leisure (typically two hours in the afternoon). Their daughters are the sole means of lightening their overwhelming domestic burden, which includes water and firewood collecting, marketing, food preparation and processing, crop cultivation and income generation. It is very likely that daughters, in particular the older ones, can not be spared by their mothers to attend school. If they do attend school, it is added to their existing responsibilities. In comparison, boys and men have greater leisure time, even in rural and agricultural areas. In urban areas, boys are typically free to study (or play) after school, while girls are expected to fulfill domestic tasks at home.
- Childcare responsibilities and large family size also reduce women's and girls' availability for participation in educational activities. The average Senegalese woman will have 6.5 children, and daughters are needed to care for younger siblings.<sup>91</sup> The practice of polygamy, as well as the absence of fathers due to rural-urban migration, further increases the mothers' responsibility for their children.
- Although 16 years is the minimum legal marriage age for girls, early marriages of girls (between 12 and 15 years of age, with 16.6 years as the national average), particularly in rural areas and among some ethnic groups, pulls the young bride away from school as she moves to her husband's home, assumes adult duties and produces children of her own.
- Income generation activities to supplement basic supplies provided by husbands also occupy women's time in both urban and rural areas. Although men are expected to provide housing and basic foodstuffs (rice, oil) and clothing, women's income generation activities fill the gaps (eg. vegetables and perishable food) and "extras" (eg. school expenses, books, etc.) Polygamy erodes the husband's ability to adequately provide for all his children, thus increasing the mother's responsibility for the financial wellbeing of her household. The growing phenomenon of female headed

households — 33 percent in urban areas and 25 percent in rural areas — squarely places financial responsibility for children on women's shoulders.<sup>92</sup>

- Prevailing cultural perceptions of the ideal woman do not at present include education or literacy. As it is virtually inevitable that Senegalese women marry, parental aspirations for their daughters will tend to emphasize skills that will improve the chances of making a good marriage, rather than those that will produce a successful student. Schooling has been said to be perceived by parents as ruining girls' acceptance of household and domestic chores without the compensation of increasing employability or ability to generate income.

#### **Economic barriers.**

- Although the type and amount of dowries will vary from the symbolic to the significant in Senegal, in certain regions and among certain ethnic groups the financial reward of marrying daughters is considerable and will tend to promote early marriages. There are additional financial incentives for parents to pursue early marriage of girls. With marriage, the girl becomes the financial responsibility of her husband. Further, fear of unwed pregnancy is cited as a reason for parents to push their daughters into early marriages.
- The opportunity costs of education and competing social roles of women/girls discussed above are also factors in the low participation rate of women and girls in basic education. Housework and childcare responsibilities, agriculture and income generating activities, preferred early marriage age and other social factors figure into the calculation of the opportunity costs for school and training participation. Girls' and women's labor is essential to family wellbeing and time taken to travel to/from and attend school or literacy classes represents a considerable cost to the household. Further, schooling entails direct financial outlays by parents -- school uniforms, supplies, dues payments to parent-student associations -- which parents may be more willing to make for boys than for girls, given both the traditional notions of female roles and the greater opportunities and remuneration open to boys in the labor market.
- There are indications of a low private return to female education due to several factors. Failure of girls to master basic literacy skills in school reduces their chances in the formal labor market and invalidates the utility of partial primary schooling. Anecdotal evidence suggests that great parental pressure to succeed is placed on those girls who do attend school, indicating that diplomas are of tremendous importance to female employability.
- The lack of opportunities for women in the more remunerative formal/modern sector also serves as a disincentive to invest in girls' education. Less than 7 percent of permanent positions in the formal sector and only 15 percent of the civil service positions are occupied by women. The chances for employment are further reduced by the deteriorating economic situation, as well as by employer preference for men because of the high social costs of employing women (pregnancy leave, etc.) and perceived lesser productivity of women in the workplace. Further, the inapplicability

of academic or literacy skills to that part of the informal sector open to women discourages educational investment, validates the perception that unskilled labor is more financially rewarding and serves to devalue education.

### **Current initiatives and activities**

Current initiatives and activities to promote and provide basic education and literacy training for women can be grouped into three main categories: MEN-sponsored and supervised initiatives, other governmental (non-MEN) initiatives and activities, and donor-assisted development projects.

**MEN-sponsored activities** for girls' and women's education are limited. The MEN's *Direction d'Alphabetisation* (discussed in a previous chapter) directs a literacy program that includes literacy and basic training for women. The MEN, in conjunction with the *Ministere de la Condition de la Femme et de l'Enfant*, works with women's associations ("*groupements feminins*") to train group leaders in literacy and management techniques to assist in improving communal income generating activities. A recent survey of Senegalese women's organizations and training needs assessment by CIDA found that over 3600 associations exist, falling under the purview of two national-level organizations -- the Federation of Senegalese Women's Associations (FAFS) and the National Federation Women's Promotional Groups (FNGPF). It can be inferred from this study that despite high demand by women for literacy training, the MEN program either does not reach them or does not conform to their needs and limitations.

