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A WORLD BANK COUNTRY STUDY

Education in the Democratic Republic of Congo

Priorities and Options for Regeneration

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Foreword

This study is part of a series of education country status reports (CSRs) that are being prepared by World Bank staff in collaboration with national teams from various Sub-Saharan countries. The immediate objective is to enhance the knowledge base for policy development in the education sector. More broadly, CSRs create a basis for engaging a diverse audience in dialogue on education sector policies and for developing a shared vision for the future. These processes have become increasingly important as governments renew their commitment to reduce poverty, and the international donor community pledge to provide the needed financial assistance.

In this new dynamic of international development assistance, the World Bank has oriented its corporate mission toward supporting governments in the fight against poverty, making the task its defining priority. In practice, the strategy is articulated through a two-pronged approach: support for policies that accelerate economic growth combined with explicit measures to promote a more equitable distribution of the benefits from growth. Human development, especially through investments in education, plays a central role in both processes.

Realization of the Millennium Development Goals (MDGs) for achieving universal primary education by 2015 in the world as a whole, and for Africa, in particular, requires concentrated attention on the Democratic Republic of Congo, one of five countries in the world with the largest number of out-of-school children. A decade of violent strife, large displacements of populations and prolonged economic deprivation has led to a sharp decline in the education system in the DRC. Three decades ago, the primary GER was higher than in many other sub-Saharan countries; today it ranks below those of most of them. It had a university system which attracted the best students from Francophone Africa; today, the universities have outdated curricula and programs and dilapidated facilities. Nonetheless, despite the crises of the recent past, the education system in DRC has shown a remarkable resilience and has even continued to expand slowly at all levels. The system of education administration has survived the political upheavals of the recent past, while there has been a strong element of local management by parents and teachers of individual schools.

Revival of the education sector has been recognized both by the Congolese authorities and donors as central to the strategy for accelerating development in the DRC. A key feature of the Congolese education system is the almost complete lack of government provision and financing of all levels of education, including the primary level. Over the last decade, less than 3 percent of government spending was devoted to education; currently, the figure is still only 6 percent. All types of educational institutions, public and private, are almost entirely financed by households. An important policy issue is to define the appropriate role of the government in ensuring universal primary education and in re-establishing an education system that supports and promotes economic and social development. Other challenges include setting sustainable levels of teacher remuneration and creating institutional arrangements for effective system management.

While there is general acceptance about the priority to be given to the education sector, it is necessary to move to more specific targets and priorities for each level of educa-

tion and to the development of fiscally sustainable strategies and sector financing plans. The starting point of this process is the Country Status Report, which provides a sound knowledge base upon which to decide among competing priorities, and which can be used to finalize the education sector strategy and financing plan as well as the education section of the Poverty Reduction Strategy Report, which is currently under preparation.

Three key issues stand out in the DRC context: (i) the absolute urgency of ensuring a rapid move to universalizing primary education (ii) the need to upgrade quality at all levels of the education system (without which quantitative expansion alone will not yield the desired outcomes) and (iii) moving to a more efficient and equitable balance between public and private financing. These issues form the crux of the analysis and recommendations of this CSR.

Two features characterize the CSRs, one pertaining to its technical content, the other to the process by which it is accomplished. With regard to content, five aspects are worth mentioning. First the CSRs pay close attention to issues of equity and the distribution of public resources for education, given the importance of these topics in the HIPC and PRSP context. Second, the analysis relies on commonly available administrative data as well as household surveys, an approach that has helped to improve the consistency and robustness of the statistical results. In the case of DRC, this was supplemented by special surveys of public and private schools and of parents carried out specifically for the CSR; these had to be organized to obtain information on education charges, household expenditures, teachers' earnings and infrastructure, which are crucial for policy development and setting expenditure priorities. Third, the CSRs put a sharper focus on outcomes by emphasizing indicators beyond the usual gross and net enrollment ratios. A fourth example of the technical content of CSRs is the use of school-level data to assess the scope for improving service delivery to the poor. Because of the unreliability of these data, especially in the eastern provinces of the country when the report was being drafted, this analysis was not undertaken in detail here. Finally, the CSRs also make use of data on student learning—where they are available—to gauge the education system's performance in this important domain, and to identify cost-effective measures for progress. The DRC report augments the available data on student learning with a comparison of the performance of Congolese and French primary school children in language and mathematics in order to set the problem in perspective.

In relation to the technical content, although this CSR follows a standard format used in other sub-Saharan African countries, it deviates from the standard report in that it includes a chapter on financial simulations that normally constitutes follow-up analytical work. This was considered important in the DRC context since moving to greater levels of public financing in a resource-constrained environment is one of the key policy issues. The need for making difficult policy choices both in relation to sectoral objectives and strategies is very palpable. As an example, the government faces a critical choice between expanding higher secondary and higher education at current rates or restraining the quantitative expansion at these levels, in order to release adequate resources for upgrading quality at all levels and universalizing primary education by 2015. These kinds of hard choices are brought out in the context of the illustrative financial simulations included in this report, which need to be supplemented as the goals and strategies are further elaborated.

Regarding the process for preparing the CSRs, the main feature is that it is a product of a partnership between the World Bank and national teams from the various countries. Because participation in the analytical work is essential for developing a deep understand-

ing of policy issues, an integral part of the process for preparing a CSR involves training and capacity building where these are needed. In the case of the DRC, a national team was set up to work closely with the Bank team and was trained; the former collected and analyzed data, from administrative sources as well as the special surveys of public and private schools. The first and final draft of the CSR was reviewed in detail in several workshops with the national team and with others involved in education sector development (such as the PRSP team); the report has benefited from their valuable contributions.

The standard CSRs are diagnostic documents whose purpose is to help identify the policy questions rather than to offer solutions and make recommendations. Again, the CSR for DRC deviates from the standard format in that it includes recommendations at the end of each chapter, some of which are used in the financial simulations to gauge the implications of these recommendations. The findings, recommendations and results of the illustrative financial simulations provide a starting point for policy development, which will be carried forward by the national team both by deepening the technical analysis and by stimulating a broad national dialogue. It is already clear that the CSR can play a guiding role in developing the education sector strategy, the PRSP and in framing budgetary allocations and external assistance for the sector.

The publication of the CSR for DRC is intended to institutionalize our collective knowledge about the country's education sector, including broader macro economic and public finance issues and the nature of the policy challenges, and to share that knowledge as widely as possible. It is my hope that as new knowledge emerges in the course of implementing the country's poverty reduction strategy, the CSR would be updated to track progress in overcoming the constraints in the education sector in the DRC.

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November 2004

Acknowledgments

The Country Status Report on Education for the Democratic Republic of Congo was undertaken in two phases. The report for Phase 1 covering chapters 1–5 was prepared in February 2004 and was discussed with the national team set up by the government of the DRC to work on the CSR. For the first phase, school surveys could be completed only in the seven western provinces that had been under government control before the peace agreement; the areas formerly under rebel control could not be surveyed in time. In the second phase, financial simulations of various policy options were done to prepare estimates of financing requirements over the medium term. This report incorporates the modifications to the earlier report suggested by the national team, analysis of survey data from the eastern regions and financial simulations (chapter 6).

The work for the CSR has been undertaken in a collaborative fashion between the World Bank team, headed by Sajitha Bashir (AFTHD), and the national team for the CSR, headed by the Secretary-General for Primary and Secondary Education, M Daniel Lukubama. The technical team, headed by Director for Education for All, M. Timothé Nlandu, participated in collection and preliminary tabulations and analysis of data from several sources, including official school statistics, budget data, data from the provinces as well as sample surveys of several hundred public and private primary and secondary schools that were undertaken for the CSR. Guidance for this work was provided by the Bank team and consultants.

This report has been written by Sajitha Bashir based on the above data and analyses provided by the national team, as well as more detailed analyses undertaken by Bank staff and consultants. Jean-Bernard Rasera (consultant) analyzed the official education statistics and budget data for all the chapters, constructed the simulation model and prepared the first drafts of chapter 5 (higher education) and chapter 6 (financing simulations). Ramahatra Rakotomalala (AFTHD) prepared a note on the analysis of the household survey data from MICS2. Brunot Suchaut (consultant) prepared a report on the analysis of test scores for the DRC and France which is used in chapter 4. Nina Badgaiyan (consultant) analyzed the data on the surveys of public and private schools. Susan Opper (Task Team Leader for Education, DRC) interacted closely with the team and liaised with the Government of DRC to ensure that the task was completed on time. Therese Tshimanga provided assistance for the final editing and formatting of the report.

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Acronyms and Abbreviations

ABA	Académie des Beaux Arts
ANAPECO	Association Nationale des Parents d'Elèves et Etudiants de la RDC
ANAPEZ	Association Nationale des Parents d'Elèves
APEC	Association nationale des Parents d'Elèves Catholiques
ASSONEPA	Association Nationale des Ecoles Privées Agréées
BUCEN	US Bureau of Census
CA	Circonscriptions Administratives
CEPACO	Collectif des Ecoles Privées Agréées du Congo
CSR	Country Status Report
DEPS	Département de l'Enseignement Primaire et Secondaire
DRC	Democratic Republic of Congo
EAD	Entités Administratives Décentralisées
ESU	Enseignement Supérieur et Universitaire (Higher Education)
FC	Francs Congolais
Fcfa	Franc de la Communauté Financière Africaine
FCK	Facultés Catholiques de Kinshasa
Fmg	Franc malgache
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
IBTP	Institut du Bâtiment et des Travaux Publics
IFASIC	Institut Facultaire des Sciences de l'Information et de la Communication
IFCEP	Institut de Formation des Cadres de l'Enseignement Primaire
IMF	International Monetary Fund
INS	Institut National de la Statistique
ISAM	Institut Supérieur des Arts et Métiers
ISC	Institut Supérieur de Commerce
ISF	Indice Synthétique de Fécondité
ISP	Institut Supérieur Pédagogique
ISPT	Institut Supérieur Pédagogique et Technique
IST	Institut Supérieur Technique
ISTA	Institut Supérieur des Techniques Appliquées
ISTM	Institut Supérieur des Techniques Médicales
KIN	Kinshasa
MEPS	Ministère de l'Enseignement Primaire et Secondaire
MICS	Multiple Indicator Cluster Survey
MLA	Monitoring Learning Achievement
Mt	Metical Mozambiquais
NER	Net Enrollment Ratio
Proved	Chef de division provinciale
SECOPE	Service de Contrôle et de la Paie des Enseignants
TFR	Total Fertility Rate
UK	Université Kongo

UN	United Nations
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Education Fund
UNIKIN	Université de Kinshasa
UNILU	Université de Lubumbashi
UPC	Université Protestante du Congo
UWB	Université William Booth
WI	Wealth Index

Executive Summary

The education system in the DRC will play an important role in building the country's political institutions, in promoting economic growth and in redressing inequalities. The country is emerging from a prolonged economic and political crisis which has had serious negative impacts on the education system. The main purpose of this report is to assist the DRC to identify the priorities for education policy and present options in order to assist the government in developing an education strategy. This is necessary for preparing the government's Poverty Reduction Strategy Paper and a program of assistance for the education sector by external donors.

This summary integrates the key findings and the recommendations presented in the Country Status Report on Education in the DRC. The Country Status Report is structured in six chapters covering the recent trends and current status of educational coverage, expenditures and financing at all levels of instruction in DRC, issues relating to quality in primary and secondary education and specific issues relating to higher education. It also presents the expenditure requirements under various policy options which can be used to begin a more detailed planning for the sector. The summary has three parts: (a) the main findings (b) the results of the financial simulations and (c) the key policy choices.

Main Findings

Background and Context

Over two decades of economic decline, political chaos and war have created extremely difficult conditions education in Congo. With a per capita GDP of about US$100 in 2002, the DRC ranks among the poorest countries of the world. In addition to the general effects of political instability, economic chaos and war, the education system has suffered directly as well from the conflict. Two major episodes of looting by army soldiers in 1991 and 1993, led to enormous destruction of buildings and furniture, from which many schools have not recovered. The neglect of road infrastructure, in particular, has led to the abandonment of many schools in the interior rural areas.

The DRC has always had an unequal distribution of population and this has been accentuated by massive internal displacement and the movement of refugees caused by the war. Many provinces are thinly populated and the low density of the primary school age population, which is less than five per sq. km. in many provinces, highlights the difficulties associated with providing universal access at an affordable cost. The conflict in recent years has created further imbalances: apart from high levels of mortality caused by famine and disease, between 2–3 million people are estimated to have moved from the eastern regions. The population of Kinshasa has grown enormously due to the influx of migrants and may now account for 14 percent of the total population (8 million people). There has been an outflow and influx of refugees. War and conflict have also created new groups of vulnerable children. These include child soldiers, street children, and orphans.

Other specific features of the country, namely the large number of local languages and the high proportion of the population living in forest areas, should be taken into account

in developing educational policy. Officially, children are taught in one of the four main regional languages until grade 2 after which French becomes the sole language of instruction. The pedagogical challenges of teaching children at the primary stage in a language which is not their mother tongue are enormous, especially when they cannot receive parental support. About half the population lives in forest regions and protected areas, and many of them live in small and remote habitations and frequently move in search of livelihood, which affects the participation of their children in formal education. Educational policy will need to address the specific requirements of these people.

The high growth of the child population over the medium-term will present enormous challenges. The primary school age population, which in 2002 was estimated to be 8.8 million, will continue to grow at about 2.7 percent per annum. About 48 percent of the population is under 15 years of age, and approximately 19 percent is under 5 years of age, according to the MICS 2001. This age structure implies that the potential current as well as future demand for education funding is high relative to the wealth generated by the economically active population.

Resource constraints will remain important over the medium-term and careful policy choices are required to enable a sustainable development of the sector. Ongoing fiscal reforms will take time to produce the intended results and the economy must grow in order to augment the domestic tax base. Furthermore, the domestic state budget will need to satisfy the urgent requirements of other sectors, such as the health and road infrastructure, which are also important for meeting educational objectives, especially at the primary level.

Strengths of the Education System in DRC

Despite the upheavals of the last 25 years, the education system in DRC continues to expand at all levels, albeit slowly. This fact is all the more remarkable since public financing has declined dramatically since 1986, and the system is largely sustained by household financing. The education system is large. In 2001–02, there were approximately 19,100 primary schools with 159,000 teachers, with an estimated student enrollment of 5.47 million. The number of secondary schools numbered just over 8,000 with 1.6 million students and 108,000 teachers. In higher education there were 326 institutions with approximately 200,000 students.

Enrollment has grown at all levels but has been most rapid in higher education and the DRC has a relatively high coverage at the tertiary level. Between 1986/87 and 2001/02, the number of students in higher education has increased by 3.7 times (271 percent increase), and the number of institutions has increased by over 9 times. The number of higher education students per 100,000 inhabitants was about 285 in 2001/02. In secondary education, there has been a 90 percent increase in the number of schools and 75 percent increase in number of students. At the primary stage, the increase in the number of institutions has been 65 percent but the increase in enrollment has been more modest at 31 percent.

Despite the fall in public financing, households have continued to finance the education system at all levels, and in both the public and private sectors, preventing a complete collapse of the system and reflecting the strong demand for education. Households finance between 80–90 percent of total expenditures in public sector institutions.[1] Further, the pri-

1. Primary and secondary education are provided by state schools (*écoles non-conventionées*), schools run by religious organizations (*écoles conventionnées*) and private schools. The two former types of schools receive public subsidies and are considered public schools. In higher education, there are public institutions and private institutions which receive no public funding.

vate sector has grown even more rapidly than the public sector at all three levels. Since these high growth rates are relative to a small base, the public sector continues to predominate at all levels.

Unlike many other countries emerging from conflict, in the DRC many of the structures of educational administration still exist and at the school level, there exist school management committees and parent teacher associations. The system of educational administration has also been financed by households, whose contributions pay for supplementing the salaries of administrative staff and teacher training. Detailed norms exist for the opening of schools and allocation of staff (some of these have been changed due to restrictions on finance). There is a system for fixing household charges, which is based on consultation between the administration, teachers and parents.

Important Challenges and Constraints

Four broad issues have been identified: (i) the relatively low quantitative coverage at the primary level with great inequalities in access and uncontrolled expansion at the secondary and higher education levels, (ii) a serious degradation of quality at all levels, (iii) a cumbersome and outdated system of educational administration, and (iv) very low levels of expenditures and an inefficient and inequitable system of financing.

Low Coverage at Primary Level Coupled with Uncontrolled Expansion at Post-Primary Levels
The primary GER is about 64 percent, which is lower than the average for sub-Saharan Africa and the GER attained in the 1970s.[2] The turbulence and conflict during the latter half of the nineties seems to have impacted primary education more than other levels. By 2001/02, total enrollment had not recovered to the levels of 1995/96. Data for 1998/99 and 1999/2000, the first two years of the war, show a steep decline in primary enrollment. The gross intake rate into class 1 is only 66 percent. Among those who enroll in the first class, about 50 percent drop out before reaching the 6th grade. The primary completion rate is only 29 percent. About 4 million children in the age group of 9–14 years do not attend school.

Large inequalities exist in access in primary education between boys and girls, between provinces and wealth groups. In 2001–02, the primary GER for girls was 56 and that for boys 72. The GER by province ranged from 46 percent to 80 percent. Household survey data[3] show that the GER for the poorest 20 percent of households is about two-thirds that of the richest 20 percent of households; it is likely that the GER for poor households is overestimated due to problems with the survey data.

In addition, there are special groups of children among whom participation rates are lower: these include children of forest dwellers, pygmies, the *enfants riverains,* street children, orphans, child soldiers, and refugees.

The transition rate between primary and secondary education is high (85 percent) and the transition rate to higher education appears to have increased in the nineties. This

2. The household survey conducted in 2001 by UNICEF (MICS 2001) yields very high primary GERs of over 90 percent; as discussed in the main report, this is likely to be considerable over estimate and may reflect the willingness of parents to register their child in school rather than actual enrollment.

3. As discussed in the main report, the household data collected through the Multiple Indicator Cluster Survey 2001 seem to overstate the primary GERs; nevertheless, they show the large inequalities between wealth groups in access.

reflects partly the fact that it is mostly the richer children who are able to complete primary education. About 65 percent of those who passed the secondary school leaving examination enter higher education, compared to 50 percent prior to 1990. The transition rate between undergraduate and postgraduate education (within higher education) is also very high.

The education system is inefficient due to high levels of dropout (at the primary stage) and repetition (at all levels). Only 20 percent of children reach the 6th grade of primary without repeating at least one year. Only 14 percent obtain the school-leaving certificate without repeating any year. Only half the students who enter the first year of secondary reach the last year without any repetition. The high failure rate in the terminal examination at the end of higher secondary education leads to a completion rate (for primary and secondary taken together) of just 13 percent, based on those who get the secondary school leaving certificate. The coefficient of internal efficiency was 43 percent and 36 percent in primary and secondary education, respectively. In the University of Kinshasa, the largest university, 50 percent of students drop out in the first year and 35 percent in the second year. The internal efficiency is about 50 percent; and only 18 percent obtaining a postgraduate degree without any repetition.

In comparison with other African countries, the DRC has a relatively low coverage at the primary stage, similar levels of coverage at the secondary stage and higher coverage at the tertiary stage. The secondary GER is about 23 percent while the number of students per 100,000 inhabitants is 358. Managing enrollment growth at the post-primary levels while ensuring greater participation by the poorer and disadvantaged groups at these levels will be one of the important policy challenges for the DRC.

Degradation in the Quality of Education at All Levels—Learning Outcomes and Teaching-Learning Conditions. At the primary level, the level of mastery of French (the language of instruction) is extremely low and impedes performance in other subject areas as well. Most children in grade 4 acquire only the simplest language skills, such as associating a word with a picture. Mastery of the tools of the language (grammar and vocabulary) and writing is especially poor, with most students failing completely in these areas. Learning outcomes in mathematics are also poor, and this may partly reflect the lack of adequate knowledge of the language of instruction. Student performance was especially low in test items relating to "measures," "geometrical concepts" and "problem solving." These results are based on language and mathematics standardized achievement tests administered recently to 4th grade students in a sample of primary schools in DRC and in France (where, additionally, the language test was also administered to 2nd grade students.

Poor outcomes at the primary level in language skills pose questions about the appropriateness of the language of instruction at the primary level. The lack of textual materials and the insufficient training of teachers is undoubtedly an impediment to successful learning. However, the current policy regarding language of instruction is also an issue since it means that children do not adequately master the tools of language in either the regional language or in French and they are not sufficiently equipped to learn all subjects in French by the time they are in grade 3.

There is no quantitative information on learning outcomes in secondary and higher education; since curricula and standards have not been officially revised for over 25 years, there is little doubt that the education is outdated and of limited relevance. The higher edu-

cation system is characterized by a multiplicity of courses and options, with outdated curricula. The provision of higher education is also currently fragmented across a number of small institutions, which prevents investments on the required scale in facilities and equipment. Quality is also affected in higher education because of the lack of appropriate orientation of new entrants.

The quality and motivation of the teaching force has deteriorated at all levels and one of the most significant factors inducing this is their low and uncertain earnings. State salaries range from $10 (primary level) to $50 (higher education) per month. These are supplemented by family contributions, but even so total earnings of school teachers are meager ($25 for primary and $50 for secondary); both state salaries and household supplements are irregular. In poorer provinces, the total earnings of a primary teacher may be as low as $15 per month. Total earnings of university professors are significantly higher ($200–$450 per month). Many school teachers resort to farming or other odd jobs when fee collections are low. This reduces the time on task, especially in poor schools. At the university level, public sector professors also supplement their earnings by teaching in private institutions.

The teaching force in primary schools is fairly old, with an average age of 44.3 years. Nearly 30 percent of the primary teachers are over 50 years of old. This high proportion of old teachers is due to the fact that teachers do not retire since the state is unable to pay either the pension or the gratuity payment.[4] Thus, although teachers can retire at the age of 55 or if they have 30 years of service, 23 percent of existing teachers are above the retirement age.

For almost two decades, the country has had no system of regular in-service training for school teachers. Poor subject matter mastery and language skills (both in French and in the languages of instruction in classes 1 and 2) are identified by Congolese educators to be the main problems of teacher quality.

In higher education, the number of qualified teachers is declining and the existing teaching force in public institutions is stretched across the large number of private institutions. This is because there are relatively few students joining doctorate programs. Private institutions use public sector professors to teach and conduct examinations. Many university professors work considerably in excess of their stipulated workload in their parent institution; this also results in prolongation of the academic year and a general fall in quality.

Lack of textbooks and other materials is pervasive at all levels. The vast majority of primary and secondary students have not had textbooks for many years—textbooks are now being distributed in certain grades and some schools through donor grants. At the secondary and higher education level, lecture notes of teachers are used in lieu of textbooks. Some of the richer private schools are able to procure textbooks and lend them to students on a payment basis.

At the secondary and higher education levels, laboratories, equipment and libraries are lacking. Only the most prestigious institutions, especially in Kinshasa, have garnered some resources through donations or parental contributions to made modest investments in these resources.

4. A pensioner receives three-quarters of the last salary and also receives a lumpsum payment; if the teacher is from another province, he receives an additional lumpsum to relocate to his native place. These rules have not been implemented for nearly 15 years.

A significant part of the physical infrastructure is degraded. Communities have constructed buildings in the last decade, but many of them are of poor quality. Some buildings in primary and secondary schools are unusable for safe teaching—including no roof, or partially damaged roofs, as well as damaged walls. Apart from the dangers they pose, many of these schools cannot be used when it rains or when it is too hot and children are sent home during those days, thus reducing learning time. In the eastern provinces, war and lack of maintenance will have further contributed to the dereliction of school buildings.

Low Expenditure Levels and Inequitable Financing. In sharp contrast with its pre-eminence in total government spending about two decades ago, the education sector today accounts for only 6 percent of total public expenditure. For primary and secondary education, real recurrent expenditures in 2002 were less than 4 percent of what they were in 1980; in higher education, they were about 3 percent of their level in 1980. Currently, in primary and secondary education, the expenditure on salaries accounts for 86 percent of recurrent spending.

Analysis of salary expenditures alone for 2002 suggests that only 36 percent of total education spending is allocated towards primary education, 32 percent to secondary education, and 1 percent to administration of school education. In 1987, the share allocated to primary education out of total education spending was approximately 45 percent, while secondary education received 26 percent.

In 2002, per pupil public recurrent expenditure was only $3 in primary, $6 in secondary and $57 in higher education; in absolute levels, the unit costs are low, but the large relative differential reflects differences in salaries and staffing ratios between the different levels of education. The unit public expenditure in secondary education is higher due to the more favorable pupil-teacher ratio and the higher proportion of non-teaching staff. In higher education, the big differential is due to the much higher average state salaries paid to teaching staff and the high proportion of administrative and other non-teaching staff, both at the Centre and in the institutions.

The issue of teachers' salaries is one of the most pressing issues in reforming the education system in the DRC. There are large differences in the salary levels paid by the state between teachers in Kinshasa and the rest of the country, on account of differing allowances (for primary and secondary teachers). Often, the salary due is not paid to teachers on time (sometimes not at all), especially for those in the provinces. There exist large arrears of salary payments.

While teachers' salaries are low, the cost of other inputs is relatively high. Textbooks cost nearly twice more than they do in other developing countries. The cost of classroom construction (standard) is also relatively high compared even to other African countries. While community construction is cheaper, it is often of poor quality, requiring frequent repairs and more maintenance.

The high level of dependence on household financing is both inequitable and inefficient. Household charges per student are about 6–7 higher than the per pupil public recurrent expenditures at the primary and secondary level. The provincial averages for household charges vary from $9–14 per year at the primary level and $14–42 at the secondary level. Although low in absolute terms, these charges are high relative to per capita income. In practice, many parents do not pay the full amount or stagger their payments.

This results in intermittent attendance, repetition or dropping out, especially among poor children. Further, the system of direct payment of teachers' salaries creates perverse incentives for teachers to penalize non-paying students or reward those who pay regularly. Finally, teachers seek employment opportunities outside and this makes it difficult to introduce programs for improving quality of education which requires sustained teacher involvement and commitment.

Weak Systems of Governance and Administration. Four categories of entities are involved in education administration in school education. These are: the Central government and the Ministry of Primary and Secondary Education (MEPS); the provincial government; the representatives of four main religious congregations; and the parents. The division of responsibilities between the state and the religious institutions has remained murky ever since the nationalization of the private schools in 1974 and their subsequent handing back in 1977. Further, there is a proliferation of administrative structures, the financing of which places an additional burden on parents.

Despite their pre-eminent role in financing school education, parent committees do not really have the "voice" required to enforce accountability over management committees, and the administrative structures of the state and the religious schools. Most schools do not keep proper accounts of fees and other "primes" received from parents or how they have been spent. Since the churches run various schools, health centers and other enterprises, they prefer not to show separate accounts for individual schools. Further, many parents are illiterate or do not have the time to participate in school affairs. Finally, parents are afraid of penalties being imposed on their children (failure in examinations). Together, these factors lead to a lack of transparency in the use of funds.

In higher education, the existing system of administration is cumbersome and limits the autonomy and accountability of public institutions. For example, for state-approved courses, universities require the approval of various Administrative Councils and the Ministry, which takes time. There is also limited accountability for the funds received from the state and from parents.

The present legal framework for private unsubsidized schools and higher education institutions is weak and unclear and is inherited from a time when the public sector was dominant. At present, these institutions are excluded from all types of public subsidies. Moreover, their programs are often not recognized, especially in higher education, which means that their full potential is not used for increasing access.

Results of the Financial Simulations

Financial simulations were undertaken for four scenarios of educational expansion in order to determine total expenditure requirements, the composition of expenditure, the shares of different financing sources and highlight key policy tradeoffs and choices. The simulations are generated by a model that comprises (a) base year data for 2001/02 such as enrollment, population, salaries and macro-economic framework (b) assumptions regarding exogenous factors such as demographic and economic growth, public expenditures and receipts, growth in salaries, growth of the private sector, expenditures

in the private sector, prices of inputs and (c) policy objectives such as the admission rate into different levels of education, repetition, norms for provision in the public sector to upgrade quality (pupil-teacher ratio, staffing norms, books, other pedagogical materials, training, system-level improvements, construction and nutritional support in primary education), and the financing shares of the government (Central and local), households and external partners. Some of the quality improvement norms are taken from existing government proposals such as the PANEPT for primary education and PADEM for higher education.

All four scenarios project the universal completion of primary education by 2015, investment in quality improvement at all levels and state financing of all expenditures in publicly provided primary education and of all salaries in the public sector at all levels of education. Existing salary differentials are maintained. Details of the common assumptions and policy objectives are provided in the main report.

The four scenarios show the impact of changing some critical policy objectives. Scenario 1 projects universal pre-primary and primary education, continuation of existing high transition rates to secondary and higher education and improvement in quality at all levels. Scenario 2 limits access to pre-school to current levels. Scenario 3 provides for cost rationalization through multigrade teaching at the primary level, increasing class size in secondary education, modifying the norms for non-teaching staff in primary and secondary schools (including disparities between Kinshasa other provinces) and reducing the other staff:teacher ratio in higher education. Scenario 4 proposes a reduction in the transition rates after lower secondary education from 2005: from 83 percent to 50 percent between lower and higher secondary education, from 65 percent to 35 percent between higher secondary education and undergraduate studies and from 70 percent to 40 percent between undergraduate and postgraduate education.

All four scenarios show a major improvement in educational indicators at the primary and secondary levels and satisfaction of the labor force requirements of the economy, but only Scenario 4 provides a fiscally sustainable path for educational expansion. The reduction in transition rates in Scenario 4 has a considerable effect on lowering the coverage indicators at secondary and tertiary levels and the number of post-primary graduates. Despite these very significant reductions in transition rates, coverage indicators and the number of graduates produced at the end of each cycle are acceptable at all levels of education in relation both to other countries of sub-Saharan Africa and the requirements of educated labor. For example, this scenario would still produce 3–4 times the required number of skilled workers even assuming relatively high economic growth.

The parameter with the greatest impact on expenditures is the transition rate between different levels of education after lower secondary education, but restricting publicly provided pre-primary education and introduction of staff rationalization measures are also important to put public expenditure requirements on a sustainable path. Under scenario 1 (universal pre-primary education), domestic public spending on education would constitute 35 percent of the state budget by 2015, while external aid requirements would total $4.9 billion between 2005 and 2014. After renouncing the policy objective of universal and publicly provided pre-school education, as in scenario 2, domestic public spending on education in 2015 would still represent 28 percent of the state budget and US$3.1 billion in foreign aid would be required over the 10 year period.

The introduction of multigrade and staff rationalization under scenario 3 generates considerable savings for quality improvement and eliminates the disparities between Kinshasa and other provinces; however, the impact on fiscal indicators is negligible. Only in scenario 4, where the reduction in transition rates is added to all the above measures, do fiscal indicators improve: domestic public spending on education reduces to 19 percent of the total state budget and the total external aid requirement also drops to US$2.7 billion.

This scenario highlights the tradeoff that the government will need to make between greatly expanded access in higher secondary education and beyond versus an improvement in quality. In this report, the emphasis has been on moderately expanding access while considerably improving quality, in order to reverse the decline in standards that has occurred over the last two decades and to set the foundation of a strong education system. Such a policy choice will require the introduction of effective mechanisms to regulate the flow of students between different levels (through reform of examinations and entrance requirements).

Under scenario 4, per pupil public expenditures would rise significantly at all levels, while household expenditures per pupil would fall, reflecting both improvements in quality of public provision and the full assumption by the state for payment of salaries. The salaries paid by the state grow rapidly as household charges are gradually eliminated; but the total earnings of teachers (state salary plus *prime de motivation*) will grow at the same rate as per capita GDP. Hence, they would remain at relatively modest levels—for example, a primary teacher's salary in 2015 would represent only 2.4 times per capita GDP. In 2015, per pupil public recurrent expenditure in primary education would rise to $41; in secondary education to $50 and in higher education to $432. Household expenditure per student would fall at all levels between 2005 and 2015: from $13 to $4 in primary, from $43 to $28 in secondary and from $140 to $81 in higher education. Hence, in the public sector, private expenditure per pupil would represent only 10 percent of public expenditure in primary education and 15 percent in higher education.

Even under scenario 4, the requirements for external financing are considerable, because of the enormous needs at the primary level. Eighty percent of external financing will be for primary education, and will be for non-personnel expenditures—construction and rehabilitation, furniture, equipment, training, textbooks, system level improvements, and nutritional aid.

These simulations also suggest some key policy choices which could contribute to further containing costs. These include: (a) revising the assumptions with respect to salary levels; for instance, reducing the differential between staff of different levels of education; (b) reducing the unit costs of classroom construction; (c) reducing the number of children who are eligible for school meals; (d) a delayed sequencing of investment at post-primary levels and part financing of recurrent expenditures by external aid, in order to reduce fiscal pressures at the beginning; (e) increasing the level of private financing in secondary and higher education (through a more rapid expansion of the private sector as well as increased contributions by families in public institutions). Finally, a more detailed analysis of the options for the future expansion of secondary education should be undertaken, including reducing the number of secondary schools, lengthening of the duration of lower secondary education (which would reduce the need for specialist teachers) and a reorganization of the technical and vocational streams, would deserve special consideration.

Key Policy Choices

With a host of competing priorities and goals, and constrained by limited resources and a challenging context, difficult choices will need to be made. Even if external aid is forthcoming on a large scale, there has to be a great effort to generate domestic resources. The foregoing analysis suggests that the following policy questions will be critical:

- Setting goals for quantitative coverage: to what extent should each sub-sector be expanded and to what extent should provision be in the public sector? What should be the criteria for determining these objectives?
- Determining strategies for achieving the goals within each subsector: what strategies are appropriate and feasible?
- Costs of implementing the strategies: are costs fiscally sustainable or if they are to be borne by parents, are they feasible and equitable?
- Identifying key reforms in governance and education administration: what is required to implement the strategies? Are they politically feasible?

The immediate priorities would be universalizing primary education and improving quality at all levels. Expanding pre-primary education in the public sector is not feasible at this stage and even richer countries have found it difficult to provide free pre-primary education to all children. Universal primary education is a priority, since it is a necessity for all citizens to function in modern society; raising its quality is also necessary since currently, children do not acquire minimum competencies. Beyond primary education, choices must be made with respect to quantitative goals and the criteria for making choices. Meeting the needs of the economy for skilled and professional workers is one such criterion, but there are also other considerations, including the need for greater equity and promoting social cohesion. Modernizing and improving quality in secondary and higher education is of paramount importance.

There are also choices to be made with respect to strategies for improving access and quality within each sub-sector and they have implications for costs, public and private financing and governance reforms. In primary education, more diversified strategies are required beyond formal schools to provide access to hard-to-reach populations and thinly populated regions. Abolition of primary school charges is also important to stimulate demand, and this means public resources will have to be found for staff salaries and other expenditures. For all subsectors, the payment of staff salaries by the state, as opposed to direct payment by parents in each individual institution, is desirable from the point of view of efficiency and equity. However, if quality is to improve, the amount of public resources devoted to salaries will need to be contained so that expenditures on non-personnel items (such as books, equipment, laboratories and other pedagogical materials) can increase. This will necessitate a review of salary levels, salary differentials and staffing norms. Finally, reforms in the legal framework and educational administration may be required to implement various strategies.

In developing educational policy and strategy, an iterative approach will need to be adopted in order to gauge the feasibility of different options. The report sets out some priorities and options, which are set out in the accompanying table.

Table 1. Summary of Priority Issues and Recommendations

		Primary	Secondary	Higher
Goals		Equip all children with the knowledge, skills and competencies to live in a modern society, including (but not limited to) literacy and numeracy.	Prepare youth for the world of work; train primary level teachers; prepare students for entry to higher education.	Prepare skilled personnel for the economy and administration; train secondary teachers; train research personnel; develop technological capacity in critical areas.
Policy objectives		1. Universalize primary completion by 2015; 2. Improve quality.	1. Expand lower secondary education to allow most students to complete 8 years 2. Regulate student flow into higher secondary education 3. Improve quality.	1. Regulate student flow into undergraduate and postgraduate programs 2. Improve quality.
Principal challenges		1. High population growth 2. Large number of out-of-school children 3. Low population density, large number of small habitations with limited physical access 4. Children in forest areas and disadvantaged groups 5. Poor teacher quality and lack of educational materials 6. Instruction in a foreign language 7. High private cost.	1. Social inequity in access 2. Large number of small schools 3. Outdated curricula 4. Lack of qualified teachers in subject areas, limited facilities and equipment 5. Lack of books and educational materials 6. High private cost.	1. Social inequity in access 2. Outdated curricula and multiplicity of courses 3. Limited number of qualified teachers, limited laboratories, libraries 4. High private cost.
Strategies for improving/ managing access	Formal education	1. Provide schools/centers close to habitations 2. In addition to complete schools, use alternatives-multigrade schools, satellite schools, learning centers 3. Ensure academic equivalence of different modes of delivery 4. Decide on strategy for personnel (permanent or contractual), construction and books for alternative modes. 5. Immediately conduct child census and school mapping exercises to decide on location of schools/ centers.	1. Improve selection into higher secondary education to raise quality—but ensure participation of students from poorer backgrounds. 2. Evaluate options for increasing physical access—small schools without boarding facilities or larger schools with boarding.	1. Improve selection into higher education—but ensure participation of students from poor background. 2. Consolidate small institutions 3. Distance education and open learning systems.

(*continued*)

Table 1. Summary of Priority Issues and Recommendations (*Continued*)

		Primary	Secondary	Higher
	Out-of-school children/youth	1. Non-formal centers for 9–14 year olds who are out-of school (4 million currently) 2. Enable transition back to formal schools for those who meet minimum standards.	1. Non-formal education in basic literacy, numeracy and work skills for adolescents and young adults (above 15 years of age).	
Strategies for improving education quality	Curriculum	1. Review policy regarding language of instruction and transition from regional language to French 2. Review appropriateness of materials in early primary grades and for transition to foreign language.	1. Revision of curricula and programs. 2. Consider lengthening duration of lower secondary education *(tronc commun)* and reducing duration of higher secondary education.	1. Modernize curricula 2. Reduce the number of options and courses for individual degrees.
	Teaching—learning conditions	1. Limit class size to 50. 2. Eliminate double shift 3. Refresher training for all teachers followed by periodic training—focus on key areas such as teaching of language and subject matter knowledge; choose appropriate delivery model 4. Provision of textbooks, pupil and school educational materials 5. Periodic assessment of learning outcomes.	1. Teacher training, books and assessment—same issues as in primary education 2. Review content of terminal examination in line with curriculum changes. 3. Equip laboratories and libraries.	1. Be selective—concentrate on courses that are critical for economic development and for supporting education system. 2. Increase number of qualified teachers-training of teachers in priority courses by enabling foreign teachers to come to DRC 3. Use twinning arrangements with foreign institutions to upgrade courses and exchange faculty.
Costs		1. Reduce staffing norms and eliminate disparities between provinces 2. Reduce costs of textbooks (through domestic production and distribution) 3. Reduce costs of construction using different technology and community management/contribution 4. Transparent and selective criteria for rehabilitation of infrastructure 5. Stagger classroom construction and rehabilitation to reduce initial investment costs.	1. Reduce staffing norms especially for non-teaching staff 2. Increase class sizes 3. Reduce cost of textbooks 4. Develop criteria for selecting schools for upgradation of laboratories and libraries.	1. Reduce administrative and non-teaching staff 2. Encourage merger or networking of small institutions to share costs of expensive facilities and equipment. 3. Target public funds to courses and programs that are of national interest—through, for example, innovation fund.

Financing—public and private shares		1. Gradually reduce and eliminate all charges in primary education, including textbooks and other educational materials 2. State to pay all salaries in public sector—determine sustainable levels for salaries and eliminate disparities across provinces.	1. Eliminate the *frais de motivation* and other charges for paying administrative staff. 2. State to pay all salaries in public institutions—eliminate disparities across provinces and determine appropriate salary levels 3. Households to continue paying for textbooks (purchase or rental) 4. Target subsidies/scholarships to poor students.	1. State to pay all salaries in public institutions—review salary differentials and determine appropriate salary levels 2. Increase investment by private and foreign institutions in Congolese higher education 3. Target public subsidies to poor students.
Governance Reforms	Educational Administration	1. Deconcentration of administrative powers to provinces regarding school calendar, alternative schools 2. Strengthen accountability—training of management committees, informing parents, keeping separate school accounts 3. Reduce the proliferation of administrative structures (government and *reseaux*).	Same as primary education	1. Review existing system—give more autonomy to universities and strengthen accountability mechanisms. 2. Develop criteria and mechanisms for licensing new institutions 3. Set up quality assurance system to cover public and private, domestic and foreign institutions in DRC.
	Legal Framework	Review Loi Cadre (in progress)—including criteria and mechanisms for regulating the ecoles conventionnees and private unsubsidized institutions.		

CHAPTER 1

Education In The Democratic Republic Of Congo

Background And Context

The education system in the Democratic Republic of Congo (DRC) continues to expand at all levels, albeit slowly and with major oscillations. However, this trend, surprising as it is in the context of over two decades of economic decline and nearly a decade of conflict, does not as yet indicate sustained progress towards the goal of universal primary completion. A greater proportion of young children is not in primary school today compared to fifteen years ago; many of those who do attend primary school, do so irregularly; and even among those who manage to reach the terminal year of primary school, very few can read with comprehension or write simple sentences of textual matter. Quality is low at every level of education with the content and standards of secondary and higher education not having been reformed for over two decades.

Household investments in education have sustained the modest expansion of the education system and have been instrumental in preventing its decline. Neither government finance nor external support—official or unofficial—have been important sources of finance, although they have been significant in certain critical interventions. Unique among African countries, parents in the DRC finance almost all of education expenditures at all levels of instruction, from primary to higher education, and, more surprisingly, in all types of institutions—government institutions, publicly-aided institutions under the management of religious institutions, and purely private (unaided) institutions.[5] Indeed, they have also financed in part the administration of the system at the provincial level and below, and hence prevented the collapse of the sector into purely locally financed, community-based

5. The official classification of primary and secondary schools is as follows: (i) public schools (*écoles publiques*) consisting of schools directly managed by the government (*écoles non-conventionnées*) and the schools managed by religious institutions (*écoles conventionnées*) and (ii) private recognized schools (*écoles privées agrées*) which receive no government funding.

initiatives for the provision of primary education, as has happened in other conflict-ridden countries. The high levels of household spending have financed teachers' salaries but are insufficient to meet other operating costs or the costs of investment in infrastructure. The unique methods of private financing adopted in the DRC have had consequences both for participation and quality, as well as for incentives facing teachers and administrators.

Taken together, these two trends—the continued growth of the education system and its financing by households in extremely adverse economic circumstances—are testimony to a long-standing tradition of education and a strong demand for education among the Congolese people. They also reflect the expectation of families that investment in their children's education is the best guarantee for benefiting from future economic recovery and growth, even though current labor market earnings do not provide an adequate monetary return on education.

The education system in the DRC will play an important role in building the country's political institutions, in promoting economic growth and in redressing inequalities. Articulation of an education policy consistent with overall political and economic goals is central to the formulation of an overall policy for the country's development. The main purpose of this report is to assist the DRC to identify the priorities for education policy and develop an education strategy that is both technically and managerially feasible as well as fiscally sustainable. This report analyses the recent trends and current status of educational coverage, outcomes and financing at all levels of instruction in DRC, highlighting both the national picture as well as differences between regions and population groups. It also presents the expenditure requirements under various policy options which can be used to begin a more detailed planning for the sector.

The Context: The Land, People and Recent History Geographical Spread

Geographical Spread

With an area of 2.34 million square kilometers and an estimated population of about 51–56 million, the DRC is the largest country in sub-Saharan Africa in terms of size and the second largest in terms of population with one of its lowest population densities (about 22–24 persons per square kilometer). Urban areas account for a relatively high share of the population—approximately 30 percent—with a heavy concentration of the population in Kinshasa (estimated to be about 6–8 million) making the latter among the 25 largest cities in the world. As in other African countries, the population is relatively young: 48 percent are younger than 15 years and 67 percent are younger than 25 years.

The large population and land area have implications for the size of the required educational effort and how it can be most efficiently organized. The demand for educational services is potentially high due to the relatively high share of young people in the population; the large land area increases the challenge of providing access within a reasonable distance at the primary level and the ability to provide specialized training or diversified choices at the secondary and post-secondary levels. However, the problems are not as severe as suggested by average population densities, since the majority of the population is concentrated in a few areas. Including urban areas, about 47 percent of the population is concentrated in ten percent of the land area and two-thirds of the population is estimated

to live on one-quarter of the land area. Two areas with relatively high densities (greater than twenty-five inhabitants per square kilometer) are found along the eastern border north of Lake Tanganyika and from Bas-Congo in the southwest intermittently throughout the southern savanna to Kasai-Oriental. The population is least dense throughout the nation's center, in the Congo River basin, accounting for over one-third of the land area and including 1.1 million square kilometers of equatorial forest, a large proportion of which is low-lying swamp.

While provision of education is relatively easy in these more densely populated areas, their dispersion over a large area, which is poorly connected by roads, makes the task of education administration and coordination difficult and potentially expensive. There are also enormous challenges in providing universal access to primary education in more than half geographical area of the country, which is still thinly populated. Small, dispersed and often shifting settlements, though accounting for a relatively small proportion of the total child population, pose special difficulties for traditional forms of schooling.

Forest Dwellers and Migratory Populations

The DRC is home to some of the largest rainforest areas on the globe, noted particularly for their high species endemism and diversity.[6] Together, they comprise an area which is second in size only to the Amazon rainforest. While rainforests cover 37 percent of the national territory, the total area under forests is estimated to be 52 percent. Six of the ten provinces of the DRC have a high proportion of forested area, ranging from 40 to 70 percent (table 1.1). The province of Equateur is almost entirely forested. The DRC's biodiversity is among the richest in the world and only four countries have more plant and animal species. The Ituri Forest, for example, an area covering approximately 70,000 km^2 in the north-east of the country, holds over 13 different species of primates. Due to the large forest area of the country which comprises unique ecosystems, a high level of biodiversity and many threatened species of primates and birds, but which also holds the potential for promoting economic development, developing a forest and conservation policy, together with the appropriate legislative and institutional framework have been important priorities of the government.

These areas are also home to a variety of forest dwellers, whose populations have not been enumerated, but is believed to number several million; educational provision for these groups depend also on forest regulations that govern land use and the extent of human activity.[7] Among them are also the semi-nomadic pygmies, such as the Mbuti, and other hunter-gatherers who have traditionally lived in an interdependent relationship with farming communities on the periphery of the forest areas.[8] The total number of people living in

6. Data on the indigenous forest-dwelling people of the DRC is scarce. The information presented in paras 1.8–1.10 is drawn from a variety of sources including the following: (i) Ituri Forest People's Fund, established in 1985 to promote the health and education of Efe foragers and Lese farmers in north-eastern DRC. (ii) Richard B. Peterson (2000). "Conservation Amid Change: Community, Culture and Values in Congo's Rainforest." Paper presented at a seminar on "East Africa in Transition:Communities, Cultures and Change," University of Nairobi (July 4–9, 2000).

7. An estimate by an NGO puts the number at 12 million forest-dwelling people, but this number may include people living in contiguous forest areas in neighboring countries (Greenpeace: www.greenpeace.org).

8. The population of the pygmy peoples is also not known but is estimated to number between 50,000 and several hundred thousand. There are several groups of pygmy hunter-gatherers.

forest regions (but not classified as forest dwellers and indigenous people) is estimated to be about 26 million. Regulations on land use in forests put restrictions on construction, roads and other amenities and hence access of the forest-dwelling people to education. There are 18 protected areas, covering nearly 8 percent of the country, some of which are designated as human-inhabited multi-use conservation areas, while others include core areas where no human activities are permitted. The newly adopted Forest Code (2002) aims to double the area under this class of forests; the two other forest classifications, the areas of which have not been indicated, would allow regulated use of the forest area for socio-economic development, but the implications for provision of social services are not clear.[9] Limited primary school facilities have been provided in the past in forest areas, by the state as well as by logging companies that were granted concessions to cut timber. The civil war halted most logging operations, and this, together with the destruction of roads rendered most schools in forest areas non-functional. A new policy framework for forests and conservation needs to take into account the educational needs of the population in these areas and to specify the responsibilities and modalities for education provision in order to ensure that all children living in these regions are able to complete at least primary education.

Table 1.1. Forest Areas by Province (1990)[10]

Province	Total area (km^2)	Forested area (km^2)	Forested area (%)
Equateur	403 292	402 000	99.7
Haut-Zaïre	503 239	370 000	73.5
Kivu	256 662	180 000	70.1
Bandundu	295 658	120 000	40.6
Eastern Kasai	168 216	100 000	59.4
Western Kasai	156 967	40 000	25.5
Bas-Zaïre	53 855	10 000	18.6
Shaba	496 965	10 000	2
Total	2 334 854	1 232 000	48.7

Note: Province names correspond to those that existed at the time.

Educational policy also has to be sensitive to the lifestyle and livelihoods of the forest dwellers. As stated earlier, some schools have been provided in the forest areas in the past, but education policy has not explicitly taken into account the culture and needs of these peoples, either in terms of the services offered or the content of education. Rebuilding the system of education delivery is a priority for the country and it also offers the opportunity for the new policy to be responsive to the needs of the forest-dwelling communities.

9. The three categories of forests created by the Forest Code are : (i) *forêts classées*—primarily for biodiversity conservation (ii) *forêts protegées*—to be used for rural development and (iii) *forêts de production permanente*—for commercial forestry. The first category would be under direct management of the state; the third category would be under the management of private firms under a contract from the state while the management of the second category of forests is not specified.

10. Cheseaux, E. 2003. "*Assistance à la Revue Economique du Secteur Forestier en RDC: Analyse du Potentiel Forestier et des pratiques de Gestion Forestier.*" World Bank. Washington D.C.

Children of families who live on the river banks ("*les enfants riverains*") constitute another important group who have hitherto not been able to access formal education on a regular basis. Their families lead a migratory life seeking a livelihood up and down the Congo river and there is no reliable estimate of the population of these children.

Linguistic and Ethnic Heterogeneity

The population of DRC comprises three main ethnic and four main linguistic groups, along with a variety of smaller population groups differentiated by ethnicity and language, estimated to number 250 and 400, respectively. Estimates of the number of local languages vary from 250 to 700, depending on whether a particular tongue is classified as a dialect or a separate language. Apart from the three main ethnic groups—the Kongo, Luba and Mongo—there are important ethnic groups in the provinces of Orientale, the Kivus and the northern part of the Equateur. The four main indigenous languages are Lingala, Kikongo, Tshiluba and Swahili. While these languages have a relatively standardized orthography and grammar, written literature is scarce and is heavily concentrated on religious texts. Swahili is associated with the eastern part of the country but Lingala has become prominent all over the country, with its adoption by the colonial army and government as the main indigenous language of communication. Multilingualism is widespread, even in areas where one ethnic group predominates and more so in urban areas, where inter-ethnic marriages are increasingly common and where inter-regional migration is widespread.

Instruction in one of the four main national languages is provided in the first two classes of primary, while French becomes the language of instruction from class 3. The enormous linguistic diversity mentioned above complicates the task of teaching-learning in the lower primary classes in rural areas, where many students lack the ability to practice the official school language at home and where many teachers may not be familiar with the mother tongue of the student. The lack of teaching-learning materials in the mother tongue implies that the language of instruction used in practice varies depending on the teacher and the background of the pupils. Private schools, operating mainly in urban areas, provide instruction in French from class 1.

Religious organizations have played a major role in educational provision as discussed later in this chapter. About 80 percent of the population is Christian, predominantly Roman Catholic but with a sizeable Protestant presence[11]; the remainder adhere to the Kimbanguist church, the first independent African church, and a very small minority to Islam. The Roman Catholic and Protestant churches are almost all linked to churches or congregations in Europe or North America, and have traditionally received funds, material and human assistance on a regular basis from there; these were disrupted following the imposition of sanctions in the early nineties.

The Impact of Recent Conflicts

Major political upheavals, economic disruption and war have characterized the last decade. In early 1990, both the World Bank and the IMF suspended most disbursements, and most bilateral aid was cut off. Unable to make debt payments, the country's borrowing rights

11. Those classified as Protestant include followers of newly established churches, *les églises de réveil.*"

with the IMF were cut off in February 1992; its World Bank credits were frozen in July 1993. The fall in exports and foreign lending, together with rapid capital flight, led to the closure of many enterprises in the formal economic sector. The consequent decline in public revenues also led to a decline in salaries of government servants. Employment in manufacturing and mining fell and living standards were further eroded by hyperinflation. Agricultural production was also affected by the destruction of infrastructure, in particular of roads, in which no investment had occurred for over a decade. The destruction of the road infrastructure led to the influx of the population to urban areas, particularly Kinshasa, in order to access basic services such as education and health. Paradoxically, this also created the conditions for extreme food insecurity in the towns due to the difficulties of transporting agricultural produce. Civil strife in Rwanda and Burundi led to a massive inflow of refugees in the eastern part of the country. Mobutu's government, which had ruled the country for over 35 years, was deposed in 1997, but the country was again rent by war until December 2002, when all the warring parties agreed to end the fighting and set up a government of national unity. This government was appointed on June 30, 2003 for a 24–30 month period, after which elections are expected to be held. Up to June 2003, the Kinshasa government had full control over three provinces (Kinshasa, Bandundu, and Bas-Congo) and partial control over four others (Equateur, Kasai Oriental, Kasai Occidental, and Katanga). Four provinces of the East (Nord-Kivu, Sud-Kivu, Maniema, and Orientale) were not under the control of the government between 1997 and 2003. The actual re-unification of the country has taken place gradually with the re-establishment of communications and the resumption of key administrative and technical functions across the whole national territory.

War and conflict have also created new groups of vulnerable children. These include child soldiers, street children and orphans. The estimate for child soldiers is about 30,000 while the estimate of street children in Kinshasa alone is about 15,000. Orphans constitute the most numerous group: according to a recent household survey, 3.1 percent of children in the age group 0–14 years have neither parent or have lost their mother (MICS 2001). About 9 percent of children in the same age group live in a household with neither biological parent (*enfants confiés*), though they may not all necessarily be orphans. Many of these children are placed with relatives due to the economic hardship faced by their families and are often used for domestic and agricultural labor, with the result that they have lower enrollment rates.

In addition to the general effects of political instability, economic chaos and war, the education system has been affected in other ways. Two major episodes of looting by army soldiers in 1991 and 1993, led to enormous destruction of buildings and furniture, from which many schools have not recovered. The neglect of road infrastructure, in particular, has led to the abandonment of many schools in the interior rural areas, many of which have been without regular maintenance for many years and are now past restoration.

Political and Administrative Structure

The DRC is a country in political and administrative transition. Historically, this has been a highly centralized country, with little autonomy at the provincial or sub-provincial level. The provincial governor was appointed by the President of the state and was usually not a native

of the province. Since the 1970s, all matters relating to recruitment, assignment and promotion of administrators right down to the level of territoires are directed from Kinshasa. Historically, tax collection has been a formidable task and the ongoing economic crisis since the mid-seventies had prompted decentralization of financial operations. The extent of transfers to lower levels of government was always negligible. Except for the payment of salaries, administrators of provinces and territories had to generate their own income for other expenditures, which, in consequence, were minimal.

Only some administrative structures called the Entités Administratives Décentralisées (EAD) have a juridical status. The country is divided into ten provinces plus Kinshasa. The capital city of Kinshasa is divided into 24 communes. Each province is subdivided into districts (25)[12] which are further sub-divided into territoires (145) and towns (20). Together, the 11 provinces (including Kinshasa), towns, *territoires* and communes in Kinshasa constitute the EAD. The administrative units below the level of the *territoires* are called *Circonscriptions Administratives* (CA), which have no juridical status and which are merely units of administrative deconcentration. These latter comprise small towns, town communes outside Kinshasa, *secteurs* (consisting of small traditional independent communities), *secteurs-chefferies, quartiers, groupements* and villages. The draft law on decentralization proposes the inclusion of town communes outside Kinshasa, *secteurs and chefferies* in the EADs; the *entités deconcentrées* would be the districts, *quartiers, groupements* and villages.

The current territorial/administrative structure is based on a law enacted in July 1998. By law, the EADs are supposed to have consultative councils nominated by the government, but no such council has actually been formed. Although provincial governors continue to be nominated, those nominated at the end of 2001 belong to their respective provinces, reversing the trend of earlier years. The division of responsibilities in primary and secondary education between the Central government and the EADs has been laid out in the 1998 law. The Central government is responsible for the determination of the *minerval,* the salaries of teaching personnel, the opening/closure/approval of schools, inspection and the end of cycle examinations. The EADs are responsible for management of educational institutions, proposing some of the fees and the opening and closure of classes. The heads of the EADs, such as province governors, oversee education services along with other central government services within their jurisdictions.

Local taxes and transfers from the central government (the latter are called *rétrocessions*) comprise the resources of the EAD. These transfers are calculated on the basis of the amount of central government taxes and duties collected in the provinces and are paid in the provinces' accounts at the central bank. *Rétrocessions* are set at 20 percent of revenues collected in the provinces, but only 10 percent are automatically transferred to the provinces. In turn, these funds are intended to be transferred to all the EADs in the province, but the extent to which this happens is unclear. The central government directly pays the wages of the civil servants and for the functioning of the services in the provinces, but in recent years little has been paid apart from wages.[13]

Effective decentralization, and the implications for the education sector, will depend in part on the clear assignment of fiscal responsibilities, tax and expenditure assignments, as well as fiscal transfers (both tax and non-tax revenue) between the Central government

12. The provinces which were created from the old Kivu province are not divided into districts.
13. These are budgeted under "*services provinciaux*" in the Central government budget.

and the EADs. The delegation of authority needs to be combined with effective control over local administrative structures, local revenues and financial resources transferred from the center.

Demographic Context

Population Estimates

Due to a high rate of population growth and a high proportion of young in its current population, the population of primary school age children will continue to increase for several decades and is expected to double in size in about three decades. Estimates of current population and projections for the future, however, are somewhat uncertain due to the absence of reliable recent national data, while projections for the future require, in addition to the current population, estimates of current fertility rates and mortality rates and their future evolution. Estimates of these rates are also not consistent across sources. Depending on the sources, there are significant variations in the estimates of the rate of growth of the population and its age structure, and hence in the absolute size of the school-going cohort, the estimates of gross and net enrollment rates, the estimates of current out-of-school population and projections of future requirements of school places. Nevertheless, even a low growth rate scenario suggests that the primary school age population will continue to grow at about 2.7 percent per annum.

The forthcoming census of the population will resolve many of these issues and facilitate medium-term education planning. The country has had only two national censuses, one in the mid-1950s while it was still a colony, and the second in 1984 by the Institut National de la Statistique (INS). Until the census is conducted and analyzed, the only option is to assess the quality of different estimates and choose the estimate that is derived with the most plausible assumptions, with the understanding that these will need to be updated as more data becomes available.

Estimates of the population of recent years and until 2015 from three different sources vary significantly (table 1.2). The first source is the INS, which has used the 1984 population and estimates of fertility provided in conjunction with the 1984 census; the most recent projections by the INS were made in the early nineties. The second is the United Nations (UN) and the third, the US Bureau of Census (BUCEN). The UN source gives a current population estimate that is 4 million lower than the other two sources—a population of 51 million in 2002, compared to about 55 million in the other two sources. For future years, the BUCEN estimate diverges considerably from the UN estimate, with a projected population estimate of 80 million 2015, compared to 74 million according to the UN.

These differences in population estimates for 2002 and future projections reflect different assumptions regarding the current level of fertility and its evolution, as well as the higher mortality rates due to the war. Although the INS projections are routinely used within the country, they are very outdated and do not take into account the recent changes in mortality and fertility. The BUCEN projections assume that the total fertility rate (TFR) has been declining at a slow rate after reaching a peak of 7.2 in 1995; fertility in 2000 was estimated to be 6.9. The UN projections, on the other hand, use a lower TFR (estimated to be 6.0 by 1998); this assumption appears to be based on analyses of household surveys con-

Table 1.2. Population Estimates and Projections
(millions)

	Census		Estimates				Projections		
	1960	1984	1990	1995	2000	2002	2005	2010	2015
Population estimates									
INS		30.73	37.00	44.11	52.10	55.81			
growth rate			3.3%	3.4%	3.4%	3.5%			
United Nations			37.37	44.38	48.57	51.44	56.08	64.71	74.16
growth rate			3.0%	3.5%	1.8%	2.9%	2.9%	2.9%	2.8%
US Bureau of Census	16.46	31.28	37.97	45.71	51.81	55.04	60.08	69.58	80.21
growth rate		2.8%	3.3%	3.8%	2.5%	3.1%	3.0%	3.0%	2.9%
Primary school pop. (6–11 years)									
INS estimate		5.15	6.25	7.74	9.30	9.86			
Derived from UN estimate		5.15	6.46	7.69	8.36	8.84			
growth rate		3.3%	3.3%	3.6%	1.7%	2.7%			

Notes: The INS 2002 population estimated has been derived by extrapolating the 2000 population estimate using 3.5% growth p.a. The UN 2002 population has been estimated by interpolating between the published estimates for 2000 and 2005. The INS provides estimates of the population of different age-groups. The population of different age groups using the UN total population estimate has been derived by applying the share of each age-group in the total population as given by the INS to the total population estimate of the UN.
Sources: Institut National de la Statistique, Kinshasa; Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2002 Revision and World Urbanization Prospects: The 2001 Revision.*

ducted in the 1970s that suggest that the TFR may have declined to as low as 5.5 in 2000.[14] More recent estimates of TFR provided by the Multiple Indicator Cluster Survey (MICS 2001) conducted by UNICEF in 2001 indicate, however, that the TFR is as high as 7.1 and had hardly changed since the previous survey in 1995 (TFR 7.2). However, even if fertility had remained high as suggested by the MICS, elevated mortality rates resulting from the four year civil war could pull down population growth rates in the future and hence population projections could be closer to those provided by the UN.[15]

For the purposes of this analysis, the UN estimates of population, both current and future, have been used to derive the relevant population totals of different age groups; the

14. This is argued by Shapiro and Tambashe, who suggest that fertility in DRC had declined to 5.5 by 2000, after analyzing data from the two censuses, a large-scale demographic household survey carried out in the western part of the country from 1974–77, the *Enquête Nationale sur La Situation des Enfants et des Femmes au Zaire en 1995,* and a household survey in Kinshasa in the early nineties. See Shapiro, D. and Oleko Tambashe, B. "Fertility in the Democratic Republic of Congo," paper presented at the Workshop on Prospects for Fertility Decline in High Fertility Countries, Population Division, Department of Economic and Social Affairs, United Nations Secretariat, New York, 9–11 July, 2001.

15. Evidence of highly elevated mortality rates is based on surveys carried out by foreign non-government organizations in the five eastern provinces. Under-five mortality rates were found to be very high, and if the survey results are generalisable to the eastern provinces, the impact on slowing down population growth is likely to be significant for the country as a whole.

above caveats should be borne in mind, however, and they introduce some uncertainty regarding the estimates of enrollment ratios. Since the UN population estimate is lower, the estimates of current GER will be correspondingly higher and the future growth in enrollment will be lower as compared to the estimates derived from the BUCEN or INS population totals.

Age Structure

About 48 percent of the population is under 15 years of age, and approximately 19 percent is under 5 years of age, according to the MICS 2001 (table 1.3). These proportions have not changed substantially since the last census, conducted in 1984 and the earlier MICS conducted in 1995. If assumptions regarding fertility and mortality patterns hold in the future, there will not be a major change in this age structure by 2015.

This age structure implies that the potential current as well as future demand for education funding is high relative to the wealth generated by the economically active population. The current potential demand for primary and lower secondary education is reflected approximately by the proportion of children in the age group 5–14 years, representing 29 percent of the population. With only 61 percent of the population in the age group 15–64 years (representing 52 percent of the population) being economically active, each person in the labor force has to support about one child in the age group of 5–14 years if all children are in school. If the population in the age group of 15–19 years, approximately 10 percent of the population, were also all in school, the burden on the economically active would increase, partly due to the increased numbers in school and partly because there is a reduction of those in the labor force. These economic factors alone impose restrictions on the extent to which secondary education can be provided in the immediate future, if universal primary education is to be achieved.[16]

Table 1.3. Percentage Distribution of the Population by 5 Year Age Groups

	1995	2001
Age-group		
0–4	18.7	18.9
5–9	16.4	15.2
10–14	13.3	13.9
15–19	10.5	11.4
20–24	8.5	7.9
25–29	6.6	7.0
15–59	48.1	48.5
60 and over	3.5	3.5

Source: UNICEF, MICS—1995 and 2001.

Population Movements and Refugees

The uneven distribution of the population of the country has been further accentuated by the conflict of the last few years. Table 1.4 shows the distribution by provinces and the change since the last census. The biggest change has occurred for Kinshasa whose share of the total population has increased by 3.3 percentage points, followed by Katanga (increase of 1.3 points), with offsetting declines in Orientale (–2.2 points), Equateur (–1.0) and Bandundu (–0.8). The provincial population estimates are likely to be subject to greater error than the total population, since they do not take into account the high levels of inter-

16. Due to the small proportion of people aged above 60, the overall dependency ratio is less than 1.

Table 1.4. Distribution of Population by Province (estimates), 2002

	Population (millions)	% distribution		Pop 6–11 yrs ('000s)	Density/sq km (2002)	
	2002	2002	1984	2002	Total Pop	Pop 6–11 yrs
Kinshasa	6.15	11.9	8.6	1152	617	115.6
Bas-Congo	3.32	6.4	6.5	602	62	11.2
Bandundu	5.94	11.5	12.3	1023	20	3.5
Equateur	5.43	10.6	11.6	885	13	2.2
Kasaï-Oriental	4.51	8.8	8.6	792	27	4.7
Kasaï-Occidental	3.74	7.3	7.8	657	24	4.2
Orientale	6.08	11.8	14.0	880	12	1.7
Katanga	7.37	14.3	13.0	1377	15	2.7
Kivu	8.89	17.3	17.5	1508	35	5.9
DRC	51.44	100.0	100.0	8839	22	3.8

Note: Provinces are according to 1984 census, to facilitate comparison.

nal displacement (estimated to be between 2–3 million) and mortality, mostly in the eastern provinces. The population of Kinshasa could be as high as 8 million, if the large migrations of recent years are taken into account. These figures therefore reflect the shift of the population towards urban areas, which has been the major demographic trend of the country since 1960, reflecting in part the economic stagnation in rural areas and in agriculture. The collapse of the mining sector in the latter half of the eighties also led to an abandonment of villages created by the mining companies. The density of the primary school age population, which is less than five per sq km in many provinces, highlights the difficulties associated with providing universal access at an affordable cost.

In addition to the internal displacement of the population, there has been an outflow and influx of refugees. Several hundreds of thousands of refugees from DRC fled to Tanzania, the Republic of Congo, Zambia, Rwanda, the Central African Republic, Angola and Uganda. There were smaller numbers in Burundi, Cameroon and Malawi. About 1 million people fled to the DRC from Rwanda in the mid-nineties following the Rwandan genocide. The country was host to about 275,000 refugees from neighboring countries—Angola, Sudan, Rwanda, Burundi, Uganda, and Republic of Congo—by the end of 2000.

Economic Growth, Poverty and Social Development

Growth

Notwithstanding its rich endowments of natural resources and land, economic growth in the DRC has followed a checkered path. A period of rapid growth occurred between 1966 and 1975, following the military coup which ended the five-year period of political upheavals immediately following independence. This growth of about 5.1 percent per annum during the 10-year period was led by public investment in all the major fields of the economy. The oil crisis of 1973 and a sharp decline in copper prices led to a deep recession

Table 1.5. Output and Inflation (1997–2002)

	1997	1998	1999	2000	2001
In billions of Congo francs					
GDP at factor prices	7.9	9.9	51.6	293.8	1443.8
Agriculture	3.8	4.6	27.1	146.7	824.3
Mining	0.5	0.7	4.6	30.5	142.0
Secondary Sector	1.2	1.3	5.1	29.1	133.2
Tertiary Sector	2.4	3.3	14.8	87.5	344.3
GDP at market prices	8	10	52	297	1464
Annual percentage change					
Real GDP	–5	–2	–4	–7	–2
Nominal GDP	8	10	52	297	1464
GDP deflator	185	30	442	516	403
Consumer prices	199	29	285	550	357
Exchange rate (FC per US dollar)	1.3	2.4	4.5	50	312
Exchange rate value (FC per US dollar)				50	312

Source: IMF (2003). *Democratic Republic of Congo: Selected Issues and Statistical Appendix.* Country Report No. 03/175.

and precipitated a debt crisis. An-IMF supported program was introduced in 1975 after debt servicing stopped. The decline in public investment led to a further downturn in economic activity with real GDP declining by about 12 percent between 1975 and 1982.[17]

Between 1983 and 1989, real GDP growth recovered to about 2.6 percent per annum between 1984–86, largely due to increased levels of production in the mining and agricultural sectors. A Bank-Fund assisted structural adjustment program was launched in 1987; however, the annual real GDP growth decelerated to 0.5 percent on average between 1987 and 89.

The period since 1989 has been catastrophic for the economy and was triggered in part by political developments that led to the imposition of sanctions. Wanton destruction of the capital stock led to a dramatic decline in economic activity. The destruction of roads led to low incomes for farmers, who were unable to sell their agricultural surplus, and high food prices in urban centers, eroding real incomes of the urban population. The rate of utilization of manufacturing capacity fell to less than a quarter in most industries. Real GDP fell by 43 percent during the decade and per capita GDP fell from US$224 in 1990 to less than US$100 in 2001. The economy fell into a circle of hyperinflation and currency depreciation leading to lack of confidence in the banking sector and capital flight. Inflation reached an annual average rate of over 680 percent. Export earnings declined as the mining sector (the main contributor) virtually stopped production. The major export became diamonds, but the parallel market soon overshadowed the formal export trade.

17. Invasion of the Shaba Province also occurred in 1977 and 1978, bringing to a halt mining activit4.6.30.57142.0 and exports.

Both the supply of and demand for education has been affected by these economic changes. Government revenue fell by four-fifths during the nineties, in part affected by the steep decline in mining exports, with a major impact on the public provision of education. Private financing of education had become significant since the mid-eighties, but during the last decade it became the predominant source of financing at all levels of education. On the demand side, the collapse of the formal sector led to widespread unemployment as mining and industrial enterprises closed. The mining industry has been in decline since the mid-1980, with almost complete cessation of the production of copper, zinc, gold, and manganese. Graduates from secondary schools and higher education remained unemployed for long periods of time or participated in the informal economy. Disruptions in internal trade and widespread autarky, the destruction of the network of rural feeder roads, led to a sharp decline in agricultural growth and limited the absorption of new labor force entrants even into agriculture.

Poverty and Social Indicators

The most recent information on poverty levels are provided by the Multiple Indicator Cluster Survey conducted by UNICEF in 2001 (MICS 2001). Food security among poor households is very low. About 34 percent of households did not have any food reserves (either cultivation, livestock, or money). Food insecurity is high in Kinshasa with three-quarters of the population reporting no reserves; two-thirds of the population in Sud-Kivu, about one-half in Maniema and over one-third each in Equateur, Orientale, Katanga, and Kasai Oriental report a similar situation. About one-quarter of the population takes only one meal a day and 60 percent takes only two meals a day. Two percent of the population report not eating on all days.

The per capita income was estimated to be US$99 in 2001. The per capita income for different provinces is not available from national sources. Table 1.6 shows the estimated per capita income in PPP dollars for different provinces in 1999 as reported in MICS 2001. The provinces of Bandundu, Equateur, and Orientale have the lowest per capita incomes, less than one-tenth that of Kinshasa.

Health indicators are extremely poor and have shown deterioration over the last few years. Average life expectancy is only 46 years and has declined since the mid-1990s. The infant mortality rate is extremely high, averaging 126 for the country as a whole and 144 in rural areas (MICS 2001). In four provinces (Equateur, Orientale, Nord-Kivu, and Sud-Kivu), the rate is 140 or above; in another three (Bas-Congo, Katanga and Kasai Occidental), it is above 130. The IMR has worsened since 1995 when it was approximately 114 (MICS 1995). The maternal mortality ratio in 1995 was 939, one of the highest in sub-Saharan Africa: every 100 live births resulted in one maternal death. By 2001, it was estimated to be 1,289.

Differences across provinces are very pronounced for infant mortality, which is a sensitive measure of health status (table 1.6). It varies from 83 in Kinshasa to 146/147 in Equateur and Sud-Kivu. Other indicators show less variation across provinces, although Kinshasa, not unexpectedly, fares better on almost all of them. The life expectancy is around 42–46 years in most provinces. Most children have not received all the vaccinations in all provinces and between 10–33 percent have not received any vaccination. Illness among young children is widespread in all provinces with 50–60 percent of children being sick in the two weeks prior

Table 1.6. Social and Health Indicators by Province

	Per capita income	Life Expectancy	Vaccination Rates (% of children aged 12–23 months)		Infant Mortality	% of children under the age of 5 years reporting in the previous 2 weeks	
	Dollars PPP	Years	All vacc.	No vacc.	Per 1000	Fever	Any illness
Kinshasa	2929	55.9	45.7	12.0	83	31.9	49.7
Bas-Congo	1238	45.4	39.2	10.5	131	41.0	56.9
Bandundu	293	51.9	26.0	8.7	100	35.6	51.1
Equateur	229	42.7	11.2	29.1	146	41.0	59.0
Kasaï-Oriental	739	46.6	24.6	11.6	125	42.9	61.6
Kasaï-Occidental	744	44.4	15.2	17.2	136	44.5	60.6
Orientale	282	43.3	14.3	19.8	143	44.9	59.8
Maniema	641	47.2	2.6	30.0	122	46.6	64.0
Katanga	1249	44.7	21.2	23.1	135	46.7	63.2
Nord-Kivu	995	43.7	31.8	16.9	140	31.3	52.6
Sud-Kivu	604	42.5	9.8	39.3	147	45.8	66.7
DRC		46.0	22.8	19.3	126	41.1	58.3

Note: Per capita income (in PPP dollars) is for 1999 and is reported in the MICS 2001 report.
Source: MICS 2001.

to the survey and over 40 percent in almost all provinces reporting fever (which is a reflection of the high prevalence of malaria in the country).

The System of Educational Administration—School Education

Four categories of entities are involved in education administration in school education. These are, the Central government and the Ministry of Education; the provincial administration; the representatives of four main religious congregations; and parents. Between 1997 and 2003, at the Central level, there was a single Ministry for Education, with three subsectors, each with an administration headed by a Secrétaire Général: primary and secondary education (*l'Enseignement Primaire et Secondaire*—EPS), higher education (*l'Enseignement Supérieur et Universitaire*—ESU) and scientific research (*la Recherche Scientifique et Technologique*). The Ministry has now been bifurcated into two, one for primary, secondary and professional education (*Ministère de l'Enseignement Primaire, Secondaire et Professionel*—MEPSP), and the second for higher education and scientific research (*Ministère de l'Enseignement Supérieur et Universitaire*—MESU).[18]

18. Between 1997 and 2003, there was one Ministry with two vice-ministers. Since mid-2003, there are two Ministries with two Ministers; the organizational structure has therefore reverted to the situation before 1997.

At the provincial level, the governor is in charge of the overall administrative control of all sectors, including education. The Secrétaire-Général is represented by the Chef de Division Provinciale (*Proved*) who is under the administrative control of the governor, but who is responsible for technical matters to the MEPSP. Below the provincial level, the Proved is represented by the chiefs of the *sous-division (sous-Proved).* The *sous-Proved* has three services relating to personnel and finance, pedagogy, and planning. In practice, these offices are under-staffed and under-financed and they are not able to play a significant role in educational management.

The other two entities involved in educational administration are non-governmental in nature—religious organizations and parents' organizations. The division of responsibilities between the state and the religious institutions has remained murky ever since the nationalization of the private schools in 1974 and their subsequent handing back in 1977.[19] The end result is the proliferation of administrative structures, the financing of which places an additional burden on parents. In 1977, the state entered into a "convention" with the four major religious organizations (Roman Catholic, Protestant,[20] Kimbanguiste, and Islamic), under which the religious institutions provide education that conforms to guidelines laid down by the government. These guidelines cover curricula, norms regarding class size, the qualifications and salaries of teachers and the system of assessment. A significant feature of the "convention" is that the religious organizations manage the schools which, however, belong to the state as the organizing power (*pouvoir organisateur*). The schools were to be managed by the *réseaux* ("networks") of each religious organization.

However, in 1986, the Loi-Cadre gave the Ministry of Education the general power for coordinating all educational authorities and no reference was made to the "réseaux" of the religious organizations. A National Council of Education, in which both the government and the *réseaux* were represented, was created to undertake coordination at the national level. Nevertheless, the structure for administration of the religious educational institutions continued: each *réseau* has its own national, provincial and local hierarchy, modeled more or less on the same structure as that of the state, but differing according to the religious denomination of individual congregations. For example, the Protestant *écoles conventionnées* are managed at the national level by a "*Bureau de Coordination Nationale*" which has an overall supervisory role and manages the relationship with the state. The provincial bureaus are responsible for managing all the Protestant schools in the province. Below the provincial level, there are coordination bureaus which supervise the schools belonging to those denominations in the province. The Protestant Church has 66 such bureaus for individual congregations in the country. As soon as a congregation has 40 schools in a province, it is entitled to a coordination bureau in that province; if it has 15 schools, it has a resident councilor represented at the provincial level. These bureaus are responsible for the management of personnel (recruitment, deployment, and promotion), financial management, and also pedagogical matters.[21]

Hence, there can be as many as six to ten lines of educational administration within the same territorial unit, all of which, in principle are under the general authority of the

19. The official term is "*l'étatisation.*"
20. All Protestant churches had a single representation.
21. Bureau de Coordination Nationale des Ecoles Conventionnées Protestantes (April 2001). "L'enseignement Protestant—hier, aujourd'hui et demain." Eglise du Christ au Congo. Kinshasa.

MEPSP. The coordinators at provincial and lower levels are proposed by the religious institutions, nominated by the Ministry, and financed by student fees, a proportion of which is distributed upwards according to norms set by the provincial authorities. At the top, the National Coordinators of each of the religious groups deals with the Ministry.

The fourth major actor in the administration of the school system are the parents, who are represented from the base to the top, through school-based parent committees, zonal and provincial committees and a national organization of parents, the ANAPECO.[22] Although the national organization had the main role of motivating parents to send children to school and cooperating in school management, the school-based committees are now the most important organizations since they, in consultation with the school management committee, decide on the fees that pay the *prime the motivation* of the teachers comprising the major share of teacher earnings; they also increasingly finance the construction of buildings. The national organization is entitled to a share of parental contributions exclusively set aside for it; but again, in practice, with the decline in incomes and fees, contributions to higher levels of the parents' associations have become more erratic.

At the base of the system, all these lines of administration converge at the school level. Schools are managed by a management committee and the *chef d'établissement* (*directeur* in the case of primary schools, *préfet* in the case of secondary schools). The *chef d'établissement* is responsible for the academic, administrative and financial management of the school, including the management of personnel, disbursement of pay and all receipts and expenditures. The governor, assisted by the Proved, appoints the *chefs d'établissement* in all public schools; in the *écoles conventionnées* (i.e. public schools under religious management), the governor exercises this authority in coordination with the provincial coordinators. The management committee is the decision-making body (*l'organe deliberant*) of the school. It consists of the *chef d'établissement,* a pedagogical council, the administrator in charge of discipline and one representative each of teachers and parents, respectively. The management committee has the power to decide how to utilize receipts from fees (*frais de fonctionnement*) and parental contributions for teachers' salaries (*prime de motivation*).

There is evidence of duality and lack of clarity and overlapping functions/responsibilities in many of the administrative units even at the Central level. As an example, the Service de Contrôle et de la Paie des Enseignants (SECOPE) was created in 1985 as a separate administrative entity reporting directly to the Secretary General in the MEPSP in order to streamline the payment of salaries to teachers. Supported initially with Belgian aid, this administrative unit now has provincial units and is considered fairly effective, despite the financial constraints under which it operates. The SECOPE occupies an important place in educational administration, including management of teaching and non-teaching personnel, proposing the closure or opening of schools/classes and verification of whether norms are being followed. This necessitated creating a detailed database on each school (enrollment and other details) and each staff member (career, qualification and salaries) and an inventory of buildings, furniture and equipment. As a result there is considerable overlap between these functions and those of other units within the MEPSP; for instance, while its statistics are not published, they are used for administration and are not consistent with those of the Planning Department.[23]

22. *Association nationale des parents d'élèves et d'étudiants de la RDC.* The other associations are those of the denominational schools, one each for Catholic, Protestant and Kimbanguiste schools.

23. Different sources also provide different data; these issues are discussed in more detail in chapter 2.

Not unexpectedly, in this complex administrative framework, the division of responsibilities on the ground is in practice determined by access to and control over resources. The two most important contributors to resources are the parents (who finance the bulk of education expenditures, both for teachers' salaries and construction of new schools) and the Central government which, despite its limited fiscal resources has the capacity to manage teacher deployment and conduct examinations. Parents participate in discussions on fixing fees. The EADs and the *réseaux* of the religious organizations do not themselves contribute significant additional resources. For instance, the governor should play a major role in education administration and in principle, the EADs should receive budgetary transfers from the Ministry of Interior, Security and Decentralisation which approves the provincial budgets; the governor has the authority to execute the budget of the province, and allocate the required amounts for the functioning of the provincial offices of the Ministry. In practice, the Ministry expenditures of the Centre, including payment of salaries of teachers and official staff delegated to the provincial and lower level offices, are funded to a greater extent than are non-salary expenditures of the EADs, with the result that actual control over the number of schools, classes, teachers as well as examinations is effectively carried out by the Centre. For their part, among the religious organizations, only some of the Roman Catholic congregations had access to foreign resources during the last decade; most of the Protestant churches received no external financing as a result of the economic sanctions, while the Kimbanguiste church is entirely domestically financed. Hence, the majority of institutions run by the religious groups (*écoles conventionnées*) are in exactly the same situation as the government schools (*écoles non-conventionnées*): teachers' salaries mainly paid by parental contributions, with a modest state contribution, construction of schools by parents and very little investment in quality improvement.

Teachers and the religious management (réseaux) have considerable control over the use of the locally generated resources, but the participation of parents in the operation of schools is still peripheral. The *prime de motivation* is distributed by the teachers of the school; however, the collections of other charges are used by the school management committee in consultation with the religious management (in the case of *écoles conventionnées*) and representatives of the government (in the case of *écoles non-conventionnées*). Parents have little say knowledge of how these funds are used; this is discussed further in chapter 3.

There is also confusion regarding the legal status of the property of the publicly supported religious schools. The *écoles conventionnées* include schools which were constructed by the religious organizations on their own land and using their own funds and those which were constructed by the state and handed over to the religious group for management. Due to the nationalization and de-nationalization of the seventies, it is unclear whether the land and property belong to the religious organization and hence who can undertake investments on it. In practice, communities have contributed to school construction and this legal opaqueness has not become a major problem as yet, but would need to be resolved if new sources of funds were to become available.

Despite the complexity of the system, the system of educational administration functions in the DRC. The apparent complexity is in part due to the practical adaptation of the system to evolving needs and changed methods of financing, leading to discrepancies between the formal, legal framework and actual practice. A testimony to the fact that this system works is that several hundred thousand teachers continue to be paid their government salaries (though with delay and not fully); there is knowledge of where teachers are

deployed; fees are set and collected at the school level; and examinations, both at the primary level and the secondary level have been conducted without fail, every year.

Administration of Higher Education

Higher Education, provided by public universities, higher teacher training institutes and higher technological institutes, come under the authority of the Ministère de l'Enseignement Superieure et Universitaire (MESU). There are three Administrative Councils, one for each group of institutions.[24] The councils decide on overall policy and objectives and, for state-approved programs, on the number of new courses and hours per subject, among other things. Their membership comprises representatives of the institutions, government, employers who are nominated by the Central government. Each institution has a University or Institute Council, an Administrative Committee, faculties and departments. The University/Institute Council, Administrative Committee, as well as the Rectors and heads of the institutes, are appointed by the Central government. The University/Institute Council, which is the highest authority, coordinates the academic policy of the institution, in line with the decisions taken by the Administrative councils. It is comprised of the Rector (for the University) or *Directeur General* (for the institutes), the deans, heads of departments and representatives of the faculty, administrative staff and students. Degrees for state-approved programs have to be signed by the Minister along with the Rector and the examining jury. Before doing this, a *Commission d'Homogolation* of the MESU visits each public university and verifies the eligibility of each student to be granted the degree (this includes verifying whether the student had the *diplôme d'état* at entry, had attended all required courses and had passed exam).

In practice, the autonomy of universities to change their state-approved programs and curricula is severely limited because the Administrative Councils, that are supposed to approve these changes, meet infrequently. Further, even after the Council has approved the change, the suggested programs have to be transmitted to the Ministry, which has a technical wing, called the *Commission Permanente des Etudes* to advise it on their suitability. A formal decree of the Ministry is required before new state-approved programs can be implemented. Universities, however, are free to introduce their own programs which are not approved by the state. The existing process for awarding degrees in state-approved programs is also cumbersome without necessarily ensuring the quality of the program.

Legal Framework for the Unsubsidized Private Sector in Education

The 1986 Loi-Cadre formally recognized unsubsidized private schools (écoles privées agrées) at the primary and secondary level. These had to be "approved" by the MEPSP in order to be granted recognition and by law had to follow the same programs as the public schools. Guidelines are also included in the law for fixing fees, creating the structures for school management and the records that have to be kept. Apart from these regulations,

24. These are: the *Conseil d'Administration des Universités;* the *Conseil d'Administration des Instituts Supérieurs Pédagogiques* and the *Conseil d'Administration des Instituts Supérieurs Techniques.*

unsubsidized private schools have freedom to manage their establishments. Some schools are reportedly "recognized" due to political pressure even though they do not comply with regulations. A large number of these schools are represented at the national and provincial levels by the *Association nationale des écoles privées agrées* (ASSONEPA) and by the *Collectif des écoles privées agrées du Congo* (CEPACO).

Apart from these recognized schools, there are also unrecognized schools that find the process of seeking recognition too onerous or do not wish to comply with the regulations, which offer different programs, part-time classes and so on. These schools are run by individuals (for instance, retired teachers) in their own homes and serve especially the poor in the cities. Their number fluctuates depending on the capacity of parents to pay and they are not captured by official education statistics.

Since 1989, by virtue of a government decree, individuals and entities other than the Central government have been allowed to establish and manage private institutions in higher education.[25] This measure gave rise to two types of institutions: (i) *établissements communautaires,* which are private institutions established by religious groups or the provincial administration and (ii) private institutions established by individuals. However, the diplomas and degrees awarded by these institutions are not officially recognized because the Loi-Cadre still does not permit persons other than the Central government to create higher education institutions. In the mid-nineties, some of the *établissements communautaires* were taken over by the Central government and hence their programs were granted official status. The majority, however, continue to operate in a legal void.

During the last two decades, there has been a rapid growth of the private unsubsidized sector at all levels, as the next chapter documents. The weaknesses in the present legal framework, which are inherited from a time when the public sector was dominant, need to be redressed in order to enable the private sector to contribute to the realization of educational goals.

Conclusions and Recommendations

The context for the development of education in the DRC is challenging because of the years of economic and political chaos, the large size of the country, its low population density as well as its cultural and ethnic diversity. The enormous range of local languages poses special challenges in imparting primary education in a foreign language. Education policy also needs to address the specific requirements of relatively large numbers of people who live in the forest areas of the country with distinct traditions and means of livelihood, as well as the *enfants riverains;* on the other hand, the new forest policy under development should take into account the need to provide educational access to these children. Special programs are also needs for the groups of vulnerable children created by conflict and war, including child soldiers, street children, refugees and orphans.

Revitalization of the education sector in the DRC will depend to a great degree on improvements in the general political and economic context, on the progress in implementing public expenditure management reforms, as well as on improvements in other sectors. A favorable economic climate and political stability and commitment are pre-requisites

25. Decision d'Etat no. 75/CC/89 of 29 April 1989.

for ensuring that policies for the development of the sector can be implemented. In addition, the program for political and administrative decentralization, if it is effectively backed up fiscal decentralization, would require major changes in the system of education administration and rules for public funding in primary and secondary education. Other than these general developments, improvement in two specific sectors that can immediately improve the demand for and supply of education services are health (by improving the health status of young children in particular) and roads (by making schools more accessible for teachers and students).

Creating a consistent and stable policy environment, including reform of educational administration, is a necessary pre-condition for the development of the education sector. Various policy changes introduced in the early eighties have either not been followed through with a clear legal framework, creating confusion and haphazard growth. Revamping the legal framework for the private sector—both the *écoles conventionnées* and the unsubsidized sector at the school level and all private institutions in higher education—with a clear definition of mutual rights and obligations, as well as methods of public regulation, is required to clear up the present confusion and pave the way for a more effective public-private partnership in education. Reform of the administrative structure of both the school system and of higher education is necessary to reduce duplication and move towards greater decentralization and autonomy to the educational institution.

Enabling the private unsubsidized (*écoles privées non-conventionnées*), many of which serve poor children especially in urban and semi-urban areas, to access public subsidies could be an important way to mobilize additional resources while subsidizing the poor. This will require creating a framework by which such private schools can become eligible to access subsidies and the use of funds can be monitored. Private schools could, for instance, become eligible for grants for improving learning conditions in return for monitorable results (such as for instance, raising enrollment, improving learning outcomes, etc). This will require developing the capacity to administer such grants.

A greater deconcentration of functions within the education department to provincial levels or below is desirable in the short-run, while awaiting the broader decentralization program, which may take some time. This is especially important to allow opening of new schools and learning center, flexibility in programs, school calendars and the organization of examinations at the primary level; however, control over the opening of new schools and appointments of staff needs to be maintained in order to control expenditures. Provision of material and financial support to strengthen the management and administration at these levels (as opposed to the Central level alone) will be necessary.

The existence of governance structures at the school level is an asset which should be further strengthened as part of the reform of educational administration. The main weakness of these structures is that parents still do not have an effective voice in the operation of the school, while teachers and the administrative structures of the Central government and the religious managements effectively control the use of funds.

CHAPTER 2

Overview of the Education System—Growth and Efficiency

This chapter analyses the quantitative expansion of enrollments and the pattern of student flow, including issues relating to the internal efficiency of the system. It also identifies the priority issues regarding access and completion of various levels of education. The indicators discussed here relate only to quantitative aspects of the system and for the country as a whole, with some discussion of differences across population groups (by gender, geographic location and income groups). Issues relating to quality, especially at the primary level are discussed in chapter 4 of this report.

Despite the political upheavals and violent conflicts, the collapse of state revenues and contraction of the economy witnessed during the last 15 years, the education system in the DRC continues to expand gradually at all levels. This remarkable fact deserves emphasis as most social services are generally perceived as being non-functional. The continued expansion of the education system is especially noteworthy as performance of other social sectors has not been as impressive and as economic decline has been precipitous and prolonged. Moreover, for over a decade, the DRC received limited development assistance; the education system has been sustained entirely by national efforts.