The other MEN-sponsored program is the creation and operation of *Centres d'Enseignement Technique Feminin* to train women in "income generating" activities. Critiques have indicated that the selected areas of training -- sewing, tie-dye, etc. -- have limited value on the market place, so that income-savings (households benefit from the women's skills) rather than income creation is the result.

Significantly absent from the MEN activities is encouragement of female enrollment either through affirmative action programs or publicity campaigns. Further, discussions with MEN administrators as well as personnel at the *Condition de la Femme et de l'Enfant* indicate that the low female enrollment rate in formal schooling is considered outside the purview of the education sector.

**Other governmental initiatives.** A number of Ministries have programs directed towards women which often include basic education and literacy components. Until its recent reorganization, the Ministry of Social Development supported programs to improve female literacy, including *Animation Rurale* and *Maisons Familiales*, discussed in a previous chapter. Offices within the Ministry of Planning and Cooperation and the Ministry of Rural Development reportedly offer services to women, although not necessarily literacy training. In 1982, the government adopted its second national Plan of Action for Women to address women's needs across all sectors. Literacy training is a need identified in the plan. Recently the President created the previously mentioned *Ministere de la Condition de la Femme et de l'Enfant* to promote the status of women and coordinate women's activities. Interviews with the Minister and her staff indicate that the Ministry itself is without portfolio and its activities depend on the willingness of other ministries to finance programs for women.

**Donor-funded development projects** in the areas of health, agriculture and rural development have training components which often include basic education and literacy training for women. It has been stated by government representatives that government policy requires all development projects to contain a basic education component (although not specifically aimed at women). A cursory review of donor development activities indicates that this policy is not applied systematically.

Two projects, already described in a previous chapter, deserve mention for their activities regarding women. The Kaolak-based Community and Enterprise Development Project, sponsored by USAID, provides literacy training for men and women as part of a broad training effort to develop the skills required for income generating activities. The UNICEF Village Development/Literacy Program, implemented by a local NGO (CAD), has developed a literacy and basic education component integrated with village development and income generation activities, with special adaptations for women's literacy training. This latter project has enjoyed considerable success and serves to highlight many of the constraints to and conditions necessary to successful implementation of basic education and literacy training for women discussed below.

As mentioned above, Senegal enjoys an extensive network of women's organizations: international organizations, women's cooperatives, village groups, service clubs, professional federations, artisanal groups, NGO's, research groups, ethnic organizations and political and social groups — aimed at improving the status of women — abound.<sup>93</sup> Many of these organizations are active in basic education for women and serve as conduits or means of venue for governmental and donor programs.

### **Constraints to and conditions necessary for basic education and literacy acquisition for women and girls**

Many of the aspects of effective formal and non-formal education have been discussed in the previous sections. The intent here is to suggest some strategies and approaches found to promote and facilitate female acquisition of literacy. These lessons, both negative and positive, are based on the observations and experience of donors, NGO's and the government with girls' and women's education in Senegal.

- Given the heavy and relentless workload of women and girls in both urban and rural areas, inappropriate scheduling and placement of literacy classes discourages and prevents participation. Classes must be village-based and held at convenient times to allow women to participate. For example, one literacy teacher found that the most convenient time for village women was between 11 pm and 1 am.
- Basic education and literacy classes are an additional activity that must be incorporated into a woman's already exhausting schedule. Introduction of appropriate labor-saving devices, such as wells or milling machines, can lighten the burden of traditionally female tasks.
- Sex-segregated classes, as well as age cohort-segregated classes, will promote the full participation of women in the class and serve to eliminate women's diffidence due to village hierarchy, predominated by males and older women.

- Inappropriate pedagogy has been found to impede women's acquisition of literacy and discourage participation in basic education programs. There is some indication that instructional methods should conform to women's ways of learning. Lessons linked to and of demonstrated practical application to women's lives, instruction in local languages and a whole language approach (ie. words before letters) appear to have enjoyed success in Senegalese villages.
- Many programs seem to have foundered on the lack of demonstrated economic or social incentive to acquire literacy, the isolation of the literacy component from other village development activities and the absence of opportunity for application of literacy skills for women. For women to make time in their busy day and maintain interest in learning to read and write, literacy classes must be tied to and integrated with income generation activities or appreciable improvement in village welfare. Other – non-economic -- motivating factors mentioned by village women include the secrecy or privacy afforded by written communication and the freedom from "kersa" (societal control and traditional etiquette) in women's literacy classes.
- Although literacy instruction is often conducted in local languages, reading materials in and the use of local languages for official purposes are not prevalent. Literacy skills must be reinforced by the availability of publications and materials in languages understood by and useful to women.
- As evidenced by the low primary school enrollment ratio and completion rate for girls, many girls do not have the opportunity to learn to read or write in school nor are they included in adult basic education or literacy training classes. Yet at early ages children appear to learn much faster than adults. (One village program found that children acquired literacy skills twice as fast as adults.) Further, health, hygiene and family planning messages will have greater impact on the pre-marriage, 10-15 year-old cohort before patterns of socio-economic behavior are fully formed and reinforced. Literacy training, for those girls and boys who have fallen between the cracks of the formal system, should be provided before they become illiterate adults.
- Lack of recognition by the MEN of low girls' enrollment ratio, enrollment rate and retention as an institutional problem of the education sector rather than a social problem prevents both a better understanding of the factors that inhibit girls' education and development of policies to encourage girls to enroll and stay in school. A study of factors affecting girls enrollment and performance in school and a review of options open to the MEN to address them is a first step.
- The dismal and deteriorating state of primary education in Senegal negatively affects both boys and girls -- but generally the consequences of insufficient numbers of schools and poor quality tends to have a greater impact on girls' attendance. The MEN's resources, ability and commitment have not yet been directed to the primary level of education in a meaningful way. Implementation of the policies advocated by the 1984 Reform would address many of the problems facing primary education.