Official data show that the number of institutions and total enrollment has increased at primary, secondary and tertiary levels. Surprisingly, a recent household survey indicates that enrollment levels in primary education may be even higher than that suggested by official data; although the data quality may be suspect, as discussed in the chapter, they do confirm a strong demand for education and parental commitment to enroll all children in primary school. University enrollment has doubled in the nineties and the number of tertiary level students as a proportion of the population, is one of the highest in Francophone Africa.

Acknowledging these achievements in extraordinarily difficult circumstances is not to deny or minimize the enormous challenges that remain, or how far behind the DRC remains in comparison with other countries. Coverage of the primary school population

remains low at about 64 percent and seems to have stagnated for a long time, if not declined over the last 15 years; the completion rate at the primary stage is only 24 percent and survival ratio is about 44 percent, based on official enrollment statistics and population projections. The coefficient of internal efficiency is less than 50 percent at primary, secondary and higher levels, reflecting high levels of failure, repetition, and dropout.

This chapter is divided into two broad sections, following a brief description of the structure of the education system and data sources. The first section presents the analysis of the official education statistics and the second presents the findings from the household survey (MICS 2001, conducted by UNICEF). The estimates of gross enrollment ratio for the primary stage from the two datasets differ by a wide margin and our assessment is that the household survey may have over estimated enrollment. Despite the shortcomings of the household survey data, they do provide an indication of disparities in access across wealth groups, which are not available from other sources.

Structure of the Education System

The duration of compulsory education is six years between the ages of 6–11 years. Although a pre-primary stage of three years is envisaged, in practice, pre-primary education is available only in some urban areas and is offered either for one year or for two years, with one class for five year olds and another class for three and four year olds together. The primary stage of six years is divided into three cycles of two years each. The primary school leaving certificate is awarded on successful completion of grade 6, which includes passing the terminal examination (TENAFEP).

Secondary education consists of a *cycle long* and a *cycle court.* Three streams—general, pedagogical and technical—are offered in the *cycle long.* This cycle consists of a first stage lasting two years (*tronc commun*)[26], which is common to all three streams, and a second stage lasting four years which introduces the differentiation between the three main streams. Within each stream, various options are offered, with as many as thirty options offered in the technical stream. Although there is some institutional specialization, such as stand-alone technical schools, most secondary schools offer all three streams and various options within each. The *cycle court* consists of the vocational stream alone, offered in the *écoles professionelles* only. Vocational education consists of a four year option, which commences immediately after primary education, or a five year option, which consist of a three-year course after the *tronc commun.* There are thirty-three options in the vocational stream. In addition, there are some *écoles d'art et métiers* which offer two or three years of artisanal training.

Entry into tertiary education is conditional on obtaining the diplôme d'état d'études secondaires du cycle long, after passing the Examen d'Etat; the school's evaluation of the student is also taken into account. Separate entrance examinations for higher education institutions are rare. The vocational education stream does not allow admission to higher education. Higher education consists of three years of undergraduate (*graduat*) and two years of postgraduate (*license*).[27] These are offered in universities and non-university institutions. The

26. The *tronc commun* used to be called the *cycle d'orientation* earlier.

27. In medicine and veterinary medicine, the second cycle lasts for three years and leads to the title of *Docteur en Medicine* and *Docteur en Medecine Véterinaire.*

latter include technological institutes which train technicians (*Instituts Supérieurs Techniques* IST), pedagogical institutions which train teachers for secondary schools (*Instituts Supérieurs Pédagogiques* ISP) and combined technical-pedagogical institutes (*Instituts Supérieurs Pédagogiques et Techniques*–ISPT).

In principle, the primary stage corresponds to the ages 6–11 years; the lower secondary stage to the ages 12–13 years; the higher secondary stage to the ages 14–17 years and undergraduate education to the ages 18–20 years. Repetition is allowed by law only once in each 2-year cycle of each stage.

Table 2.1. Structure of the Education System in DRC

Education level	Type of school	Theoretical age (years)	Minimum entry qualification	Duration (years)	Certificate/ diploma awarded
Primary	Primary	6–11	None	6	*Certificat d'études primaries*
Secondary					
General	General	12–17	Certificat d'études primaires	6	*Diplôme d'état d'études secondaires du cycle long*[a]
Teacher training	Normale				
Technical	Technique				
Vocational	Professionelle	12–16		5	*Brevet/Certificat d'aptitude professionnelle*
Higher					
University	University	18–20/22	Diplôme d'Etat–cycle long	1st cycle–3 years	*Graduat*
				2nd cycle–2 years	*Licencié*[b]
				3rd cycle–2 years	*Diplôme d'études supérieures*
	University	not applicable	Diplôme d'Etudes supérieures	4–7 years	*Doctorat*
Non-university	Institut Supérieur Pédagogique (ISP)	18–20/22	Diplôme d'Etat–cycle long	1st cycle–3 years	*Graduat en pédagogie appliquée*[c]
				2nd cycle–2 years	*Licencié en pédagogie appliquée*[d]
	Institut Supérieur Technique (IST)	18–20/22	Diplôme d'Etat–cycle long	1st cycle–3 years	*Ingénieurs techniciens*
				2nd cycle–2 years	*Ingénieurs*

Notes:

a. Students who have graduated from the *écoles normales* (*cycle court*) obtain the *Brevet d'instituteur* or State diploma in pedagogy which qualifies them to teach in primary schools.
b. In medicine and veterinary medicine, this stage lasts for three years and leads to the title of *docteur en medicine/ docteur en medicine vétérinaire.*
c. Qualified to teach the first four years of secondary school.
d. Qualified to teach the final two years of secondary school (higher education).

Data Sources

The system of education statistics is weak but functioning. For a country that is emerging from conflict, the DRC has a surprisingly well-functioning system for collecting education statistics, although the quality of the data is, not unexpectedly, poor. The main source of official data at the school level, are the *Annuaires statistiques,* an annual publication that presents data by province and year of study on a number of indicators. Although data continued to be collected and manually compiled during the nineties, they were not published. Between 1998 and the last academic year, data were collected only for the areas under government control.[28] Hence, enrollments have to be estimated for this period and these estimates may be subject to a wide margin of error. In general, statistics for the entire period 1990–2000 must be treated with caution. From 2000–01 onwards, data for the provinces fully or partially under government control can be considered fairly reliable, although non-response of institutions (often due to lack of means of transportation) necessitates adjustments to the data. In 2000–02, following the peace agreement, the collection of education statistics resumed for the entire national territory.

The second source of annual data on the school system is the SECOPE which has computerized files with information on enrollment, schools and staff. Although broadly in line with the data from the *Annuaires,* there are sometimes important discrepancies. A third source of data is the recent household survey conducted by UNICEF (MICS 2001) which provides data on primary level enrollments for the years 1999–2000 and 2000–01.

The fourth source of data for this CSR was a large survey of primary and secondary public schools, a survey of parents and a survey of private schools conducted specifically for the CSR. These surveys collected data on school statistics, infrastructure, salaries and household expenditures. The survey data has been used in this report mainly to estimate household expenditures (chapter 3) and infrastructure needs (chapter 4). Box 2.1 presents the key aspects of these data sources and the methods of adjusting the official data.

In this report, we rely mainly on the adjusted data from the annuaires or SECOPE. This is partly because comparable data are available for recent years and partly because the MICS 2001 data seems to overstate current enrollment levels. Nevertheless, we discuss the main results of the MICS 2001 and use it to highlight some important disparities between wealth groups and rural/urban areas, for which it is the only source of information.

Another element of uncertainty is added in the analysis of enrollment ratios, since demographic data are based on projections. Because the last census was conducted in 1984, and as there are conflicting opinions about the evolution of fertility and mortality as discussed in chapter 1, the projections for particular age-groups may be especially subject to error.

Analysis of Enrollment Statistics

The education system has expanded at all levels between 1986/87 and 2001/02 and this is shown by the increase in the number of institutions, students and teachers. These two years

28. Seven provinces were fully or partially under government control. See para 1.15.

Box 2.1. Note on Data Sources for Primary and Secondary Education

Annuaires statistiquess: Data on all schools (public and private), teachers, students are collected by sending out questionnaires to schools. Data entry and tabulation are done centrally in Kinshasa. Since 2000–01, data are being computerized, but until the last academic year, they were available only for the 7 provinces under government control. The *annuaires* underestimate the total number of institutions for two reasons: (i) the Direction de Planification, which is responsible for the *annuaires,* does not always receive information on all schools and hence questionnaires are not sent to all the schools (ii) schools do not respond and the rate of non-response is very high for some provinces (e.g. Equateur). Another factor which may result in underestimation of enrollment is that school directors may include only those children who had paid their fees in full at the time of the census, which is about two months after the beginning of the school year; some children pay later in the term, but may not be included among the enrolled students.

SECOPE database: Since the main aim of this computerized system is to manage the payment of salaries of all staff in public schools, the database has a listing of public schools and teachers and non-teachers (by name and showing date of recruitment, promotion, grade, sex etc). Enrollment data are also available, but are considered less reliable than that from the *annuaires.* The SECOPE database consists of two sets of schools: (i) *"écoles mécanisées"* and (ii)*"écoles non-mécanisées."* The first are those which are in the computerized system and the personnel of which are paid by the state. The second includes recently opened schools which are not yet in the computerized database. These teachers are government servants (since they have been appointed by the order of the appropriate governmental authority) but not on the payroll of the state.[29] The numbers of the two types of schools are likely to be more up to date for the 7 provinces than for the East; if schools have been destroyed or are not functioning in the eastern provinces, the SECOPE database is likely to overestimate for these provinces. Further, due to the mobility of teachers across schools and due to the interruption in the regular system of payment between May 2001 and January 2004, the SECOPE files (for *écoles mécanisées* and *écoles non-mécanisées*) were not always updated for provinces outside Kinshasa. Despite these problems, the main advantages of this database are the level of detail for which data are available and the enumeration of non-teaching staff. It also identifies several hundred "floating" staff—that is, those staff who are not allocated to a particular school, due to the war. The SECOPE files have been used for detailed analysis of teachers and other staff in public schools (for chapter 4).

Method of adjustment for 2001–02 data: For all provinces, a complete listing of the total number of schools by level and management type was done by the Direction of Planification in 2001–02. Not all schools, however, received or submitted the questionnaires.[30] Data on enrollment and teachers provided by the responding schools were extrapolated pro-rata by province and type of management, using the total number of schools in each category. The estimates of teachers were extrapolated using the *annuaires* data (instead of directly from the SECOPE database) because the SECOPE data are not available for this year and in order to provide comparability with earlier years. The estimates of non-teachers was made from the SECOPE database, because the non-teachers are not listed in the *annuaires;* the figures were extrapolated pro-rata by province and type of management, using the total number of schools in each category according to the listing done by the Direction de Planification. Private school data was taken from the *annuaire.* The estimates of enrollment should be treated as rough, due to high non-response rates and low coverage in some provinces, as well as the method of pro-rata adjustment.

Demographic data: In the case of DRC, as mentioned earlier, the latest census was done in 1984 and population estimates thereafter depend on assumptions of fertility and mortality. The estimates of the population of different school-going ages and for provinces require further assumptions. For the

(*continued*)

29. They will not also receive arrears if and when they are integrated into the SECOPE database and the payroll of the state.

30. In all, 70 percent of the primary schools and 71% of secondary schools responded to the questionnaire; in the province of Equateur, however, only 20% of primary schools and 25% of secondary schools were covered.

Box 2.1. Note on Data Sources for Primary and Secondary Education (*Continued*)

DRC, there is some dispute about the rate of increase of the population (as discussed earlier). In this report, we have used the projections used by the UN, which produce lower estimates of total population. Had the higher estimates (national) been used, the GER ratios using official enrollment data would be even lower. Estimates of GER by province must be treated with even greater caution.

Household survey data: The Multiple Indicator Cluster Survey 2001 (MICS 2001) was conducted in DRC (all provinces) in 2001 and collected data on participation in education of children aged 5–17 years for academic two years (1999–2000 and 2000–01). In general, household survey data yield better estimates of the GER since information on both numerator and denominator are available in the same dataset and are provided by parents of the child in question. In many countries, household surveys show enrollment rates that are either lower than or similar to those derived from official statistics. The MICS 2001 survey in DRC, on the other hand, provides much higher estimates. These findings are discussed later in the chapter. Here, it is worthwhile pointing out that, specific features of the DRC context are not reflected in the survey questions and can therefore lead to misleading answers (or misinterpretation of responses). Current enrollment and enrollment in the previous year is determined by two questions with a dichotomous response ("Is (name of child) currently attending school?"/ "Did (name of child) attend school the previous year?" Yes or No). In the context of DRC, where children attend intermittently due to non-payment of fees (for example, they may attend part of one term, be absent for the next term, and resume later), the answer is clearly not dichotomous. However, faced with a dichotomous response, the parent can respond "yes" if the child has been enrolled for at least part of the year, or even if the child's name was registered at the opening of the academic year, leading to an overestimation of enrollment.

Some aberrations in the MICS data also need to be pointed out. First, there is a 15 percent drop in enrollment in class 1 between the two years recorded (1999/2000 and 2000/1), but in no other class, a fact that is difficult to explain. Second, the households that were surveyed in July responded positively to the question whether children had attended school in the previous week, even though this was a vacation period. Third, the proportion of children who were reported to have skipped a class (for example, being in class 3 this year while being in class 1 last year) was about 10 percent; these suggest that there have been errors in reporting or transcribing, since such a high proportion of "gifted" children is unlikely in any population.

Sample survey of public and private schools: A survey of public primary and secondary schools was conducted by the Direction de Planification for this CSR. A stratified random sample of schools was drawn from the listing of public schools in each province. Data were collected from about 2000 public primary and secondary schools and 1000 parents on enrollment, staff, school infrastructure, student fees and school finances. These data have been used mainly in chapters 3 and 4. A survey of 638 private schools was conducted by the Association of Private Schools (ASSONEPA).

are used for comparison because the data are fairly reliable, with the 1986/87 data being taken from the World Bank sector study.[31]

In 2001–02, there were approximately, 19,100 primary schools enrolling 5.47 million students with 159,000 teachers. The number of secondary schools numbered just over 8,200 with 1.6 million students and 110,000 teachers. In higher education there were 326 institutions with approximately 200,000 students. The number of institutions, teachers, students, by stage and management category for 1986/87 and 2001/02 are shown in table 2.2.

Enrollment growth has been most rapid in higher education. The patterns of development of the various sub-sectors are highlighted in table 2.3 which shows the percentage increase over the 15 year period. The number of students in higher education has increased

31. World Bank (1988). "Zaire—Rapport sur le Secteur de l'Education Primaire et Secondaire." Report No. 7169-ZR.

Table 2.2. Growth of the Education System in DRC–1986/87 and 2001/02

		Establishments		Teachers		Students	
		1986/87	2001/02	1986/87	2001/02	1986/7	2001/02
Pre-Primary	Public Non conventionné		16		138		1,530
	Public conventionné		74		388		7,745
	Private		n.a.		n.a.		n.a.
Primary	Public Non conventionné	1,845	3,271	111,365	25,865	685,745	833,081
	Public conventionné	8,912	13,807		116,468	3,312,358	4,031,659
	Private	378	2,241		16,498	157,929	606,237
Secondary	Public Non conventionné	4,107	1,761	41,696	23,747	292,196	353,452
	Public conventionné		5,269		70,870	606,081	1,045,861
	Private	109	1,227		15,784	24,987	216,131
Higher	Public	36	114	8,557	7,897	45,731	170,000
	Private	. .	212	. .	n.a.	. .	30,000

Notes: 1. Estimates are for the whole country. Primary and Secondary Education: for 2001/02, the total number of institutions has been taken either from the *Annuaires Statisques* of *the Direction de Planification* of the Department of Education or from the SECOPE, whichever is higher; the number of teachers and students provided by the *annuaires* has been adjusted upwards, wherever the number of establishments in the latter is found to be less than the SECOPE. 2. Higher education data for 2001/02 are provided by the Direction de Planification in Higher Education 3. Data for 1986/87 are from the World Bank report "*Zaire–Rapport Sur le Secteur de l'Education Primaire et Secondaire,*" 1988.

Table 2.3. Percentage Increase between 1986/87 and 2001/02

		Establishments	Teachers	Students
Primary	Public Non conventionné	66%		21%
	Public conventionné	46%		22%
	Private	480%		283%
	Total	65%	42%	31%
Secondary	Public Non conventionné	65%		21%
	Public conventionné			72%
	Private	1005%		764%
	Total	89%	164%	75%
Higher	Public	216%	–8.00%	271%
	Total	805%	n.a.	337%

Note: Derived from table 2.2.

by 3.7 times (271 percent increase), and the number of institutions has increased by over 9 times. This is followed by the growth in secondary education, with a nearly 90 percent increase in the number of schools and 75 percent increase in number of students. At the primary stage, the increase in the number of institutions has been 65 percent but the increase in enrollment has been more modest at 31 percent.

The growth in private institutions has far outstripped that of public institutions at all three levels. However, these high growth rates are relative to a small base, and hence the public sector continues to predominate at all levels. In higher education, the number of private institutions, starting from a base of close to zero, is now almost double that of public institutions,[32] while in primary and secondary education, the number of institutions has increased by nearly 6 and 11 times, respectively, with enrollment also showing substantial increases. In primary education, the growth in enrollment in the public institutions has been extremely modest (21–22 percent over the entire period); in secondary education, the increase in enrollment in the purely public institutions has been much lower than in the religious institutions (21 percent and 72 percent, respectively). Nevertheless, the private share of students remains relatively low in these two subsectors—less then 5 percent in secondary education and over 10 percent in primary education.

Nevertheless, the growth in the number of public institutions (both *non-conventionné* and *conventionné*) is fairly substantial at all three levels, but especially in higher education, where the number has trebled. This is remarkable given the constraints on public financing since the mid-eighties. Some of this increase is only an apparent increase (especially at the primary and secondary stages) since if the same buildings are used in two shifts, they are counted as two schools. However, the fact remains that the state continued to open new schools and appoint new teachers during this period of economic devastation and collapse of public finances. This is the result of the decentralization of the authority to open schools and recruit teachers, as well as political pressure to create new schools.

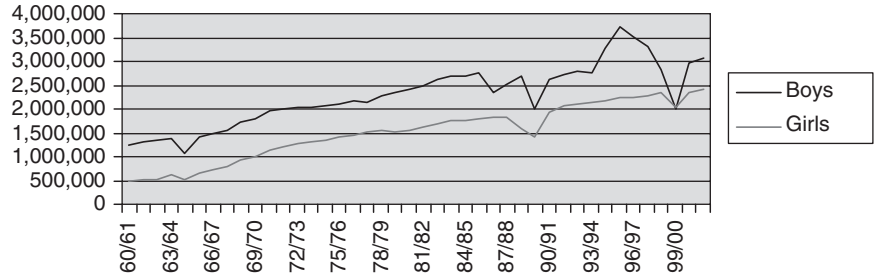
The number of teachers has increased dramatically in secondary education (by 164 percent) and by about 42 percent in primary education. However, in higher education, the number of teachers in public institutions has actually declined by 8 percent, in contrast to the surge in the number of students. Teacher attrition, due to death, retirement and migration, has not been replaced by new recruits, partly reflecting the lack of new enrollment in post-graduate courses and the perceived low rate of return to teaching. A peculiarity of the private higher education institutions is that they have very few independent teachers and they rely mainly on the faculty of the public institutions. The decline in teachers in public universities therefore affects public and private institutions alike.

Overview of Enrollment Trends (1960–2000)

Enrollment in primary education grew steadily, if slowly, until the mid-nineties but fluctuated sharply thereafter (chart 2.1). By 2001/02, total enrollment had not recovered to the levels of 1995/96. Due to the data problems discussed earlier, it is not possible to say whether this absolute decline is the result of the problems in data collection and adjustment, or whether the turbulent events of this period have led to the reduction of student numbers.

32. However, a large number of small private institutions were closed in December 2003. The effect on total enrollment in the private sector may not be large. See chapter 5.

Chart 2.1. Growth of Primary Enrollment (public and private)



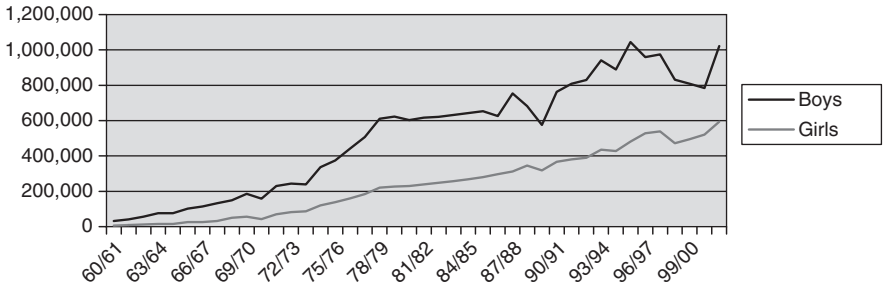
Note: Data have been adjusted for non-response from schools.

Source: World Bank estimates baaed on data form *Annuaires Statistiques.*

In particular, data for 1998/99 and 1999/2000, the first two years of the war, show a steep decline in primary enrollment. In secondary education, by contrast, the growth in enrollment has been more rapid and has been sustained even during the last 5 years (chart 2.2). While the data series is not complete for higher education, chart 2.3 shows the steep growth in enrollments since 1980/81.

Unlike other SSA countries, the DRC embarked early on a path of education expansion. The period 1960/61–1976/77 witnessed close to 4.7 percent annual growth rate in primary education and 19 percent annual growth rate in secondary education. Although the initial part of the sixties was a period of political instability, the strong demand for education following independence was sustained, supported by economic growth in the second half of the sixties and early seventies. The second period (1976/77–86/87) saw a considerable deceleration in primary and secondary enrollment and this coincided with the deepening of the economic crisis that began in 1974/75, caused by the deterioration of terms of trade and the exodus of foreign investors; by early 1980's the country was under a structural

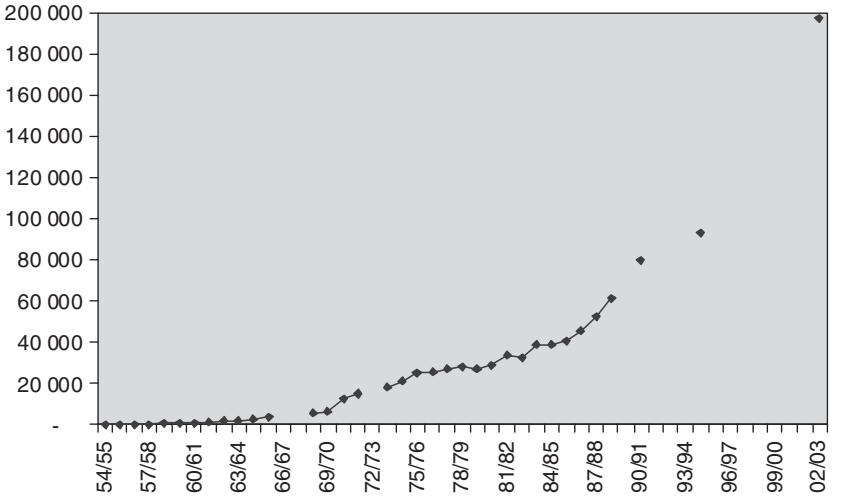
Chart 2.2. Growth of Secondary Enrollment (public and private)



Note: Data have been adjusted for non-response from schools.

Source: World Bank estimates based on data from *Annuaires statistiques.*

Chart 2.3. Growth of Higher Education Enrollment (public and private)



Source: Direction de la Planification de l'Enseignement Supérieure

adjustment program. The next period (1986/87–1995/96) saw a rebounding of enrollment growth; in primary education, with a 4 percent annual growth; secondary education enrollment growth decelerated somewhat to 5.4 percent per annum, while tertiary level enrollment grew at 10 percent per annum. These developments occurred against a background of deepening economic crisis, with sharp falls in per capita income and state revenues and violence, which destroyed a considerable part of the educational infrastructure. The most recent period (1995/96–2001/02) displayed a deceleration in secondary enrollment (0.9 percent per annum) and an absolute decline in primary level enrollments (–1.5 percent per annum). This is the period of the first major political change since independence, followed immediately by the outbreak of war that engulfed several provinces. In higher education, by contrast, there has been an acceleration in enrollment growth between the decade of the eighties (7.1 percent per annum) and the decade of the nineties (11.3 percent per annum).

Clearly, the impact of economic and political upheavals has been felt on the education system, but the relationship is not straightforward or immediate. Although the economic crisis of the seventies and early eighties slowed down enrollment growth in both primary and secondary education, the period of even greater turbulence and economic decline of the early nineties presents a mixed picture. The negative effect on primary and secondary education is more apparent in the second half of the nineties with the onset of outright conflict and war.

At the secondary level, the growth of technical education appears to have been the most significant, recording an increase of 126 percent between 1986/87 and 2001/02 (table 2.5). Enrollment in this stream now accounts for one-quarter of total enrollment. The other striking aspect is the 40 percent decline in enrollment in the vocational stream; this stream now accounts for only 2 percent of students. The number of students in the teacher training stream has also increased by 67 percent and the overall share of students in this stream has

Table 2.4. Average Annual Growth Rate of Enrollment by Stage of Education

	60/61–76/77	76/87–86/87	86/87–95/96[a]	95/96–01/02[b]
Primary	4.7	1.4	4.1	–1.5
Secondary	18.8	4.4	5.7	0.9
Higher	24.3	6.0	7.1	11.3
Important Events	Independence; military and political crisis for first 6 years; 4.5% annual growth in GDP after 1965/66	Economic crisis; fall in copper prices; GDP decline at –1.5% p.a.; structural adjustment programme in early eighties	After 89/90, political turmoil, looting by soldiers, sanctions and suspension of aid; decline of state revenues and GDP	Fall of Mobutu govt in 1997; 1998–2001 war

Notes:
a. For higher education, refers to the period 1980/81 to 1989/90.
b. For higher education, refers to the period 1989/90–2001/02.

remained approximately constant (28–30 percent). The majority of students (45 percent) continue to be in the general stream.

The growth of enrollment in the pedagogical and technical streams does not necessarily reflect student demand for employment in these professions. The demand for higher education may be the driving factor as these streams also enable students to enter higher education. By contrast, enrollment in the vocational stream, which does not allow entry into higher education, has declined rapidly. In other words, current student demand may be for general secondary education, rather than for the specialized streams and this raises the question to what extent and which separate specialized streams, which raise the cost of provision, are required in the secondary stage. The growth of enrollment in the different streams of higher education is discussed in chapter 5.

Coverage of the Education System: Trends over Time and International Comparisons

In 2001–02, the gross enrollment ratio at the primary level was estimated to be 64 percent and in secondary education about 23 percent. The ratio of higher education students per 100,000 population was 358 (table 2.6). These estimates must be treated with caution as the

Table 2.5. Growth of Secondary Education by Stream

Stream	Public and private			Percent distribution	
	1986/87	2001/02	% increase	1986/87	2001/02
General	422,821	724,362	71%	46%	45%
Normal (pedagogical)	274,515	457,877	67%	30%	28%
Technique	179,441	404,749	126%	19%	25%
Professionnel	46,487	284,55	–39%	5%	2%
Total secondary	923,264	161,5443	75%	100%	100%

Table 2.6. Gross Enrollment Ratio by Level of Education

	GER primary			GER secondary			Higher Education students/ 100,000 population
	Boys	Girls	Total	Boys	Girls	Total	Total
60/61	102%	39%	70%	3%	1%	2%	5
61/62	104%	40%	72%	4%	1%	2%	6
62/63	102%	39%	70%	5%	1%	3%	12
63/64	102%	46%	74%	7%	1%	4%	12
64/65	78%	37%	58%	7%	1%	4%	14
65/66	98%	47%	72%	9%	2%	5%	21
66/67	99%	49%	74%	10%	2%	6%	n.a
67/68	102%	52%	77%	11%	3%	7%	n.a
68/69	110%	59%	84%	12%	4%	8%	28
69/70	111%	62%	86%	14%	4%	9%	30
70/71	116%	67%	91%	12%	3%	7%	60
71/72	114%	70%	92%	16%	5%	11%	71
72/73	113%	70%	91%	17%	6%	11%	n.a
73/74	110%	71%	90%	16%	6%	11%	82
74/75	108%	70%	89%	22%	8%	15%	91
75/76	107%	71%	89%	24%	9%	16%	104
76/77	106%	71%	88%	27%	10%	18%	104
77/78	100%	71%	86%	30%	11%	20%	107
78/79	104%	72%	88%	35%	13%	24%	108
79/80	103%	67%	85%	34%	13%	23%	99
80/81	103%	66%	84%	32%	12%	22%	102
81/82	102%	66%	84%	32%	12%	22%	118
82/83	104%	68%	86%	31%	12%	22%	111
83/84	104%	68%	86%	31%	13%	22%	127
84/85	101%	66%	83%	30%	13%	22%	124
85/86	101%	65%	83%	30%	13%	21%	127
86/87	82%	64%	73%	28%	13%	20%	138
87/88	86%	62%	74%	32%	13%	23%	155
88/89	89%	52%	71%	28%	14%	21%	175
89/90	64%	45%	55%	23%	13%	18%	n.d.
90/91	81%	60%	71%	29%	14%	22%	215
91/92	82%	62%	72%	30%	14%	22%	n.d.
92/93	80%	60%	70%	30%	14%	22%	n.d.
93/94	77%	59%	68%	32%	15%	24%	n.d.
94/95	88%	59%	73%	29%	14%	22%	n.d.

(*continued*)

Table 2.6. Gross Enrollment Ratio by Level of Education (*Continued*)

	GER primary			GER secondary			Higher Education students/ 100,000 population
	Boys	Girls	Total	Boys	Girls	Total	Total
95/96	97%	59%	78%	33%	15%	24%	n.d.
96/97	90%	57%	73%	30%	17%	23%	n.d.
97/98	83%	58%	71%	30%	17%	23%	n.d.
98/99	70%	58%	64%	25%	14%	20%	n.d.
99/00	49%	49%	49%	24%	15%	19%	214
00/01	71%	56%	64%	22%	15%	19%	264
01/02	72%	56%	64%	29%	17%	23%	358

Source: Annuaires statistiques; Population Division of the Department of Economic and Social Affairs of he United Nations Secretariat, *World Population Prospects: The 2002 Revision and World Urbanization Prospects: The 2001 Revision*.

numerator comprises estimates of the total number of students extrapolated using enrollment statistics for the areas then under government control (the 7 provinces under full or partial government control) and the denominator uses projections of the school-age population based on the 1984 Census. Population projections used are those of the United Nations; use of national projections of population would reduce the GER even further.

Gross enrollment ratios at the primary and secondary level have been relatively stable over a very long period, but coverage of higher education has steadily increased. Coverage at the primary level as measured by the primary GER has remained roughly constant at about 70 percent for the last fifteen years, and has declined by about 6 percentage points in the last five years. At the secondary level, it has remained constant between 20–24 percent for twenty five years, while at the higher level it has almost trebled in the last fifteen years.

Although it started out with a relatively high primary GER at independence, at no time in its history did the DRC have a primary GER exceeding 100 percent, unlike some other African countries, nor was there even apparent movement towards full coverage. In 1960, the primary GER of 70 was the highest in sub-Saharan Africa.[33] Population coverage at the primary level apparently peaked in 1972/73 at about 93 percent (table 2.6). However, it is possible that the GER was overestimated during the seventies and early 1980s, partly due to overestimates of enrollment and underestimate of population (which was based on the 1960 Census). The drop in primary GER in 1985/86 could be due to new estimates of population that became available after the 1984 census—since as noted earlier, enrollment continued to grow until 1995/96. In other words, there may not have been a real decline in coverage after 1985/86, as the actual GER before that may also have been lower.[34] If this is the case, the

33. However, most children completed only 2–3 years of primary education, as most primary schools offered only a short cycle.

34. The World Bank sector study for DRC (1988) suggests that GER was overestimated in the late seventies and the decline noted in the eighties was more apparent than real.

primary GER in the DRC has remained roughly constant at about 70 percent between 1960 and 1990. This must be treated as a tentative conclusion. If, on the other hand, the GER estimates are taken at their face value, it appears that the deceleration in enrollment began in the mid-seventies, with further setbacks from the mid-eighties. The poor quality of the data for the nineties does not permit any firm statement to be made regarding the movement of GER during this period. However, the GER seems to have declined from its long-term trend level of 70 percent to 64 percent in 2001/02.

Universal primary enrollment has never been achieved in the DRC due to the very low enrollment rate for girls (table 2.6). The GER for boys has been, for a long period, equal to or higher than 100 percent (116 percent in 1970). It was already at a high level in 1960 when the GER for girls was only 39 percent. The difference in enrollment rates between girls and boys gradually narrowed, but it is still significant: in 2001/02, the GER for girls was 56 percent, while that for boys was 72 percent. In 2001/02, the percentage of girls among new entrants in class 1 of the primary level was only 46 percent, reflecting the fact that parents are less likely to enroll girls than boys (table 2.7). However, the discrimination against girls has disappeared since some time in Kinshasa—the GER for boys and girls are equal there—but it continues to be significant in other provinces. The lower enrollment rate amongst girls needs to be addressed as part of the efforts to ensure universal primary enrollment.

The under-representation of girls is even greater at the secondary level, although less so in recent years. Comparing the enrollment rates at the secondary level with those at the primary level 7 years earlier,[35] it can be seen that the relative disadvantage of girls increases

Table 2.7. Representation of Girls in Primary and Secondary Education–by Province

	% of girls among new entrants in 1st year of primary (2001/02)	% of girls in 6th year of primary in 2000/01	% of girls among those granted primary school leaving certificate in 2001	% of girls among the new entrants of 1st year secondary in 2001/02
Kinshasa	50%	50%	48%	55%
Bas-Congo	47%	42%	40%	39%
Bandundu	47%	42%	41%	42%
Equateur	46%	38%	36%	45%
Kasaï oriental	45%	32%	28%	37%
Kasaï occidental	44%	35%	27%	29%
Katanga	45%	39%	36%	33%
Maniema	44%	n.d.	31%	32%
Nord-Kivu	43%	n.d.	41%	36%
Province Orientale	46%	n.d.	37%	42%
Sud-Kivu	43%	n.d.	34%	32%
Total	46%	41%	39%	39%

Source: Annuaires statistiques.

35. Seven years is the average duration of primary education for students who enter secondary education.

between the primary level and the secondary level, but this disadvantage has been reducing (table 2.6). The greater relative disadvantage for girls at the secondary level (compared to the primary level) can be explained by a lower survival rate for girls at the primary level—which could itself be due to various reasons—and/or a lower transition rate for girls from primary to secondary education. The specific causes cannot be identified with the existing data. It is worth noting, however, that boys do marginally better in securing the primary school leaving certificate (80 percent for boys compared to 76 percent for girls in 2001), but the transition of primary graduates to the secondary level is no longer (if it ever was) discriminatory towards girls (table 2.7).

At the secondary level, the GER (using the age group of 12–17 years in the denominator) rose rapidly from about 8 percent in 1968/69 to nearly 20 percent in 1977/78, but has remained remarkably stable thereafter. A marginal decline in the GER is seen since 1998/99, again reflecting the slower growth in enrollment. The expansion of secondary education has therefore kept roughly pace with the growth in population of the relevant age group.

Currently, in comparison with other African countries, the DRC has a relatively low coverage at the primary stage, similar levels of coverage at the secondary stage and higher coverage at the tertiary stage. The pattern of coverage is closest to that of Burundi, except that in the latter, coverage at the secondary stage is much lower than in the DRC. It appears that a large number of children get no education at all, but of those who do, much higher proportions continue to secondary education and to higher education than in other African countries. Inequity of access at the base of the system is one of the defining characteristics of education in the DRC.

Participation in primary education is limited both by the high private cost of education and physical distances. Household costs are discussed in chapter 3 and very high relative to

Table 2.8. Gross Enrollment Rates by Gender, Province and Level of Education (2001/02)

	Primary GER			Secondary GER		
	Boys	Girls	Total	Boys	Girls	Total
Kinshasa	57%	58%	58%	42%	40%	41%
Bas-Congo	81%	68%	74%	39%	24%	32%
Bandundu	85%	71%	78%	53%	30%	42%
Equateur	52%	40%	46%	17%	7%	12%
Kasaï-Oriental	87%	63%	75%	27%	8%	18%
Kasaï-Occidental	59%	39%	49%	22%	7%	14%
Katanga	46%	34%	40%	16%	8%	12%
Maniema	94%	66%	80%	28%	14%	21%
Nord-Kivu						
Sud-Kivu						
Province Orientale	64%	49%	57%	14%	7%	11%
Total	72%	56%	64%	29%	17%	23%

Source: Annuaires statistiques; Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2002 Revision and World Urbanization Prospects: The 2001 Revision.

per capita income. However, physical distance also constitutes an important barrier. Currently, there is a school per 120 km^2, a low ratio compared to those in other countries even after taking into consideration the low population density of the DRC.[36] The majority of villages are without a primary school. Using the number of villages from the 1984 census, and the number of schools in 2001, there is approximately one school for every 5 villages; across provinces, the ratio ranges from 1:3 to 1:8.

Repetition, Dropout, and Internal Efficiency

In 2000–01, repetition rates at the primary stage varied between 11–17 percent in each class and dropout rates varied between 9–19 percent (table 2.9). These data are for the areas then under government control only. Comparative data for the whole country are available only for two other years, 1978/79 and 1986/87. These suggest that the dropout rate has increased in 2000–01, especially in classes 2–6, while the dropout rate in class 1 is approximately the same (18–20 percent). Repetition rates have gone down in 2000–01 relative to previous years, but as in previous years, the rates are more or less constant over all classes. Indeed, the striking aspect of these data are the relative stability of the rates over a fairly long period.[37] However, the rates for 2000–01 are calculated on the basis of the data for just two consecutive years, which make the estimates volatile due to annual fluctuations in student flow.

The completion rate at the primary level is 29 percent while the survival ratio between classes 1 to 6 of the primary stage is only 44 percent. (chart 2.4). The completion rate in class 6 (defined as those who reach class 6 as a proportion of 11 years olds) is especially low because of the combined effect of the low gross intake rate into class 1 (66 percent) and

Table 2.9. Promotion, Repetition and Dropout Rates at the Primary Stage

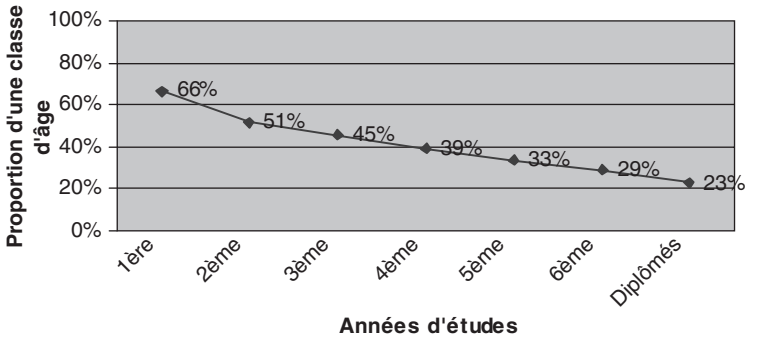
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6
1978/79						
Promotion rate	59%	77%	69%	73%	78%	
Repetition rate	21%	20%	21%	19%	18%	15%
Dropout rate	20%	4%	10%	8%	5%	
1986/87						
Promotion rate	63%	76%	70%	72%	74%	
Repetition rate	19%	18%	22%	19%	17%	13%
Dropout rate	18%	6%	8%	9%	9%	
2000/01						
Promotion rate	64%	75%	71%	73%	75%	69%
Repetition rate	17%	16%	16%	15%	14%	11%
Dropout rate	19%	9%	12%	12%	11%	20%

Note: For 1978/79 and 1986/87, data are from World Bank report. For 2000/01, they have been estimated from the data in the *Annuaires statistiques* for the areas then under government control.

36. By way of comparison, there is one school per 50 km^{2}in Madagascar, 53 km^{2}in Cameroon, 23 km^2 in Nigeria and per 13 km^{2}in Rwanda.

37. Rates derived from MICS 2, presented later in this chapter, differ from the rates in table 2.8.

Chart 2.4. Schooling Profile for Primary, 2000–01

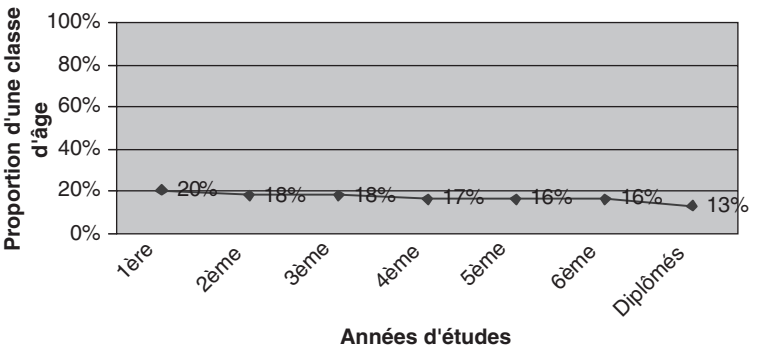


Note: Derived from *Annuaires statistiques* and population projections.

poor retention. Only 23 percent of 11 year olds have a primary school-leaving certificate. Furthermore, less than 20 percent of students entering class 1 reach class 6 without any repetition; only 14 percent obtain the school-leaving certificate without repeating any year.

The schooling profile for secondary education is much more flat than for primary education because dropout rates are relatively low compared to the primary level. The enrollment ratio drops from 20 percent to 16 percent between the first and last grades of the secondary stage (chart 2.5). The survival rate is an astonishing 91 percent, although the survival rate without repetition is only 49 percent (i.e. only half the students who enter the first year of secondary reach the last year without any repetition). However, the high failure rate in the *Examen d'Etat* leads to a completion rate of just 13 percent, based on those who get a *diplôme d'état.*[38]

Chart 2.5. Schooling Profile for Secondary, 2000–01



Note: Derived from *Annuaires statistiques* and population projections.

38. This last figure is especially low in 2001, because the pass rate in the *Examen d'Etat* was lower (33%) than in previous year.

Table 2.10. Coefficient of Internal Efficiency, 2000–01

	Standard	Adjusted
Primary	43%	71%
Secondary	36%	77%

Note: Derived using the reconstructed cohort method from the *annuaires* data for 2000–01 and 2001–02 and assuming only one repetition per two-year cycle in each stage.

Internal efficiency, given these high repetition and dropout rates, is extremely low at both levels of school education, though comparable to those in other African countries. Two coefficients are shown in table 2.10. Using the standard calculation, the internal efficiency is 43 percent at the primary stage and only 36 percent at the secondary stage.[39] Internal efficiency is lower in secondary than in primary education because of the high failure rate in the terminal examination of the former. This ratio assumes that all repetition and years spent in school prior to graduation is a wastage, which may not be justified, especially in secondary education. The second coefficient adjusts for these problems by assuming that each year of education is worth part of the "value" of a full graduate (for instance, a child who has dropped out after 4 years of education without completing the 4th grade represents an "output" equivalent to 1/2 of a graduate). This may overstate the "output" especially in primary education since four years or less of education may not result in lasting benefits. The adjusted coefficient provides a figure of 71 and 77 percent, for primary and secondary education, respectively.

Internal efficiency in the universities is also very low. On the basis of data available for the largest university, the University of Kinshasa, for the years 1998–2000, the internal efficiency is less than 50 percent.[40] The dropout rates in 1999 were very high—50 and 35 percent, in the first two years of the program, respectively. Only 28 percent of a cohort obtain a *license* and only 18 percent without repeating any year. These issues are discussed in more detail in chapter 5.

The transition rate to higher education appears to have increased in the nineties. Prior to 1990, the transition rate was about 50 percent (defined as the number of new admissions in to higher education divided by the number of secondary graduates who had passed the *Examen d'Etat*). Although data on new entrants are not available since 1989, estimates suggest that the transition rate would have been close to 65 percent.

Analysis of Household Survey Data–Primary Education

GER estimates derived from the MICS 2001 dataset for both primary and secondary education are much higher than those derived from official education statistics and population projections. In 2001, the primary GER based on the household survey was 93 percent; the

39. The standard coefficient of internal efficiency which is calculated by dividing the optimal number of pupil years (i.e. in the absence of repetition and dropout) by the number of pupil-years actually spent by a cohort of pupils to produce a graduate of each stage. A graduate in this case is a student who receives the school-leaving certificate.

40. This is calculated on the basis of pupil-years required to produce a *licencié* since the 3-year cycle does not lead to a certified graduate in the universities.

secondary GER was between 36–39 percent (table 2.11).[41] In principle, household survey data should provide more reliable estimates of the GER since both numerator and denominator are derived from the data source. In the case of the DRC, however, the GER seems to be grossly overestimated. As shown in the previous section, at no time in its history did the DRC attain such high levels of coverage for either primary or secondary education and it seems extremely improbable that it could have done so after a period of conflict and devastation. The MICS 2001 data show extraordinarily high GERs for some provinces (over 110 percent) including in Bandundu, Kasai Oriental and Maniema, which also seem doubtful; the two latter provinces had witnessed considerable conflict in the previous four years.

The average primary GER hides substantial differences in coverage between rich and poor households. As table 2.12 shows, the primary GER across households classified by wealth, varies from 80 for the poorest households to 125 for the richest households. Moreover, the GER in the three bottom quintiles is approximately the same, indicating that the main difference in access is between the 60 percent "poor" and 40 percent "rich." It is possible that this dividing line corresponds to the rural-urban divide.