Despite the discouragingly low rate of female literacy, studies and interviews show that village women are eager to acquire reading and writing skills and will make tremendous

sacrifices of time to attend literacy classes. Women's motivation to learn comes from both economic and non-economic benefits. Opportunities for donors to meet women's demands for literacy and basic education exist by building on appropriately designed and field-tested programs. In the formal education sector, donors should support policy reforms that emphasize increased access and improved quality of primary schools in rural areas and for girls. Support of a study to determine and understand the status of girls/women in the education system, through classroom observation and interviews with parents, teachers and the girls themselves, could serve to inform and raise the consciousness of educators who are reluctant to recognize female literacy as an education problem.

## SUMMARY OF OPTIONS FOR USAID/SENEGAL INVESTMENT

In the previous section we identified key areas in education for USAID/Senegal participation. Building on that discussion, we identify in this section some options for project and non-project assistance.

In addition, we have taken a position on several issues concerning the history of development assistance in Senegal's education sector.

- First, the policies that have come out of the 1984 reform are generally appropriate, and help is needed not in reformulating those policies but in implementing them.
- Second, donor assistance in nonformal education will be best suited to indigenous centers of energy and existing cooperation such as mutual aid associations or NGOs that are genuinely oriented to service and participation.
- Third, assistance that is designed, scaled and phased to provide incentives and support for local level self-reliance will be better used than that which builds up institutions which do not operate at grass-roots levels, and thereby create new dependencies and divert attention from local structures and activities. This is true for both formal and nonformal education structures.

### General focus

We have recommended that USAID/Senegal should concentrate any assistance it gives to education on certain aspects of **basic education in primary schools and nonformal education**, particularly in **rural areas** and in the service of **girls and women**.

In basic education in primary schools, attention should be focused on implementing the 1984 reform, providing in-service support to school directors and teachers, and promoting the support of parents and communities to schools.

In nonformal education, the focus should be on teaching people to use the methods and materials of participatory learning, on delivering educational services through NGOs that are working with grassroots endeavors, and on teaching literacy and other basic skills to youth and women.

It does not seem useful for USAID/Senegal to invest now in higher education. The government and other donors have generously supported the university and the various institutes designed to provide the upper echelons of both the public and private sectors with manpower. The present need for education is at the base, not at the pinnacle, of the educational structure.

### Options for discussion

The following are seven specific options that we see for USAID/Senegal investment in education. Each of these options must be explored much more fully before any commitments are made to project or non-project assistance.

## Primary schooling

### 1. Cooperate with other donors to support implementation of policy reforms.

**Constraints addressed.** We have discussed the inadequacy, despite reform measures, of Senegal's education sector budget. Moreover, the government faces pressures that make it difficult to implement the 1984 reform, which calls for the reallocation of funds from higher education levels to basic education. In addition, the sector seems to suffer from a lack of coordination of its programs, particularly those supported by donors.

**Types of action suggested.** Collaborate with other donors in providing non-project assistance that supports USAID/Senegal's interests in basic education.

- Non-project assistance might also go **across sectors**, basing the release of funds to the education sector on targets met in the health sector. For instance, funds could be released to the MEN when the number of vaccinated children in primary school has reached a certain rate.
- **Debt-swap** assistance would forgive a portion of the government's debt in return for its implementing certain policies. In Guinea, Nigeria and Niger, USAID missions are forgiving debt, the local currency equivalency of which host country governments use for training programs in literacy, vocational and technical skills that complement USAID health and agriculture initiatives.
- Collaborate with other donors in projects such as UNESCO's *Caravane d'Alphabetisation* that are in USAID/Senegal's areas of interest.
- Assign a technical assistant to the MEN in offices concerned with basic education (primary school, literacy).

**Contributions to development objectives.** We have discussed the positive correlations between basic education and development in the other sectors targeted by the USAID/Senegal program (agriculture, free enterprise, and health, nutrition and population.) Contributions to basic education contribute, in turn, to improvements in these sectors.

### 2. Support school directors and teachers.

**Constraint addressed.** Research has found the role of the school director a central factor in school quality. School directors in Senegal do not have either the profile, function or training to optimize their impact on the school, support teachers and cultivate community support.

The level of teacher education in Senegal is high relative to that of most African countries. But to meet growing enrollments and increase internal efficiency, the government has introduced "assistant teachers" who have only one year of teacher training.

The government has also instituted multigrade classrooms in rural areas and double-shifts in urban areas, which places a new burden on school directors and teachers. With textbooks, instructional materials and classroom aids in short supply, the teacher must play an even more central role in instruction to compensate for these deficits.

The 1984 Reform includes measures for in-service training for teachers and school inspectors. Whatever the results of these efforts, direct support of classroom teachers, principals and school inspectors is needed to link school personnel to national education goals and priorities.

**Type of action suggested.** The following suggestions are aimed at the less formal aspects of teacher training (in other words, long and short-term in-service training) and ongoing field support of school personnel. Collaboration with INEADE could provide the venue into this area.

- Development of training packages and materials for school directors: despite the demonstrated importance of school directors, little attention is paid them in terms of specialized training or in providing them with the skills and outlook necessary to build relations with parent and community associations.
- Creation of a primary school "newsletter" with information of interest to school directors and teachers, articles on school management, community relations, pedagogy and classroom projects.
- Development of curriculum enhancement guides: renovated curricula are not often translated into lesson plans and practical activities that are easily implemented and understood by teachers. Such practical guides would assist teachers in adapting new curriculum modifications.
- Development of training packages and materials on multigrade teaching: multigrade classrooms are primarily a rural phenomenon and rural teachers are less likely to receive assistance in adapting to the changes associated with new classroom management requirements.

**Contribution to development objectives.** As we have discussed, basic education is an important element in increasing agricultural productivity, reducing fertility levels and improving child survival. School directors and teachers play a central role in school quality and in actualizing educational reforms aimed at expanding basic education.

### 3. Support community-school associations.

**Constraint addressed.** Because less than two percent of the primary school budget goes to non-salary recurrent expenditures, local communities and parents are already actively involved in primary school support. Community groups and parents have assumed major responsibility in the construction of new schools and dues from such associations provide funds for school improvements. With the prospects of increased government funding of operations relatively dim, local funding initiatives will assume greater importance.

**Types of action suggested.** The following are some possible actions:

- Modest annual grant or "caisse" provided to community-school associations to undertake improvements determined by the community. Continued disbursement might be contingent on demonstrated effective use of funds at the end of the year.
- Assistance in establishing income-generating ventures such as school gardens for funding school inputs such as materials and textbooks.

- Development of a matching fund to outfit school cantines for feeding programs.

**Contribution to development objectives.** In its Development Fund for Africa policy recommendations, AID recognizes the need for cost recovery as well as equity in the delivery of school services. To date, it appears that government cost recovery measures have been most effective at the primary school level, where parents are least able to pay. Assisting community associations would address both local financing of schools and assist communities in their efforts to raise funds.

### **Nonformal education**

#### **4. Improve the capacity of nonformal education trainers and facilitators to use learner-centered and participatory techniques.**

**Constraint addressed.** Many skills-training programs in government agencies, NGOs and businesses, and literacy and basic education undertaken in connection with projects and community development efforts have had limited effectiveness due to sterile methods, authoritarian top-down stances, and unengaging materials.

#### **Types of action suggested.**

- A nonformal education service center that would be able to assist existing NFE personnel in public or private sectors with the use of learner-centered training methods, participatory education and innovative materials. Whether developed around an existing training facility or created anew, the trainers of trainers need to be well acquainted with both the state and spirit of the art as well as with Senegalese culture.
- Use of a model nonformal education and community development program based in a Senegalese community as a training of trainers site. Here the focus would be on facilitators who work with nonformal education and literacy in the context of development projects.

**Contribution to development objectives.** Such assistance would result in more effective development of the knowledge, skills and attitudes that are required for performing new roles related to increased agricultural productivity, changes in population, health and nutrition practices, and small business success. This is an area in which the US has a few outstanding training and development programs, and hence represents a comparative advantage over other countries and donors.

#### **5. Help NGOs and community organizations that have grassroots-level programs to integrate educational and development efforts.**

**Constraint addressed.** Despite their relative advantage over government channels, NGOs may have difficulty in acquiring or maintaining meaningful grassroots contact. Donor assistance may divert attention away from village-level activities, and need to be designed to reward and maintain this connection. The effectiveness of educational components of such programs is often limited by their being attached as appendages to, rather than integrated with, development activities.

- Types of action suggested.
- Promote the growth and replication of models that integrate nonformal education and literacy with development skills and action.

Provision of matching grants to NGOs that already have village-level activities and want to develop nonformal education components to complement their programs. Or provide small incentive grants for NGOs and community-based associations to encourage them to work together on health/population education, or to provide in-service training for cereals production or small business activities.

**Contribution to development objectives.** This kind of assistance would increase the prospects that complementary nonformal education and local participation, both prerequisites for long-term success, will be built into agricultural, health and population efforts.

#### **6. Promote the development of low-cost, post-literacy materials in national languages that reinforce development objectives.**

**Constraint addressed.** Literacy efforts often fail because there are no reading materials available to reinforce what has been learned, or they are too costly for learners to afford. When such materials are available, they may be unrelated to development needs on the one hand, or too heavy and didactic to be fun and attractive to the reader on the other.