While the primary GER is estimated to be 93 percent by the MICS 2001, the primary NER (net enrollment ratio) is only 51 percent, which represents an unusually large gap between the two estimates. The NER by wealth index shows that less than 40 percent of the relevant age group among the poorest households are in primary classes compared to 80 percent among the richest households. This large difference between the GER and the

Table 2.11. Comparison of GER Based on the *Annuaires statistiques* and MICS 2001

	Primary GER (2001)		Secondary GER (2001)	
	*Annuaires**	MICS 2001	*Annuaires**	MICS 2001
Kinshasa	57.6%	112.1%	40.9%	
Bas-Congo	74.2%	111.9%	31.7%	
Bandundu	77.9%	108.7%	41.6%	
Equateur	46.0%	82.1%	12.1%	
Kasaï-Oriental	75.1%	111.7%	17.7%	
Kasaï-Occidental	49.3%	102.4%	14.5%	
Katanga	39.8%	84.8%	12.0%	
Maniema	79.9%	103.1%	20.6%	
Nord-Kivu		60.4%		
Sud-Kivu		81.8%		
Province Orientale	56.6%	93.5%	10.6%	
Total	63.9%	92.6%	22.6%	36%–39%

*Data from the *annuaires* have been extrapolated to obtain estimates for the whole country as indicated earlier.

41. Since the survey covered the education status of children in the age group 15–17 years only, enrollment in secondary would have been underestimated. The range of secondary GER ratios indicated in the table adjusts for this truncation of the data.

Table 2.12. GER and NER of Households Ranked by Wealth Index

	GER	NER
Total	93	51
WI I–poorest 20%	80	39
WI II	80	39
WI III	86	45
WI IV	104	57
WI V–richest 20%	127	81

Note: WI refers to wealth index of households.

NER reflects the high proportion of over age children in primary classes among all wealth groups. According to the survey, 44 percent of children in the primary classes are over 11 years old, the theoretical age at which students should have completed the 6th grade of primary. Even in class 1, with a theoretical age of entry of 6 years, close to 10 percent are more than 11 years old. This reflects mainly delayed entry into class 1 but also repetition. By grade 6, over 90 percent of students are over 11 years, reflecting the cumulative effect of delayed entry and several years of repetition (table 2.13).

Only 26 percent of new entrants enter at or before the official age of entry (six years). Over half the new entrants into class 1 are over seven years old and approximately one-fifth are over 10 years old. The mean age of new entrants is 7.9 years. Late entry is more pronounced in rural areas, where children have to walk long distances in order to attend school.

The mean age of poor and rich children in each class suggests that poor children enroll late but tend to drop out; a greater proportion of rich children get enrolled at the right age but they tend to repeat classes and stay in school (table 2.14). In class 1, the mean age of poor children is 9.1 years, and of rich children it is 6.9 years—a difference of 2.3 years. Although there are repeaters among class 1 students as well, this average age will reflect mainly the age of new entrants. By class 6, the difference in the mean age between the richest and poorest children has narrowed to 1.1 years. As a result, the mean age gap between class 1 and class 6 for the poor children is 5.5 years, but for rich children, it is 6.7 years. There is a wider age group of rich children attending primary classes than poor children.

As a result of these factors, the richest households contribute the maximum share of over-age children—30 percent, compared to 15 percent from the poorest (table 2.15). Children from the poorest quintile constitute only 17 percent of total enrollment at the primary while those from the top quintile comprise 25 percent. In the current system of private financing, households bear the cost of repetition, and hence the rich are able to provide for repetition while the poor are not. When moving to a system of publicly financed

Table 2.13. Children Aged Above 11 Years Old in Primary Classes

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6
Total enrollment	2283	1954	1583	1399	1098	856
Total enrollment above 11 yrs old	219	483	730	918	918	794
Children aged 11 years or more as % of enrollment in each class	9.6	24.7	46.1	65.6	83.6	92.7

Source: MICS 2001.

Table 2.14. Mean Age by Class and Wealth Group

	Mean Age in Each Class (in years)						Difference between class 1 and 6
	1	2	3	4	5	6	
WI I—poorest 20%	9.1	10.6	12.2	13.2	14.3	14.6	5.5
WI II	8.7	10.8	12.1	13.4	14.5	15.0	6.3
WI III	8.8	10.4	11.8	12.9	13.8	14.7	6.0
WI IV	8.3	9.7	11.4	12.5	13.6	14.2	5.9
WI V—richest 20%	6.9	8.4	9.9	11.4	12.6	13.5	6.7
Difference between richest and poorest	–2.3	–2.2	–2.3	–1.8	–1.6	–1.1	

education, these inefficiencies must be addressed, both in order to prevent wastage of resources and to ensure that a disproportionate share of public resources are not captured by the richer groups.

There is some evidence that over-age enrollment among the poor may be overstated in the MICS 2001. Among the bottom two quintiles, between one quarter to one-third of 16 and 17 year olds and over 50 percent of 15 year olds are reported to be enrolled in primary classes (not reported in the table). These are much higher than the proportions of richer students of the same age groups—most of whom have moved on to the secondary stage. With the high direct cost of schooling and opportunity costs that increase with age, it is difficult to believe that the poor keep such high proportions of their 15–17 year olds in primary classes. One possible reason for over-reporting is that responses of poor households to questions on current enrollment status may reflect desired rather than actual status, or formal registration at school rather than continued attendance. Such responses are quite possible if parents are educated and would therefore like their children to be educated. The reality amongst the poor, as indicated by teacher and administrator reports is one of intermittent attendance in primary school—enrolling at the beginning of the year, withdrawing after one month, returning after paying the fees for the term, withdrawal the next term and so. In other words, a GER of 80 among the poor does not have the same significance as a GER of the same value for the richer children.

Table 2.15. Percentage of Enrollment by Age and Wealth Index

	% of total enrollment	% of correct age children	% of overage children
Total	100	100	100
WI I—poorest 20%	17	19	15
WI II	17	19	15
WI III	19	20	18
WI IV	22	22	22
WI V—richest 20%	25	20	30

Note: WI refers to wealth index of households. Enrollment refers to classes 1–6. Correct age children are those aged 6–11 years old. Overage children are those above 11 years of age.

This implies that the GER among the poor may be even lower than that reported in the household survey, accentuating the extent of disparities in educational access between the rich and poor. If the effective enrollment ratio among the poor is lower than that indicated by MICS 2001, the overall GER will also be lower, closer to that estimated by using enrollment statistics and population estimates (64 percent).

Summary and Recommendations

The Congolese education system continues to expand slowly at all levels, despite the collapse of public financing over the last two decades, economic chaos, political instability and war. The turbulence and conflict during the latter half of the nineties seems to have impacted primary education more than other levels. Enrollment growth has been most rapid in higher education. The growth in private institutions has far outstripped that of public institutions at all three levels. However, these high growth rates are relative to a small base, and hence the public sector continues to predominate at all levels.

With a primary gross enrollment ratio of approximately 64 percent, the coverage of primary education is relatively low in the DRC compared to those in other African or low-income countries. For a country which has a very low per capita income, however, this coverage level is high and bears witness to the strong commitment to education among parents. There is some evidence of decline in the GER over the last few years, but overall, the country has managed to maintain a stable primary GER despite the contraction of the economy and the collapse of public revenues.

Primary education has historically not received a top priority in the DRC and although, at independence, it started out with a relatively high GER in comparison with many other African countries, there has been no movement towards full coverage. The GER at secondary level has also remained constant at about 23 percent, while the coverage of higher education has increased rapidly over the last two decades.

Many children do not access school at all, or if they do, the majority of them drop out in early primary classes; of the few that succeed in reaching class 6, very few do so without repeating classes. Several million children in the theoretical primary school age group of 6–11 years do not currently attend primary school. Part of the problem is delayed entry. Many children enter class 1 at the age of 8 years. The gross intake rate is only 66 percent. Of those who do enter class 1, about 50 percent drop out by class 5. The primary completion rate is only 29 percent. Only 20 percent of students entering class 1 reach class 6 without any repetition; only 14 percent obtain the school-leaving certificate without repeating any year.

Of those who do not access or complete primary school, the majority are the poor and the children living in rural areas. In addition, there are special groups of children—children of forest dwellers, pygmies, *enfants riverains*—who have traditionally had limited access and who have been especially affected by the closure of schools in remote areas, due to the lack of teachers.

The transition rate between primary and secondary education is high and the transition rate to higher education appears to have increased in the nineties. This partly reflects the fact that it is mostly the richer children who are able to reach the terminal primary stage. The majority of those who complete class 6 continue to secondary education. Prior to 1990, about 50 percent of those who passed the secondary school leaving examination entered higher education; this proportion seems to have risen to 65 percent in recent years.

Due to high levels of dropout and repetition, the internal efficiency of the system is very low at all levels. Internal efficiency is lower in secondary than in primary education because of the high failure rate in the terminal examination of the former. Dropout rates are also very high in the first two years of higher education and may reflect the poor quality of entrants.

Priorities and Strategies

An urgent priority is to ensure that all children enter class 1 and continue through to the end of the primary stage and this will necessitate policy decisions on eliminating financial barriers to participation and making schools physically more accessible. Issues relating to fees and private costs are discussed in chapter 3. Building schools in closer proximity to habitations will be required in order to enable younger children to participate and reduce over-age enrollment; there could be additional benefits in terms of reducing repetition and drop out if physical distance also leads to intermittent attendance for young children.

However, given the low population density and small and dispersed habitations, formal single-grade primary schools are likely to be prohibitively expensive and diversified approaches need to be adopted to reach children in small habitations, in forest areas and those belonging to migratory populations. This requires a major conceptual break in the DRC context where only a single model of formal schooling has been followed. These could include: (i) small multigrade schools teaching classes 1–6 with one or two teachers (ii) satellite schools with just classes 1–2 or 3 (iii) non-formal education centers with flexible hours and days. Different options can be considered either based on population size or characteristics; in particular, the livelihood styles of some important groups, such as children of forest dwellers, pygmies and *enfants riverains* should be taken into account to allow for flexible school calendars and learning schedules.

An important challenge is to ensure equivalence with primary education and to enable those children who have undergone the various alternative forms to transfer back to primary schools. Equivalence has to be brought about both in terms of content and evaluation of progress but also systemically, by involving schools and teachers in the formal "regular" school system to be "responsible" for the other types of schools/centers in their catchment area and have joint training programs for teachers and instructors.

In addition to bringing new entrants to school, non-formal outreach programs need to be developed for 9–14 year olds who have either never been to school or have left school before completing three years of education, in order to facilitate their entry into the formal stream or to acquire basic literacy and numeracy skills. The number of such children is currently estimated to be about four million, and even assuming a rapid development of primary education, they would number two million in 2015.

Alternative delivery mechanisms in primary education can be of either permanent or temporary nature but given the large numbers involved, there could be considerable economies in the development of curricula, materials and teacher training for use in different approaches. For example, small schools for dispersed/small habitations would be permanent, while non-formal center to enable the large number of out-of-school children to acquire basic literacy and numeracy skills could be temporary.

A specific issue to be considered is the institutional location of the management of non-formal/alternative schooling. The direction of non-formal education within the Ministry of

Social Affairs has the institutional responsibility for these forms of education; however, this direction has never had any large-scale program in the past, and currently manages a small UNICEF project. If non-formal education is planned on a large scale for primary age children, with the aim of bringing back out-of-school children, promoting equivalence with the primary school curriculum and transfers to primary schools, the existing division of responsibilities between the Ministry of Social Affairs and the MEPSP should be reviewed. One possibility is for the MEPSP to manage non-formal programs for 9–14 year olds, with the Ministry of Social Affairs concentrating on non-formal programs for young adults (those aged 15–25 years), integrating literacy programs with skills training.

In order enable more detailed and decentralized planning for universal primary education, the following steps should be considered:

- *A complete child census at the beginning of the next academic year, which should be seen as a mobilisational effort to involve teachers and communicate with parents.* The census could be undertaken and analyzed by teachers at each school, with results being progressively aggregated upwards. Children need to be listed by habitation or settlement, by sex, age and current education status. The census will serve the purpose of quickly collecting information on children in and out of school, in order to plan different programs for them, of sensitizing families and communities, and of involving teachers in educational reform. Other potential sources of data for educational planning could take too long–for instance, the proposed new census or a new household survey. These data should be validated and analyzed at higher levels, but they should also be used at the school for planning its activities.
- *School mapping exercises* to determine the location of schools, center etc, again to be undertaken in a decentralized manner.
- *Formulating the programs of alternative education for different target groups.* Exposure of key decision makers and planners to experiments in other countries will be crucial for this.
- *Undertaking necessary administrative changes, including decentralization of powers to provincial authorities,* for such things as timetables, school calendars and progressively for other items.

Beyond primary education, enrollment management at the secondary and higher education levels, while improving the participation of the poor, will constitute the key policy challenges. If the current high transition rates are maintained, as more and more children complete primary school, the pressure to expand secondary and higher education will be very great. The tradeoff between quantity and quality will therefore become critical if expenditures are to remain fiscally sustainable; if quality is to be improved, restricting the growth of secondary and higher education will be unavoidable. However, in restricting entry to post-primary levels, enabling equitable access to the poor through appropriate mechanisms will remain an important consideration. Within secondary education, consideration should be given to reducing the number of secondary schools in order to rationalize the staffing ratios. These issues are further discussed in chapter 6 in the context of simulations of expenditure requirements.

CHAPTER 3

Education Finance in the Democratic Republic of Congo

The unique aspect of education finance in the DRC is the high level of private financing of all levels of education, including primary. The current situation represents a marked change from what obtained 25 years ago, when education received a high priority in government expenditures. Although private financing has supplanted government spending in terms of total volume, the analysis of current public spending pattern is important since increasing the level of government spending in order to improve quality and equity in education is a key policy objective.

This chapter is divided into four main sections. The first presents the analysis of public spending including trends over time, the distribution of spending by levels of education, the functional distribution of spending, estimates of recurrent spending per student and the sources of differences in unit costs across levels of education. The data sources for this analysis are the official budget documents and the *annuaires statistiques.* Public spending aggregates for the period 2000–02 are available only for the seven provinces under partial or complete government control. The second section deals with household spending on education on primary and secondary education, which draws on the recent survey of public schools. Private spending on higher education is discussed in chapter 5. The third section discusses three main elements of expenditures that will be important determinants of future costs of expanding and upgrading the quality of the school system, namely teachers' salaries, the cost of textbooks and costs of construction. The final section presents a summary of the main findings and recommendations for priority actions.

Public Spending on Education—Trends and Composition

Overview of Government Finances

The economic crisis which has enveloped the DRC since the early eighties also entailed a crisis in public finances with a sharp fall in domestic revenues. This was further aggravated by the disruption in external aid flows following the imposition of economic sanctions in the early nineties. During the nineties, public expenditure management was in disarray and only broad aggregates can be estimated for this period. Total receipts averaged about 5 percent of GDP, while expenditures (including debt service) exceeded 9–10 percent of GDP, with sharp increases in some years due to the outbreak of war. Expenditures (excluding scheduled debt service) during this period were mostly on salaries, with negligible amounts being spent on goods and services or on investment. Investment accounted for less than 5 percent of total expenditures during the period 1996–2000.

Because the DRC has not been servicing its external debt for nearly a decade, actual government expenditure has not included the scheduled interest (including arrears) due to external creditors. The total external debt at the end of 2001 was estimated to be approximately US$13.8 billion (table 3.1). About 80 percent of the external debt consisted of arrears. Scheduled debt service in 2001 represented three-quarters of exports and two times government revenue. The rescheduling of arrears will increase scheduled debt service but new external resources are expected to more than offset the increased debt service obligations and should result in a net positive inflow over the medium term.

Table 3.1. Central Government Finances and External Debt

	1997	1998	1999	2000	2001	2002
In billions of Congo francs						
Central government finances						
Revenues (excluding grants)	404	591	2329	15091	91276	152193
Grants (excluding humanitarian aid)	0	0	0	0	0	7447
Expenditure	869	1233	4934	32988	115147	198593
Ratios						
Revenue/Total Expenditure	46%	48%	47%	46%	79%	77%
Wage bill/Revenue	76%	89%	89%	48%	26%	26%
Wages and salaries/Expenditure	36%	43%	42%	22%	20%	20%
Interest on external debt/Expenditure	23%	30%	23%	17%	16%	
(in millions of US dollars)						
External public debt (including IMF)	12 634	13506	13238	12609	13280	
Scheduled debt service (including interest on arrears)						
As percentage of exports	64%	66%	77%	75%	76%	
As percentage of govt. revenue				331%	218%	

Note: Interest on external debt represents scheduled interest excluding interest on arrears.
Source: IMF Country Report No 03/175, Annex Tables (2003) and IMF, Briefing Paper for Third Review PRGF (2003).

The challenges to raising additional domestic resources for the education sector are many. First, total domestic revenues must increase and although far-reaching tax reforms and improvements in the revenue collection system are being implemented, they will take time to produce results. Second, the fiscal cost of reunification is expected to be relatively high, as payments for civil service wages are resumed in the eastern provinces. The direct impact on the wage bill is expected to be about FC5-6 billion (0.25 percent of GDP).[42] Third, the demands on government revenues from other sectors (and excluding the resumption of debt servicing) will increase, especially for infrastructure and other critical social sectors (health and nutrition). Fourth, as the country resumes normal economic activity and the government functions normally, demands for regularization of salary arrears and improvements in salary levels among civil servants are likely to increase.

Trends in Public Expenditures

In sharp contrast with its pre-eminence in total government spending about two decades ago, the education sector today accounts for only 6 percent of total public expenditure (table 3.2). In 1980, almost a quarter of the budget was spent on education; capital spending on the sector accounted for less than 10 percent of total capital spending. The share of public spending on education started declining dramatically from 1983, when it fell to 17 percent and two years later, the share had fallen to 7 percent. This sharp fall in education spending occurred mainly on account of the decline in teachers' salaries—which hardly rose in nominal terms, although the total number of teachers continued to rise gradually. No reliable information is available on the sectoral share of public expenditures during the 1990s, but it is likely that the share remained at roughly the same level given the preponderance of teachers in total civil servants and the share of salaries in total expenditures.[43]

The current presentation of the budget, which shows expenditures by expenditure category rather than by administrative entity, complicates inter-temporal and inter-sectoral comparisons of expenditures. The above expenditures on education include personnel and non-personnel expenditures at the central level, the expenditures on education under the title *services provinciaux* and expenditure on *dépenses communes.* These latter have been estimated using estimates of consumption of electricity, water, fuel and telephone by the Ministry of Education.

The actual expenditures shown above also do not include arrears for rent and salary adjustments that may be due to teachers under existing rules for promotion and advancement. In 2001, the arrears for rent were estimated to be about FC10 billion ($27 million), of which about three-quarters was due for primary and secondary establishments. The arrears for rent alone are equivalent to the total education budget for 2002. The annual payable rent is estimated to be FC1 billion. There are no estimates for the additional expenditures required on account of salary adjustments.

42. IMF (2003). "Democratic Republic of Congo: Selected Issues and Statistical Appendix." Country Report No. 03.175. June 2003

43. Note that data on public expenditures (total and for education) for the years 2000–2002 are for the seven provinces which were under government control at the time; hence, nominal expenditures are not strictly comparable with those of earlier years. However, the percentage share of the total budget is comparable, since total expenditures for the last three years also relate to the seven provinces.

Table 3.2. Public Expenditures on Education
(in current prices)

	In thousands of zaïres (current prices)							In thousands of FC (current prices)		
	1980	1981	1982	1983	1984	1985	1986	2000	2001	2002
Education										
Recurring										
Prim&Sec	690,760	1,123,414	1,825,053	1,306,226	1,568,870	2,310,424	2,832,853	2,005,000	4,189,000	6,751,927
Higher	307,000	397,307	567,115	677,173	577,800	938,746	1,183,797	330,000	915,000	2,965,693
Scientific										207,145
Admin								189,000	187,000	
Capital										
Prim&Sec	14,644	26,628	63,336	61,322	74,452	43,258	34,000			
Higher	2,723	355	0	3,183	0	9,000	12,675	0	200,000	918,157
Education as % of total budget										
Recurring	25%	26%	33%	17%	9%	7%	7%	9%	6%	6%
Capital	7%	4%	3%	8%	9%	6%	5%	0%	12%	9%
Total	24%	24%	26%	17%	9%	7%	7%	8%	5%	6%

Note: For the years 2000–2002, public expenditures are for the seven provinces under government control; civil servants in these provinces alone were paid out of public funds during this period.
Source: Budget documents. For computing the ratio, total expenditure has been taken from IMF tables (see table 3.1).

Table 3.3. Real Public Expenditures
(in millions of constant 2002 US dollars)

	1980	1981	1982	1983	1984	1985	1986	2000	2001	2002
Education										
Recurring										
Prim&Sec	512	483	558	170	69	71	71	42	14	18
Higher	227	170	173	88	25	29	30	7	3	7
Scientific										0.53
Admin								4	0.6	
Capital										
Prim&Sec	10	11	19	8	3	1	0.9			
Higher	2	0.2	0	0.4	0	0.3	0.3	0	0.6	2.4

Note: Computed from table 3.2.

The dramatic decline in real public expenditures is captured in table 3.3. In primary and secondary education, real recurrent expenditures in 2002 were less than 4 percent of what they were in 1980; in higher education, they were about 3 percent of their level in 1980. Even allowing for the fact that expenditures in 2002 were understated due to the exclusion of the provinces under rebel control, the fall in real spending is extraordinary. Between 2000 and 2002, for which data are comparable, real expenditures fell by about 50 percent in primary and secondary education. In higher education, there was a decline in 2001, but real expenditures have regained their 2000 level.

Subsectoral Shares and Composition of Public Spending

The share of recurrent spending on primary and secondary education is higher now than in the early eighties (table 3.4). In 2000 and 2001, this share was over 80 percent, although it declined to 70 percent in 2002. Rather than indicating conscious government priorities, this trend probably reflects the fact that almost all recurrent spending is now on salaries and that the increase in teachers in school education has been more than in higher education. In the early eighties, higher education received between one-third to one-quarter of total recurrent spending on education; by contrast, most of capital spending was on primary and secondary education.

Table 3.4. Sub-Sectoral Shares of Public Spending on Education

	1980	1981	1982	1983	1984	1985	1986	2000	2001	2002
Education										
Recurring										
Prim&Sec	69%	74%	76%	66%	73%	71%	71%	86%	82%	69%
Higher	31%	26%	24%	34%	27%	29%	29%	14%	18%	31%
Capital										
Prim&Sec	84%	99%	100%	95%	100%	83%	73%		0%	0%
Higher	16%	1%	0%	5%	0%	17%	27%		100%	100%

Analysis of salary expenditures alone for 2002 suggests that only 36 percent of total education spending is allocated towards primary education, 32 percent to secondary education, and 1 percent to administration of school education. The existing presentation of budgetary data makes it impossible to prepare a further break down of the total (salary and non-salary) recurrent expenditure by primary and secondary education separately. In 1987, the share allocated to primary education out of total education spending was approximately 45 percent, while secondary education received 26 percent.[44]

In school education, the expenditure on salaries accounts for 86 percent of recurrent spending. A surprising feature of current spending patterns is the relatively high proportion spent on examinations (4 percent). High transportation costs, due to the large size of the country and the number of examination center, as well as the growth in the number of examinees will cause the costs of conducting examinations to be higher. However, the relatively high level of expenditures probably also reflects low efficiency as almost all exam preparation and correction is done manually. Expenditures on all other operating costs are negligible.

Estimated expenditure on utilities, petrol and rent (*dépenses communes*) in primary and secondary education is higher than that on examinations or other non-recurrent costs. In higher education, the share of utilities is as high as 30 percent and expenditure on salaries represents only 69 percent of the total annual spending in 2002. In part, these relatively high shares are a reflection of the low levels of salary expenditure and the high cost of provision of utilities. Although these expenditure data are provided by the Ministry of Finance (separately for each ministry), they may not be entirely reliable indicators of actual consumption of these utilities. For instance, in the case of higher education, the expenditure on electricity is indicated only for Kinshasa. Further, it is not clear whether these payments are actually made or whether they constitute arrears in payment. A more realistic assessment needs to be made about the actual level of consumption of these utilities in order to assess the true cost of educational services.

Table 3.5. Composition of Recurrent Public Expenditure (actual 2002)

	Total (FC bil.)	Salaries	Exams	Dépenses communes	Other
Primary and Secondary	6.75	86%	4%	9%	1%
Higher	2.97	69%	0%	30%	1%

Per Pupil Public Expenditures

Real per pupil public expenditures have declined as enrollments have continued to increase. In primary and secondary education, public expenditure per pupil in 2002 was under four percent of that attained in 1980 (table 3.6). In higher education, the decline in real spending has been precipitous, with per pupil expenditure in 2002 being less than one-hundredth of the level in 1980. Clearly, the levels of per pupil spending in higher education in 1980 were extraordinarily high, amounting to 73 times the per pupil expenditure in primary and secondary education. By 2002, this ratio had declined to 14.

44. World Bank (1988). *Zaire—Rapport Sur le Secteur de l'Education Primaire et Secondaire.* Washington D.C.

Table 3.6. Real Per Pupil Expenditures (in constant 2002 US dollars)

	1980	1981	1982	1983	1984	1985	1986	2000	2001	2002
Education										
Recurring										
Primary & Secondary	109	101	113	33	13	13	13	10	3	4
Higher	7 993	5 996	5 107	2 695	666	754	734	72	29	57
Capital										
Primary & Secondary	3	3	5	2	1	0	0			
Higher	71	5	0	13	0	7	8	0	6	20

Note: To calculate per pupil expenditures in primary and secondary education for 2000–2002, enrollment in the seven provinces only have been used since public expenditures relate to only these seven provinces.

Estimates of per pupil expenditures in pre-school, primary and secondary education have been derived for 2002 for the areas under government control (table 3.7). The readily available figure is total expenditure for these three levels which has been apportioned using the proportion of salary expenditure on each level. The proportion of salary expenditure in turn has been calculated using the estimated average salary at each level and the number of teachers and non-teaching staff.

Table 3.7. Per Pupil Expenditure in Primary and Secondary Schools, 2002

			Public Expenditure, mil. of FC at current prices		Per Pupil Expenditure, FC at current prices	
		Number of students	Without administration	With administration	Without administration	With administration
Pre-school		8,865	17.0	18.2	1,918	2,056
Primary		3,230,037	3266.6	3501.2	1,011	1,084
Secondary	**General**	485,170	1204.1	1290.6	2,482	2,660
	Normal	295,711	753.3	807.5	2,548	2,731
	Technical	277,047	957.5	1026.3	3,456	3,704
	Professional	19,143	100.9	108.1	5,270	5,648
	Total	1,077,072	3015.8	3232.5	2,800	3,001
Total (pre-school, primary, secondary)		4,315,974	6299.4	6751.9	1,460	1,564
Higher Education		146,000	3059.9	3172.8	20,958	21,732

Note: Data are for the 7 provinces under government control. Expenditure includes salaries and non-salary recurrent expenditure, including *dépenses communes.*
Source: Budget data and *Annuaires statistiques.*

The level of public spending on primary education is extremely low, just over FC1000 or less than $3 per student per year. At the secondary level, the state spends 2.8 times the amount it spends per student as at the primary level; while at the higher education level, the state spending per student is more than 20 times the per pupil public expenditure at the primary level. Hence, even though real spending has declined in higher education, significantly more is spent at present on university students than on primary students. There is considerable variation in unit costs across different types of secondary education. In particular, technical and professional education are much more costly than general secondary education or the *normal* (teacher training), mainly because the pupil-teacher ratios are lower in the former. Expenditure on administration is relatively small, so that the difference between expenditure per pupil with and without administrative costs are approximately the same. It is slightly higher for secondary education, mainly on account of the expenditure on examinations.

Factors Determining Unit Costs

The public unit cost of education is currently determined largely by the salary bill and the factors influencing its size at each level. The pupil-teacher and pupil-other staff ratios, as well as the average salaries of teachers and non-teaching staff, which determine the total salary bill, therefore influence the annual cost per pupil. We analyze here the extent to which differences in these factors across different levels influence the difference in public unit cost, although as is seen above, unit cost in higher education is also influenced by the relatively high share of utilities.

The proportion of administrative staff in higher education is relatively high—about 12 percent. In primary and secondary education, the overall proportion is reasonable (5 percent), with a majority of staff being located at administrative levels below the province (tables 3.8 and 3.9). The central level has about 20 percent of all administrative staff at these two levels. Inspection staff comprise a substantial proportion of total administrative staff (one-fifth), but it is not clear how many are really located at the central level or below.

The share of non-teaching staff within higher education institutions is as high as 61 percent. Apparently, while there have been curbs on hiring faculty (either due to non-availability or due to fiscal pressures), the share of other staff has increased, indicating lack of controls on recruitment at this level. The proportion of non-teaching staff in secondary education is higher than in primary, due to the staff in technical and professional schools. However, the proportion of non-teaching staff even at the primary level is relatively high in comparison with that of other countries. This is due to the fact that in schools with more than 6 classes, the *directeur* and the *directeur adjoint* do not have teaching duties (the latter is provided in schools with more than 14 classes).

Table 3.8. Administrative Staff, 2002

	Primary & Secondary	Higher
Total Staff (including administration)	90,738	22,810
Of which % in administration	5%	12%
Percent of admin staff by level		
Central	21%	100%
Provincial	9%	
Sous-provincial	50%	
Inspection	20%	

The difference in unit costs between the primary and secondary levels is due to the generous pupil-

Table 3.9. Share of Teaching and Non-Teaching Staff in Education Institutions, 2002

	Total staff in institutions (number)	Teachers (%)	Other staff (%)
Primary	111,782	88%	12%
Secondary	90,738	82%	18%
Higher	20,043	39%	61%

Note: Excludes administrative staff outside institutions.

teacher ratio and the relatively high proportion of other staff in secondary education; it is not due to the difference in average salary levels, which are roughly the same across the two levels. The ratio of average salary levels for secondary teachers compared to primary teachers is only 1.05:1 (top half of table 3.10). Although secondary teachers are more qualified and on a higher pay scale, their average age and experience is lower than that of primary teachers and hence this explains the relatively small difference in average salary levels between these two levels. For non-teachers, average salary levels are actually higher in primary education than in secondary education. This is due to the fact that school administrative heads, with higher salaries, represent a greater share of staff in this category in primary schools than in secondary schools, and due to the relatively high salaries of administrative staff compared to the salaries of teachers.

The pupil-teacher ratio in secondary education is extremely low (14:1) which is lower than that in higher education (18:1) and less than half that in primary education (33:1) (lower half of table 3.10). The lower the pupil-staff ratios, other things being constant, the higher the unit cost. Overall, the pupil-teacher ratios at all three levels are low in absolute terms in comparison with many other African and other developing countries.

The ratio of pupils to other staff is also much more generous in secondary education than in primary education. In secondary education there are 67 pupils for every "other staff," compared to 233 in primary education; the difference in these ratios is much more pronounced than for teaching staff.

The relatively high unit cost in higher education is caused by the substantial difference in average salary levels as well as the extraordinarily high proportion of non-teaching staff.

Table 3.10. Factors Affecting Unit Costs

				Ratios	
	Primary	**Secondary**	**Higher**	**Sec:Primary**	**Higher:Primary**
Average Monthly salary paid by the state (FC)					
Teachers	3,109	3,276	13,056	1.05	4.20
Non-teachers	5,283	5,105	9,657	0.97	1.83
Pupil-Staff Ratios					
Pupil-teacher ratio	33.0	14.4	18.2	0.44	0.55
Pupil-other staff ratio	233.1	67.0	11.9	0.29	0.05

Note: Data relate to the seven provinces under government control only.

The average salary levels of university teachers are four times that of primary teachers; the ratio for salaries of non-teaching staff is much more modest (because of the relatively high salaries of primary school heads). This is both due to the enormous differentials in salary scales—the salaries of university teachers is governed by a special scale—and the fact that primary (and secondary) teachers outside Kinshasa, who constitute the majority of teachers, do not get the transport allowance that raises the earnings of teachers in the capital, while there is no such discrimination among university professors. A university professor at the highest level (*professeur ordinaire*) receives 20 times the salary of the lowest paid staff in the MEPSP, while an associate professor obtains 7 times the salary of a mid-career primary teacher who is not based in Kinshasa.[45]

With respect to non-teaching staff, there are only 12 students for every "other staff" in higher education (compared to 233 at the primary level and 67 in secondary education). This high proportion is hardly justifiable given that the majority of courses are of a general, non-technical nature, and especially as the pupil-teacher ratio is actually higher in universities than at the secondary level. These factors explain why the annual per pupil expenditure in higher education is about 20 times that at the primary level.

Current unit costs at each level of education reflect the impact of arbitrary cost control measures imposed in the context of fiscal distress and do not reflect the true cost of existing norms which are overall very generous. Unlike other African countries, the rules for public education provision in the DRC are governed by a number of detailed norms regarding personnel and class sizes. At present, many of these norms are not implemented due to unavailability of resources or have been revised downwards for the schools outside Kinshasa; if they were to be implemented unit costs and the total cost of provision would rise. This factor needs to be taken into account a more balanced system of public financing is resumed.

If norms regarding maximum class size were respected, pupil teacher ratios in primary and secondary schools, which are relatively low by African standards, would be even lower, leading to higher unit costs. At the primary level, the norms for minimum and maximum class size are 26 and 50, respectively. Currently, between 12–25 percent of primary classes (by year of study) have more than 50 students. However, the pupil-teacher ratio is only 33 because 31 percent of classes have less than 26 students. In other words, teachers in small schools are being supported by allowing over-crowding in other classes. If the maximum class size norm were to be respected (without regrouping the smaller classes), unit costs at the primary level would be higher. In secondary education, the minimum class size is often not respected due to the small size of schools, leading to the observed very low pupil-teacher ratios.

Norms regarding the number of substitute teachers are generous but have been revised downwards for schools outside the capital. In Kinshasa, where the norm is implemented, the rate of substitute to teachers in class is 13 percent, which is very high. Outside Kinshasa, on the other hand, the rate of substitute teachers is only 1.7 percent. Substitute teachers are those who are to cover teachers on training, sick leave and maternity leave and the existing norm is far higher than that in other African countries. By way of comparison, in Senegal, which has a similar proportion of female teachers, the norm

45. In May, the salary of *professeurs ordinaires* was raised to USD 500 per month for 2004; this category of professors would presumably be paid only by the state and not receive the supplements paid from the *frais de motivation* borne by students.

is that 5 out of 100 teachers should be substitute teachers. Implementation of the norm in all schools would lower pupil-teacher ratios even further, thus raising unit costs.

Each primary school with six classes or more, both in Kinshasa and outside, is entitled to a full-time *directeur* with no teaching duties; when there are fourteen or more classes, the school is entitled in addition to a *directeur-adjoint,* again with no teaching duties. These norms are very generous and contribute to raising unit costs. In France, for example, the primary school head has no teaching duties if there are 14 or more classes; however, he must teach half-time if the school has 10–13 classes and he has only one day off in a week away from teaching if the school has 6–9 classes. Schools in Kinshasa also have workers (2 for a school with 32 classes) and a guard. If this norm were implemented throughout the country, the unit cost would rise by $1; it would therefore be better to give a worker and guard to all large schools, including those outside Kinshasa.

Another expenditure control measure, undertaken during the revision of the pay scales in May 2001, was to give only 70 percent of the base salary applicable in Kinshasa to primary and secondary teachers in other provinces, and to withhold payment of full salaries to staff outside the capital, leading to enormous disparities in working conditions and the quality of education across the country as well as to the buildup of salary arrears. In the best of situations, that is when they receive their full dues, teachers outside Kinshasa get only one-third the salary of teachers in Kinshasa. This is mainly on account of the transportation allowance which is paid only to teachers in Kinshasa, which alone represents twice the base salary of the personnel outside Kinshasa. The funds available for salaries outside Kinshasa are often not commensurate with the requirements and hence, there are pro-rata reductions in salaries of each person; there are also indications of arbitrary reductions, with some schools and teachers not receiving any payment in some months. The arrears in salary payment remain to be estimated.

The anomalies underlying the public unit cost structure will need to be addressed while planning resource requirements over the medium term. They can be easily overlooked precisely because current public unit costs are so low, mainly on account of the low absolute level of salaries. At present, because of the extremely low value of salaries, salary differentials do not appear large in absolute terms. A primary teacher in the provinces outside Kinshasa receives less than $10 a month and the lowest earning staff in the Ministry of Education obtains $3 a month as state salary. However, with the growth in public financing, the salaries paid by the state should rise substantially to the extent that the *prime de motivation* currently paid by parents could be eliminated. In such a situation, these large salary differentials combined with generous staffing ratios and other norms would lead to an unsustainable surge in public resources.

Public Expenditure Management and Payment of Teacher Salaries

Irregular and arbitrary payment of teachers' salaries is one of the key issues in public expenditure management. Table 3.11 shows the difference between the salary bill for the seven provinces, as estimated using the average monthly salary and the total number of teachers and non-teaching staff at each level, and the actual salary payment. In higher education, the difference between the estimated and actual salary payment is not very great (FC2.5 billion compared to FC2.2 billion). For primary and secondary education, the actual salary payment (for the seven provinces) is FC5.8 billion compared to an estimated salary bill of FC9.2

Table 3.11. Deviation between Estimated Salary Bill and Actual Salary Payment, 2002

	Average monthly salary (FC)		Estimated salary bill (000s FC)		Actual salary payment (000s FC)
	Teachers	Non-teachers	All provinces	7 provinces	
Schools					
Pre-school	3,938	5,802	26,558	24,395	5,820,950
Primary	3,109	5,283	6,174,604	4,647,905	
Secondary	3,276	5,105	4,766,845	4,012,728	
Administration (primary and secondary)					
Central		5,004	114,871	114,871	
Provinciale		4,332	55,100	45,972	
Sous-provinc.		4,063	261,747	231,141	
Inspection		5,337	141,857	123,320	
Total Salaries (Pre-primary, Prim&Secondary)			**11,541,586**	**9,200,336**	**5,820,950**
Higher Education					
Institutions	13,057	9,657	2,644,886	2,187,121	2,176,615
Administration		10,744	356,749	356,749	
Total Salaries (Higher Education)			**3,001,635**	**2,543,870**	**2,176,615**

Note: Average monthly salary for each level has been estimated by using the salary grid and the distribution of teachers by qualification and experience.

billion; in other words, only 65 percent of the estimated salary bill has been paid. As stated earlier, some staff receive nothing,[46] while others receive only a part of what is due to them. In the latter case, the "due salary" could be either calculated correctly or be under-estimated by not applying the rule of automatic advancement in the salary grade every three years. There could also be another artificial reason for this observed difference: overestimation of the number of teachers used for estimating the salary bill; these latter are estimated using the number of schools by province and management type in the *Annuaires statistiques.*

These data suggest that salary arrears are likely to be high and that future projections of total public expenditure requirements will need to take these into account. If the assumptions underlying the estimation of the total salary bill are correct, the total salary expenditure for primary and secondary education would be almost double the 2002 levels if teachers in all the provinces were paid at the salary levels that would be expected at their grade level.

Education Expenditures of Local Governments (EADs)

In addition to the expenditures of the central government, in principle, the local governments (*Entités Administratives Décentralisées*—EAD) can also spend from their own resources for

46. A non-negligible number of staff are locally recruited and have not been regularized; they would not be included in the listings for salary payment.

educational institutions under their jurisdiction (primary and secondary schools). The expenditures discussed above are those of the central government, both those of the Education Ministry in Kinshasa as well as the payment of salaries of teachers and other staff located in the provinces. The central government is also expected to cover the current non-salary expenditure (*dépenses de fonctionnement*) of schools and administrative offices, but this has been very low in recent years. EADs can incur both recurrent and capital expenditures; examples of the former are providing operating funds to schools for maintenance of buildings and financial aid to students and of the latter are the construction of new schools.

Central government transfers (*rétrocessions*), the principal source of finance for EADs, have been limited in size and there is no information on how much of these transfers has been spent on education. In 2002, transfers to provinces under government control amounted to FC5 billion.[47] Furthermore, there is no data on how the total transfers to a province are further distributed to lower level EADs (towns, *territoires*). Although the EADs are expected to produce quarterly reports on their receipts and expenditures (*rapports d'exécution*), these are not done regularly. Provinces produce an annual report for the first 10 months of the budget year in November in order to facilitate preparation of the budget for the coming year; however, the reports are not necessarily finalized to include the last two months of the fiscal year. The lower level EADs rarely produce annual budget execution reports.[48]

The other source of funds for EADs are local taxes but most of these are not important sources of revenues, both because of their nature and the ineffective system of revenue collection. Among them are the "earmarked taxes" for education, notably the *minerval* and the *frais de fonctionnement.* Of the annual obligatory *minerval* payment of FC100 per enrolled child, 50 percent is supposed to go to the Treasury, 30 percent to the province and 20 percent remains with the school. However, there are no reliable accounts of how much is collected from students and what remains with the province or is sent to the Central government. (Data from the school surveys, discussed later in this chapter, confirm this lack of clarity about the use of *minerval* receipts.)

Expenditure on education by the EADs is likely to be relatively small, although the lack of comprehensive data precludes a definitive conclusion. The voted budget for the province of Kinshasa for the year 2001 can be used as an illustration. Out of a total recurrent budget (*dépenses courantes*) of FC2.2 billion, about FC250,000 were allocated for education (prime de motivation for officials and some office expenses). The total capital budget was FC947 million, of which FC28 million were allocated to reconstruction and rehabilitation of schools; however, the actual expenditures on the capital account are often far lower. A third category of expenses, namely *dépenses pour ordre,* relate to expenditures financed by the *minerval* collections, which amounted to FC7.3 million. This amount would correspond to *minerval* receipts from only one-fifth of the total number of students officially enrolled in primary and secondary schools in Kinshasa, indicating either low collection rates of the *minerval* or the fact that little of the share due to the province is in fact sent to the province. In total, out of a total budget of approximately FC3.4 billion, only FC36 million were budgeted for education. Actual expenditures would be lower than this amount due to the low execution rate of the capital budget.

47. IMF, June 2003.

48. Francois Vaillancourt (2003). "La territorialité de l'activité publique en RDC en 2002: état des lieux et recommendations."

External Aid for Education

In comparison with many other sub-Saharan countries, even in the 1980s, official external aid financed a relatively small proportion of total public expenditures on education in the DRC and was concentrated mainly on higher education. At the beginning of the eighties, total aid for education was about US$43 million per year, about 90 percent of which was for recurrent expenditures. About 80 percent of the aid for recurrent expenditures was from Belgium, of which 40 percent went to higher education, 30 percent to secondary education and 17 percent to technical education.[49] This aid consisted mostly of technical assistance (66 percent) and scholarships (28 percent). The small amount of capital expenditures (from the European Union) was almost entirely for higher education. Aid from non-government organizations, mainly churches, was provided for primary education and also for university education, but the size of such financial flows was not known.

External government aid for education was non-existent during the nineties and even most non-governmental aid sources dried up. Informal links between universities, mainly Belgian ones, continued to sustain some research and exchange of faculty. Since the resumption of international economic assistance, aid for education has come mainly from UNICEF, for primary education, and from Belgium.

Household Financing of Primary and Secondary Education

Household financing of education takes two forms: the financing of education in private institutions and the financing of education in public institutions. Because the absolute levels of public expenditures are very low, and have been so since the mid-1980s, Congolese households have been financing the bulk of expenditures in public institutions as well.

In public institutions, parents are required to pay a number of charges. Table 3.12. lists the main ones that are currently applicable. Most of these charges have a specific purpose and there are detailed guidelines on the sharing of the important charges. As can be seen, households are expected to finance the cost of administration of the education system, teachers' training and professional development, teachers' salaries, examinations and other charges. In principle, the system for levying, collecting and distributing these charges is well laid out, though the practice varies considerably both in relation to the official procedure as well as across provinces.

Private schools have similar charges, the main difference being that the *frais de fonctionnement* cover all operational expenses for the school; hence, there are no separate *frais de motivation* for teachers, since teachers' salaries are paid out of the general pupil charges. In principle, the school fees in private schools are set by the management in consultation with the *chef de sous-division* and the school committee, comprising teachers and parents of students. In addition, private schools charge for the renting of books; this also exists in some public Catholic schools at the secondary level.[50]

49. Millot, Orivel and Rasera (1987). "L'aide extérieure a l'éducation en Afrique sub-Saharienne." World Bank.

50. A voluntary survey of private schools was conducted by the Association of Private Schools for this CSR. However, due to the poor quality of the financial data, and the fact that many private schools did not respond most of the survey information could not be analyzed.