##### **Types of action proposed.**

- Assist agencies willing to develop local language materials that are of interest, related to development needs, and can be rapidly and cheaply produced.
- The use of desktop publishing facilities could enable rapid and cheap production of periodic writings contributed by neo-literates in development projects and distributed locally.

**Contribution to development objectives.** Such materials will reinforce investments in achieving literacy, and help link literacy with functional interests and content related to agriculture or health.

#### **Women and girls**

##### **7. Increase women's and girls' access to education**

**Constraints addressed.** The enrollment rates of girls in both rural and urban areas are lower than those of boys on every level. In primary school well over half the students are boys, a ratio which is even higher in rural areas, and in secondary school there are twice as many boys as girls. Girls and women need more basic skills. In order for this to happen, the education system must be accessible to more girls, both in terms of having more places available, especially in rural areas, and in terms of offering a curriculum that parents see as relevant to the lives of their daughters. In addition, opportunities to acquire basic skills through nonformal education programs must be available to those women and girls who have not attended school.

**Type of action suggested.** All of the actions previously suggested in this section address the educational needs of girls and women, as long as whoever designs and implements assistance measures remains aware of relevant gender differences and specific concerns related to girls and women. Nonformal education efforts should follow models that have proven effective in meeting needs of women.

**Contribution to development objectives.** We have discussed earlier the rationale for basic education as an investment in development and the value of basic skills in both agriculture and in family health and planning. As nearly 75 percent of the women in Senegal live in rural areas, and are depended upon as farmers as well as caretakers of their family, the need for more girls who live in rural areas to learn basic skills in primary school is crucial.

#### **8. Build adult education around early childhood concerns.**

**Constraint addressed.** It is not easy to reach parents or find them ready and motivated to participate in programs such as nutrition education or family planning education; information alone, without personal incentive and supportive environment, is not sufficient to bring about change.

**Type of action suggested.** Actions that would help are to:

- Encourage and support any program that can mobilize adult participation around an activity of broad appeal related to young children (for instance, inoculations, child care, or pre-school education) and link this with parental education (nutrition or population education, supporting literacy skills);
- Provide incentive grants for women's groups to undertake community education on child health and population (at child and maternal health centers with pedagogical assistance and appropriate materials through a nonformal education service center).

**Contribution to development objectives.** By creating settings of motivation and indigenous social support, prospects for increased interest in health, nutrition and population education, and changed behavior in these spheres, may be enhanced.

#### **An additional area of concern**

There is one other aspect of the formal school system that might merit assistance from USAID/Senegal, based on the criteria we listed above:

**Lower-level secondary education in rural areas.** In rural areas there are still less than a dozen secondary schools, and all of these are at the lower level.

Lower level secondary education has two functions. In some cases it is a transition level to higher levels of schooling. In other cases it provides a continuation of basic skills, as well as practical skills for employment and for adult living. For both boys and girls in rural areas, the years of schooling after primary school should help them become better farmers and better parents.

The MEN is now planning a reform of post-primary education. We suggest that the Mission participate in this planning to determine whether or not the reform will address secondary

education in rural areas, particularly for girls. If it appears that girls in rural areas are being neglected, USAID/Senegal might address this problem.

### **Conclusion**

Based on several guiding criteria, we have suggested eight areas that seem to be the most promising for USAID/Senegal investment in education. The reader should bear in mind that each suggested option requires further in-depth study to determine its feasibility for future AID support.

## ENDNOTES

1. The relationship between education and development is discussed more fully later in this report, and in: Renison's chapter on Education and Employment, the working document prepared by Jarousse and Mingat for the January 1990 meeting of the ministers of education of the Sahel countries, "Towards a Plan of Action for the Sahel Countries", the AID Africa Bureau's "Basic Education Action Plan," and 14 demographic and health surveys undertaken by AID in African countries during the past six years. All of these documents are available to the AID mission.
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4. This paragraph is based directly on Michel, op.cit., p.1075.
5. The source of data in Tables I, II and III is Ndao, Makha, "Linking Government Expenditures and Delivery of Public Education in Sub-Saharan Africa: the Case of Senegal." Unpublished UNDP report, December 1988, Annex II.
6. This number increases to 15.9 years if one calculates on the basis of the number of students who graduate, rather than the number that enter grade 6, since only roughly half of those who enter grade 6 pass the exam at the end of the year. (Source: Ndao, Makha, op.cit., p. 15 and Annex II.
7. Ministere de plan et de la cooperation, Projet de plan d'orientation pour le developpement economique et social, 1989-1995 (VIII Plan), Dakar, November 1989, p. 87.
8. Projet du plan, p. 87.
9. Ndao, Makha. op.cit., p. 15.
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12. Source: Ndao, Makha, op.cit., p. 21.
13. Ndao, Makha, op.cit., Annex II.
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15. Ndao, Makha, op.cit., p. 16.
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21. World Bank, *ibid*, p. 3.
22. Orsini and Harmon, CESAG for World Bank.
23. Orsini and Harmon consider this percentage to be representative of the 135 NGOs registered with the former Ministry of Social Development, now under the Ministry of the Interior.
24. NFE in Ghana & Senegal.
25. Because this presentation is based on secondary materials that are often dated (although wherever possible current data are used), the reader should bear in mind that the figures, such as educational costs and rates-of-return, do not accurately measure recent Reform-induced improvements. However, there is little reason to question their utility as indicators of trends in the education sector, especially given the slow pace of change in the education sector in recent years.
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44. Mingat and Jarousse, ibid.
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Dick Cobb, Director, Technical Resources, AFR

Senegal, Sept. 16 - 29, 1990

USAID/Senegal

Julius Coles, Director

Gary Nelson, Deputy Director

Terry Myers, Chief PDO

Mamadou Kane, Project Development Officer, PDO

Amadou Ly, Project Officer, CED Project

Seydou Cisse, Program Specialist, PO

Mary Ann Micka, Chief HPNO

Wayne Nilsestuen, Chief ADO

Rod Kite, Ag. Economist ADO

Lamine Thiam, Ag. Economist ADO

David Delgado, ADO

David Robinson, Deputy PDO

Ousmane NDao, Training Officer PDO

Dick Greene, Program Chief & Economist

Maryse Fall, WID Officer

Lillian Baer, Africa Consultants International  
Gary Engelberg, Africa Consultants International  
Lucy Colvin Phillips, Consultant, Socioeconomic Studies  
Alassane Keba Diawara, Operations Officer, The World Bank  
Souleymane NDiaye, Ex-Unesco Representative  
Sonya Fagerburg-Diallo, Culture for African Development (CAD)  
Alpha Boubacar Diallo, Centre Pour la Population et la Sante Familiale, Lome, Togo  
Alain Grandbois, Premier Secretaire, Specialiste en Developpement des Ressources Humaines, Section de la Cooperation, ACDI (CIDA), Canadian Embassy  
Abdoul Aziz Dia, Directeur General, Office National de Formation Professionnelle (ONFP)  
Mamadou Fadiga, Directeur, Bureau des Projets d'Education de Formation Technique et Professionnelle, MEN  
Danielle Kamara, Direction de la Planification, MEN  
Bougouma Ngom, Directeur de la Planification, MEN  
Alboury Diop, Bureau de Statistiques, MEN  
Iba Der Thiam, ex-Minister of Education  
Boubacar Kante, Dean, Law School, Universite de St. Louis  
Papa Amadou Sidibe, Directeur, Institut National d'Etude et 'Action pour le Developpement de l'Education (INEADE)  
Samba Dione Ndene, Directeur, Ecole Nationale d'Economie Appliquee (ENEA)  
Molly Melching, Training Director, Culture for African Development (CAD)/Thies  
Joe Tavares, Project Director, Culture for African Development, (CAD)/Thies  
Richard Bridle, Deputy Representative, UNICEF  
Anna Bathily, Program Officer, UNICEF  
Jan de Bosch Kemper, Chief, Educational Policy and Innovations, UNESCO  
Frederick Badiane, Directeur, Departement de l'Alphabetisation et de l'Education de Base (DAEB), MEN  
Debbie Fredo, Literacy Trainer, World Education  
Lynn Ellsworth, Program Officer, Social Sciences Division, IDRC  
Catherine Laurent, Conseiller Culturel, French Embassy  
Claude Bourel, Conseiller pour l'Enseignement et de la Formation, French Embassy

**NDioro NDiaye, Minister, Condition de la Femme et de l'Enfant**

**Khardiata Lo NDiaye, Conseiller Technique, Condition de la Femme et de l'Enfant**

**Directeur et Conseil d'Administration, Federation des Associations Parents-Eleves**

## ANNEXES

MINISTER

CABINET

SECRETARY GENERAL

- Inspection of National Education
- National Commission for UNESCO
- National Pedagogical Institute
- National Centers for Academic and Professional Orientation
- Arabic Education Division
- Private Education Division
- Educational Radio & Television Division