Table 3.12. Pupil Fees and Charges in Public Schools

Fee/Charge	Purpose	Periodicity	Amount (FC) per student	Fixed By	Distribution
Minerval	Originally, a tax to cover administrative charges of the Min. of Education; since 1997, the Central share goes to the public treasury as a general tax	Annual	100	Central government	Collected by school. School: 20% Province: 30% Public Treasury: 50%
Frais de fonctionnement	Tax to cover the incidental expenses at the school level, administrative charges of the "réseaux" and inspection	Per term	Varies by province	Governor of Province	School: 80% Sous-division: 12% Region: 4% Inspool (central insp): 3% Regional inspection: 1%
Frais de motivation	Parental contribution towards teachers' salaries	Per term	Varies by school; in 2001–02, the *frais de motivation* could not exceed double the *frais de fonctionnement* paid in the 3rd term of the previous year. For secondary education, the *frais de motivation* could not exceed five times the *frais de fonctionnement.*	School committee and school management, under supervision of the local authority and in consultation of communal/territorial committee of the parents associations.	Distributed to teachers in each school
Prime d'assurance scolaire	Insurance for students	Annual	5		
Frais de promotion scolaires	To meet expenditures of provincial gatherings of teachers and administrators of the province	Annual	Varies by province; in Kinshasa for 2002–02, the charge was FC50 per student.	Province	Ministry of Education

(*continued*)

Table 3.12. Pupil Fees and Charges in Public Schools (*Continued*)

Fee/Charge	Purpose	Periodicity	Amount (FC) per student	Fixed By	Distribution
Imprimeries	Expenditure for identity cards, school bulletins	Annual	Varies by type of certificate (e.g. FC100 for primary school leaving certificate)	Province	Ministry of Education
Frais de formation	To meet travel and per diem expenses of inspectors for school visits	Annual	Varies by province (e.g. FC3 per student in)	Province	
Frais d'examens	Charges for end of cycle examinations and certificates	Levied at time of registering for examination (primary; secondary)	Varies by level of examination and province	Province	Province
Frais d'intervention ponctuelle	For special exigencies	As per requirement	Varies by province		
Frais technique	For technical schools	Annual	Varies by province and discipline; in 2002 for Kinshasa charges were from FC3500 to FC5000 per student	Province	

Household Costs

The *frais de motivation* (to pay for staff salaries) and *frais de fonctionnement* (to finance school non-personnel operating expenses) are the two most important pupil charges, the former accounting for about half the total annual charges at the primary level (table 3.13). On average, the *frais de motivation* for the provinces under government control was about FC3,100 per child, or about US$7.50, in 2003.[51] In the eastern provinces (earlier under rebel control), the comparable figures are FC2,290, or US$5.50. The difference in the average for the two regions is mainly due to the much higher fees in Kinshasa (exceeding FC7,000). The average for the *frais de fonctionnement* is FC1,392 (US$3.3) in the western provinces and FC919 (US$2.2) in the eastern provinces. There are substantial variations between provinces and within schools in the fees that are charged.

At the secondary level, the charges are about 2–3 times those at the primary level (table 3.14). There is also a bigger gap between the western and eastern provinces, and not only on account of Kinshasa. On average, the *frais de motivation* for the provinces under government control in 2003 were about FC12,300 per student (US$29.3), while, in the eastern provinces in 2004, they were FC3,690 per student (US$8.83). The *frais de fonctionnement* were about FC2,345 and FC1,563 in the two broad regions of the country. Examination fees (at the end of the upper secondary) are relatively high, averaging about FC4,000 per student.

The annual total mean household cost per student at the primary level is $14 in the western provinces and $9 in the eastern provinces; at the secondary level, the total charges are $42 and $14, respectively, for the two regions. These charges are high, both relative to per capita income and to current levels of public spending. In relation to per capita income, between 9–14 percent is spent on each child at the primary level, and between 14–42 percent per student at the secondary level, depending on the region. Household expenditure on primary education per child exceeds public spending by a factor of 2–3 and on secondary education, by a factor of 3–10.

Clearly, at current levels of income and given the poverty in rural areas, many households would not be able to afford sending their children to school. However, two caveats apply. First, the costs indicated above are average costs, and costs in many schools are much lower due to differences in the *frais de motivation.* School managements try to fix charges in relation to the community's "ability to pay," while trying to ensure a reasonable *motivation* to the teachers. Second, while the charges are fixed in money terms, many parents pay in kind (food, wood etc), or do not pay the full amount. The survey data indicate that this is especially important at the secondary level. Parents may also be allowed to stagger payments to enable them to smooth their expenditures in line with their income stream. Despite these caveats, it is almost certain that these high costs will prevent a large number of poor students from regularly attending school.[52]

Distribution of Shared Charges Paid by Households

The distribution of the shared charges (that is, charges that are shared with administrative structures) varies substantially across schools and provinces, reflecting the fact that

51. Using an exchange rate of FC418 for a dollar.

52. The high GERs estimated from the MICS 2001 household survey seem improbable, given these high levels of private costs.

Table 3.13. Per Pupil Charges for Primary Public Schools By Provinces, 2003 and 2004 (in FC)

Fee/Charge	All Provinces	Kinshasa	Bas-Congo	Bandundu	Equateur	Kasaï-Oriental	Kasaï-Occidental	Katanga
Provinces under government control (June 2003)								
Minerval	99	97	95	101	100	102	100	100
Frais de motivation	3132	7349	2748	2443	1057	1250	988	2397
Frais de fonctionnement	1392	1905	1931	905	1004	1003	760	1054
Frais d'intervention ponctuelles	1184	2110	605	425	450	.	.	1381
Imprimeries	119	82	118	150	160	100	.	122
TENAFEP (primary school leaving examination)	875	1026	849	667	1414	961	833	817
Provinces earlier under rebel control (February 2004)								
Minerval	99	100	99	100	100	100	100	89
Frais de motivation	2290	3811	3228	717	1471	627	1006	974
Frais de fonctionnement	919	1345	989	420	1343	366	873	683
Frais d'intervention ponctuelles	193	730		30	161	131	79	
Imprimeries	76	91	53	41		125		100
TENAFEP (primary school leaving examination)	679	495	1157	599	305	407	415	865

Source: Survey of Public Schools, 2003 and 2004.

Table 3.14. Per Pupil Charges for Secondary by Type of School (FC), 2003 and 2004

Fee/Charge	All	General	Normale	Technical	Others
Provinces under government control (June 2003)					
Minerval	99	99	101	97	103
Frais de motivation	12283	13851	10137	11808	6162
Frais de fonctionnement	2345	2360	2432	2479	1648
Frais d'intervention ponctuelles	2869	3327	2149	2722	1310
Imprimeries	139	146	126	84	119
Examen d'Etat	4169	3959	4388	4117	7407
Provinces earlier under rebel control (February 2004)					
Minerval	96	95	100	102	
Frais de motivation	3690	3319	6316	3255	
Frais de fonctionnement	1563	1495	1302	3301	
Frais d'intervention ponctuelles	515	503	707	450	
Imprimeries	90	89	104		
Examen d'Etat	4318	4240	5137	3638	

Source: Public Schools Survey, 2003 and 2004.

regulations are not implemented and/or schools do not keep proper accounting records. For instance, schools could not distinguish between the *minerval* collection receipts going to the general treasury or to the province level (this may be because the amount is deposited into one account). It is therefore not possible to infer how much the province receives from this educational tax in order to finance expenditures on education. Although schools are supposed to retain 20 percent, the actual proportion retained varies from 5–20 percent.

Schools are supposed to retain 80 percent of the *frais de fonctionnement,* but apparently they retain only about two-thirds of total collections. A relatively high proportion of the shared charges are therefore appropriated at higher levels of the administration (both in state schools and the *écoles conventionées*) leaving little for operating expenses at the school level. These go to administrative structures at the sub-provincial and provincial level, national level structures and inspection authorities.

Accountability Mechanisms

The formal governance structure at the school level includes representation by parents, teachers and school administrators but, in practice, mechanisms for financial accountability are weak. Most schools do not keep proper accounts of fees and other "primes" received from parents or how these have been spent. An exception is the *frais de motivation,* which goes directly to the teachers and hence is managed and distributed amongst themselves, depending on the amount of work done by each teacher. Since the churches run various schools, health center and other enterprises, they prefer not to show separate accounts regarding receipts and expenditures for individual schools. Most administrators do not also have the skills to maintain accounts.

Despite their pre-eminent role in financing school education, parent committees do not really have the "voice" required to enforce accountability over management committees, the "*reseaux*" and the state authorities. Many parents are illiterate or do not have the time to participate in school affairs. Representatives of parent committees may not act as independent watchdogs and this collusion leads to lack of transparency in the use of funds. Finally, ordinary parents are afraid of penalties being imposed on their children (failure in examinations) and prefer to close their eyes to misuse of funds.

There are many perverse effects of this high level of dependence on direct household financing of teachers' salaries. Children are not allowed to attend classes unless they have paid the various charges, leading to reduced learning time, repetition and failure. The other perverse effect of this direct financing of teachers' salaries is that it creates incentives for teachers to reward children who pay regularly or more than the charge (if they can afford it) and to penalize children who make delayed or lower payments. The results are highly inequitable for poor children. At the same time, the intermittent and uncertain nature of parents' payments, especially in poor areas, reduces the motivation of teachers and forces them to seek other employment opportunities. This makes it difficult to introduce programs for improving quality of education which requires sustained teacher involvement and commitment.

The Components of Costs in Primary and Secondary Education—Teacher Salaries, Textbooks, and Construction Costs

Teacher Salaries

The total earnings of teachers from both publicly paid salaries and household charges (*prime de motivation*) are important because they reflect the returns to the teaching profession and because they provide an indication of the total burden to be taken up by the state if public subsidies are increased. Tables 3.15 and 3.16 summarize the monthly salaries for primary and secondary teachers, paid by the state and by households. Since data for state salaries are available only for the regions under government control, only these provinces are shown in the table. The data in the top part of table 3.19 show what the state salaries were in 2002; the second part shows the monthly "motivation" paid out of student contributions, as reported by schools in the survey in April-June 2003. Since the academic year was 2002–03, it is likely that the two salaries are comparable. The third part of the table provides the gross monthly salary in private schools.

On average, salaries paid by the state represent only one-third of the total earnings of primary teachers and one-fifth of the earnings of secondary teachers in public schools. Primary teachers received about FC3,000 per month as their salary from the state and about FC6,000 (US$15) as their monthly *motivation* paid by households. Secondary teachers received about FC3,330 as their monthly state salary and about FC14,000 (US$33) in payments from parents (table 3.15).

The state salaries are very low in all provinces, but primary teachers in Kinshasa earn about three times the salary of teachers in other provinces, and administrators of primary schools get about 40 percent more than teachers in Kinshasa and nearly twice as much in other provinces. The disparity between Kinshasa and other provinces is due to the transportation allowance and the fact that the new salary scale has not been implemented else-

Table 3.15. Earnings of Teachers and School Directors in Public and Private Primary Schools in FC (2003, areas under government control)

Category of teacher	All Provinces	Kinshasa	Bas-Congo	Bandundu	Equateur	Kasaï-Oriental	Kasaï-Occidental	Katanga
Public schools (monthly salary paid by state, 2002)								
Directeur	5,425	12,350	5,213	4,672	5,214	5,096	5,325	5,205
Directeur adjoint	4,502	9,309	3,024	2,893	3,632	3,374	3,702	3,901
Chef d'école	3,591	8,843	3,854	3,051	3,863	3,458	4,137	3,513
Teacher	3,070	7,369	2,691	2,637	2,744	2,848	2,646	2,772
Public schools teachers (monthly prime de motivation, 2003)								
4 yrs secondary (D4)	6,110	12,814	7,700	2,145	3,956	6,082	4,618	5,446
6 yrs sec; teacher training (D6)	6,090	12,659	7,688	2,200	3,976	6,082	4,618	5,045
3 yrs university (G3)	6,446	18,852	6,328	2,111	4,501	6,123	4,624	5,715
Private schools teachers (gross monthly salaries, 2003)								
4 yrs secondary (D4)	12,833	17,120	17,129	4,550	11,000	12,644		
6 yrs sec; teacher training (D6)	16,545	19,261	20,081	5,296	16,220	17,784		
3 yrs university (G3)	19,684	20,160	20,036	7,786	16,100	26,201		

Note: For public salaries, the average for all provinces includes the eastern provinces.
Source: SECOPE for salaries paid by state and surveys of public and private schools, 2003.

Table 3.16. Earnings of Teachers in Public and Private Secondary Schools in FC (2003, areas under government control)

Category of teacher	All Types	General	Normal	Technical	Others
Public schools (monthly salary paid by state, 2002)					
Directeur des études	5,401				
Préfet	6,589				
Professeur cycle long	3,071				
Professeur	3,326				
Public schools teachers (monthly prime de motivation, 2003)					
3 yrs university (G3)	13,539	16,323	12,452	11,708	6,932
Post graduate; teacher training (LA)	14,383	16,851	13,254	13,214	6,932
Private schools teachers (gross monthly salaries, 2003)					
3 yrs university (G3)	21,567	19,513	27,496	25,580	13,365
Post graduate; teacher training (LA)	20,153	17,937	18,605	27,184	16,832

Note: State salaries in public schools relate to all provinces and are not available by type of school.
Source: SECOPE for salaries paid by state and surveys of public and private schools, 2003.

where. The disparity between administrators and teachers indicates the large difference in pay scales.

The *prime de motivation* paid by parents substantially augments teachers' salaries, but again there are substantial variations across provinces. Compared to a state monthly salary of about $17, a primary teacher in Kinshasa (D6) will get $30 as *motivation* with a total remuneration of about $47. In absolute terms, the monthly *prime de motivation* in other provinces are much lower than in Kinshasa, and they amount to only $5–18. The total earning of primary teachers outside Kinshasa varies between $12–20. In relative terms, however, because the state salaries in these provinces are so much lower, the *prime de motivation* contributes much more to a teacher's earnings than in Kinshasa. The monthly salary for private school teachers as reported by schools are higher than in public schools in all provinces and with less variation across provinces (except for Bandundu).

The average state salaries for secondary school teachers are only somewhat higher than for primary school teachers (and non-teaching staff) (table 3.16). This is probably due to the difference in age structure; the average age of primary teachers is higher than secondary teachers due to the inability of the state to retire eligible teachers. The "prime de motivation" is substantially higher and a secondary teacher would get about $32 on average; it is much higher in the general ($40) and *normale* schools ($30) than in technical and professional schools, where the monthly motivation is only about $17–28. Salaries in private secondary schools are higher in all schools except the general secondary schools.

Cost of Textbooks

The majority of Congolese pupils at the primary stage do not have any textbook. Textbooks are expensive where available and are not available in many areas. At the secondary

stage, students purchase the photocopies of *notes de lecture* prepared by the teacher. In the better endowed Catholic primary and secondary schools, students can also rent textbooks at an additional charge.

The cost of imported textbooks used in external projects is high. A small number of schools are being supplied with mathematics and French language textbooks by UNICEF since 1998. In 2002–03, 438 primary schools with 350,000 pupils received textbooks. The cost averaged about $3.50 per textbook; the price range of the mathematics textbook for different primary classes was $2.02 to $3.81 while the French textbooks were more expensive, ranging in price from $3.14 to $4.07. The high cost of inland transportation contributes to their high price.

Reducing the cost of textbook provision should be an important part of the strategy for improving quality while containing costs and demands an integrated policy framework for the development of textual materials. With high unit prices, the pupil-book ratio will remain unacceptably high, reducing effective learning opportunities for children. In a populous country such as DRC, where the potential market is large enough to generate economies of scale, and where there exist adequate technical and professional skills for both developers and printers, the central issue is to create the proper policy framework for a sustainable system of textbook provision.

Cost of Construction

The stock of classrooms in the DRC is old, with many rooms being in need of substantial repairs and unit costs of construction will impact resource requirements. Although construction has occurred in recent years, these have been financed almost entirely by communities using local materials and local labor. Since construction on a large scale will be required in order to improve access, accommodate the large numbers of children who are still out of school and provide an enabling learning environment, it is pertinent to examine the current costs of construction.

The current norms for a primary classroom indicate that the cost of a standard classroom is relatively high in the DRC—close to $10,000. Table 3.17 compares the cost of construction in DRC with that in Mozambique, Madagascar and Senegal in recent years. The annualized value of one classroom is a much higher proportion of the annual teacher salary and public unit recurrent cost because of the very low levels of public recurrent spending. Table 3.22 provides comparative data for a larger number of countries, although costs for some Latin American countries are from the early nineties.

Construction costs in DRC are higher than the average for African countries and closer to those in Latin America (Table 3.18). It is interesting to note that construction costs in many African countries were much higher about two decades ago ($13,000–18,000). The construction cost in DRC based on official norms partly reflects the fact that these norms have not been changed for decades in the country due to the lack of public investment in education. These higher costs incorporate the more generous space requirements (often due to the requirement for furniture for young children) that were applicable in Africa as compared to Asian countries (where often primary school children sit on mats) as well as smaller class size norms. As table 3.17 shows, the cost of community construction is much

Table 3.17. Cost of Construction—DRC and Other African Countries

Country and indicator	Rural primary school	Community school
DR Congo		
Construction cost of one classroom in USD	9,867	1500–2000
Annualized value of one classroom[c] in USD	792	
Annual teacher salary, without "promotion scolaire" In USD	98	
Number of years of annual teacher salary, without "promotion scolaire"	101	
Annualized value as a percentage of recurrent unit cost (public cost)	1,008	
Mozambique[a, b]		
Construction cost of one classroom	Mt200,000,000	Mt137,500,000
Annualized value of one classroom[c]	Mt16,600,000	Mt11,500,000
Annual teacher salary, EP1	Mt10,000,000	Mt10,000,000
Number of years of annual teacher salary	20.0	13.7
Annualized value as a percentage of recurrent unit cost	133	92
Madagascar		
Construction cost of one classroom	Fmg13,000,000	
Annualized value of one classroom[c]	Fmg1,100,000	
Annual teacher salary, EP1	Fmg3,360,000	
Number of years of annual teacher salary	3.9	
Annualized value as a percentage of recurrent unit cost	29	
Senegal		
Construction cost of one classroom	Fcfa4,000,000	
Annualized value of one classroom[c]	Fcfa325,000	
Annual teacher salary, EP1	Fcfa1,800,000	
Number of years of annual teacher salary	2.2	
Annualized value as a percentage of recurrent unit cost	16	

Notes: The cost of community construction in DRC has been estimated by the author based on a visits to some schools in Bas-Congo.

a. The cost of one classroom is based on the current Education Sector Strategic Program cost of a classroom, latrine, and provision for supervision, calculated as follows: EPR = 1 classroom (US$14,000) + 1 latrine (US$1,000) + supervision (US$500) = US$16,000 = Mt200 million.

b. The cost of one classroom is based on Lutheran World Federation (LWF) and PRONES (UNICEF) standards = 1 classroom (US$9,500) + 1 latrine (US$1,000) + supervision (US$500).

c. Based on an opportunity cost of capital of 5 percent and a lifetime of 20 years.

Source: For countries other than DRC, Country Status Report on Education for Mozambique, World Bank.

lower and many countries have resorted to this in order to finance rapid expansion of access. Precise estimates of the cost of community construction are not available for the DRC, but rough figures provided during field visits suggest that the cost may be between $1,500–2,000. Naturally, the space and quality of these classrooms are not comparable with those of the "standard" classroom based on official norms, but they do provide an indication of the tradeoffs that are possible.

Table 3.18. Cost of Classroom Construction–International Comparisons

Africa				Asia				Latin America			
Country	Classroom initial investment unit cost (US$)	Teacher salary per year (1) (US$)	Classroom investment as multiple of teacher salary	Country	Classroom initial investment unit cost (US$)	Teacher salary per year (1) (US$)	Classroom investment as multiple of teacher salary	Country	Classroom initial investment unit cost (US$)	Teacher salary per year (1) (US$)	Classroom investment as multiple of teacher salary
Chad	6,300	960	6.6	Bangladesh	3,900	1,900	2.1	Brazil	8,200		
Guinea	7,500	1,215	6.2	India	3,100	1,564	2.0	Columbia	4,700		
Mauritania	4,700	1,887	2.5	Pakistan	4,500	1,316	3.4	Honduras	9,000	1,785	5.0
Senegal	6,400	2,450	2.6	Philippines	10,400	5,199	2.0	Mexico	10,000		
Zambia	8,800	810	10.9	Vietnam	2,500	468	5.3	Nicaragua	8,800	1,344	6.5
Average	6,740	1,464	5.7	Average	4,880	2,089	3.0	Average	8,140	1,565	5.8

Source: Serge Theunynck, "School Construction in Developing Countries—What do we know?" (World Bank discussion paper)

Summary and Recommendations[53]

Main Findings

Households constitute the main financing source for the public education sector, contributing over four-fifths of total resources. Households pay a variety of charges and pay for teachers' salaries, school operating expenses as well as the expenditure on administration, inspection and examinations. The Central government finances most of the remainder, mainly through payment of staff salaries. Other financing sources—the local governments and external partners—finance a negligible part of education.

The education sector today accounts for only 6 percent of total public expenditure and real recurrent expenditures in 2002 were less than 4 percent of what they were in 1980. The fall in public spending was brought about by eliminating almost all capital and non-personnel expenditures and by lowering teachers' salaries, although the total number of teachers continued to rise gradually. The share of primary education in public spending has declined to about 36 percent in 2002 compared to 45 percent in 1987. Recurrent public expenditure per pupil in primary and secondary education was $4 (3.7 percent of the level in 1980). In higher education, the decline in real public spending has been precipitous, with per pupil expenditure in 2002 ($57) being less than one-hundredth of the level in 1980.

Although per pupil public expenditure is very low in absolute terms at all levels of the education system, there are important disparities across levels due to differences in the underlying cost structure. The annual public expenditure per pupil at the secondary level is currently about three times that at the primary level; annual per pupil expenditure at the higher level is about 20 times that at the primary level. The relatively high per pupil public expenditure in higher education is due to higher average salaries and generous pupil-teacher and pupil-other staff ratios (compared to primary). On the other hand, the difference in per pupil spending in secondary education is not due to higher average salaries, but to very low pupil-teacher and pupil-other staff ratios.

The provincial averages for annual per pupil household expenditure (for regular school charges) range between $9–14 at the primary level and $14–42 at the secondary level. These expenditures exclude additional expenditures on textbooks and materials, which few parents buy, and charges for examinations, printing, and a multitude of special charges. Although low in absolute terms compared to other countries, the burden of financing primary education is onerous for poor parents and virtually impossible to bear for secondary education. The average values indicated above represent about 9–14 percent and 14–40 percent, respectively, of annual per capita income. Often, parents are expected to pay additional amounts in kind (mainly agricultural produce).

Teachers' salaries paid by government are extremely low and account for the low per pupil expenditures. There are also important differences in teachers' salary levels between those in Kinshasa and those outside, mainly on account of the transportation allowance. A primary teacher in the provinces outside Kinshasa receives less than $10 a month and the lowest earning staff in the Ministry of Education obtains $3 a month as state salary. Further, salaries are often included in the budget but are actually not paid out or with considerable delay.

53. The recommendations in this section pertain to primary and secondary education, since issues relating to higher education are discussed in chapter 5.

Even including household contributions, the average earnings of teachers are $25 and $50 a month, for primary and secondary teachers, respectively. Earnings in Kinshasa and provinces close to it are higher; in many of the more remote areas, total earnings of teachers are less than $10 per month. Moreover, they are irregular and depend on student enrollment and parents' capacity to pay.

The costs of textbooks and standard classrooms are high. The current cost of providing a limited number of textbooks in a donor project is too high and cannot be sustained even with greatly expanded public funding for primary education. Domestic production of textbooks is very limited. Classroom construction costs vary by type of construction; state financed construction is very expensive while community financed construction is cheap, but of poor quality. These costs will have an important bearing on future expenditure requirements.

Constraints on public funding, both domestic and external, will continue over the medium term necessitating difficult policy choices. Although tax reforms are being implemented, they will take time to produce results and economic growth must widen the tax base in order to generate higher domestic revenues. There are other equally pressing claims on the budget, including resource requirements in other social and infrastructure sectors, the cost of reunification and the payment of salary arrears.

Financial accountability mechanisms, both for public funds and household funds, are weak despite a formally impressive governance structure at the school level. Parents still lack the power to control the use of funds that they contribute and many schools do not maintain proper accounts of their receipts and expenditures.

Recommendations

Reform the public:private financing framework: The current high level of dependence on private financing, particularly for teachers' salaries creates perverse incentives and prevents poor children from accessing education even at the primary level. Moving towards public financing of primary education and eliminating household charges at this level is a priority. Elimination of the *frais de motivation* and *frais de fonctionnement,* which partly finances the costs of administration in public schools is necessary. Obligatory parental contributions to schools could continue (but at much lower levels) and should be used to finance tangible improvements in learning conditions at the school level (for instance, teaching aids). Household participation in some construction activity could also continue in order to reduce costs. Such contributions, with appropriate oversight mechanisms, will help to enhance accountability at the local level. At other levels of education, policy choices need to be made about the extent and type of household financing which will impact on the availability of public resources.

Settle payment of salary arrears and pensions: The immediate issues are (a) verifying the number of teachers, eliminating "ghost teachers" etc (b) settling/writing off arrears in salary payments and (c) settlement of pension dues in order to retire teachers. Specific steps include:

- a complete census of teachers with the aim of reconciling the data in the SECOPE and with the Ministry of Finance, as well as in the *Annuaires statistiques,*

- assessing the cost of regularizing salary arrears (including salary increments) and the likely impact on the salary bill of such adjustments in the future, and
- staggering the retirements in such a way as not to affect the functioning of schools.

These steps should be taken care in the context of on-going civil service reforms (but they should be carefully coordinated with sector requirements).

Reform staff pay and management: The difficult policy decision is how to raise staff salaries while making the costs of educational expansion sustainable. Raising teachers' salaries is essential to attract and retain qualified teachers (especially as the *prime de motivation* is gradually eliminated) and enhance teacher morale, an essential component for improving educational quality. In addition, if non-formal and alternative schooling is adopted on a large scale (as recommended in chapter 2), pay policy should cover both regular teachers and instructors in other types of center. Specific measures that could be taken are:

- raise teachers' salaries to a level that is sufficient to attract qualified entrants into teaching, at least 2.4 times the per capita GDP for primary teachers;
- eliminate the salary differential between Kinshasa and other provinces in primary and secondary education;
- reduce, over a period of time, the salary differential between administrative and teaching staff in primary and secondary education; and
- narrow, over a period of time, the large differential between university professors and primary teachers.

Contain recurrent personnel costs: The analysis of the structure of unit costs indicates that the government should consider the following options, especially as salary levels will be raised:

- *Increase overall pupil-teacher ratios in primary and secondary education, without affecting quality.* At the primary level, this can involve strategies for multigrade teaching, increasing class sizes of small classes, as well as a more rational deployment of teachers. This is all the more necessary as the strategy for increasing access will require creating more small schools in remote rural/forest areas, while improving quality will require reducing the size of overcrowded classes. At the secondary level, a re-examination and updating of the norms for teachers and class sizes is almost certainly called for; however, broader reforms in the various streams being offered, especially in the professional stream, which has low pupil-teacher ratios, will also affect overall unit costs at this level.
- *Rationalize the norms for non-teaching and administrative staff and ensure their implementation at both the secondary and higher levels, but especially for the latter.* A review of the norms for non-teaching staff in primary schools (especially, the *directeurs* and *directeurs-adjoints*) is also called for, if the strategy for improving access involves creating a large number of small schools. Maintaining current norms would lead to an explosion of the salary bill when the system expands and if the current disparities between Kinshasa and other provinces are eliminated.

Reduce the unit costs of textbooks: The provision of textbooks especially at the primary level will need to be adequately funded, if learning outcomes of children have to improve. This

will require preparing a policy framework and initial investments in textbook development and publishing. Given the size of the country, the uniformity of the language of instruction after class 2 and the availability of production skills, priority should be given to developing the domestic capacity to prepare, produce and distribute textbooks at a lower cost (including alternatives for purchase and rental). Specific steps are:

- *Develop clear guidelines for the language of instruction,* curricular goals, targets for participation rates at various levels of education and the norms for provision of learning materials of various types at the pupil or school level, including the variety and number of textbooks and materials for different classroom situations (for example, multigrade classes).
- *Delineate the responsibilities and modalities for a whole set of upstream and downstream activities* in order to make effective use of books and instructional materials in classrooms. These include the development of texts and other curricular materials, modification of teacher training programs, introduction of structures for providing support to teachers in schools and revision of examinations.
- *Undertake an economic analysis of the book chain,* including development, production and distribution right down to the school level, covering economic evaluation of alternative instructional materials and production techniques, the viability of low cost materials, the cost-effectiveness of alternative distribution mechanisms, financing requirements, alternative financing mechanisms and cost recovery, the role of the private sector and the impact of government trade, tax and other regulations affecting the book sector.
- *Develop an appropriate legal framework* for protecting copyright needs.
- *Demarcate the responsibilities of the public and private sectors.* Public funding could finance the development costs of this strategy, using the private sector for production and distribution; beyond the primary level, cost sharing with households should be adopted.

Reduce the unit cost of classroom construction, especially at the primary level: Because the needs for primary school expansion and rehabilitation are enormous and the immediate priority, attention should be paid to the following:

- *Review the norms for space per child, number of children per class and space for materials and equipment.* These choices will depend on the type of curriculum and teaching methods adopted. For instance, the adoption of multigrade teaching is one way to improve access (by providing smaller schools in remote rural areas) while saving on teacher costs; however, effective multigrade teaching requires more space per child as well as space of storing a variety of learning materials.
- *Evaluate the choice of technology and building materials with respect to cost, quality and maintenance requirements.* This will have a bearing on the choice between community managed or government managed construction, or on whether the quality of community managed construction can be improved with appropriate technical support and supply of key inputs that are not locally available.

Revamp the public expenditure management system and strengthen school management structures: Reforms contemplated for the entire government system, under donor-assisted pro-

grams, are intended to improve public expenditure management, but again will take time. Due to the difficulties of getting funds through the state system at the moment, it is preferable to ensure that funds reach the school directly. However, the problems of doing this should not be under estimated, especially if large amounts flow to the school. At the moment, teachers and school administrative bodies manage relatively small amounts of funds generated locally. If large amounts of external aid flow to schools within existing mechanisms with weak monitoring and accountability, the possibility of misuse and fraud can multiply. Specific steps that should be considered are:

- *Equip school management committees and parent teacher associations at the school level, with basic resources (paper, accounting books, etc.) and train them in order to maintain accounts of receipts and expenditures.* Measures for increasing transparency (such as billboards showing receipts from various sources and expenditures) should be instituted.
- *Providing information to parents is essential* so that they can demand accountability for the use of funds from management committees.
- *Individual school accounts should be maintained in order to remove the lack of financial transparency in the religious schools, including the movement of funds across schools/health centers.* The financial contributions of the religious institutions should also be shown separately.

CHAPTER 4

Quality in Primary and Secondary Education—Learning Outcomes and Learning Conditions

This chapter examines some aspects of the quality of primary and secondary education. The quality of education is defined partly by student outcomes and partly by a set of factors within the education system that are believed to lead to better student outcomes. These latter comprise direct inputs into schools (teachers, materials, infrastructure), the pedagogical support and system management, teaching-learning processes and school climate. Some definitions of quality also include the extent and nature of parent/community support to schools, which contributes to enhancing student outcomes. Factors outside the education system also influence the effectiveness of education, in particular the characteristics of children and their families and the support they bring to education, but these are even more difficult to assess.

In this chapter, we focus on some indicators of academic achievement at the primary and secondary level and on the quality of direct inputs and the pedagogical support and management system. The chapter is divided into six sections. The first section presents the findings on student achievement at the primary stage, using data from annual assessments of learning outcomes in language (French) and mathematics conducted by the Ministry since 1998–99 in a sample of schools covering about 5,000 students in each year. A detailed analysis of a sub-sample of test results in 2000–01 was also undertaken to examine student performance in each domain and competency. Further, a small sample of students in "average French schools" was also tested with the same instruments in order to compare the relative performance of Congolese students. Finally, the results of the pilot of MLA tests in the DRC have also been analyzed.[54] Together, these analyses provide a rich source of

54. Tests administered under UNESCO's Monitoring Learning Achievement (MLA) project.

information on the performance of primary students in DRC and the challenges in improving the outcomes of education at this level.

The second section discusses the results of the *examen d'etat* at the end of the secondary cycle, which is the only information available on student outcomes at this stage. The third and fourth sections present learning conditions in public primary and secondary schools, respectively covering infrastructure, teachers and class size. The data are drawn from two main sources: (i) the surveys of public and private schools and (ii) the SECOPE and *Annuaires statistiques.* The fifth section covers the pedagogical support system (including production of instructional materials) and the sixth section presents some issues relating to the management of the school system.

Student Achievement in Primary Education

Current System of Student Evaluation

The mandatory terminal examinations at the end of the primary cycle are held annually, but the reliability and validity of the tests result as measures of acquisition of knowledge and skills taught in schools is doubtful. The test covers three principal disciplines—French, mathematics and "*culture générale.*" These tests (called TENAFEP—*test national de fin d'études primaires*) are constructed and administered at the provincial level; they are strictly speaking only comparable within provinces and not necessarily over time, although there are guidelines to ensure similarity in content. The coverage of the domains covered by the test is limited. In 2002, for instance, the TENAFEP examination in Kinshasa, had only 25 items covering all three disciplines, with only two items each on reading comprehension and geometry, and one item on vocabulary. Most items test recall of facts or knowledge and do not test the skills or ability to apply the knowledge. The test consists mainly of multiple-choice questions with four choices, which means that students can score 25 percent even by chance; more importantly, it means that certain domains, such as writing ability, cannot be evaluated at all. There is no database of the TENAFEP results and only simple pass rates are compiled at the provincial level. The quality of even these summary data are unreliable (since compilation is done manually) and cannot be used to judge performance across provinces or over time.

Performance of 4th Grade Students on Standardized Achievement Tests[55]

Recent results of 4th grade standardized student achievement tests administered in five provinces in a sample of project schools receiving UNICEF assistance and comparator schools receiving no assistance provides more insight into current levels of learning at the primary level. Because these students comprise those who have had at least three years of instruction, the results provide an indication of the extent of mastery of basic skills in reading, writing and mathematics, which constitute the basis for future learning. In each of the

55. While standardized achievement tests are useful to monitor learning outcomes, the results reported here must be interpreted contextually. Low scores may reflect the lack of familiarity with the test format (since students are not regularly evaluated in this way) as much as low achievement.

Table 4.1. Target Schools—Average Scores in French and Mathematics

	Average score (%)					
	French			Mathematics		
	1999	2000	2001	1999	2000	2001
Kinshasa	28.0	34.2	34.3	53.1	37.2	36.0
Bas-Congo	27.8	27.5	38.7	38.5	38.4	57.4
Kasaï-Oriental	27.5	44.0	44.9	37.0	49.6	48.3
Kasaï-Occidental	36.3	39.8	45.6	41.5	45.3	48.2
Katanga	29.5	33.7	36.7	40.5	32.7	35.8
Average (total)	**29.8**	**35.8**	**40.0**	**42.1**	**40.6**	**45.1**

Note: 1999 refers to academic year 1998–99 etc.
Source: Ministère de l'Education Nationale, "Résultats du test sur la maîtrise des acquis scolaires des élèves de la 4ème année primaire des écoles ciblées dans le cadre de la coopération R.D.Congo-UNICEF." Various years.

three academic years, 1998–99 to 2000–01, tests in French, mathematics and *culture générale* were administered to about 5000 students in 100 schools (50 target schools receiving additional inputs and 50 comparator schools receiving no assistance) spread over five provinces.[56] The principal domains and competencies covered in the language and mathematics tests, the results of which are discussed here, are given in Annex 4-1. The average scores by province for each year are provided in tables 4.1 and 4.2, separately for the schools which had received additional inputs (target schools)[57] and for those which had received no support (comparator schools), and which are therefore likely to resemble the average primary schools, and for those.

Average scores are below 50 percent in both subjects but average student performance in French is lower than in mathematics in both target and comparator schools. The average score in French in 2001 was only 40 percent compared to 45.1 percent in mathematics in the target schools; the scores in the comparator schools were 33.4 and 37.5 respectively. Overall, there is an improvement in average scores in both types of schools over time, but the improvement is much more marked in the target schools, especially in French, where the average score improved from 29.8 to 40 percent in three years. Since the provision of language textbooks was a critical part of UNICEF assistance, the improvement in scores is not surprising. As a result, the performance gap widened between the target schools and the comparator schools in language. On the other hand, the progress in mathematics

56. A random sample of 20 schools was drawn from both types of schools (10 each) from each of five provinces (Kinshasa, Bas-Congo, Kasaï-Occidental, Kasaï-Oriental and Katanga). Within Kinshasa, schools were sampled from both East and West. The comparator schools were those which were closest to the treatment schools selected for testing, in order to control for socio-economic differences that could influence achievement. In schools with more than one class 4, one class was selected at random. All pupils in the selected class were tested.

57. In "target schools" pupils received textbooks in language and mathematics for all primary classes, notebooks and student kits; teachers received training and guides and kits with teaching-learning materials. Each school received on average $6000 of inputs (including furniture and other equipment) in 2001–02. Comparator schools would be financed almost entirely by student fees as discussed in chapter 3 with little or no teaching-learning materials.

Table 4.2. Comparator Schools—Average Scores in French and Mathematics

	Average score (%)					
	French			Mathematics		
	1999	2000	2001	1999	2000	2001
Kinshasa	28.2	30.2	36.9	38.5	35.6	40.1
Bas-Congo	24.2	30.0	26.7	33.5	33.2	37.4
Kasaï-Oriental	20.7	26.0	25.3	28.5	35.7	28.4
Kasaï-Occidental	37.7	38.7	46.8	40.5	42.0	53.3
Katanga	28.0	35.4	31.1	31.5	27.6	28.3
Average (total)	**27.7**	**32.1**	**33.4**	**34.5**	**34.8**	**37.5**

Note: 1999 refers to academic year 1998–99 etc.
Source: Ministère de l'Education Nationale, "Résultats du test sur la maîtrise des acquis scolaires des élèves de la 4ème année primaire des écoles ciblées dans le cadre de la coopération R.D.Congo-UNICEF." Various years.

achievement in the target schools was less dramatic (a 3-percentage-point improvement in average scores) and the gap with the comparator schools remained more or less constant. The results are less stable for individual provinces, with for instance, the average score declining in the target schools in Kinshasa, while improving in the comparator schools. The results can be influenced by the small size of the samples in each province.

Detailed Analysis of Test Results for 2000–01

The item wise-scores available for a small sub-sample of students in 2000–01 was analyzed in greater detail and compared with the performance of a sample of students in France on the same tests.[58] Although the sub-sample was small relative to the total sample tested during that year, the average scores obtained for the sub-sample and for the whole sample (target and comparator schools) are very similar and hence make the results of this detailed analysis relevant for understanding overall student performance in the DRC. The French students were selected from 5 schools in France, which represented the "average" French primary school as measured by performance on national achievement tests; the language test was administered to class 2 and class 4 students while the mathematics test was administered to class 4 students.[59]

The highest average score among Congolese students was obtained for the simplest language skill, of associating a word with a picture, while on almost all other competencies, the average score was less than 36 percent (table 4.3). Since the multiple choice format would produce an average score of 25 percent by chance, this implies that most competencies are not acquired at all by most students. The average score is 73 percent for

58. Due to the lack of paper in the Ministry, many of the test sheets have been lost as the reverse side was used for printing/writing. Individual answer sheets were available for 205 students in French and 94 students in mathematics; these sample sizes are considered sufficiently large to enable analysis of individual test items.

59. The methodology and results are presented in full in a paper done for this CSR.

Table 4.3. Average Scores in French by Competency—Congolese Students

Competency	Average score	Corrected score
Recognition of word and associating it with a picture	73.0	64.0
Finding the definition of a word	44.7	26.3
Comprehension of text—finding an explicit information in the text	35.8	14.4
Grammatical correction of a sentence	24.1	24.1
Segmentation of a sentence into words	31.5	31.5
Completing a sentence with a verb correctly conjugated	21.1	21.1
Transforming a sentence using simple rules (male-female)	22.7	22.7
Finding synonyms/antonyms of a word	20.0	20.0

Note: Corrected scores are the raw scores adjusted for the multiple choice format of certain questions.

word recognition, a skill that can be learnt by class 1 students and which does not necessarily require students to be able to decode the word.[60] On the items testing reading comprehension, with an average score of 36 percent, only 3 percent of students scored correctly on all items, and 16 percent scored zero. In the competency testing ability to segment a sentence into words, which is important for reading, only 16 percent of students scored correctly on all items, while over half the students failed completely. Finally, in the last competency (finding synonyms/antonyms), with an average score of 23 percent, three-quarters of the students could not find any correct answer.

The analysis of the distribution of scores by competency showed that mastery of the tools of the language (grammar and vocabulary) and writing is especially poor, with most students failing completely in these areas. While the scores in reading comprehension approximate a normal distribution, the dispersion in scores for language tools and writing is extremely right skewed. These language skills are a pre-requisite for achievement in other subject areas and for successful progression through school. Without possessing these skills, many 4th grade Congolese students would either drop out or have to repeat after the current year or in successive years; if they managed to continue in school, their achievement levels in all areas of instruction would be low.

Average performance of 4th grade Congolese students on the language test is well below that of 2nd grade French students and the 95 percent confidence intervals for the two countries in all three sub-domains are very disparate (Table 4.4 and chart 4.1). This result is not surprising given the fact that French is the maternal language as well as the language of instruction for one group of students, while Congolese students would have used French as a medium of instruction for only two years and most of them would not speak French at home. Apart from this difference in exposure to the language, the majority of Congolese students

60. The Ministry's published report for 2000–01, while not presenting detailed results for each item or sub-domain, shows that the higher scores in language in the target schools was mainly due to better scores in vocabulary with little difference in the scores for other sub-domains. The proportion of students displaying mastery levels in the latter sub-domains was also low. These results are not surprising since sustained inputs are required over relatively long periods to significantly improve learning outcomes in more complex areas.

Table 4.4. Comparison of Average Scores in Language (4th grade Congolese, 2nd and 4th grade French students)

	Reading comprehension	Language tools	Writing
Average Congo 4th grade	44.1	24.8	22.7
95% confidence interval	[40.7–47.2]	[20.6–28.9]	[17.9–27.5]
Average France 2nd grade	72.7	61.1	76.4
95% confidence interval	[69.5–75.8]	[56.9–65.3]	[73–79.8]
Average France 4th grade	84.2	84.8	93.7
95% confidence interval	[81.9–86.5]	[81.8–87.7]	[91.5–95.9]

Note: Scores are in percentage terms

would have had no access to reading or printed materials of any kind (except for those in the target schools, but even in these schools, each book was shared between 2 and 16 students.).

While the results are not surprising, they indicate the extent of the challenge in improving overall quality and learning outcomes at the primary level, since mastery of the language of instruction is critical for all other areas. Three specific issues need to be addressed: (i) the adequacy of materials for French language teaching used in the first two

Chart 4.1. Confidence Intervals for Test scores in Language for French and Congolese Student

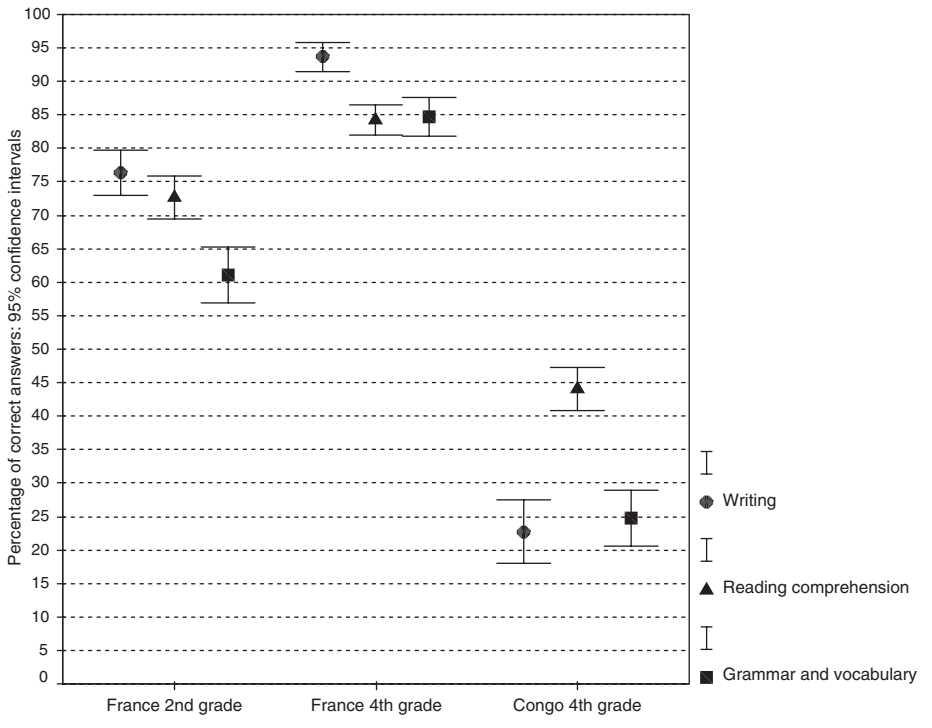


Table 4.5. Average Scores in Mathematics by Sub-Domain—Congolese Students

Sub-domain	Average score	Corrected score
Numerical operations	48.3	31.1
Measures	31.1	8.1
Geometrical concepts	36.7	15.6
Problem-solving	37.8	17.1

Note: Corrected scores are the raw scores adjusted for the multiple choice format of certain questions.

years of primary when language is in the regional language, (ii) the transition to use of French as the medium of instruction in class 3 and in particular the pacing of the curriculum and teacher training, and (iii) the appropriateness and availability of materials for teaching French in grades 3–6.