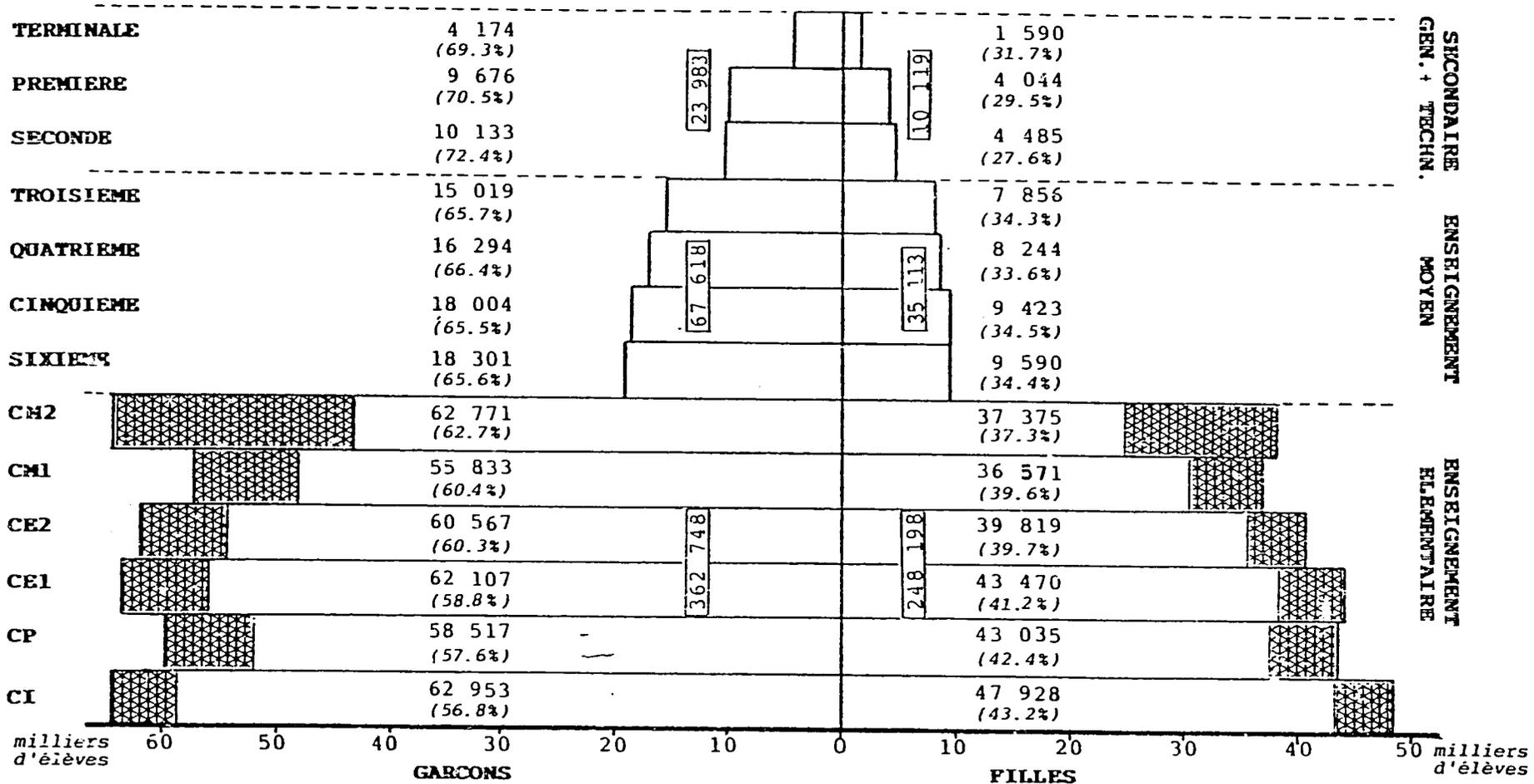
- Administrative Financial Affairs Inspection
- Academic and Entrance Exams Division
- Medical Services Division
- Legal Affairs, Liaison and Documentation Division
- Monitoring Unit
- Data-Processing Unit
- General Technical Education and Vocational Training Projects Unit

DIRECTORATES

- Directorate of Pre-School Education
  - School Administration and Management Unit
  - Control and Coordination Division
  - Synthetic Unit
- Directorate of Primary Education
  - School Administration and Management Division
  - Control and Coordination Division
  - Art Education Division
  - Physical Education Division
  - Special Education Division
  - Synthetic Unit
- Directorate of Lower & Upper Secondary General Education
  - School Administration and Management Division
  - Control and Coordination Division
  - Synthetic Unit
- Directorate of Secondary Technical Education
  - Technical, Agricultural and Industrial Education Division
  - Commercial Technical Education Division
  - Synthetic Unit
- Directorate of Vocational Training
  - Centers for Vocational Training for the Primary Sector
  - Centers for Vocational Training for the Secondary Sector
  - Centers for Vocational Training for the Tertiary Sector
  - Centers for Vocational Training Subsector
  - Synthetic Unit
- Directorate of Higher Education
  - Control Unit
  - School Administration Unit
  - University Unit

- Directorate of Literacy & Basic Education
  - Training Division
  - Field Training Division
  - Development and Evaluation Division
  - Administrative and Financial Unit
  - Audio-Visual and Reproduction Unit
  - Documentation Unit
  - Synthetic Unit
- Directorate of Educational Reform and Training
  - Project Creation and Follow-up Division
  - Experimentation, Planning and Monitoring Division
  - Coordination and Evaluation Division
  - Synthetic Unit
- Directorate of Studies, Human Resources & Planning
  - Studies Division
  - Planning Division
  - Human, Physical and Technical Resources Division
  - Synthetic Unit
- Directorate of School Construction and Equipment
  - Construction Division
  - Equipment Division
  - Physical Facility Management Division
  - Synthetic Unit
- Directorate of General Administration and Equipment
  - Budget and Finance Division
  - Material and Equipment Division
  - Personnel Division
  - Synthetic Unit
- Directorate of Fellowships
  - Division for National Fellowships for Higher Education
  - Division for Foreign, African and Arab Fellowships
  - Division for Fellowships in Arab Countries
  - Lower and Upper Secondary School Fellowships and Student Services
  - Division of Administration for Students Abroad
  - Data Processing & Liaison Unit
  - Synthetic Unit

**EFFECTIFS PAR ANNEE D'ETUDES ET SEXE 1986/1987**



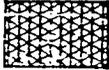
La part relative des filles dans les effectifs totaux diminue à mesure que l'on s'élève dans le niveau d'étude : 43.2% au CM2, 34.4% en 6ème, 31.7% en terminale.