The performance of Congolese students on the mathematics test was also poor, but it was better than on the French test. The average score in the sub-domain of "number operations" is about 41 percent, while the lowest average score is for "measures" (table 4.5). However, even in this least complex sub-domain, about 20 percent of students had a score of less than 25 percent, which could have been produced purely by chance. In the sub-domain of "measures," about one-quarter of the students obtained a score of zero and nearly 29 percent of students obtain a score of 20 percent, which could be obtained by chance—in other words, over half the students could not demonstrate any knowledge of this field. The teaching of these concepts (volume, weight, length) requires teaching materials as well as writing materials so that children are able to learn by doing and practice. A similar result is obtained for geometrical concepts, where 20 percent of students score zero and another one-third score 25 percent. Again, a certain minimum of pedagogical materials is required to teach such concepts—a blackboard in good condition, notebooks, rulers, and so forth. In the sub-domain of "problem solving," 40 percent of students received a score less than 20 percent. The questions in this sub-domain require use of several competencies, including reading with comprehension to formulate the problem, deciding on a strategy to solve the problem and using the appropriate numerical operations.

The difference in average scores between Congolese and French students is greatest in numerical operations and geometric concepts where the difference in average scores is 22–28 percentage points, and this difference may also be due to the poor mastery of language skills by the former. Congolese students score poorly in all sub-domains whereas French students do much better in two of the sub-domains (Table 4.6). However, the test results can reflect the inability to read French with comprehension as much as the lack of acquisition of mathematics skills. Among French students, the relatively low scores in "measures"

Table 4.6. Comparison of Average Scores in Mathematics (4th grade Congolese and 4th grade French students)

	Numerical operations	Measures	Geometry	Problems
Average Congo 4th grade	48.2	31.1	36.7	37.9
95% confidence interval	[42.8–53.6]	[25.9–36.2]	[31.4–41.9]	[33.3–42.5]
Average France 4th grade	70.0	44.9	65.1	47.4
95% confidence interval	[66.2–73.7]	[39.2–50.7]	[60.3–70.0]	[43.0–51.9]

Table 4.7. Determinants of Pupil Achievement in French (MLA test)

Explanatory Variables—Dummy Variables		Model 1		Model 2	
Reference (=0)	Active (=1)	Coef.	t	Coef.	t
Boy	Girl	–12.13	***	–12.16	***
Older than 10 years	10 years or less	+6.13	**	+5.02	**
Availability of pedagogical materials		+1.38	***	+1.32	***
No textbook	At least one textbook	+5.19	**		
French not spoken at home	French spoken at home			+5.62	***
Constant		36.1	***	36.3	***
R^2		0.15		0.15	

***: significant at 1%, **: significant at 5%, *: significant at 10%.
Note: Dependent variable is the percentage score of each student. The variable showing availability of pedagogical materials is a continuous one varying from 1–10, with an average value of 3.9.

and "problem-solving" partly reflect the fact that the specific topics had not yet been covered in the curriculum at the time of testing and hence may not be appropriate for comparison.

Finally, we present results of the analysis of a pilot of MLA tests in which 225 students were tested from a random sample of schools in French language, which could also be generalized to the majority of schools.[61] The tests were very similar to those of the UNICEF tests both in content (sub-domains covered) and form (multiple choice mainly). In addition, the average scores and standard deviation were very similar for the two tests, making the results comparable. The advantage of the MLA test results is that individual student background data are also available. Regression analysis was used to analyze the impact of student and school variables on the language test scores.

The gender gap is very evident in French with girls scoring on average 12 percentage points below boys, after controlling for other variables in the model (table 4.7). As language acquisition skills are important for achievement in other areas and continuation in school, this gender gap is likely to be reflected in higher dropout or repetition rates among girls, or in lower levels of achievement later on. Overall, about 15 percent of the variation in scores is explained by all variables, which is normal in cross-sectional studies using similar variables in other developing countries. Younger children score higher than older children, the difference in average scores being about 6 percentage points. This may reflect the fact that older children may be repeaters or lower levels of achievement due to delayed school entry.

The availability of at least one textbook also strongly influences achievement raising the score by 5 percentage points. In model 2, this variable has been replaced by a dichotomous variable indicating whether French is spoken at home, which also has a similar effect (since the two variables are strongly correlated, both could not be included). The indicator of other pedagogical materials has been constructed using items available with the student and its coefficient has a value of 1.3 percentage points.

61. Mathematics tests were also administered, but the regression model had very little explanatory power.

Student Performance in Secondary Education

Secondary school leaving examinations (the *examen d'état*) have been held regularly every year, despite the major disruptions of the recent past, another testimony to the fact that the school system continues to function. However, there have been no achievement studies at the secondary level. Since examinations perform a different function of selecting students to pass to higher education, the results do not serve as an adequate measure of student achievement levels. Further, the difficulty level of examinations may change over time and hence they may not be reliable measures of changes over time.

Examination pass rates have been in the range of 40–60 percent after 1976. Before that year, they were much higher. A fall in pass rates is often seen after a rapid expansion of secondary education in many countries, and such an expansion did occur in the DRC in the late sixties and early seventies (assuming the difficulty level of examinations had not changed). Another noteworthy feature is there is no significant difference across provinces in the pass rates. The pass rate in Kinshasa is actually below the national rate—and this may reflect the larger number of candidates with a much wider dispersion of "preparedness" in the capital city than in other provinces, where only the "best" students get through due to the higher levels of dropout at earlier stages. Generally, pass rates of provinces move in tandem for different years. The change in the pass rate may reflect either difficulties in the content of the examination or events of particular years. For instance, the pass rate dipped to 18 percent in 1978, 30 percent in 1982 and 1983, and 46 percent and 38 percent respectively in 1992 and 1993. In 1978, the sudden drop may have been due to the introduction of multiple-choice questions whereas in other years, it is likely to be associated with major national events such as the onset of economic crisis, and the two episodes of looting and pillage by army soldiers. Most students who fail repeat the examinations several times. This is usually due to the fact that there are very few other avenues for students other than general higher education.

Learning Conditions in Public Primary Schools

Infrastructure

School and classroom construction has continued through the nineties, even during the period of economic downturn and conflict, and even in the provinces formerly under rebel control. In the provinces under government control, most of the new schools are not made of durable materials, since communities have used local materials and labor for both walls and roofing. Surprisingly, in the areas formerly under rebel control, most of the new classroom construction has been with durable materials. Three-quarters of the infrastructure is more than 20 years old (tables 4.8 (a) and (b)). It is interesting to note, however, that school/classroom construction continued during the nineties, even during the economic downturn and period of conflict. This is additional indirect evidence that the education system has been sustained even at the primary level. A break-down of the data by province shows that much of the recent construction has been in Bandundu and Bas-Congo (not shown in table).

Over one-third of public primary schools in the areas under government control and one-fifth of the classrooms in the areas formerly under rebel control report that their

Table 4.8. Type of Construction and Age of Primary Classrooms (Public Schools)

	Schools by type of construction (row %)			
	Durable	Semi-durable	Thatched	Number of schools
	Areas under government control (1997–2003)			
1920–1950	86	12	1	57
1951–1960	80	13	6	128
1961–1970	74	22	3	93
1971–1980	76	20	3	55
1981–1990	55	27	17	58
1991–1995	35	40	24	37
1996–2000	14	32	52	55
>2000	25	29	45	31
	Areas formerly under rebel control (1997–2003)			
1920–1950	80	15	6	216
1951–1960	72	22	7	384
1961–1970	64	36	0	104
1971–1980	100	0	0	25
1981–1990	50	50	0	16
1991–1995	49	34	18	268
1996–2000	63	27	10	118
>2000	65	19	16	497

Source: Survey of public schools, 2003 and 2004.

infrastructure is in "bad condition" (table 4.9). A higher proportion of those with thatched and semi-durable construction fall in this category (43 percent and 58 percent, respectively in the west, and 34 and 60 percent in the east). It is worth mentioning that "bad" as reported by schools would probably mean unusable for safe teaching—including no roof, or partially damaged roofs, as well as damaged walls. In practice, many of these schools cannot be used when it rains or when it is too hot and children are sent home during those days. The distribution of poor quality classrooms by category of construction highlights some of the tradeoffs between durable construction of longer lasting quality and community construction which deteriorates faster. Community construction (without technical

Table 4.9. Percentage of Primary Schools Where Classrooms are in Bad Condition (Public Schools)

	Durable	Semi-durable	Thatched	Total
	Areas under government control			
% within each category	28	58	43	36
	Areas formerly under rebel control			
% within each category	10	34	60	21

Source: Survey of public schools, 2003 and 2004

Table 4.10. Primary Teachers' Qualifications and Age (2003)

	% of all teachers	% over 50 yrs age	Average age
Primary education only	6	75	54 to 65
Years of secondary education with primary teacher training:			
3 years	1	99	66
4 years	47	39	48
6 years (failed diploma)	8	33	48
6 years (passed diploma)	37	7	38
Others	2		
Total teachers	**119,259**	**29**	**44.3**

Source: SECOPE files

help or additional materials) as it is currently taking place in the DRC will mean that many schools will need to be reconstructed within 5–10 years.

There is a large difference between provinces in the availability of water and toilets. In the regions under government control, about fifty to seventy-percent of schools in Kinshasa, Bas Congo and Katanga have piped water supply. By contrast, most schools in Equateur, Kasaï Oriental and Kasaï Occidental have no water from any source. In Bandundu, about one-third of the schools have piped water supply and 50 percent have access to a well or river. Overall, about two-thirds of schools report that they have toilets; again, the proportions in Equateur, Kasaï Oriental and Occidental are far lower. However, less than half the toilets in all provinces are reported to be in good condition. In the areas formerly under rebel control, between 50–65 percent of schools in the two Kivus and Orientale had tap water, but close to one-half of the schools in other provinces had no water supply or had to take water from the river. Three-quarters of schools had no toilet.

Teacher Characteristics

While the majority of primary teachers in DRC have at least lower secondary education with primary teacher training, most have not received any in-service training; moreover, the average age is 44 years and 30 percent of teachers are more than 50 years old (table 4.10). Those with primary level education comprise only 6 percent of teachers and most of these are old teachers who have not retired for reasons discussed below. Those with at least 6 years of secondary education comprise 45 percent of the total teaching force. Only 23 percent of primary teachers are female and they tend to be less qualified than male teachers with 10 years or less of education.

The high proportion of old teachers is due to the fact that teachers do not retire since the state is unable to pay either the pension or the gratuity payment.[62] Thus, although teachers can retire at the age of 55 or if they have 30 years of service, 23 percent of existing

62. A pensioner receives three-quarters of the last salary and also receives a lumpsum payment; if the teacher is from another province, he receives an additional lump sum to relocate to his native place. These rules have not been implemented for close to 15 years.

Table 4.11. Distribution of Public Primary Teachers by Education Level and Province (2001–02)

	Percentage of teachers with		
Province	4 yrs secondary	6 yrs secondary	Total teachers
Kinshasa	27	63	7,438
Bas-Congo	58	32	9,939
Bandundu	34	63	20,191
Equateur	41	49	2,792
Kasai-Oriental	32	63	5,913
Kasai-Occidental	32	63	5,815
Katanga	41	52	10,772
Maniema	42	36	3,610
Nord Kivu	58	24	10,081
Province Orientale	58	24	12,852
Sud Kivu	42	40	8,097
Total	**40**	**49**	**97,500**

Note: The total number of teachers does not match that in the previous table because the data refer only to public schools, they are for 2001–02 and they are from another source.
Source: Annuaires Statistiques.

teachers are above the retirement age. These characteristics of the teaching force must be taken into account while planning in-service training programs.

There are important differences across provinces in the proportion of teachers who have completed 6 years of secondary education (table 4.11). Over 60 percent of primary teachers in Kinshasa, Bandundu, Kasai-Oriental and Kasai Occidental have 6 years of secondary education; this proportion is 52 percent in Katanga, but as low as 24 percent in Nord Kivu and Province Orientale. Between 5–8 percent of teachers in these latter provinces have only primary level education.

Poor subject matter mastery and language skills (both in French and in the languages of instruction in classes 1 and 2) are identified by Congolese educators to be the main problems of teacher quality. There has never been a system of professional development or in-service training of primary teachers. Teachers have no access to library resources or educational materials. There is only one center for the training of primary school teachers (the Institute for the Training of Primary School Personnel—IFCEP—at Kisangani), which was established with UNESCO assistance. Courses are of long duration (1–2 years) and there is little demand among teachers since training does not lead to salary increase or improved promotion prospects. Earlier, the Ministry used to organize periodic in-service training, but this has been discontinued due to lack of resources. More recently, the UNICEF program of assistance has provided training to teachers in selected schools receiving other assistance.

Teacher motivation and time on task is affected by low and uncertain salary payments. Many teachers resort to farming or other odd jobs when fee collections are low. Due to the lack of alternative employment opportunities, however, most teachers continue to remain in the profession. High turnover is more of a problem among new recruits, who take up

"stopgap" employment as teachers while waiting for better opportunities. There is considerable mobility within the teaching profession, with teachers seeking employment in schools closer to their home.

Class Size

Unlike many other African countries, the DRC has detailed norms for class size and staffing ratios. Primary class sizes range from 26 to 50 pupils and there is no multigrade teaching. An additional teacher (*instituteur surnuméraiare*) is allowed if a school has more than 6 classes and two such teachers if there are more than 21 classes; however, these norms are currently implemented only in Kinshasa. A replacement teacher (*instituteur de relève*) is obligatory if the majority of teachers is female, with one extra teacher being allowed for every four female teachers.

In practice, class sizes in most schools do not conform to these norms which means that the teaching load and conditions facing teachers varies considerably across the country. The average class size in Class 1 is 40 students, but 19 percent of schools have less than 26 students and 25 percent of schools have more than 50 students in class 1. Nearly 40 percent of students in class 1 study in such overcrowded classes (table 4.12). Average class sizes diminish progressively with each higher class, with only 29 pupils on average in class 6, reflecting the high levels of dropout over the primary cycle. As a result, in class 6 over one-half of schools have less than 26 students and only 9 percent of schools have more than 50 students; however, over one-quarter of 6th grade students study in overcrowded classes.

Overall, 71 percent of primary schools have at least one class with enrollment less than 26 (table 4.13). The proportion of schools with small class size is understandably highest in the provinces with low population density—Equateur, Maniema, and Bandundu—but they are relatively high in all provinces, including in Kinshasa. They are also high among all types of management, the exception being Catholic schools in Kinshasa and Kasai-Oriental, where the percentage of schools with small classes is significantly smaller.

The percentage of schools with overcrowded classes (more than 50 enrollment in any class) is significantly less, 38 percent for the country as a whole (table 4.14). The proportion

Table 4.12. Class Size in Primary Schools (2001–02)

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6
Average size (no of pupils)	40	35	37	34	32	29
Standard deviation	20	17	18	17	18	18
Less than 26 pupils in relevant class						
% of schools	19%	30%	31%	40%	49%	57%
% of students	10%	16%	14%	18%	23%	27%
More than 50 pupils in relevant class						
% of schools	25%	16%	17%	14%	12%	9%
% of students	40%	31%	35%	32%	31%	27%

Note: Includes private schools.
Source: Annuaires Statistiques.

Table 4.13. Proportion of Primary Schools with Small Classes (2001–02)

	Purely public	Catholic	Protestant	Kimbanguiste	Islamic	Private	Total
Kinshasa	60%	31%	51%	59%	53%	61%	56%
Kasaï-oriental	76%	44%	73%	65%	0%	42%	58%
Nord-Kivu	72%	60%	68%	81%	63%	62%	65%
Bas-Congo	85%	53%	67%	76%	89%	70%	65%
Katanga	71%	66%	76%	64%		27%	66%
Sud-Kivu	66%	61%	73%	59%		64%	66%
Kasaï-occidental	76%	63%	73%	77%	100%	68%	69%
Province Orientale	71%	67%	78%	67%	0%	75%	72%
Bandundu	88%	70%	85%	87%	100%	81%	80%
Maniema	86%	74%	89%	95%	76%	71%	81%
Equateur	94%	85%	89%	82%	80%	40%	88%
Total	**79%**	**64%**	**77%**	**77%**	**75%**	**58%**	**71%**

Note: The figures refer to the percentage of schools with less than 26 students in any class.
Source: Annuaires statistiques.

of schools with overcrowded classes does not seem to be systematically related to population density, however. The provinces of the east—Nord-Kivu, Sud-Kivu, Kasai Occidental, and Oriental—have a far higher proportion of schools with overcrowded classes, ranging from 48–66 percent). In general, Catholic schools tend to have large classes compared to purely public schools or Protestant schools—this may the effect of either location or quality.

Table 4.14. Proportion of Primary Schools with Large Classes (2001–02)

	Purely public	Catholic	Protestant	Kimbanguiste	Islamic	Private	Total
Bandundu	12%	27%	13%	12%	0%	10%	18%
Equateur	14%	29%	17%	28%	60%	40%	22%
Maniema	20%	35%	25%	25%	35%	50%	30%
Bas-Congo	43%	41%	31%	33%	33%	18%	36%
Katanga	35%	42%	25%	30%		65%	37%
Kasaï-occidental	32%	43%	33%	29%	13%	46%	37%
Kinshasa	43%	63%	45%	43%	12%	34%	40%
Province Orientale	52%	48%	47%	57%	100%	34%	48%
Nord-Kivu	44%	60%	59%	31%	67%	57%	57%
Kasaï-oriental	54%	72%	57%	60%	100%	70%	64%
Sud-Kivu	61%	73%	66%	65%		55%	66%
Total	**33%**	**44%**	**34%**	**31%**	**36%**	**41%**	**38%**

Note: Indicates schools with more than 50 students in any class.
Source: Annuaires statistiques.

Table 4.15. Age Distribution of Children in Class 1

	Percentage distribution of children in class 1 by age (row percentage)					
	5 years	6 years	7 years	8 years	9 years	10 years
Rural	3	9	20	18	15	13
Urban	9	31	29	15	7	5
Kinshasa	12	38	31	8	8	3
Bas-Congo	1	15	26	23	16	8
Bandundu	4	17	24	18	11	13
Equateur	4	6	17	19	14	13
Kasai-Oriental	2	12	24	15	13	13
Kasai-Occidental	2	6	20	23	24	9
Katanga	5	8	10	20	21	16
Maniema	6	10	20	13	17	13
Nord-Kivu	7	21	26	18	7	7
Orientale	5	17	23	14	11	9
Sud-Kivu	4	15	18	22	11	13

Note: Row percentages do not add to 100 because there are children who are older than 10 in class, according to the survey.
Source: MICS 2001.

Within Class Age Distribution: Apart from overcrowded classrooms, teachers face a diversity of ages in each grade which necessitates different teaching strategies as well as a variety of materials for effective teaching. Table 4.15 shows the age distribution of children in class 1 as reflected in the MICS survey. These children include repeaters, and as stated earlier, the number of over age children is probably over reported. However, the differences between rural and urban areas and provinces are striking. In urban areas, 83 percent of children in class 1 are between 5–8 years old; in rural areas, most children are over 7 years old and there is a wider age dispersion. In Kinshasa province, 80 percent of class 1 children are between 5–7 years old; in Equateur, 50 percent of the children are between 7–9 years old, and there are many who are older.

Although age variation in individual classes within a school may not be as pronounced as at the province level, teaching strategies need to take into account the substantial diversity in the developmental levels of children that teachers face in the classroom. A teacher teaching class 1 will need to know how to teach the same curriculum to 5–7 year olds as well as to 7–10 year olds. Multi-age classrooms require teachers to find ways to meet the needs of individual students and hence use a greater variety of teaching-learning strategies. Measures may also be required to enable schools to introduce more flexibility in adapting the core curriculum to the age groups they cater to.

Organization of Learning Time

The official annual hours of instruction appears sufficient and comparable to those in other countries. Weekly hours of instruction—excluding recreation—increases marginally over the primary cycle from 27 hours (first four classes) to 28 hours (classes 5–6). The school

Table 4.16. Primary Education: Organization of Time in School

	Number of hours per week by class level					
	1	2	3	4	5	6
All activities	**29.0**	**29.0**	**29.0**	**29.0**	**30.0**	**30.0**
Core subjects	14.0	14.0	15.0	15.0	16.0	16.0
Congolese language	5.0	5.0	3.0	3.0	2.0	2.0
French	4.0	4.0	7.0	7.0	7.0	7.0
Mathematics	5.0	5.0	5.0	5.0	7.0	7.0
Environment & Sciences	7.0	7.0	6.0	6.0	6.0	6.0
Aesthetic activities	6.0	6.0	6.0	6.0	6.0	6.0
Recreation	2.0	2.0	2.0	2.0	2.0	2.0

Note: In classes 1 and 2, mathematics is taught entirely in the native tongue; moral/civil education and African traditions are taught in both languages, increasing the exposure to French language. The division of instructional hours for each class is based on a 1985 circular of the Ministry.
Source: Le Secretariat Permanent de la Commission Nationale pour l'Unesco (April 2001). »Le Developpement de l'Education–Rapport national de la Republique Democratique du Congo.»

year consists of 220 days giving a total of about 1000 hours of instruction in an academic year. This is comparable to those in various OECD countries, although many countries have a shorter teaching time per week. In principle, the curriculum puts a strong emphasis on reading, writing and mathematics while allowing sufficient time for imparting knowledge of Congolese/African traditions and a broader curriculum (table 4.16). The extent to which classroom teaching adheres to the official curriculum is not known. Aesthetic activities cover drawing, calligraphy, music, manual work, and physical sport and these occupy almost one-fifth of instructional hours.

A specific issue is the transition from instruction in the mother tongue in classes 1 and 2 to the use of French as medium of instruction subsequently. Although French language teaching is introduced from class 1, teachers find this transition difficult. The policy on language of instruction has changed from time to time, without concomitant changes in teacher training or textbooks and instructional materials. In 1962, the medium of instruction in primary was French, with national languages being taught as subjects. However, in 1968, promotion of four national languages was introduced without clear policies on how they would be integrated into the curriculum. Between 1974 and 1985, instruction in the national languages was introduced up to class 4, with French being taught as a subject prior to that, mainly in oral form. In 1985, the policy was revised to ensure that the mother tongue was used as medium of instruction in the first two years of primary, but the teaching of French was introduced from grade 1, in both oral and written form.

Learning Conditions in Public Secondary Schools

Infrastructure

Although the infrastructure in most secondary schools is relatively old, there has been significant construction of classrooms since 1990; in the areas under government control,

over half of new construction was of semi-durable or thatched, but in the areas formerly under rebel control, most were of durable construction. Most new construction has been in general secondary schools; the majority of normal and technical schools were built before 1990. Again, as with primary schools, most of the new construction has occurred in Kinshasa, Bas-Congo and Bandundu.

The infrastructure quality of secondary schools is very poor which will create enormous demands for rehabilitation. Just under two-thirds of secondary schools have rooms in good condition. However, these are mostly schools with durable construction, while over half of those schools with non-durable construction (built in the nineties) are reportedly in bad condition. Only one-third of schools have toilets and one quarter have no water at all. Although one half of the schools have piped water, this is mostly in Kinshasa, Bas-Congo and Katanga; most schools in the other provinces do not have this facility.

Most secondary schools do not have the basic pre-requisites for secondary level instruction, especially in sciences. About 12 percent report having laboratories, but these were almost all in Kinshasa, Bas-Congo, and Bandundu. The proportion of those with workshops is similar. Needless to say, new schools with no durable construction have neither laboratories nor workshops. Almost no school reported having a library.

Secondary school teachers are trained by tertiary level pedagogical institutes and the average age of teachers is somewhat lower than that of primary teachers. This partly reflects the fact that secondary education expanded later than primary education. However, there are not very large differences in the average age of teachers either across management types or provinces (table 4.17).

Average class sizes in all types of secondary schools are much lower than in primary schools and range between 15 and 28. It is lowest in the professional schools and highest in the general schools. A number of schools also display very small or very large class sizes; excluding these classes, the average range lies between 23 and 20.

Table 4.17. Average Age of Teachers in Public Secondary Schools—2003 (in years)

	Purely public	Catholic	Protestant	Kimbanguiste	Islamic	Total
Kinshasa	42.6	41.5	40.3	41.5	40.1	41.5
Bas-Congo	37.1	36.5	35.9	36.8		36.5
Bandundu	36.4	36.6	35.8	35.8		36.2
Equateur	39.4	39.5	39.4	39.1	39.5	39.4
Kasaï-oriental	39.7	40.0	39.4	40.7		39.8
Kasaï-occidental	38.0	38.1	37.2	36.5	36.7	37.8
Katanga	40.3	39.6	38.7	38.3		39.6
Maniema	39.1	40.4	39.1			39.7
Nord-Kivu	41.1	40.1	39.5			40.1
Province Orientale	43.4	42.5	41.5	43.1		42.4
Sud-Kivu	41.2	40.2	39.0	38.3		39.9
Total	39.2	39.0	37.7	37.9	39.4	38.6

Source: SECOPE

Table 4.18. Percentage of Secondary Classes Not Conforming to Class Size Norms (2001–02)

	Secondary Class					
	1	2	3	4	5	6
Minimum size of class	*20*	*20*	*18*	*18*	*15*	*15*
% of classes less than minimum size						
General	12	22	46	57	57	54
Normal	19	36	51	59	55	48
Professional	59	75	69	75	60	47
Technical	27	44	58	68	64	58
Maximum size of class	*55*	*55*	*55*	*55*	*50*	*50*
% of classes more than maximum size						
General	18	12	6	3	4	2
Normal	10	4	4	3	4	1
Professional	0	0	0	0	0	0
Technical	7	4	5	2	3	2

Source: Annuaires statistiques.

There are not many classes that exceed the maximum norm of 50–55 students in each class; by contrast, the proportion of small classes is overwhelming in years 4–6 of all types of secondary education and in all years for professional education (table 4.18). About 18 percent of classes in year 1 of general secondary and 12 percent of classes in year 2 of general secondary can be considered over crowded. The proportion declines substantially in the higher classes even of general secondary. Among the other types of secondary education (normal, professional and technical), there are few large classes in any year.

The Pedagogical Support System

The DRC has organizations within the Ministry of Education for developing curricula, textbooks, instructional materials and conducting examinations, but most of these barely function due to the lack of public funding for nearly two decades. The major operational organization at the national level is the examination bureau of the *examen d'état* which prepares and conducts the secondary school leaving examination. Examinations are still conducted regularly and results published within 2–3 months. Nevertheless, the technological capacity of the examination bureau is extremely outdated; most analysis is done manually and the bureau does not have either photocopiers or computers nor regular stocks of paper.

Only approved textbooks can be used in recognized schools and the state's main role at the moment is to grant approval to private authors if the textbook conforms to existing curricula. The Ministry has a centre which coordinates pedagogical research and the preparation of new textbooks. However, when the primary education curriculum was revised in 1998, there were no funds for undertaking the preparation of new books. Textbooks were

prepared under the UNICEF program and made available to a few hundred schools. Even a copy of the *programme nationale de l'enseignement national,* which outlines the curriculum for each year of study, is not available in most schools. The secondary education curriculum has not been revised for over two decades. Once approval is granted, authors enter into agreements with private firms to print copies; firms in turn have to enter into agreements with schools to purchase copies for either renting or sale to students. The market is very limited and costs are too high for parents who also have to pay for fees. As a result, primary textbooks are rarely available outside Kinshasa. Many primary students have not seen printed material of any kind. At the secondary level, teachers sell photocopies of class notes which are used in lieu of textbooks by the majority of students.

Despite the constraints on funding, educators in the DRC have tried to sustain the development of instructional materials. As an example, the centre for producing instructional materials continues to make a variety of low-cost, low-technology instructional aids that are sold to schools and teachers. Most of these are very simple aids such as maps, models of the human body, models of the planetary system and so on. Due to logistical problems, these aids cannot be supplied to schools outside Kinshasa. Nevertheless, as table 4.19 shows, the center supplied $US 1 million worth of instructional aids to schools between

Table 4.19. Instructional Materials Sold to Schools (1998–2003)

Category	Pre-school	Primary	Secondary	Total	Unit Price (US$)	Receipts (US$)
Environment	13,050	30,525		43,575	2.0	87,150
Geography		44,770	17,340	62,110	2.0	124,220
History		40,700	13,872	54,572	2.0	109,144
Anatomy		46,805	12,716	59,521	2.0	119,042
Botany		30,525	11,560	42,085	2.0	84,170
Zoology		42,735	11,560	54,295	2.0	108,590
Biology			19,652	19,652	2.0	39,304
Compass		10,175	6,936	17,111	2.5	42,778
Mètre canne		12,210	6,936	19,146	2.5	47,865
Rapporteur		6,105	6,936	13,041	3.0	39,123
Equerre		6,105	6,936	13,041	2.5	32,603
Latte Té		6,105	6,936	13,041	2.5	32,603
Boulier compteur grand format		2,035		2,035	30.0	61,050
Boulier compteur petit format	870			870	5.0	4,350
Geometrical kit		2,035		2,035	15.0	30,525
Wooden clocks	580	2,035		2,615	4.0	10,460
Measures of volume		2,035		2,035	10.0	20,350
Wooden Toys	4,350			4,350	1.0	4,350
Total	18,850	284,900	121,380	425,130		997,676

Source: Annual accounts of the Ministry.

1998–2003, a reflection of both the strong demand for such aids as well as the skills available to produce them on this scale.

Management of the School System

As discussed in chapter 1, the framework of educational administration, although complex, has survived the upheavals of the last two decades. Due to the paucity of public funding, the role of educational management has been increasingly confined to recognizing new schools and recruiting and deploying teachers. What is surprising is that given the prolonged period of degradation of the education system, there are still fairly precise norms regarding class size and teacher deployment, which is in itself unusual for many sub-Saharan countries; and what is more remarkable, many of these norms are still adhered to.

In general, the norms for personnel posts are adhered to at the primary level. The number of personnel in a particular school is a function of various variables included in the norms. A regression of actual personnel in a school on these explanatory variables shows that the "fit" is very good (table 4.20). In fact, three variables—the number of classes, the percentage of women teachers, and the school being located in Kinshasa—explain most of the variation in the number of personnel in a school. The regression results for the model with these three explanatory variables are reported below. The R^2 for the regression is 0.89.

Despite the adherence to norms for personnel, the relationship between the number of pupils and the number of teachers is not very strong (see chart 4.2). The correlation between the two is only about 0.58, compared to 0.72 in Madagascar, for example. The reason for this is the large dispersion in class sizes which is due to the violation of norms regarding minimum and maximum class size.

There are several problems of the current system of educational management of which an important one is the lack of school mapping and norms regarding accessibility of the population to primary and secondary schools. The number of villages without access to a

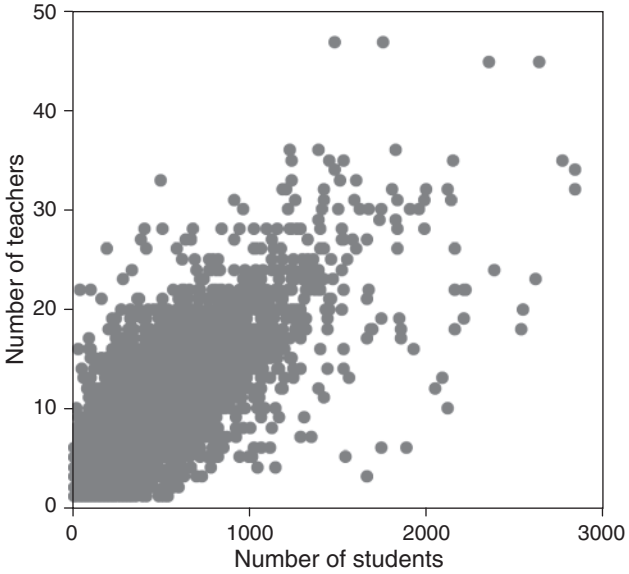
Table 4.20. Regression Results on Adherence to Norms for Personnel in Primary Education Dependent Variable: Actual personnel in a school

Explanatory Variables	Coefficients		Standardized Coefficients		
	B	Standard Error	Bêta	T	Significance
(constante)	−.01	.033		−.4	.691
Kinshasa	4.5	.070	.188	64.7	.000
No. of classes	1.0	.004	.847	271.0	.000
Theoretical number of replacement teachers	.8	.024	.104	33.6	.000
Adjusted R^2 = 0.890					

Notes:
1. Actual number of teachers are taken from SECOPE files ("personnel") for 2003.
2. Replacement teachers are for women teachers on maternity leave (*instituteurs de relève*).

Source: SECOPE 2003.

Chart 4.2. Plot of Teachers and Pupils in Primary Schools



Note: each point represents a primary school.
Source: Annuaire statistique 2001–02.

primary school within a reasonable distance is not known. Given the geographical and ethnic diversity of the population, developing contextual norms for the opening of new schools in order to enable hard to reach children to attend school would be a priority. This must go hand in hand with school mapping exercises that have been planned for over two decades but have not yet taken place.

Second, the statistical basis for accurate planning is weak, with inconsistencies between the two sources of official data on enrollment and teachers in individual schools (the *Annuaires statistiques* and the SECOPE). These inconsistencies arise due to delays and non-responses in data collection and entry. The data have also not been used for planning for a number of years. Lack of reliable demographic data compounds the problem of projecting enrollments and the needs for infrastructure and other resources. Nevertheless, a foundation exists for undertaking sound planning and this needs to be strengthened both through capacity building of existing personnel, recruiting new personnel and introducing improved technology.

Third, although the existence of norms lends a certain coherence and organization to planning, the current norms in DRC are fairly generous by the standards of many sub-Saharan countries, especially for secondary education and can lead to unsustainable resource requirements if the system expands rapidly at higher levels of teacher salaries. They will also need to reflect the diversity of the country and its population, the large number of small habitations that will need to be provided access with small schools or learning center. The norms for non-teaching personnel, generally adhered to in Kinshasa only, will also need re-examination.

Summary and Recommendations

Main Findings

The degradation in the quality of primary and secondary education is apparent across the country; it is reflected most starkly in the fact that most primary children do not have the basic language skills required for life-long literacy or for further progression through the education system. On standardized achievement tests in French, the average score of 4th grade Congolese children is below that of 2nd grade students in France, reflecting the difficulties in mastering a foreign language as the language of instruction in an educational context that is almost entirely deprived of reading and instructional materials. Handicapped by inadequate language skills, their performance in other subject areas, such as mathematics is also impeded.

These low levels of achievement are the results of other factors as well: the quality of the infrastructure (which reduces teaching-learning time in adverse climatic conditions), the quality of the teaching force, overcrowded classrooms, student and teacher absenteeism which reduces learning time and the almost complete absence of textbooks and learning materials. Some of these issues will need to be addressed at the school level, while others require system level interventions.

Infrastructure needs in both primary and secondary education are enormous, with most classrooms being very old, many new classrooms being built through low-quality community construction and many requiring rehabilitation. In addition, most schools lack toilets and drinking water. The majority of secondary schools also lack laboratories and libraries.

The primary teaching force is relatively old and while most teachers have at least lower secondary education, the majority have not received in-service training in over 25 years; it also suffers from low motivation due to low and intermittent pay, which causes teachers to take up other occupations. Teachers who are eligible for retirement continue to stay on the payroll due to the inability of the state to pay pensions. The obsolescence of subject knowledge is a real issue. Teachers also face a variety of classroom situations, with large variations in ages within each class and overcrowded classrooms. Thirty-four percent of primary students are in classes that exceed the maximum class size norm of 50.

Teachers (primary and secondary) do not receive any regular training nor do they have access to educational resources. The institutional framework for providing such training is non-existent. Further, teachers lack access to pedagogical resources which would enable them to upgrade their knowledge and teaching methods.

The majority of students at the primary level and a significant proportion at the secondary levels do not have a single textbook, while schools lack basic instructional materials. The DRC has the structures for developing materials, but due to lack of public funding, these structures do not function.

The management of the system is weak, again reflecting the lack of funds, and although there are norms regarding provision, some of these are outdated or not implemented. In particular, the detailed norms regarding class size and the number of teaching and non-teaching personnel by size of school could serve, with suitable modification, as the basis for expansion and improvement.

Recommendations

Improve learning outcomes at the primary level, especially mastery of the language of instruction, through an integrated reform of the curriculum, teaching, instructional materials and assessment. This will help to improve learning outcomes in many other areas, reduce dropout, improve the efficiency of the primary cycle and improve quality at the secondary stage. Within the present policy framework regarding the use of a local language in the first two classes of primary and transition to French in the third class, three specific issues need to be addressed: (i) the adequacy of materials for French language teaching used in the first two years of primary when language is in the regional language (ii) the transition to use of French as the medium of instruction in class 3, in particular the pacing of the curriculum and the adequacy of teacher skills and (iii) the appropriateness and availability of materials for teaching French in grades 3–6.

Motivate and upgrade the professional skills of the teaching force. Reform of the teachers' pay package and working conditions and retirement of older teachers is essential to make investments in teacher training worthwhile. In-service teacher training must equip teachers with new subject matter and appropriate pedagogical skills that will enable them to teach in a variety of classroom situations and evaluate progress in student outcomes. Due to the large number of old teachers, the strategy will need to be selective and more specific analysis is required to determine the appropriate modes of delivery and providing teacher support in schools.

Improve learning conditions by reducing overcrowding of classrooms through teacher rationalization. This will require changes in both system-level management (for redeployment of teachers across schools) and within-school management. However, smaller class sizes in classes 1–2 may be justified because of the importance of ensuring adequate mastery of French and to reduce the dropout rate.

Establish norms for textbooks for each class and develop a strategy for domestic production of textbooks. Books for different types of schools—regular schools, multigrade schools and non-formal center—should be included. While one immediate solution may be to provide books through project support, the overall aim should be to develop the domestic capacity to conceptualize, prepare, produce and distribute textbooks in a cost-effective and fiscally sustainable manner. A detailed analysis of alternative strategies for achieving this goal, together with financing mechanisms, needs to be undertaken. This is not only because textbooks are the central tools of instruction and the most important resource (especially in poor settings) for teachers and students, but also because this effort would necessarily have important backward and forward linkages with other aspects of the pedagogical support system and thus necessitate changes in curriculum, teacher training and the content of assessment system.

Strengthen the pedagogic support structures in a selective manner, focusing on those activities that will support the strategies to improve quality at the school level. Four interrelated aspects of the pedagogical support system need strengthening to improve the quality of learning at both primary and secondary level. These are: (i) curriculum development, including establishing intended learning outcomes and subject matter that reflects those learning outcomes as well as means to achieve those outcomes, (ii) conception and production of textbooks and other instructional materials, including teachers' workbooks, lesson plans or guides and other low cost instructional materials, (iii) upgrading the quality

of teacher pre-service training and in-service professional development and support, including provision of educational resources to teachers for self-learning, and (iv) introducing effective assessment systems to monitor student and school performance.

Prioritize the needs for rehabilitation of school infrastructure on the basis of transparent criteria and upgrade the quality of community construction. Creating a conducive learning environment is a necessary condition for improving quality and for ensuring that the impact of other investments (textbooks, teacher training) is not negated, but the danger is that spending on infrastructure can absorb a high share of additional resources. Immediate priority should be given to primary schools without a roof, walls or floor, so that students can learn for the full school year. In secondary education, goals and strategies, including targets for participation ratios and the kinds of streams to be provided at the higher secondary stage, need to be elaborated before large-scale investment to upgrade the quality of infrastructure is undertaken. While community construction is an attractive proposition because of lower costs, the quality needs to be upgraded with adequate technical support (in design, supervision and choice of materials) in order to avoid frequent rehabilitation that can prove expensive in the long run.

ANNEX 4.1. Characteristics of the Achievement Test

Table A4.1. Language Test (French)

N	Item Number	Multiple choice	Domains	Competencies
205	1	Yes	Reading Comprehension	Word Recognition and Picture Association
205	2	Yes		
205	3	Yes		
161	4	Yes	Language tools	Finding the definition of a word
161	5	Yes		Understanding a text Identifying an explicit piece of information in the text
205	6	Yes	Reading Comprehension	Understanding a text Identifying an explicit piece of information in the text
205	7	Yes		
161	8	Yes		
205	9	Yes		
205	10	Yes		
205	11	Yes		
161	12	Yes		
205	13	Non	Writing	Reconstruct a sentence using correct syntax and grammar
205	14	Non		
161	15	Non	Language tools	Analyze a sentence
161	16	Non	Reading Comprehension	Analyze a sentence
161	17	Non		
161	18	Non		
161	19	Non	Language tools	Completing a sentence with a verb using subject concordance
161	20	Non		
161	21	non		
161	22	non	Language tools	Transforming a sentence using gender notes
161	23	non	Writing	
205	24	non	Language tools	Finding synonym/antonym
205	25	no		

Table A4.2. Mathematics Test

N	Item Number	Domains	Competencies
94	1	Numerical Problems	Addition with regrouping
94	2		Multiplication with a decimal
94	3		Simple division (decimal)
94	4		Subtraction
94	5		Writing number words
94	9		Understanding significance and value of dozens
94	10		Understanding significance and value of a pair
94	11		Understanding significance and value of tens
94	12		Understanding place value
94	15		Computing whole numbers and decimal numbers
94	6		Number sequence
94	13	Measures	Comparing volumes
94	14		Comparing weights
94	16		Comparing surface area
94	17		Using units of measure (length)
94	18		Reading a clock
94	19	Geometrical Problems	Perpendicular line recognition
94	20		Right angle-recognition
94	21		Diagonal-recognition
94	22	Geometry, Numerical problems	Drawing line of a rectangle knowing its area and width
94	7	Numerical problems	Value of fraction
94	8		Problem solving with 2 operations (division, subtraction)
94	23		Problems solving with 2 operations (division, addition)
94	24		Problems solving with 2 operations (multiplication, division, addition)
94	25		Problems solving with 2 operations (subtraction)

CHAPTER 5

Higher Education

The acceleration of enrollment in higher education during the nineties is a vivid confirmation of the sustained investments made by the Congolese people on education. In comparison with many other African countries, the number of higher education students per 100,000 population is relatively high.[63] Despite a rapid and somewhat anarchic development of the private sector, the system has remained largely public. The system continues to display vitality: though the resources for effective functioning are lacking, journals and publications are produced, seminars organized and internet sites maintained. Nevertheless, this situation cannot endure for too long without turning the system into a caricature of modern higher education, with little or no equipment and a limited inflow of new teaching personnel. In particular, the current financing mechanism, which excludes students from poor backgrounds and favors professors in the big institutions, is inequitable, apart from being sub-optimal from the economic point of view.

The higher education sector in the DRC today presents a picture of uncontrolled and imbalanced quantitative growth with a rapid deterioration in quality, operating in a confusing policy and legal framework. Creating an appropriate framework for the development of higher education is a pre-requisite for the sector to play its role in promoting economic development as well as in improving the quality of primary and secondary education. This chapter presents a preliminary analysis of the higher education system in the DRC. It is divided into five sections, covering organization and structure, personnel, internal efficiency, quality issues and costs and financing, respectively.

63. Higher education comprises both university and non-university institutions, as described in chapter 2.

Organization of Higher Education

From a system of private provision heavily supported by public funds at independence, higher education in the DRC has shifted to a system of mixed public and private provision, which is almost entirely privately financed. However, this change was neither smooth nor planned and occurred due to abrupt and major changes or reversals in policy, creating an uncertain environment for the development of the sector. The major policy shifts also highlight the political importance of higher education and the difficulties of introducing reforms.

Historically, universities in the Congo were created by the various churches and the state, but the former received generous state subsidies. The University of Lovanium[64] was created in 1953 as a private Catholic university which received generous subsidies from the colonial government for all the salaries of the staff, two-thirds of the salaries of missionaries, half the non-salary operating costs, three-quarters of the maintenance costs and purchase of materials, three-quarters of student maintenance costs and 70 percent of construction costs.[65] The second University (*l'Université Officielle du Congo*) was created by the state in 1956, which subsequently became the University of Lubumbashi. In 1963, another private University, *l'Université Libre du Congo*,[66] was created by the Protestant church. In addition, the *Instituts Supérieurs Pédagogiques* (ISP) and *Institutes Supérieurs Techniques* (IST) were established in the public and private sectors to provide higher level professional training.

The drive to nationalize and centralize education institutions, partly in response to political opposition in the University campuses, became the center-piece of education policy from the early seventies. In 1971, all existing Universities and non-University institutions, public and private, were incorporated in a single National University of Zaire.[67] The entire higher education sector was managed by one Rector, with Vice-Rectors for each of the university campuses and Director-Generals for each of the ISTs/ISPs.[68] In 1981, the difficulties of managing this over-centralized system led to the re-establishment of the original universities and institutes as separate entities, but this time as public institutions, irrespective of their original nature. However, the three Councils of Administration (one each for the university system, the ISPs and the ISTs) and the Ministry's technical wing, the *Commission Permanente des Etudes,* which were established at the time of the nationalization, continue to this day as a legacy of the policy of centralization of decision-making authority.

The monopoly of the state over higher education was ended formally in 1989 with a decision taken by the Central government to authorize the creation of private universities. With the rupture in international relations and the economic crisis, the state suspended scholarships and other financial aid to students, and various fees were instituted for the first time in the country in all higher education institutions, which had hitherto been supported entirely by public funding. Public universities were closed for two years following armed suppression of student demonstrations. They re-opened only due to a formal agree-

64. Today the University of Kinshasa.

65. B. Lututala Mumpasi (2002). "Pertinente et Effets Pervers de la Privatisation de l'Enseignement Supérieur et Universitaire en République Démocratique du Congo." Travaux et Recherches de l'Université Kongo. October 2002.

66. Today, the University of Kisangani.

67. The nationalisation of universities thus pre-dated the nationalisation of private schools, which took place in 1974.

68. ISPs/ISTs teaching only undergraduate courses were headed by a Director.

ment between the university authorities, teachers, parents and students on the fee levels of be charged, the methods of payment of fees and the purposes for which fees could be used (including payment of teachers' salaries).[69] The closure of public universities further accelerated the growth of the private sector.