L'allure de la pyramide de l'enseignement élémentaire est à mettre en parallèle avec l'évolution du nombre de nouveaux admis au cours d'initiation (CI) depuis 1981/82 (cf tableau ci-contre).

Le "creux" au niveau du CP correspond au changement de l'âge d'admission au CI en 1985/86, qui est traduit par une diminution importante des nouveaux admis, surtout chez les garçons.

Le "gonflement" des effectifs en fin de cycle élémentaire est dû à l'augmentation des redoublants au CM2 (34% des effectifs de ce niveau).

	NOUVEAUX ADMIS AU C.I		
	TOTAL	GARÇONS	FILLES
86/7	99 720	56 805	42 915
85/6	89 244	51 494	37 750
84/3	99 193	57 485	41 708
83/4	100 182	59 421	40 761
82/3	96 888	57 194	39 694
81/2	84 199	49 923	34 276

 redoublants ens. élément.

(...%) % garçons et filles par niveau d'étude

Table 10: Impact of Measures on the Primary Enrollment Rate in the Year 2000  
 (a = % of budget devoted to Education; c = Growth of Economy)

No.	Measures	BURKINA FASO	GAMBIA	MALI	MAURITANIA	NIGER	SENEGAL
1.	Adm. Growth 1.5%	0.2 / 0.1	5.6 / 4.0	0.9 / 0.5	1.3 / 1.0	2.4 / 1.4	1.1 / 0.9
	Primary						
2.	Pupil/Teacher Ratio						
3.	. 45	0	9.8	3.2	-	1.4	0
3.	. 55	0 / 0	24.9 / 20.7	24.0 / 0.6	8.2 / 4.2	10.5 / 4.7	0 / 0
	Teacher Salary						
4.	. "Low" Qualif. Recruitment						
5.	. Salary Drop (20%)	4.8 / 1.1	-	5.2 / 0.7	-1.9 / -0.3	1.5 / 0	7.3 / 3.4
6.	. Total	9.5 / 5.2	-	16.8 / 5.5	19.3 / 11.2	10.0 / 5.2	17.8 / 12.1
	Secondary						
	Freeze vol. Scholarships						
7.	. Real Value						
8.	. Nominal Value	4.1 / 2.0	2.8 / 1.9	0.4 / 3.5	4.3 / 3.3	5.0 / 3.1	2.0 / 1.5
	Pedagogical Costs						
9.	. Pupil/Teacher Ratio: 25	1.8 / 1.5	5.7 / 4.0	15.5 / 10.1	5.9 / 5.4	-	2.9 / 2.0
10.	. Salary Drop (20%)	1.5 / 1.3	-	4.8 / 4.3	9.2 / 7.9	-	6.8 / 5.3
11.	. Total	4.5 / 3.1	5.7 / 4.0	23.7 / 12.8	16.2 / 12.4	3.5 / 2.1	10.2 / 7.5
	Higher						
12.	. Nominal Scholarship Freeze	9.6 / 6.6	-	13.4 / 7.3	17.3 / 13.2	7.3 / 4.4	11.6 / 8.5
	. Student/Prof. Ratio: 14	-	-	1.2 / 0.7	-	-	-
	Primary Enrollment Rate						
	. Initial 1987	31.0	63.0	30.0	54.1	29.0	57.0
	. "Natural" 2000	24.0	54.9	29.1	45.0	17.5	57.8
	Total of Measures						
	0 = 0 ; c = 3.0 %	50.3	89.2	92.9	99.6	47.4	99.2
	0 = 0 ; c = 2.5 %	45.2	76.9	82.3	86.6	40.7	87.4
	0 = 0 ; c = 2.0 %	40.4	64.6	72.4	74.3	34.3	76.4
	0 = 0 ; c = 1.5 %	35.9	53.7	63.1	62.9	28.2	65.7
	0 = 0 + 2 ; c = 3.0 %	50.7	100.0	-	-	60.3	-
	0 = 0 + 2 ; c = 2.5 %	51.2	94.3	-	99.2	52.7	97.2
	0 = 0 + 2 ; c = 2.0 %	45.9	81.0	-	85.1	45.5	85.2
	0 = 0 + 2 ; c = 1.5 %	41.0	68.5	-	73.8	38.8	74.4

Source: "Toward a Plan of Action for the Sahel Countries",  
 Bamako, Jan 15-18, 1990,  
 Meeting of Ministers of Education of the Sahel Countries.