Despite the authorization to create private universities, the *Loi-Cadre* of 1986, which provides the legal framework for the education system as a whole, was not amended and degrees awarded by private higher education institutions still do not have formal sanction or validity. Another anomalous legacy of the past, this creates a situation of uncertainty for private institutions as well as a vacuum in regulation and oversight, since the private universities are not subjected to the same regulations as public universities. Without official recognition, students in these universities are not able to get jobs either in the public service, to work or go for post-graduate studies abroad.

Further, the state continued to create extensions of public Universities and new ISTs/ISPs, motivated mainly by political considerations as the economic crisis rendered it impossibly to support them through public revenues. The number of "extensions"—which were considered as new institutions—increased from 37 in 1989 to 66 in 1993. In 1993, with the declared objective of improving the geographic dispersion of higher education facilities and "democratizing" higher education, the state created another 256 public institutions. However, financial constraints forced the government to abandon this policy and by the end of 1994, only 60 public institutions remained. A large number of institutions abandoned by the state were taken up by various *communautés* (comprising religious orders, provincial level groups including the provincial administration) and hence became private institutions. In 1996, there were 265 private institutions, of which 76 had obtained provisional recognition, 85 were authorized to function and 102 had not yet received this authorization (but had not been de-recognized either).[70] At the end of the nineties, the state took over some of the *établissements communautaires* which it had created.[71] In December 2003, the government decided to close down 126 non-viable private institutions.

This policy and legal quagmire inherited from the past needs to be cleaned up if there is to be any substantive (as opposed to merely quantitative) development in higher education and before there can be any substantial infusion of public funding or external aid. Apart from the non-recognition of degrees awarded by private institutions, even the degrees awarded by public universities in new disciplines, such as environmental sciences or information technology, are not official recognized, since they have not been approved by the *Conseil d'Administration* and the *Commission Permanente des Etudes.* One issue is to clarify the status of each institution, since many have transferred from being private to public and to private again. Another is to outline the responsibilities for policy making and the roles of various

69. This *partenariat* (partnership) was formally sanctioned by *les Etats Généraux de l'Education* in 1997, which were organised as a result of the recommendation of the *Conférence Nationale Souveraine* (National Conference on Sovereignty).

70. Cf. Cf. *Etats généraux de l'éducation au Zaïre (EGEZ), Rapport général,* Kinshasa 1996, p. 41, quoted in Matundu Lelo, "Coopération universitaire et prévention des conflits dans la région des grands lacs," in S. Marysse & F. Reyntjens (eds.), *L'Afrique des Grands Lacs. Annuaire 1998–1999,* Paris, L'Harmattan, 1999, 436 p. In the "Répertoire des établissements d'enseignement supérieur et universitaire (publics et privés)" published by the Ministère de l'Education nationale in February 2003, 83 public and 212 private institutions were counted. According to the Direction de la planification (ESU), these data are somewhat underestimated.

71. For instance, the University of Bandundu (originally communautaire) became an extension of the University of Kinshasa in 1997.

administrative bodies, some of which may require restructuring or abolition. A third issue is to amend the law and make it consistent with the policy framework and actual practice.

The Private Sector in Higher Education

A peculiarity of the private institutions is that they have relatively few teaching staff of their own and rely very heavily on part-time teachers from the public sector. The reasons for this are several. First, the supply of professors with doctoral training is limited since few students have gone abroad for doctoral training for the last fifteen years. Doctoral-level training within the country is limited. Second, private institutions, being relatively small in size and depending almost entirely on student fees are not able to bear the cost of full-time professorial staff. Finally, professors in public institutions are willing to engage in part-time teaching in private institutions in order to supplement their incomes—the importance of this factor is discussed later on in the chapter.

Among private institutions, those run by religious orders account for the largest share of enrollment. There are three types of private institutions in higher education: (i) *confessionnelles,* which belong to the churches, (ii) *communautaires* which are associated with the provincial governments, and (iii) those run by private individuals, societies or trusts. At the university level, the first category enrols 60 percent of all students in the private sector; in higher education as a whole, they enrol 47 percent of students in the private sector.[72]

Enrollment and Access

Enrollment growth in higher education has been phenomenal, with enrollments nearly quadrupling between 1986/87 and 2001/2 (see chapter 2). A relatively high primary GER in the 1970s and a high transition rate between primary and secondary education created a large pool of potential entrants into higher education. Enrollment in 2002 was estimated at 197, 285, comprising 146,000 in public institutions in the 7 provinces under government control, 14,000 (estimated) in public institutions in the eastern provinces and 37,285 in private institutions.[73] Even if this estimate overstates enrollment by 10 percent or 20 percent, the enrollment ratio in higher education is substantially higher than in other countries of the region. The closure of the small private institutions in December 2003 would have had limited impact on total enrollment as they were reportedly very small. For instance, the 64 institutions which were closed down in Kinshasa had a total capacity of about 10,000 students.

Enrollment growth has been driven by an improvement in the access rate from about 50 percent to about 65 percent at the end of the nineties as well as an increase in the pass rate in the terminal secondary examination.[74] The access rate is defined as the number of new admissions to higher education as a proportion of the number of students who obtained the *diplôme d'Etat* at the end of the secondary cycle. Clearly, the explosion in the number of insti-

72. These data are for 2003, before the closure of the 126 small private institutions.

73. According to the Direction des établissements privés de l'Enseignement Supérieure et Universitaire (ESU).

74. Between 1975 and 1987, the access rate was estimated to be stable at about 50 percent. Cf. EDUPLUS (Lavalin International), *Projet de rationalisation de l'enseignement supérieur et universitaire, Activité B.4.1 (Lot un), Analyse du déroulement des études à l'ESU,* Projet financé par le groupe Banque mondiale/IDA, Ministère de l'enseignement supérieur et universitaire et de la recherche scientifique, Kinshasa, 31 juillet 1991, page 9.

tutions in both the private and public sectors, since the late 1980s as documented earlier, enabled eligible students to access higher education. However, eligibility is dependent on obtaining the *diplôme d'Etat,* which certifies the completion of secondary education; apart from rare exceptions, there are no entrance examinations.[75] Performance on the national *examen d'état* as well as the evaluation by the school are taken into account in awarding the *diplôme.* During the nineties, the average pass rate on the *examen d'état* went up to 57 percent, compared to 43 percent in the previous decade, which increased the number of eligible students. In 2001 and 2002, the pass rate declined substantially to 33 percent and 41 percent, respectively.

Current enrollment in most institutions far exceeds their theoretical capacity. Much of the expansion of capacity during the nineties occurred through the taking over of hostels and university dining facilities, but even so, capacity was severely limited in relation to the demand. In 1998–99, the intake capacity of the main public institutions in Kinshasa was only 39,638, while actual enrollment was more than twice this figure, at 89,218 (table 5.1).

Table 5.1. Capacity and Actual Enrollment of Public Institutions in Kinshasa, 1989–2000

	Capacity		Student Enrollment				Utilisation
	Initial	Actual					
	70–71	99–2000	89–90	90–91	98–99	99–00	Ratio
UNIKIN	5,000	10,150	10,452	12,525	31,387	34,526	240
ISTA	3,591	13,000	5,169	5,815	10,449	14,460	11
IBTP	1,616	1,134	2,488	3,093	2,481	2,210	94
ISTM	1,532	*	2,515	2,728	4,726	5,409	253
ISC-KIN	1,572	5,194	6,303	11,112	15,980	15,919	206
IFASIC	115	*	361	380	1,038	1,119	87
ISAM	115	325	115	192	770	863	165
INA	149	*	149	223	476	791	43
ABA	269	100	481	499	736	854	754
IPN	3,544	8,456	5,811		10,312	11,065	31
ISP/GOMBE	453	965	859	848	1,084	1,603	66
ISPT/KIN	50	314	50	366	328	399	27
Total	**18,006**	**39,638**	**34,753**	**37,781**	**79,767**	**89,218**	**111**

Source: Direction de la planification de l'Enseignement Supérieur et Universitaire (ESU).

Despite attempts to redress geographic imbalances, there exist wide variations in higher education capacity across provinces. In terms of public institutions, two provinces—Bas-Congo and Bandundu—are better endowed than others; the least endowed being the Kivu and the Equateur. In terms of students, however, Kinshasa alone accounts for 66 percent of students in the public sector and 69 percent of all students. It is possible that these are over-estimates since the collection of statistics is easier in Kinshasa. On the other hand,

75. For instance, Institut facultaire des sciences de l'information et de la communication (IFASIC) and Université protestante du Congo.

the demand for higher education is very strong in Kinshasa given the high GER at the secondary level. The high share of public enrollment in Kinshasa also signifies a great deal of regional inequity in the allocation of public funds for higher education, other provinces relying mainly on private financing.

Enrollment in university and non-university institutions is approximately equal. University institutions consist of universities, the *institutes facultaires* and university center, which are the extensions of universities. The non-university institutions are the higher professional institutions (ISPs/ISTs). Since university institutions are fewer in number, they tend to be much larger in size than the non-university institutions. They are also considered more prestigious, since more resources were allocated to them during the era of public financing, and they were the first choice of the best students. Although the 1971 reform introduced uniform administrative and academic rules, the universities continued to be more favoured especially in terms of training of teaching staff.

The original structure and content of university education was geared towards producing a highly trained intellectual cadre which could undertake fundamental research in various disciplines. This is now in conflict with the mass character of university education and should be reformed. The first cycle lasts for three years (equivalent to an undergraduate level) and leads to an undergraduate degree. The second cycle lasts for two or three years and leads to a *license* (postgraduate degree). The third cycle consists of either two years, leading to a *diplôme d'études supérieures,* or a doctorate program. Education in the technical and pedagogical institutes is offered in two cycles of three and two years, leading to a *diplôme de graduat,* or *license,* respectively.

The original distinction between the universities proper and the non-university institutions is getting blurred. Under pressure from student demand, ISPs have introduced general courses in commerce and economics, which is more geared to the general labor market than the training of secondary teachers. The specialised pedagogical training diploma is increasingly seen as a substitute for a general higher education diploma. Furthermore, almost all the ISPs and the ISTs have been organising the second cycle (*license*) and have been demanding that their status be raised to that of *institutes facultaires* or of full-fledged universities.

The structure of enrollment by discipline is unbalanced and reflects the lack of enrollment management. Medicine and pharmacy accounts for 20 percent of total enrollment in public institutions. By contrast, enrollment in the sciences accounts for only 17 percent. The growth of enrollment in the teacher training institutions, in particular, bears no relation to the requirements of secondary teachers, and accounts for 16 percent of total enrollment. In fact, students who do not obtain admission in the universities seek admission in the ISPs, which have lower eligibility criteria in terms of performance on the *examen d'état,* in order to obtain a higher education credential.

Table 5.2. Estimates of Distribution of Student Enrollment by Faculty in Public Institutions

Medicine, Pharmacy	20%
Economics, Commerce	18%
Sciences	17%
Teacher Training	16%
Arts and social sciences	15%
Law	11%
Rural development, agricultural and veterinary sciences	3%
Total	100%

Source: Répertoire des établissments de l'ESU, February 2003.

Personnel in Higher Education

Pupil-teacher ratios are relatively low in public institutions. The average pupil-teacher ratio for the country as a whole is about 1:20, using an enrollment estimate of about 160,000 in public institutions.[76] The total number of teaching staff was 7,899 in 2003 (table 5.3). In some

Table 5.3. Academic and Scientific Personnel in Public Higher Education, July 2003
(% share of each category by province—row percentage)

	PO	P	PA	CT	APP2/ ASS2	APP1/ ASS1	CPP2	CPP1	Cons	Enc. Péd.	Total
Kinshasa	8%	7%	9%	30%	23%	19%	1%	2%	0%	2%	3,283
Bandundu	1%	1%	3%	12%	30%	41%	6%	6%	0%	0%	695
Bas-Congo	2%	3%	6%	13%	21%	47%	0%	9%	0%	0%	399
Equateur	2%	2%	3%	18%	34%	33%	5%	3%	0%	0%	369
Kasaï-Occidental	1%	3%	3%	13%	27%	42%	5%	7%	0%	0%	680
Kasaï-Oriental	1%	2%	5%	20%	29%	26%	10%	8%	0%	0%	331
Katanga	6%	6%	8%	22%	21%	27%	8%	2%	0%	0%	968
Province Orientale	4%	6%	8%	29%	15%	34%	2%	3%	0%	0%	782
Maniema	0%	0%	2%	0%	16%	82%	0%	0%	0%	0%	51
Sud-Kivu	3%	3%	7%	26%	19%	33%	1%	8%	0%	0%	236
Nord-Kivu	0%	5%	8%	25%	3%	39%	1%	20%	0%	0%	105
Total	5%	5%	7%	23%	23%	29%	3%	4%	0%	1%	100%
Total (nos)	389	399	542	1,855	1,818	2,259	256	301	6	74	7,899

Notes: PO: Professeur ordinaire (highest grade); P: Professeur; PA: Professeur associé; CT: Chef de travaux; APP2: Assistant de pratique professionnelle 2ème classe; ASS2: Assistant 2ème mandat; APP1: Assistant de pratique professionnelle 1ère classe; ASS1: Assistant 1er mandat; CPP2: Chargé de pratique professionnelle 2ème classe
CPP1: Chargé de pratique professionnelle 1ère classe; Cons: Conseiller; Enc. Péd.: Encadreur pédagogique
Source: Direction de la planification de l'ESU.

provinces, like Equateur and Kasaï-Occidental, the pupil-teacher ratio would be close to 1:5, but even in provinces where they are highest, such as Kinshasa and Katanga, the ratio would not be higher than 1:30.[77] Given the relatively high concentration of students in the first year, such ratios are generous. This is partly due to the existence of a large number of small institutions, but even in the largest University, the University of Kinshasa (UNIKIN), the pupil-teacher ratio is 1:29. In the University of Lubumbashi (UNILU), the ratio is 1:34. As in primary and secondary education, the number of teaching staff is relatively high. It is more difficult to estimate the pupil-teacher ratio in the private institutions since most of the teachers are from

76. Enrollment in enumerated institutions was 134 672, but these comprised only 74 out of 111 institutions. The estimate of 160,000 has been derived by assuming that the remaining institutions are of the same average size as those enumerated; since the size of institutions varies considerably, this may not be valid. If the size of the remaining institutions is lower than the average of those enumerated, total enrollment would be lower and hence the pupil-teacher ratio would also be lower.

77. The pupil-teacher ratio was as low as 7 in 1978–79, when the sector received a high levels of state funding (EDUPLUS, *op. cit.*).

public institutions who teach part-time in the private sector, but taking into account these teachers as well, the average pupil-teacher ratio in private institutions is about 1:8.

The proportion of teaching staff with a doctorate is relatively low and the average age of teachers is relatively high. Only the *professeurs ordinaires, professeurs* and *professeurs associés,* who have a doctoral thesis are entitled to teach the final years. Most of these were trained abroad at a time when the state provided scholarships and financial aid. However, they account for only 17 percent of the total teaching staff. The *chefs de travaux,* who have a *licence,* usually from a domestic University, comprise 23 percent of the total. About 80 percent of the teaching staff are either *licensés* or *gradués.* A greater proportion of the highly qualified teaching staff is located in the three main universities, that is Kinshasa, Lubumbashi and Kisangani. About 10 percent of the professors are 64 years old, but even the other categories of teaching staff are relatively old.[78] The low percentage of professorial staff as well as the mean age of this category is one reason for the common perception about the lack of staff in universities.

The multiplicity of disciplines and options is also a reason for low pupil-teacher ratios. The low pupil-teacher ratio is not due to the teaching time being too low. The average teaching time demanded of professors, *chefs de travaux* and assistants is relatively high: 270, 360, and 450 hours, respectively.[79] With such high hours of teaching, the relatively low pupil-teacher ratios can only be explained by the enormous number of options. Although detailed data are not available on pupil-teacher ratios by discipline, it is a well-recognised fact that the courses most in demand, such as medicine and law, especially in the main Universities, have very high pupil-teacher ratios. This implies that many other courses have low pupil-teacher ratios.

There is a surplus of non-teaching staff in public higher education, both in the institutions and in the Central administration. There are 12,144 non-teaching staff compared to 7,899 teachers in public institutions (table 5.4). This gives a ratio of 1.54 non-teaching staff for every teacher. Nearly 20 percent of the non-teaching staff is in the central administration. Within institutions, there is effectively no control over the recruitment at this level as the administrative heads of the institutions are authorised to recruit both teaching and non-teaching staff and the approval of the ministry is only a formality. The ratio of non-teaching to teaching staff is very variable across provinces: it is as high as 2.5 in Equateur, 2.4 in Orientale, and only 0.8 in the Bas-Congo.

Internal Efficiency

Internal efficiency in higher education is low, mainly due to the high failure and dropout rates in the first two years. Table 5.5 shows the promotion, repetition and dropout rate for the largest university, the University of Kinshasa. In the first year, 50 percent of students drop out; in the second year, about 35 percent drop out. The internal efficiency is about 50 percent, with only 28 percent of a cohort obtaining a *license,* and only 18 percent obtaining a *license* without any repetition. The high failure rate in the first year is apparently due to the low level of preparation of secondary students and the poor quality of teachers allocated to the first few years, who are generally less qualified. The high dropout rate is undoubtedly

78. As is the case with primary and secondary teachers, they do not retire because of the inability of the state to pay retirement benefits.

79. *Charge horaire.*

Table 5.4. Administrative, Technical and Other Staff in Public Higher Institutions, Novembre 2002
(% share of each category by province—row percentage)

	DCS	DIR	CD	CB	ATB1	ATB2	AGB 1	AGB 2	AGA 1	AGA 2	HUIS	Total
In institutions												
Kinshasa	5%	5%	11%	19%	29%	21%	8%	2%	0%	0%	0%	4 260
Bandundu	1%	2%	3%	7%	23%	23%	20%	15%	0%	0%	7%	1 227
Bas-Congo	2%	3%	6%	16%	38%	0%	0%	36%	0%	0%	0%	233
Equateur	1%	2%	5%	10%	21%	20%	16%	25%	0%	0%	0%	906
Kasaï-Occidental	0%	1%	5%	9%	23%	21%	22%	17%	0%	0%	0%	1 010
Kasaï-Oriental	1%	2%	6%	7%	15%	24%	26%	20%	0%	0%	0%	552
Katanga	1%	2%	6%	8%	23%	22%	13%	24%	0%	0%	0%	1 556
Province Orientale	1%	2%	6%	14%	26%	22%	13%	15%	0%	0%	0%	1 894
Maniema	0%	0%	0%	5%	42%	11%	18%	24%	0%	0%	0%	66
Sud-Kivu	3%	6%	16%	15%	24%	14%	14%	7%	0%	0%	0%	291
Nord-Kivu	1%	0%	1%	6%	26%	20%	27%	18%	0%	0%	0%	149
Total	2%	3%	8%	13%	25%	21%	13%	13%	0%	0%	1%	100%
Total (nos)	294	400	918	1 612	3 093	2 530	1 628	1 587	0	0	82	12 144
Central admin.												
Total (nos)	70	146	314	722	865	386	188	76	0	0	0	2 767

Notes: DCS: Directeur chef de service; DIR: Directeur; CD: Chef de division; CB: Chef de bureau; ATB1: Attaché de bureau 1ère classe; ATB2: Attaché de bureau 2ème classe; AGB1: Agent de bureau 1ère classe; AGB2: Agent de bureau 2ème classe; AGA1: Agent auxiliaire 1ère classe; AGA2: Agent auxiliaire 2ème classe; HUIS: Huissier.
Source: Document de la Direction de la planification de l'ESU.

Table 5.5. Internal Efficiency in University of Kinshasa, 1999–2000

Year of study	1	2	3	3e spéc.	4	5	6
98–99 Enrollment	11,993	7,663	5,002	—	2,883	2,587	247
99–2000 Enrollment	8,946	5,549	4,627	83	4,384	3,193	349
2000–2001 Repeaters	1,194	766	510	—	288	259	25
Promotion rate	40%	55%	82%	102%			
Repetition rate	10%	10%	10%	10%	10%		
Dropout rate	50%	35%	8%	–12%			

Source: Document de la Direction de la planification de l'éducation

due to the cost of education. A similar situation obtains in other big universities and institutions. By contrast, in the smaller institutions, where the pupil-teacher ratio is better, the internal efficiency is believed to be better; this is especially the case in the ISTs and the ISPs.

Performance in the scientific disciplines is worse than in the arts. Between 1996/97–2001/02, those receiving science degrees from UNIKIN and UNILU represented only 6 percent of the total number of graduates, while law and arts graduates represented 30 and 27 percent, respectively (table 5.6). These proportions are distinctly different from the distribution of total enrollment by discipline.

Table 5.6. Percentage Share of Graduates from UNIKIN and UNILU 1996/97–2001/02

Discipline	Percentage of total
Medecine and Pharmacy	11%
Economics	22%
Sciences	6%
Arts and social sciences	27%
Law	30%
Agricultural sciences	3%
Total	100%

Source: Direction de la Planification de l'ESU

Internal efficiency in higher education has been low historically in the DRC. In the first cycle (three years of study), the efficiency was only 22 percent for the 1984 cohort and 18 percent for the 1987 cohort; in the secondary cycle, it was 32 percent and 33 percent, for the two cohorts, respectively.[80] Only 20 percent of students passed in the first year of study in 1987–88.

Quality of Programs

Most programs in higher education are out-dated as the last revision of curricula and programs occurred in 1981. The system for changing curricula and introducing new courses is cumbersome and is effectively dysfunctional; the *Commission Permanente des Etudes* of the Ministry which finally approves changes has not met for 10 years. As stated earlier, this system is a legacy of the past when centralisation was the main objective of educational policy. Institutions have found methods to introduce new programs that are in demand (such as biotechnology or information technology), obtaining temporary recognition from the Ministry and using faculty from different departments. The lack of trained teachers in new disciplines

80. Eduplus, op. cit.

is the obvious constraint, but non-availability of books is another major problem.[81] Where possible, teachers search the internet for information, which is sold to students in the form of class notes for $5–10 each. Collaboration with foreign universities, on research projects or through faculty exchanges, which continued throughout the nineties, has been another means of accessing the latest developments, especially in medicine and the sciences.

The unplanned growth in enrollments has had a deleterious effect on the quality of instruction in the sciences and in medicine. The inadequacy of laboratories is palpable, with often one hundred students crowded into a laboratory in the large universities and sharing limited equipment and materials. Fees from students are insufficient to cover the cost of materials especially in the natural sciences and students obtain a theoretical training, with limited practical exposure.

The practice of using the teaching staff of public universities in private institutions has affected quality in both public and private institutions. It also contributes to lengthening the academic year in both sectors and indirectly to raising the costs of education for students. The sharing of faculty from public universities has been the main way in which access has been expanded without heavy investments in teacher training but it has not been without its costs. An example of the extent of teaching outside the parent institution is given in table 5.7, which shows the distribution of annual teaching hours of the visiting faculty

Table 5.7. Annual Teaching Hours of UNIKIN Professors Teaching in Université Kongo, Faculty of Economics

Teacher code	UNIKIN	UWB	UPC	UK	FCK	Total	% outside UNIKIN
1	305	240	345	75	0	965	68%
2	187	150	105	75		517	64%
3	172	225				397	57%
4	187	165		90		442	58%
5	120	90	60			270	56%
6	157	60	135			352	55%
7	277	90		150		517	46%
8	187	45	360	225		817	77%
9	255	60		60		375	32%
10	172	90	300		120	682	75%
11	150	75		45		270	44%
12	270	45	165	150		630	57%
13	232		195	150		577	60%
14	152		95	105		352	57%
Average	202	301	512	59%			

Notes: UNIKIN—University of Kinshasa; UWB—University William Booth; UPC—Université Protestante du Congo; UK–Université Kongo; FCK—Facultés Catholiques de Kinshasa
Source: B. Lututala Mumpasi (2002). *Op. cit.* Table 6.

81. In the ISP, Gombe, one of the main institutions of the country, the most recent library acquisition dates from 1984.

teaching at the Faculty of Economics of the Université Kongo (a private university—*université communautaire*). These visiting faculty are from the University of Kinshasa (UNIKIN) and the first column shows the number of hours each of them is expected to teach. The remaining columns show how many hours they teach at four other private universities, respectively. The total number of hours taught ranges from 270 to an astonishing 965 hours, with about 32 to 75 percent of time being taught outside UNIKIN. On average, the visiting faculty at this department teach 202 hours in UNIKIN and 301 hours in other universities. All professors in public universities are allowed to engage in this practice and only require a standard approval from the Rector. Classes and examinations are fitted into a complex schedule taught by several teachers from several universities. Since examinations in private institutions are set and corrected by the professors in public universities, these are often delayed in private institutions due to the unavailability of the latter. Added to all this is the enormous burden on the teaching staff, restricting the time for any meaningful research, and often leading to health problems.

Recognizing the enormous challenges in higher education, the government has outlined various reforms aimed at improving quality. These reforms are reflected in a published document called *Pacte de Modernisation de l'Enseignement Supérieur et Universitaire* (PADEM). Based on this, an academic calendar has been adopted for all the higher education institutions in the country and various new courses have been adopted since 2003–04, replacing some of the courses in existence since 1981.

Costs and Financing

Estimates of Unit Public and Private Costs

Until the beginning of the eighties, higher education received a high priority within overall budgetary allocations for education and the Congolese university system had an excellent reputation in the region. With just 0.6 percent of the total student population, it received 30 percent of the education budget. In other sub-Saharan countries during the same period, higher education received only 18 percent of the budget (with a share in the total student population of 0.7 percent). The unit cost was about $2500; the pupil-teacher ratio was very favorable at about 1:8; other operating costs were relatively well funded; all students received scholarships, averaging $1134 per student, and the share of scholarships in recurrent spending on higher education was 30 percent in 1980; student and staff accommodation was provided universally. Higher education also received external aid.

Despite the contraction of public financing for education during the eighties, the state continued to be the main source of financing for higher education. About 90 percent of total receipts were from state subsidies in all three types of public higher education institutions. Only 5 percent or so of total receipts was financed by student contributions.[82] However, both staff salaries and student scholarships were reduced drastically in real terms. In 1989, the share of scholarships fell to about 8 percent of recurrent expenditures; which had also fallen in real terms. Allocations for investment were also reduced. The shift to private financing as the predominant sources of revenues occurred during the nineties, as the

82. EDUPLUS *Analyse des coûts de l'ESU,* op. cit. page 120.

meagre budgetary allocations were spread even more thinly across a large number of public institutions.

In 2002, the unit public recurrent cost of education was estimated to be $57 and the investment expenditure per student to be $16. Recurrent costs comprise mainly salaries (70 percent) with the rest going on utilities (electricity and water). The estimates of total private costs are difficult to obtain. However, an idea about the approximate share of household financing can be got by examining total charges paid by students, which are even more numerous than at the primary and secondary level, and the cost of supplies, transport and lodging. The total per student charge paid to institutions is $150 and hence the total institutional recurrent cost is about $207 per student. Households therefore pay about 70 percent of *institutional* recurrent costs. Other costs may (on books, supplies and other items) be close to $50–$150, which suggests that households may be financing about 84 percent of total costs.[83]

Combining private and public expenditures, the expenditure per student in public universities appears to be in the range of $250–350 per year. This is much lower than the average public expenditure per student for sub-Saharan Africa, which is about $1000 currently.[84]

Data on private expenditures in private universities are rare. In the best private institutions in the capital, the fees vary between $250–300 per year. Such is also the case in the Université Kongo, in Bas-Kongo, which is a leading *université communautaire.* However, fees appear to be lower in private institutions which are in the interior of the country.

Sources of Financing and Composition of Expenditures at the Institutional Level

Financial data provided by one major public university, the University of Kinshasa (UNIKIN), and one important private university (*communautaire*), the Université Kongo (UK), allow us to compare the above average costs and financing shares, derived from budgetary data, with costs and financing shares as reflected in institution accounts.

Receipts for UNIKIN for two years, 1998 and 2002, reveal the high level of dependence on student fees (table 5.8). The data for 1998 may not be representative as the university had re-opened after one year of closure due to political changes and student enrollment surged due to the backlog of admissions from the previous year.[85] Salaries of teaching and non-teaching staff in the University, the expenditures on research and the expenditures on utilities (water, electricity and telephone) are paid directly by the state, and these are not reflected in the University accounts. The subsidy from the state for other recurrent costs was negligible in both years: only 0.2–0.3 percent of total receipts. Receipts from the *Entités Administratives Dentralisées* (local governments) were about half as much as this public subsidy.[86] Student contributions represent 93–94 percent of funds received directly by the University and include *recettes des étudiants, frais d'études* and *rémunérations;* the latter alone,

83. These estimates are very approximate. In official documents, the share of private financing of higher education is usually stated to be 95 percent, but no data are presented to support this claim.

84. A rough estimate for 2002; since 1997 the per pupil expenditure, which was $1611 at the time, has been declining in sub-Saharan Africa.

85. In 1998–99, the number of pupils in UNIKIN was 31, 387 (following a year of closure); in 2001–02, it was estimated to be 27,000.

86. The resources of EADs are meant to be used mainly for primary and secondary education. It was noted in chapter 3, that the amounts spent by the EADs are not known. It is interesting to note that they do make some contribution to higher education, however meager the absolute amounts.

Table 5.8. Sources of Finance, University of Kinshasa—1998 and 2002 (excluding direct state subsidies)

	1998 (US$ thousands)	2002 (US$ thousands)	% distribution of receipts		Per pupil receipts US$	
			1998	2002	1998	2002
Total receipts	2520.3	4341.4	100.0	100.0	80	161
Subsidy from state	7.2	8.0	0.3	0.2	0.23	0.30
Other receipts	1823.8	4333.4	99.7	99.8		
From students	2663.8	4050.3	93.8	93.3	75	150
Entités Administratives Décentralisées	2.0	3.5	0.1	0.1		
Foreign grants	0	17.8	0.0	0.4		
Other	135.1	261.8	5.4	6.0		

Note: (1) Receipts exclude the government subsidies for personnel and other expenditures paid directly by the state. (2) The receipts are shown partly in FC and partly in US dollars. For 1998, the official exchange rate of FC1.61 to US$1 has been used to convert all receipts to US dollars; for 2002, the exchange rate used is FC382 to US$1.
Source: "Tableau comparative du Compte fonctionnement et rémunération de l'Université Kinshasa pour les années 1998 et 2002." Supplied by the University of Kinshasa, August 2003.

which presumably pays the *prime de partenariat* of teachers, accounts for 79 percent of total receipts (not shown in table). Foreign grants made a small contribution in 2002.

In 2002, receipts per pupil from all sources amounted to $206 compared to $80 in 1998. This increase was due to the doubling of the per student receipts, from $75 to $150. The estimate of charges paid by each student is therefore the same ($150), whether they are estimated independently from the individual fees payable or from the UNIKIN's financial statements. The contribution of the state per student for operating costs, other than personnel and utilities, was 30 cents or less in both years.

The composition of expenditure shows that personnel costs, financed out of student receipts, accounted for 87 percent and 96 percent of total expenditure in 1998 and 2002, respectively (table 5.9). As with receipts, the University expenditure accounts exclude the

Table 5.9. Composition of Expenditure, University of Kinshasa 1998 and 2002 (excluding direct state expenditures)

	1998 (US$ thousands)	2002 (US$ thousands)	% distribution of expenditure		Per pupil expenditure US$	
			1998	2002	1998	2002
Total expenditure (US dollars)	2390.7	4378.0	100%	100%	76	162
Personnel	2071.3	4219.7	87%	96%		
Material and Equipment	1.6	1.3	0%	0%		
Other operating costs	309.5	156.4	13%	4%		

Note: Same as in table 5.8
Source: Ibid.

costs directly incurred by the state and hence refer essentially to its discretionary expenditures. Expenditure per pupil (excluding direct state expenditures) was $76 in 1998 and $162 in 2002.

Adding the average state subsidy of $57 per student for recurrent costs, we get an estimated per pupil (institutional) recurrent expenditure of $224 per student at the UNIKIN. However, using the average state subsidy for all public institutions may be misleading since the university has more professorial staff and its expenditures on utilities may also be higher.

At the Université Kongo, student fees generate about 93 percent of the total receipts (table 5.10). Being a private "communautaire" university, it receives no state funding. The

Table 5.10. Receipts of the Université Kongo, 2002
(US dollars)

	Budget (US$ thousands)	Actual (US$ thousands)	Actual as % of Budget	% distrib of actual receipts	Per pupil receipts (US$)
Total receipts	600.0	142.5	24%	100%	193
From students	190.4	113.7	58%	93%	154
Minerval	150.0	105.2	70%	74%	
Other charges	40.4	8.5	35%	19%	
Charges from earlier years	36.6	18.7	51%	13%	
Others	409.6	28.8	3%	7%	39
"Pouvoir organisateur"	266.3	0	0%	0%	
Province of Bas-Congo	20.0	2.1	11%	1%	
EADs	10.0	0	0%	0%	
Others	113.3	26.6	10%	6%	
Arrears in student charges at the end of 2002 (actual)			% distribution		
Before 2001		5.1	5%		
2001		38.2	39%		
2002		54.7	56%		
Total arrears		97.7	100%		

Note: Pouvoir organisateur refers to the governing body of the University, which includes representatives of the province, churches, business groups, representatives of parents and so on.
Source: Rapport d'Exécution Budgétaire 2002, Université Kongo, March 2003.

annual charge per student is $154, close to that in UNIKIN. The provincial government contributed 1 percent, but there were no contribution from other entities (neither businesses, churches, nor EADs). Other sources of revenue, in total contributing 6 percent of receipts, were mainly from the sale of various products, including medicines.

The precariousness in the financing of private universities is illustrated by this case. Actual receipts as a percentage of the budgeted receipts is below 25 percent for each head of receipts. Even in the case of student charges, actual realization is less than 60 percent; the rate of collection of the *minerval* is 70 percent, and less than 35 percent of other student charges could be collected in this year.[87] These lead to a build up of arrears in collections,

87. This is despite students being allowed to pay in installments and at least part of the fees "in kind" (e.g. food and fuel). Student collections are often seasonal and depend on harvests, the timely sale of produce or ability to transport the contributions in kind to the university.

which were close to $100,000 at the end of 2002, 45 percent of which were from the previous year or earlier. Total revenue arrears represented 68 percent of actual revenue collected in that year. The lowest rates of Realization were for receipts anticipated from the province, the EADs and other civic bodies.

Expenditure per pupil in the UK was $184, about 20 percent lower than the estimated (total) expenditure per pupil of $224 in UNIKIN (Table 5.11). This is explained by the lower

Table 5.11. Composition of Expenditure of the Université Kongo, 2002
(US dollars)

	Budget (US$ thousands)	Actual (US$ thousands)	Actual as % of Budget	% distrib of actual expenditure	Per pupil expenditure (US$)
Total Expenditure	600.0	136.0	23%	100%	184
Salaries of UK staff	106.8	39.2	37%	29%	
Visiting faculty	136.4	56.7	42%	42%	
Honoraria	90.8	40.3	44%	30%	
Boarding, lodging, transport	45.6	16.4	36%	12%	
Other operating costs	300.9	36.8	12%	27%	
Payment of arrears	15.9	2.0	13%	1%	
Equipment and investment	40.0	1.3	3%	1%	
Arrears at the end of 2002		Actual	% distribution		
Salary of UK staff		207.4	90%		
Honoraria of visiting faculty		2.3	1%		
Suppliers		13.0	6%		
Others		7.0	3%		
Total arrears		229.7	100%		

Source: Rapport d'Exécution Budgétaire 2002, Université Kongo, March 2003.

salaries of the university staff and the high level of dependence on part-time visiting faculty. Expenditure on teaching personnel, comprising salaries of the staff of the University as well as the costs of visiting faculty, constituted 71 percent of total actual expenditure. Expenditure on visiting faculty comprised the main part of total expenditure (42 percent), with 30 percent being paid as honoraria and 12 percent as other expenses. Since revenues were much lower than budgeted, actual expenditure was less than one-quarter of that budgeted.

Arrears in payment of salaries to the university staff is the main way by which the university is coping with the paucity of receipts. At the end of 2002, total arrears amounted to $230,000 or about 170 percent the actual expenditure during 2002. They were 1.6 times greater than the actual revenue collected during the year. About 90 percent of the arrears were due to the university staff, who had in effect been paid only once in three months during the year (which may also have accounted for the relatively low share of personnel costs). Because of the variation in the structure of other private universities, it is difficult to generalise from the financial position of the UK. Universities run by the churches may have other sources of stable finance due to their connections to congregations abroad.

Salaries of Teaching Staff

Salaries paid by the state are very low, with the average monthly salary of a teacher being $34, and of an administrative staff $25.[88] While the disparity between the average salary level of a primary, secondary and university teacher is relatively large, within higher education, the range of salaries is rather modest. Unlike at the other levels of education, there is no automatic advancement, and promotion within one grade to another is decided by the *Conseils d'Administration,* depending on the number of publications (or on obtaining a doctorate for promotion into the professorial grade). On the other hand, a driver in higher education (who falls into the lowest category of non-teaching staff) obtains more than twice the salary of a school teacher outside Kinshasa. This is due to the fact that all staff in higher education receive the transportation allowance (FC4,440), irrespective of their location, while in the school sector, only those within Kinshasa get this allowance.

Currently, honoraria from teaching at private universities contribute a substantial share of the total earnings of professors in the main public universities. An idea about the total earnings of professors in UNIKIN can be obtained from a survey of several hundred professors conducted in 2000. Table 5.12 reports the earnings by source for different cat-

Table 5.12. Total Earnings of Professors in UNIKIN by source, 2000
(US dollars)

	Salary from UNIKIN		Annual honorarium from private universities					
Code	State salary (12 months)	*Prime partenariat* (10 months)	UK	UWB	UPC	Total monthly earnings	% from honoraria	% from state salary
A (PO)	750	3000		820	840	451	31%	14%
B (PO)	750	3000		547	1890	516	39%	12%
C (PO)	750	3000	661	820		436	28%	14%
D (P)	698	2600	286	1235	1260	507	46%	11%
E (P)	698	2600		1852		429	36%	14%
F (P)	698	2600	860	370	4320	737	63%	8%
G (P)	698	2600	229	494		335	18%	17%
H (P)	698	2600		741	3600	637	57%	9%
I (P)	698	2600	172	617		341	19%	17%
J (P)	698	2600	573	370		353	22%	16%
K (PA)	679	2400	242	1764	3450	711	64%	8%
L (PA)	679	2400	291	1211		382	33%	15%
M (PA)	679	2400	436		1950	455	44%	12%
N (PA)	679	2400	339		1140	380	32%	15%
Avg.						476	39%	13%

Notes: (1) *Prime partenariat* refers to the salary that is paid out of student contributions. (2) UK—University of Kongo; UWB—University William Booth; UPC—Université Protestante du Congo. (3) Data for first three columns have been taken from the source cited below; last three columns have been calculated.
Source: B. Lututala Mumpasi (2002). *Op. cit.* Table 7.

88. As mentioned in chapter 3, the state salary paid to the highest category of university categories alone was raised to about US$500 per month.

egories of professors. The monthly salary paid by the state ranged from $56–62 and the monthly *prime de partenariat*[89] from $240–300 (paid for 10 months each year).[90] In addition, professors earn from teaching part-time at private universities with total monthly earnings ranging from $341–737. The average monthly total earnings for all categories of professors was $476. Overall, honoraria from private universities contributed almost two-fifths of total monthly earnings, with the share ranging from 19 to 64 percent for different professors. The share of the state salaries is between 8 to 17 percent. In relation to the average per capita income, the monthly earnings of professors is quite high: a senior professor gets $360 per month (state salary plus student contributions) even without teaching in private universities and could get $700 per month with additional teaching, compared to an annual per capita GDP of about $130 in that year.[91]

This high dependence on student contributions and part-time teaching in multiple universities produces perverse effects on quality. Apart from lengthening the academic year in both public and private institutions, teachers are constrained in applying high standards of evaluation for fear of losing "paying clients." In order to maximize their earnings, teachers are as interested in enlarging enrollment (which also allows fees to be kept lower) by lowering standards of admission. Finally, teachers in public universities are dependent on students in private universities for a major part of their earnings and often cannot give their "own students" the time that is due to them.

Summary and Recommendations

Main Findings

The DRC has a large and growing diversified higher education system, comprising both public and private institutions and depending to a great extent on household financing. This is a great strength of the education system in the country, since higher education not only generates private benefits, but can also contribute to the economic and social development of the country through the development and diffusion of technological innovation. Higher education institutions will also play an important role in upgrading the quality of primary and secondary education, through teacher training programs and the development of new curricula and teaching-learning materials.

With an almost complete reliance on household financing for the last 15 years and in the conditions of economic decline, the quality of higher education has deteriorated very rapidly. Curricula and programs are outdated. There has been little or no investment in infrastructure, laboratories or libraries for many years. Students have limited access to textbooks or other materials. Professional staff have no opportunities for professional development, which earlier used to be offered by exchanges with universities in Europe.

An uncontrolled expansion in student numbers has led to a lowering in standards, reinforced by the decline in quality of secondary education. The high transition rate between

89. Equivalent to the *prime de motivation* at the school level.

90. The *prime de partenariat* for other teachers, who are not in the professional grade, is about $100 per month.

91. By way of comparison, in 1990 a teacher in higher education in sub-Saharan Africa obtained a salary about 6 times the per capita income.

upper secondary education and higher education has led to an explosive growth in student numbers, which has reduced quality further. Universities are under pressure to admit more students because of their heavy reliance on student fees to pay teachers' salaries. Increasing student numbers have been accommodated by converting hostels and dining facilities into lecture rooms, while many classrooms are extremely overcrowded.

A decline in the number of teaching staff is one of the main issues in higher education, caused by the limited number of students entering doctoral programs and willing to enter the profession. Most private universities use staff from public universities, who therefore teach simultaneously in several universities, compounding the problems of providing quality instruction.

Among the other structural problems of the higher education system are the multiplicity of courses and options, the limited academic autonomy of Universities to introduce courses, the fragmentation of provision across a number of small institutions and an excess of administrative staff both at the Ministry and in the institutions. These factors lead to the inefficient use of resources and high unit costs.

Although the private sector has contributed to the expansion of the higher education system, it is a largely unregulated and operates in a confusing policy framework. A large number of ad hoc decisions implemented over the last twenty years have contributed to this confusion, with the result that degrees from private institutions are still not officially "recognized."

Recommendations

A clear policy framework outlining the goals of higher education and the respective roles of different types of institutions and the public and private sectors is required to ensure the development of higher education. Achieving quantitative expansion while improving quality in critical areas that are important to national development will require further development of a differentiated higher education system, comprising university and non-university institutions, short- and medium-duration courses, undergraduate, graduate and research programs, and campus-based and distance-based options. These diverse modes of provision should be integrated into a coherent, long-term vision for the sector, enabling the sector to respond to the more diversified training, educational and research needs of a growing economy as well as greater mobility, flexibility and choice for students entering higher education.

Within the general policy framework, a medium-term plan has to be developed to address some key structural problems that threaten to further undermine the quality of higher education. Enrollment management and improving the process of selecting students for different types of courses and institutions is an important issue. Rationalizing the provision of higher education, including consolidating very small and unviable institutions may be required. Augmenting the supply of teachers in the short-run and creating a training plan for new teachers and existing teachers is another immediate priority. The multiplicity of courses and options, especially in the first cycle should be reduced. Decisions on these strategic issues will have an impact on costs and hence the total financing requirements of an expanded and upgraded system of higher education.

The restoration of a viable higher education system requires raising the unit cost of provision and diversifying the sources of financing. This is impossible without reforming the

system of financing, which is currently highly dependent on student fees. Reforms in the financing mechanism require not only increasing the share of public funding, but also better targeting of public subsidies for attaining specific goals, such as improving quality in priority areas, introduction of new courses, training of faculty staff, enhancing research capabilities as well as improving equity in access to higher education. Within the public sector, the possibilities of rationalization of staff and non-staff personnel costs will need to be examined. Greater private sector participation can be stimulated by creating an enabling regulatory framework. Foreign private investment in selected areas could also be considered, provided this fits in with the overall policy framework and medium-term plan.

Given the enormous needs of the higher education system, it is best to be selective and to adopt a strategy that enables resources to be targeted for improving quality in some key areas that helps both the public and private sectors. This is preferable to providing assistance for upgrading infrastructure or courses in selected public institutions, which could absorb a lot of resources without changing the system.

Options that could be considered are:

- Creating a fund from which institutions could apply for resources to improve quality, against minimum eligibility criteria. This would ensure that additional public funding is targeted to initiate specific reforms or for specific needs. The key challenges are creating the correct mechanism for administering the fund, establishing transparent eligibility and selection criteria and enforcing procedures for monitoring results.
- Financing teachers from foreign universities to train staff and upgrade course materials in selected programs within universities; this is preferable to sending a few teachers abroad for training.
- Providing funds for promoting twinning arrangements with foreign universities for course accreditation, course delivery, student evaluation, teacher training.

Reform of the legal framework for establishing new institutions with different modes of delivery and for clarifying the legal status of private institutions and the degrees and diplomas awarded by them is needed if the private sector is to play its role in complementing public sector efforts. One possibility is to define straightforward licensing regulations that guarantee minimum safety and educational requirements which will allow for the recognition of institutions offering traditional, open and distance education (including regulations for approving curricula and courses and for conducting examinations). Mandatory licensing regulations would be complemented by voluntary independent quality assurance mechanisms that would provide information on the quality of programs and student outcomes. Enabling the recognition of private institutions on transparent criteria will allow private financing to supplement public financing in expanding.

Increased autonomy must be allowed for universities to introduce new curricula and programs that meet quality standards and have a broad acceptance, as well as to manage costs. Programs that are introduced in response to student demand do not have state approval. This will require changing the existing system for university administration, which is highly centralized and/or the system of accrediting courses. Improved management of staff and staff costs at the institution level, including rationalization of the number of administrative staff is also a priority. Moving towards greater institutional autonomy

in matters relating to admission policies, staffing and resource allocation is an important element in strengthening institutions. Greater institutional autonomy should be complemented with building capacity to plan for the management of the system.

Creating a credible system of quality assurance with authority over both public and private institutions (domestic and foreign) is necessary to improve outcomes and the quality of teaching-learning. The exact organizational form for quality assurance will need to be determined in consultation with key stakeholders, but certain underlying principles can be laid out for any agency that is responsible for monitoring quality: autonomy from the Ministry, reliance on institutional self-reviews and peer reviews (national or external) and public reporting of results. The process of establishing a quality assurance system is long-drawn, but the DRC, unlike many other countries emerging from conflict, has a large pool of well-trained professionals in diverse subjects that could constitute the core of the system.

CHAPTER 6

Financial Simulations

This chapter 28 the financial requirements for expanding and upgrading the education system in the DRC and possible sources of financing for meeting these expenditures. The foregoing chapters have highlighted the key problems in different sub-sectors and presented priority actions for improving access, quality and equity. The economic reconstruction of the country opens up perspectives for a fresh inflow of both domestic and external resources into education, through renewed economic growth, the improvement in public expenditure management and greater external aid. Nevertheless, the constraints on resources will remain significant and policy tradeoffs will be inevitable.

A specific policy issue in the DRC context is the share of public versus private financing of education expenditures. The peculiar feature of DRC is that a largely public education system is almost entirely financed by households at all levels, including the primary level. This method of financing has enabled the education system to survive and even expand. However, it does not constitute an efficient system of financing since it leads to below universal enrollment at the primary level and great inequities in access at the higher levels of education; further, the system of direct payment of teachers' salaries by parents can create adverse incentives for teachers, who help those who pay regularly and penalize poor students who cannot pay by forcing them to abandon their studies or repeat classes. Hence, along with estimating total financial requirements, the appropriate sharing of the financing burden between the government, private households and external development partners also needs to be addressed.

The financial simulations presented here are by no means exhaustive and are intended primarily as illustrative cases which show the sizeable impact of key policy decisions. So far, no such exercise has been done in the DRC. Currently, a plan for Education for All (*Plan d'Action National de l'Education Pour Tous*—PANEPT) is being prepared. This plan does not include either secondary or higher education; moreover, while it highlights in great detail the

actions to be taken for achieving EFA objectives and estimates their costs, it does not present total expenditures on education. In particular, recurrent expenditures, both personnel and non-personnel, are not taken into account, which will inevitably take up a sizeable fraction of incremental resources. There is also a program for renewal of higher education (*Pacte de Modernisation de l'Enseignement Supérieure*—PADEM), which deals with the restructuring of the academic and administrative structure of higher education, the reform of curricula and the improvement in living and working conditions of the staff and students. This program includes a large number of potentially expensive measures; however, the document does not present any figures on costs, financing or the desirable growth in student enrollment.

The analysis presented in this chapter center around four alternative scenarios of financial requirements, each of which embody a set of policy assumptions. Obviously, policy options are in theory innumerable and a choice had to be made regarding the most significant ones with the greatest impact on resources and with the greatest likelihood of being implemented, within existing administrative and political conditions. Certain assumptions, such as those relating to population projections and economic growth, as well as the universal completion of primary education which is an accepted policy objective, are common to all scenarios and will need to be revised as new data become available.

Key Scenarios and Assumptions

Definition of Scenarios

All four scenarios are based on two fundamental policy objectives which emanate from the analysis presented in this report. First, universal completion of primary education by 2015 is considered essential for all scenarios. Second, improving quality at all levels is also considered necessary since the education system in DRC has received no additional inputs for over two decades. Without quality enhancement and improvement in learning outcomes, the mere expansion in enrollment can lead to many students coming out of the system without the basic literacy and numeracy skills and eventually regressing into illiteracy.

The four scenarios incorporate assumptions that reflect other critical policy choices; these assumptions are described below in greater detail and summarized in table 6.1. Scenario 1 (Expanded Access and High Quality at all levels), is a highly desirable scenario and provides the base case against which other alternatives can be evaluated. Each successive scenario identifies the savings associated with specific policy measures. Scenario 2 (Limited Access to Pre-school) examines the financial impact of universalizing pre-school access. Scenario 3 incorporates options for realizing additional cost savings using multigrade teaching and rationalizing staff norms in primary and secondary education; these are relatively generous in the DRC. Scenario 4 builds on the cost savings of scenario 3 by reducing transition rates beyond lower secondary education, thus reducing the overall size of financing needs to manageable levels.

The projections use 2001/2002 as the base year but the key policy changes are implemented only in 2005 or in later years. Enrollment data is available only for 2001–02 and public finance data are available for 2002. The date at which policy changes are introduced is also another variable which will influence the sequencing of expenditures. In these four scenarios, these dates are chosen a priori, giving sufficient time for their implementation; the dates are indicated in the relevant tables.

Table 6.1. Definition of scenarios

Scenario	Policy Variables	Description
Scenario 1	Expanded Access and High Quality at all levels	• Universal completion of primary education by 2015 • universal access to pre-primary education by 2015 • continuation of the existing high transition rates between primary and secondary, and secondary and higher education. • provision of canteens in all primary schools and food aid to 30 % of students • substantial quality improvement at all levels is envisaged through high investment and recurrent expenditures, rehabilitation of infrastructure, elimination of double shifting • maximum class size norms are enforced, in order to reduce overcrowding in classes that exceed the maximum norm
Scenario 2	Limited Access to Pre-school	• access to pre-primary education is limited to current level (14 percent of class 1 entrants, according to MICS 2001) • *all other parameters same as Scenario 1*
Scenario 3	Multigrade teaching and rationalisation of staffing norms	• multigrade teaching in primary • revision of staffing norms and reducing disparities between Kinshasa and other provinces • *all other assumptions same as in Scenario 2*
Scenario 4	Enrollment management at post-primary levels	• transition rate between lower secondary (tronc commun) and higher secondary is reduced • transition rate between higher secondary and higher education is reduced • *all other assumptions same as in Scenario 3*

Note: All scenarios assume universal admission to class 1 by 2007 and universal completion of primary education by 2015.

Common Assumptions and Their Implications

Demographic and Economic Parameters. All four scenarios are based on a common set of assumptions regarding the performance of the economy and public finances, the growth of the population and growth of private education. Keeping these assumptions invariant allows the impact of the educational policy variable to be evaluated. Naturally, if the evolution of various economic and demographic variables differs from these assumptions, the scenarios will be easier or harder to attain in financial terms. Specific assumptions and their implications are discussed below:

- *Demographic growth:* the annual growth rate of the school age population is assumed to progressively decline from 3 percent in 2004 to 2.5 percent in 2015. This

92. Unless other specified, the additional costs indicated here and elsewhere are for scenario 4.

assumption has a non-negligeable impact on total costs: an additional FC26 billion will be required over 10 years if the growth rate is maintained at 3 percent.[92] It will need to be revised when new census figures become available.

- *GDP growth:* 7.0 percent per annum as projected by the IMF for 2005–2006. Given the current low levels of GDP and the return of peace, this seems justified. However, if the growth rate of GDP is lower than this, the burden on public revenues would be much harder to support. For example, if the growth rate were only 5 percent, about 33.4 percent of public receipts would have to be devoted to education instead of 30.3 percent.
- *Enrollment share in private institutions:* this is assumed to be 10 percent in primary education; in the case of pre-primary education, it is assumed to be 10 percent in scenario 1 and 98 percent (the current level) in all other scenarios. In secondary and higher education, the enrollment share of private institutions rises from 13 to 20 percent, and from 19 to 25 percent, respectively. These assumptions lower the public financing burden at post primary levels.

Quality Improvement Measures. Quality improvement measures are common to all four scenarios and are based on the analysis presented in chapter 4. They comprise activities to upgrade the quality and motivation of teachers, make textbooks and learning materials widely available to pupils, equip schools with materials, equipment and furniture and improve system level capacity in curriculum, examinations and administration. Two additional measures are specifically considered for primary and secondary education: the elimination of double shifts and additional subsidies for disadvantaged groups. One specific measure is proposed for primary education, the introduction of school canteens (these are proposed in the EFA plan) and school feeding programs for 30 percent of children.

The specific assumptions are as follows:

Table 6.2. Common Assumptions—Demographic and Economic Parameters

	2004	2015—all scenarios
Population growth		6 yrs—2% 6–11 yrs—2% 12–17 yrs—2% population—1.5%
Macro economic framework		
GDP growth rate	6%	7% (from 2005)
Public expenditure/GDP ratio	20%	22% (from 2006)
Public receipts/GDP ratio	9%	14% (from 2015)
Percentage enrolled in private institutions		
Pre-primary	98%	10% in scenario 1 98% in all other scenarios
Primary	10%	10%
Secondary	11%	20%
Higher	19%	25%

- *Teacher salaries:*[93] the total earnings of teachers is currently equal to the government salary plus the *prime de motivation* paid by parents. In these simulations, the latter is reduced progressively and eliminated by 2009 and substituted by publicly paid salaries so that average earnings of teachers increases at the rate of per capita GDP (4–4.7 percent per year). This assumption applies to all levels of education and signifies that the current differentials in salary levels are not changed. Thus, earnings of primary teachers, which is equal to 2.4 times the per capita GDP would rise to $34 per month in 2015/16. These are relatively modest salary levels, compared to those used in projections for other countries, where the average primary teacher salary is assumed to rise to the equivalent of 3.4 times per capita GDP.[94] If this latter goal were adopted in the DRC, the total cost would rise by an additional FC40 billion over the period 2005–2014.
- *In-service teacher training:* refresher training every five years for pre-primary, primary and secondary teachers as well as the training seminars proposed in the EFA plan for the period 2004–05.[95]
- *Pupil materials:* the objective is to provide 4 textbooks to each primary pupil and 8 books to each secondary pupil, with each textbook lasting for four years; other educational supplies (FC2,000 per pupil) and uniforms
- *Pedagogical materials for schools:*[96] All schools would have these by 2009/10; currently, it is assumed that 75 percent of pre-primary schools and only 25 percent of primary and secondary schools have these materials.
- *School operating expenditures:* all schools would receive this by 2009/10; it has been assumed that currently, 25 percent of primary schools (30 percent in Kinshasa) and 10 percent of secondary schools (15 percent in Kinshasa) have an adequate level of these.
- *Furniture and equipment for schools:* by 2009/10, all schools would be adequately equipped. It is assumed that 60 percent of existing primary and secondary schools have the required furniture, while 30 percent of them have the required equipment and materials. In pre-primary education, 80 percent of schools are assumed to have the required levels.
- *Non-personnel expenditures in higher education:* by 2009/10, all institutions would receive funding for this; it is assumed that currently, 20 percent of institutions have an adequate level of spending.
- *Pedagogical support system:* (i) improvement in the functioning of IFCEPS (*Institut de Formation des Cadres de l'Enseignement Primaire et Secondaire*) by the creation of three branches (as described in the EFA plan) (ii) strengthening the capacity for textbook development and supply (iii) reform of the examination system

93. As mentioned earlier, the state salary of the highest category of professors was raised in May 2004 to about US$500 per month. However, in these simulations we have retained the salary levels prior to this increase, since it is not clear whether this enormous salary increase will be sustained. Furthermore, given the small number of *professeurs ordinaires,* taking this salary increase into account would not have significantly affected the results.

94. See for instance, World Bank (2003), *Achieving Universal Primary Education by 2015, A Chance for Every Child* (Washington, D.C.).

95. The estimates provided in the EFA plan for primary education have been used. This plan envisages a total cost of in-service teacher training at US$308 million between 2004–2015, which includes the cost of training new teachers as well; however, here only the cost of in-service training of existing teachers in 2004 and 2005 have been included since new teachers would have received some training.

96. *Fournitures collectives scolaires*—these include teaching aids, maps, paper, etc. for the teacher.

- *Improving system management at all levels:* (i) improvements in administration of personnel (ii) equipping all administrative offices by 2009/10—the current level is assumed to be 10 percent.
- *Rehabilitation of classrooms:* The unit cost of construction of a classroom is estimated to be FC2.18 million (US$5,892) and of rehabilitation, FC1.4 million (US$3,780), based on estimates provided in the EFA plan.[97]
- *Construction and equipment in higher education:* by 2009/10, all institutions will be adequately equipped. Equipment costs have been estimated at FC30,000 per student and furniture costs at FC100,000 per student. Currently, about 20 percent of equipment needs and 60 percent of infrastructure needs are assumed to be met.
- *Construction of additional classrooms to eliminate double shifts:* currently, double shifting is more prevalent in Kinshasa and at the primary level, where 30 percent of classrooms operate a double shift; this compares with 10 percent at the secondary level in Kinshasa and under 4 percent at the both the primary and secondary levels in other provinces. Double shifting reduces the amount of instructional time for pupils and can reduce their achievement, since the same classroom is used for two classes (although with two separate teachers in DRC).
- *Disadvantaged groups:* an additional subsidy of $30 per student per year for children who cannot enter schools (orphans, street children, child mothers, child soldiers, pygmies, *enfants riverains*)
- *School feeding:* all primary schools are projected to have a canteen by 2010, and about 30 percent of primary students received subsidized food. This is expected to improve access and performance, reduce repetition and dropout. Canteens are under investment expenditure while food aid is in recurring expenditure)
- *Special groups:* for children facing special difficulties in attending formal education (orphans, street-children, child mothers, demobilized child soldiers, children of pygmies and "enfants riverains"), a further additional cost of US$30 per child per year has been used. Recurrent.

Details of the unit cost estimates used in the projections are provided in Annex table A6.1.

The monthly salary expenditure of teachers and the unit non-personnel recurrent expenditure capture the total of the quality improvement measures (excluding the expenditures on investment). These are summarized in table 6.3. The improvement in quality results in unit non-personnel expenditure rising by 4.6 times at the primary level, 3.4 times at the secondary level and 5.3 times at the higher level.

Entry and Completion Rates for Primary and Internal Efficiency of Sub-sectors. The key assumptions here are that all children enter primary school by 2007 and that there is significant improvement in internal efficiency due to the improvements in quality:

- *Universal completion of primary education by 2015:* The entry rate into class 1 is expected to rise rapidly to 100 percent by 2007/8, from the present estimated level of 70 percent. This is optimistic, but given the strong parental commitment to edu-

97. In 2001 US dollars. US$1 = FC370. The estimate of classrooms requiring rehabilitation was taken from the survey of schools conducted in 2003 and 2004 for this CSR.

Table 6.3. Quality parameters (US$)—All Scenarios

	Pre-primary	Primary	Secondary	Higher
Monthly salary of teachers				
2004	21	21	38	142
2015	34	34	62	227
Non-personnel unit recurrent expenditure in public schools (including household expenditure)				
2004	10	7	12	51
2015	17	32	41[a]	268[a]

[a]In scenario 4.

cation as reflected in household surveys and if supported by enrollment drives, it may not be exaggerated. On the other hand, the reduction in dropout is likely to take longer and depends partly on reducing the financial burden on parents. It has been assumed that dropout will be eliminated only by 2014/15, though it continues to reduce gradually.

- *Improvement in internal efficiency:* the primary and secondary repetition rate declines to 10 percent by 2014, which is the result of both quality improvement measures as well as official directives regarding the norms for repetition. The overall survival rate improves by 2015 to 96 percent in lower secondary, 94 percent in higher secondary and 73 percent in undergraduate education. These are expected to be the results of the investments in quality.

Financing Shares. A final set of common assumptions regarding who finances what type of expenditures also influences the estimates of public financing requirements. These assumptions embody some crucial policy objectives, as well, but at this stage these are held constant. The central government, the local governments, families and external aid are the four main financing sources. The main assumptions are as follows:

- *Gradual reduction in the financial contribution of families at the primary level leading to abolition of all charges in 2009:* this is considered necessary to ensure universal completion of primary education. However, uniforms continue to be paid by families.
- *Central government financing of all recurrent expenditures:* this includes all personnel expenditures and hence assumes abolition of the *prime de motivation* paid by families at all levels of education. Other non-personnel expenditures, except for those on textbooks and pupil materials in secondary and higher education, are also financed by the Central government.
- *Local government (EAD) financing of maintenance expenditures and construction:* 100 percent financing of maintenance of institutions and equipment by 2009 (except in higher education) and 20 percent of construction of schools. This assumes that there has been considerable progress in decentralization. The alternative is that the central government assumes full responsibility for these expenditures.
- *External aid:* 80 percent financing of construction and rehabilitation at all levels, 100 percent financing of investment in system level improvements and in nutritional support to students.

If these optimistic assumptions hold, the burden on households can be reduced fairly rapidly. In particular, there is a strong assumption that external aid would commence immediately on a large scale so as to keep the domestic financing requirements manageable. If this were not to be realized, either some of the enrollment objectives cannot be met, or private financing burden will be need to be higher at the secondary and higher levels, which may affect equity.

Cost-Saving Measures under Scenario 3

Scenario 3 proposes a number of cost-saving measures relating to pupil-teacher ratios and other staffing norms. As discussed in chapters 2–4, the pupil-teacher ratios are relatively generous in the DRC: 34 at the primary level, 15 at the secondary level and 20 in higher education. Further, the ratio of administrative to teaching staff in higher education is relatively high; it would also be similarly high at the other two levels, if existing norms were applied to the whole country (currently they are applied only in Kinshasa).

In Scenario 3, the following measures are introduced at each level:

Primary Education

- *Multigrade teaching at the primary level:* this increases the class size in small schools and rationalizes the use of teachers. Currently, about 31 percent of classes have less than 26 pupils, which is the norm for minimum class size. Under multigrade teaching, one teacher teaches pupils of different classes simultaneously in the same classroom; the savings occur both in the number of teachers and classrooms. For pedagogical reasons, multigrade classes should be of limited size and hence the maximum size is fixed at 35 (compared to 50 for single classes at present). Additional costs associated with effective multigrade teaching (special training for teachers, additional and different learning materials and equipment, more space in the classroom) have not been taken into consideration.
- *Rationalization of personnel norms:* these measures reduce the non-teaching, higher cost administrative personnel and reduce the disparities between Kinshasa and other provinces in the number of substitute teachers, workers and guards. Specific measures are (i) provide for a full-time principal with no teaching duties only if the school has more than 14 classes (and provide an assistant principal only for a school with more than 20 classes) (ii) set the rate of substitute teachers at 5 percent of the teachers who are in classes (iii) eliminate workers in Kinshasa schools and (iv) provide guards in large schools outside Kinshasa.

Secondary Education

- *Increase class size:* this would rise to an average of 40 by 2015 in all the streams. In order to achieve this, the number of secondary schools (which are currently very small in size) would have to be reduced gradually by 28 percent outside Kinshasa (about 1800 fewer secondary schools in 2015 compared to 2004)
- *Rationalization of personnel norms:* the aim is to reduce disparities between Kinshasa and other provinces in the number of administrative staff. For example, a school with 11 classes currently has 7 administrative staff in Kinshasa and only 1 outside Kinshasa; this has been changed to 2 administrative staff per school in all provinces.

Higher Education

- *Rationalization of the ratio for non-teaching: teaching staff:* the ratio is reduced to 1, from the current high level of 1.5.

Regulating Student Flow—Scenario 4

Enrollment management at levels beyond lower secondary education is the main policy instrument of scenario 4. The specific measures are:

- *Maintain a high transition rate from primary to secondary education (80 percent).* This ensures that the majority of students will be able to access at least 8 years of school education.
- *Reduce the transition rate between lower secondary and higher secondary education from 83 percent (current) to 50 percent from 2005 onwards.*
- *Reduce the transition rate from higher secondary education to higher education to 35 percent (from 65 percent) from 2005 onwards.*
- *Reduce the transition rate from undergraduate to postgraduate education from 70 percent to 40 percent from 2005 onwards.*

Table 6.4. Cost Saving Measures

	2004	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Primary					
Average class size	35	36.2	36.2	36.5	36.5
Pupil-teacher ratio	34	35.3	35.3	34.8	34.8
Multigrade in small schools	No	No	No	Yes	Yes
Maximum size of multigrade classes	N.A.	N.A	N.A	35	35
Rate of substitute teachers[a]	2.2%	2.4%	2.4%	5.0%	5.0%
Ratio Classes/(Directeurs and Directeurs-adjoints without teaching charge)	8.3	13	13	29	29
Ratio Classes/ (Workers and guards)	65	148	148	35	35
Secondary					
Average class size	26	36.7	36.7	39.6	39.9
Pupil-teacher ratio	16	22.1	22.1	23.8	24.5
Teacher/non-teacher ratio	5.2	6.5	6.5	4.8	4.0
Higher					
Pupil-teacher ratio	20	20	20	20	20
Teacher/non-teacher ratio	0.7	0.7	0.7	1.0	1.0

Note: [a]The rate is equivalent to the ratio of substitute teachers to teachers teaching in class. Substitute teachers comprise extra teachers (*surnuméraire*) and the replacement teachers for women teachers on maternity leave (*instituteurs de relève*)

These rates have been fixed taking into account the needs of the economy, assuming that the "modern" economic sectors will employ a growing proportion of the labor force: as against 2.4 percent in 2001, the proportion would rise to 15 percent in 2022. This implies a rapid growth of the modern sector at roughly 9 percent per annum for the next ten years.

Evaluation of Scenarios: Impact on Coverage Indicators

Before discussing the expenditures implications of the various scenarios, the impact on coverage indicators is presented here. Because scenarios 1–3 assume the same transition rates at post-primary level, the contrast is between these scenarios and scenario 4. The assumption regarding universal pre-school education (used in Scenario 1 and dropped thereafter) has no impact on student flow after this level, since attendance in pre-primary school is not necessary for enrolling in primary.

The total number of students enrolled in each cycle increases substantially in all scenarios. Primary level students increase from 5.4 million students in 2001/02 to 13.3 million in 2015. In scenarios 1–3, the number of students in secondary and higher education increases in 2015 to 2.8 and 3 times the level in 2001/02. In scenario 4, the number of secondary students in 2015 is just over double that in 2001/02, while in higher education, the number is only 82 percent of the level in 2001/02.

The impact of reducing transition rates after the lower secondary level on coverage indicators beyond primary is substantial (table 6.5). Under scenarios 1–3, the secondary GER would nearly double from the current level of 23 percent to 44 percent in 2015. Scenario 4 would raise the secondary GER to just 33 percent. The impact is largest on higher education. Under scenarios 1–3, the number of higher education students per 100,000 population (834) would surpass that of many other sub-Saharan African countries. Under scenario 4, the value of this indicator falls to 226, which is a reduction from the 2001/02 level of 358.

The effect of restricting enrollments in higher secondary and tertiary education (scenario 4) on the number of graduates is sizeable. Under scenarios 1–3, the DRC would produce over 1 million postgraduates in the period 2009–2022; in scenario 4, only 20,000 postgraduates would be produced. In scenarios 1–3, about 46 percent of graduates leaving the education system would have obtained at least a higher secondary certificate and 10 percent would have a university post-graduate degree; in scenario 4, 77 percent of graduates leaving the education system would have at most a lower secondary certificate[98] 19 percent would have a higher secondary certificate and only 3 percent would have a university undergraduate degree. However, even scenario 4 would more than satisfy domestic labor market needs (by a multiple of 3–4). Under scenarios 1–3, on the other hand, the production of university graduates would be nearly 23 times the current labor market needs. It should also be noted that the education system would produce more graduates at all levels even under scenario 4 than at present, since at the secondary and higher education level, the improvement in internal efficiency more than compensates for the reduction in the transition rates.

98. Such a certificate does not exist at the moment—these students would have completed 8 years of school education.

Table 6.5. Coverage Indicators

	2015 (unless otherwise indicated)		
	2001–02 or status quo	Scenarios 1–3	Scenario 4
Coverage Indicators			
Primary GER	64%	106%	106%
Primary NER	42%	90%	90%
Secondary GER	23%	44%	33%
Higher education students/ 100,000 population	358	834	226
Size of education system			
Number of students			
Primary	5 464 261	13 330 800	13 330 800
Secondary	1 615 443	4 619 108	3 478 275
Higher	197 285	599 755	162 110
Number of teachers			
Primary	145 225	339 391 (344 863)	344 863
Secondary	94 618	168 198 (155 844)	113 742
Higher	7 899	22 521	6 078
Number of graduates leaving the education system in millions (2009–2022)			
Primary	1.73	4.18	5.11
Lower secondary	2.44	1.13	6.40
Higher secondary	1.05	3.40	2.82
Undergraduates	0.09	0.14	0.29
Post graduates	0.20	1.02	0.20
Satisfaction of labor market needs (2009–2022)			
Lower secondary	932%	105%	432%
Higher secondary	179%	382%	391%
Undergraduates	204%	214%	371%
Post graduates	729%	2295%	403%

Notes:

1. Graduates of each cycle are those who have acquired the certificate demonstrating successful completion of the cycle. Average satisfaction of labor market needs = average over the period of (annual number of graduates/annual increment in jobs)
2. Number of teachers in primary and secondary differs in scenario 3 due to the effect of rationalization of teachers.

Impact on Expenditure Requirements

Overall Feasibility and Sustainability of Expenditure Requirements

Total expenditure requirements under all four scenarios are enormous. As a percentage of its GDP, the DRC will have to spend between 11–17 percent of its annual income on education by 2015, irrespective of the scenario adopted (table 6.6). However, a part of these expenditures will be financed by external aid. This is a very high share compared to

Table 6.6. Summary of Expenditure Requirements for the Education Sector

	Cumulative Expenditures on Education 2005–2014						Education Expenditure in 2015		
	Total (all sources, public+private)		In public sector institutions		Investment in public sector institutions	External Aid	Total Exp	Public Expenditure (including external aid)	Domestic public expenditure
Scenarios	FC (bil.)	US$(bil.)	FC (bil.)	US$ (bil.)	% of public sector exp.	US$ (bil.)	% of GDP	% of total education expenditure	% of state budget
Scen. 1	4 793	13.0	4 287	11.5	38%	4.9	17.5%	73%	35%
Scen. 2	3 760	10.2	3 188	8.6	30%	3.1	14.9%	71%	28%
Scen. 3	3 670	9.9	3 097	8.4	31%	3.1	14.5%	70%	26%
Scen. 4	3 126	8.5	2 626	7.1	31%	2.7	11.2%	70%	19%

Notes:
1. Total Expenditures includes those by government (central and local), external agencies and households.
2. Investment expenditures are those by government and external partners.
3. Domestic public expenditure excludes external aid.

other countries, but it would be necessary to provide universal access at the primary level and upgrade quality to acceptable levels. Investment will absorb at least one-third of the expenditure requirements in public sector institutions. Public spending (including external aid) would represent about 70–73 percent of total national expenditure on education in 2015.

Scenario 1 is clearly unviable and unsustainable from a fiscal point of view. The total expenditure (from all financing sources) would be about FC4,793 billion (or US$13 billion) over the period 2005–2014; 88 percent of this expenditure would be on public sector institutions.[99] A very high proportion of this constitutes investment (38 percent) and total external aid would need to be in the range of US$4.9 billion. In 2015, total expenditure would represent 17 percent of GDP; public expenditures would constitute 34 percent of the state budget. These high expenditure requirements are largely due to universal and publicly provided pre-primary education.[100]

The elimination of universal pre-primary education (scenario 2) substantially reduces the total expenditure requirement by about FC1 trillion (US$3 billion) between 2005 and 2014. The external aid requirement also comes down to US$3.1 billion. Nevertheless, expenditure levels in 2015 are fiscally unsustainable—public expenditures represent 28 percent of the state budget and total expenditures represent 14.9 percent of GDP.

The introduction of multigrade and staffing rationalization (scenario 3) reduces the overall expenditure requirement between 2004 and 2014 by about FC90 billion (US$0.3 billion). This represents substantial savings—equivalent, for example to the cost of supplying textbooks at the primary level for 10 years—which could be used for further quality improvement measures. Further, this scenario eliminates the unjustifiable disparities between Kinshasa and other provinces in staffing norms by rationalizing these norms; if the norms applicable in Kinshasa were extended to the whole country, the cost would be prohibitive. Despite these savings, however, the impact on overall fiscal indicators is negligible.

Only scenario 4, with a drastic enrollment management beyond the lower secondary level together with the cost saving measures of scenario 3 enables a sustainable growth in expenditures. The total expenditure need over the period 2005–14 is FC3,126 million (US$8.5 billion), of which 31 percent is investment expenditure. The total external aid requirement would be US$2.73 billion. Public expenditure would be 19 percent of the state budget in 2015.

The sub-sectoral shares of total public spending (excluding external aid) also reveal the imbalances in spending that result from the policy choices underlying scenarios 1 to 3. In Scenario 1, almost one-fifth of total expenditure goes on pre-primary education; primary education receives only 36 percent of total spending (table 6.7). In scenarios 2–3, the share of primary education goes up to 45–47 percent; the share of higher education is, however, relatively high, between 27–29 percent. In scenario 4, 64 percent of public expenditures are at the primary level and only 10 percent go for higher education.

99. Note that all dollar estimates are in 2001 US dollars.

100. This objective was included in a preliminary version of the government's EFA plan (PANEPT. A subsequent version has revised the target downwards: by 2015, 50 percent of new entrants to primary grade 1 would have completed pre-primary education.

Table 6.7. Sub-Sectoral Shares of Public Spending, by Scenario, 2015

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Pre-primary	21%	0.1%	0.1%	0.2%
Primary	36%	45%	47%	64%
Secondary	21%	26%	26%	26%
Higher	23%	29%	27%	10%

Note: Public spending excludes external aid, hence figures differ slightly from table 6.8 below.

Expenditure Composition, Per Pupil Expenditures and External Aid Requirements under Scenario 4

The main features of public spending trends under scenario 4 are summarized below (table 6.8):

- *Annual public spending rises from US$312 million in 2005 to US$1.1 billion in 2015.*
- *Investment spending accounts for the bulk of public spending in the years 2005–2007,* due to the high levels of construction. By 2015, the ratio of recurrent to investment spending is 71:29.
- *Within recurrent spending, there is an enormous increase in non-personnel expenditures* which rises from 11 percent in 2005 to 41 percent of total spending on 2015.

The sub-sectoral shares of public spending provide an indication for budgetary allocations over the medium-term, if this scenario were to be adopted. The allocations for primary education within the recurrent budget would rise from 51 percent in 2005 to 72 percent in 2015; the shares of secondary and higher education would fall from 33 and 16 percent, respectively, to 20 and 7 percent respectively. Within the investment budget, between 80–90 percent of annual spending is on primary education until 2010. By 2015, the share of secondary education in investment spending is almost equal to that in primary education.

At the primary level, due to the frontloading of investments, the share of investment within the sub-sector allocation is very high in the initial years. Over three-quarters of public expenditure on primary education is on investment, comprising mainly expenditure on school construction, rehabilitation and furniture, which declines gradually to less than a quarter by 2015 (table 6.9). Expenditure on personnel rises from 12 percent to 24 percent in 2015. However, the biggest rise in expenditure occurs in non-personnel recurrent expenditure which rises from 10 percent to 52 percent in 2015. This is not only on account of textbooks and pupil materials, but also due to the expenditure on nutrition, the share of which rises to one-quarter of sub-sectoral expenditure by 2015.

At the secondary level, there is a high level of public investment in the first few years and the share of non-personnel expenditures is relatively low. Investment declines thereafter, due to the restraints on transition to upper secondary education, but picks up after 2015 as enrollments rise again, as the number of students completing primary education increases. The share of non-personnel recurrent expenditures is less than 15 percent in most years due to the assumption that textbooks and most pupil supplies will be funded by families.

Table 6.8. Composition of Public Expenditure on Education under Scenario 4 (including expenditures by Central and local governments and external aid)

	2005	2006	2007	2008	2009	2010	2015
Total Public Expenditure (US$ million)	**312**	**446**	**487**	**596**	**713**	**667**	**1055**
Composition of public expenditure (%)							
Recurrent	33%	37%	49%	55%	63%	73%	71%
Personnel	22%	21%	25%	24%	24%	28%	30%
Non-Personnel	11%	16%	24%	31%	39%	45%	41%
Investment	67%	63%	51%	45%	37%	27%	29%
Public recurrent expenditure (US$ million)	**95**	**150**	**219**	**301**	**413**	**450**	**686**
Sub-sectoral shares of public recurrent expenditure (in %)							
Pre-primary	0%	0%	0%	0%	0%	0%	0%
Primary	51%	56%	60%	64%	69%	71%	72%
Secondary	33%	31%	28%	25%	21%	19%	20%
Higher	16%	13%	11%	11%	10%	9%	7%
Public investment expenditure (US$ million)	**191**	**260**	**229**	**247**	**243**	**162**	**284**
Sub-sectoral shares of public investment expenditure (in %)							
Pre-primary	0%	0%	0%	0%	0%	0%	0%
Primary	85%	87%	86%	87%	94%	94%	52%
Secondary	13%	11%	12%	11%	6%	6%	48%
Higher	2%	2%	2%	2%	0%	0%	0%

In higher education, investment spending constitutes just under quarter of sub-sectoral spending but is limited to the first few years. This is mainly on account of construction to alleviate the overcrowding in existing classrooms; additional investment requirements would taper off as enrollment growth slows down due to lower transition rates after the lower secondary stage. The share of non-personnel spending rises from 27 percent in 2005 to 40 percent in 2015.

In physical terms, the volume of new construction will be large at the primary level, with an average of 17,000–20,000 new classrooms being built each year from 2006 to 2013 (table 6.10). These additional classrooms are required to accommodate the projected increases in enrollment as a result of 100 percent entry rate by 2007 and a gradual decrease in the dropout rate. In addition, about 4,700 existing classrooms have to be rehabilitated each year between 2006 and 2009. In secondary education, about 1,200 classrooms need to be rehabilitated each year; in order to cater to the massive increase in new entrants upon achieving universal primary education, about 20,000 new classrooms will need to be built between 2013 and 2015.

Table 6.9. Composition of Public Recurrent and Investment Spending by Sub-sector, Scenario 4
(percentage share of sub-sectoral expenditure)

	2005	2006	2007	2008	2009	2010	2015
Primary Education							
$ million	**202**	**306**	**323**	**401**	**502**	**463**	**629**
Personnel	12%	11%	14%	14%	15%	18%	24%
Non-personnel	10%	15%	25%	32%	40%	49%	53%
Textbooks	2%	2%	3%	4%	7%	5%	5%
Pupil materials	1%	3%	5%	8%	11%	13%	15%
School learning materials	0.2%	0.5%	0.9%	1%	2%	2%	2%
Canteens (food aid)	5%	7%	12%	14%	15%	22%	24%
Others	2%	2%	4%	5%	6%	7%	7%
Investment	78%	74%	61%	54%	45%	33%	24%
School construction	30%	34%	34%	30%	28%	22%	14%
School rehabilitation	0%	6%	5%	4%	4%	0%	0%
School furnitures (benches, cupboards)	10%	9%	9%	9%	4%	4%	2%
School equipment (pedagogical)	2%	1%	1%	1%	0.5%	0.4%	0.7%
Teacher training	2%	2%	3%	3%	3%	4%	4%
School canteens (construction and equipment)	8%	5%	5%	4%	4%	0.5%	0%
Others	26%	17%	2%	2%	2%	2%	3%

Secondary Education							
$ million	**54**	**73**	**86**	**99**	**99**	**94**	**271**
Personnel	48%	51%	54%	55%	61%	64%	37%
Non-personnel	7%	10%	14%	18%	24%	25%	13%
Textbooks	2%	0.7%	0.3%	0.1%	0%	0%	0%
Pupil materials	0%	0%	0%	0%	0%	0%	0%
School learning materials	3%	5%	8%	11%	15%	15%	7%
Others	3%	4%	5%	7%	10%	10%	5%
Investment	45%	39%	31%	27%	15%	10%	50%
School construction	0%	0%	0%	0%	0%	0%	35%
School rehabilitation	0%	6%	5%	5%	5%	0%	0%
School furnitures (benches, cupboards)	14%	10%	8%	6%	1%	1%	4%
School equipment (pedagogical)	20%	14%	11%	9%	1%	1%	6%
Teacher training	5%	5%	5%	5%	6%	6%	3%
Others	6%	4%	2%	1%	1%	2%	1%
Higher Education							
$ million	**18**	**22**	**28**	**35**	**39**	**41**	**49**
Personnel	49%	49%	49%	48%	54%	55%	60%
Non-personnel	27%	32%	36%	39%	46%	45%	40%
Investment	23%	19%	15%	13%	0%	0%	0%
Construction	14%	12%	9%	8%	0%	0%	0%
Equipment	9%	7%	6%	5%	0%	0%	0%

Note: At constant 2001 prices.

Table 6.10. Annual Construction Requirements, Scenario 4

	Primary Classrooms		Secondary Classrooms	
	Construction	Rehabilitation	Construction	Rehabilitation
2004	7,497	—	—	—
2005	10,428	—	—	—
2006	17,500	4,719	—	1,234
2007	18,751	4,719	—	1,234
2008	20,165	4,719	—	1,234
2009	23,971	4,719	—	1,234
2010	17,563	—	—	—
2011	22,688	—	—	—
2012	16,799	—	—	—
2013	20,176	—	2,054	—
2014	16,310	—	8,151	—
2015	15,005	—	9,448	—

While per pupil public recurrent spending rises at all levels, the per pupil expenditure in higher education and secondary education declines relative to the per pupil expenditure at the primary level (table 6.11). Recurrent public expenditure per pupil in primary education rises from US$9 in 2005 to US$41 in 2015 (in constant 2001 US$). At the secondary level, the figures are US$20 and US$50, respectively for the two years, while in higher education, the increase is from US$145 to US$432. Whereas in 2005, the ratio of primary to secondary to higher education unit public recurrent costs is 1: 2.2: 16.1, it declines to 1: 1.2: 10.5. It should be noted that in 2005, per pupil expenditures are already higher than in 2001/02 since expenditures on quality improvement are assumed to begin in 2005.

Household spending per student declines due to the elimination of the prime de motivation from 2009 and the payment of all staff salaries at all levels by the state.[101] In primary education, the per student family expenditure declines from US$13 in 2005 to US$4 in 2015: the only expenses incurred by the family are on purchase of school uniforms. Family expenditures per student at the pre-primary level continue to be higher than in primary education. In secondary education, family expenditure per student declines from US$43 to US$28 and in higher education, from US$140 to US$81. In order to send a student to secondary school, a family would have to spend seven times the amount it spends on a student in primary education; in order to send a student to university, it would have to spend 20 times as much.

The share of households in recurrent expenditures declines most in primary education, where families will spend less than 10 percent of the per pupil public expenditure in 2015. In 2005, by contrast, the family expenditure is 144 percent of the public expenditure (including external aid) in primary education. In higher education, household expenditure in 2015 will be 19 percent of public expenditure per student. Obviously, this indicates a high level of subsidization of higher education, more elevated than that at the secondary level, where families will spend 56 percent of public expenditure per student.

101. Household expenditure relate to students in public schools.

Table 6.11. Public and Household per Pupil Recurrent Expenditure in Public Schools, Scenario 4

	2005	2006	2007	2008	2009	2010	2015
Pre-primary							
Public per pupil recurrent expenditure (US$)	12	15	19	22	25	25	30
in % of GDP per capita	11%	13%	15%	17%	19%	18%	18%
Household per pupil recurrent expenditure (US$)	16	15	13	12	12	11	11
Primary							
Public per pupil recurrent expenditure (US$)	9	16	22	28	38	38	41
in % of GDP per capita	8%	14%	18%	22%	29%	28%	24%
Household per pupil recurrent expenditure (US$)	13	11	9	7	4	4	4
Secondary							
Public per pupil recurrent expenditure (US$)	20	2	46	60	72	71	50
in % of GDP per capita	18%	28%	38%	48%	55%	52%	29%
Household per pupil recurrent expenditure (US$)	43	40	36	31	35	27	28
Higher							
Public per pupil recurrent expenditure (US$)	145	203	260	318	377	385	432
in % of GDP per capita	131%	175%	216%	253%	287%	282%	253%
Household per pupil recurrent expenditure (US$)	140	128	114	99	81	81	81

Note:
1. In 2001 US dollars.
2. Public per pupil recurrent expenditure includes expenditure of central and local governments and external aid.

At the primary level, by 2015 the state would need to spend approximately US$10 per pupil on provision of textbooks and other educational materials to pupils and another US$1 on school pedagogical materials (table 6.12). Compared with this pedagogical expenditure, recurrent expenditure on food aid would be US$12 per pupil.[102] Expenditure on teacher training would be about US$2 per pupil. In secondary education, the state's expenditure will be US$7 per pupil on school learning materials. These figures provide the basis for comparison with other school systems and indicate that the assumptions underlying this scenario are modest.

Annual external aid requirements would rise from US$188 million in 2005 to US$396 million in 2015, over 80 percent of which is for primary education (table 6.13). In 2015, the share of external aid going to secondary education would rise to 29 percent due to the higher levels of construction. External funds will not be used to finance personnel costs and the bulk of external financing is to finance the various components of investment (con-

102. Expenditure per pupil on food aid is calculated relative to the total enrollment (however, only 30 percent of students receive the food aid).

Table 6.12. Per Pupil Public Non-personnel Recurrent Expenditure by Category, Scenario 4 (US$)

	2005	2006	2007	2008	2009	2010	2015
Primary Education							
Textbooks	0.8	1.3	1.9	2.5	4.5	2.6	2.5
Pupil materials	0.5	1.5	2.9	4.8	7.2	7.4	7.9
School learning materials	0.1	0.3	0.5	0.8	1.1	1.2	1.1
Canteens (food aid)	2.1	4.1	6.2	8.3	10.4	12.4	12.4
Others	0.7	1.2	1.9	2.7	3.7	3.8	3.6
Investment							
School construction	12.5	19.2	18.4	17.7	18.9	12.5	7.4
School rehabilitation	—	3.3	3.0	2.7	2.4	—	—
School furnitures	4.1	5.0	5.0	5.1	3.0	2.0	1.2
School equipment (pedagogical)	0.7	0.8	0.8	0.8	0.4	0.2	0.4
Teacher training	0.8	1.1	1.4	1.7	2.1	2.1	2.0
School canteens (construction and equipment)	3.1	3.1	2.9	2.7	2.5	0.3	—
Others	10.6	9.9	1.3	1.3	1.3	1.3	1.4
Secondary Education							
Textbooks	0.6	0.4	0.2	0.1	—	—	—
Pupil materials	—	—	—	—	—	—	—
School learning materials	1.0	2.8	5.4	8.8	12.4	11.9	7.3
Others	0.9	2.0	3.6	5.7	8.1	7.8	5.0
Investment							
School construction	—	—	—	—	—	—	33.9
School rehabilitation	—	3.2	3.5	3.8	3.9	—	—
School furnitures	4.8	4.9	5.0	5.1	1.0	1.0	4.0
Teacher training	1.7	2.6	3.5	4.3	5.0	4.8	3.0
School equipment (pedagogical)	6.7	6.9	7.1	7.1	1.0	1.0	6.2
Others	2.0	2.1	1.2	1.2	1.2	1.3	1.3
Higher Education							
Construction	25.0	27.0	27.0	27.0	—	—	—
Equipment	16.0	16.0	16.0	16.0	—	—	—

Note: In 2001 US dollars.

struction, rehabilitation, school furniture and equipment, training, system level improvements). Food aid at the primary level would also account for a significant part of external aid: by 2010, about 42 percent of external financing would be for this component alone.

Even with the reduced resource requirements of scenario 4, a long-term and substantial commitment by external partners will be required mainly for primary education. Domestic resources will be insufficient to meet the enormous demands for improving access and completion at the primary level, unless some other key policy decisions are made (for example, eliminating food for poor children, or reducing the volume or unit cost of construction). This points to the need for external coordination in financing an overall sector investment plan.

Table 6.13. Annual External Aid Requirements by Sub-sector, Scenario 4
(Values and percentage share of total external aid)

	2005	2006	2007	2008	2009	2010	2015
Primary Education							
$ million	**157**	**227**	**210**	**244**	**273**	**234**	**280**
Non-personnel	6%	9%	16%	21%	27%	42%	38%
Textbooks	1%	1%	0.5%	0.3%	0%	0%	0%
Canteens (food aid)	5%	9%	15%	20%	27%	42%	38%
Investment	77%	78%	71%	68%	68%	54%	33%
School construction	26%	32%	37%	35%	39%	34%	18%
School rehabilitation	0%	5%	6%	5%	5%	0%	0%
School furnitures	11%	10%	13%	13%	8%	7%	4%
School equipment (pedagogical)	2%	2%	2%	2%	1%	1%	1%
Teacher training	2%	2%	4%	4%	5%	7%	6%
School canteens (construction and equipment)	9%	6%	7%	7%	7%	1%	0%
Others	28%	20%	3%	3%	3%	4%	4%
Secondary Education							
$ million	**25**	**28**	**26**	**26**	**14**	**10**	**116**
Non-personnel	0.5%	0.2%	0.1%	0%	0%	0%	0%
Textbooks	0.5%	0.2%	0.1%	0%	0%	0%	0%
Investment	13%	11%	11%	9%	5%	4%	29%
School construction	0%	0%	0%	0%	0%	0%	19%
School rehabilitation	0%	1%	7%	1%	1%	0%	0%
School furnitures	4%	3%	3%	2%	0.4%	0.5%	3%
Teacher training	2%	1%	2%	2%	2%	2%	2%
School equipment (pedagogical)	6%	4%	4%	3%	0.4%	0.5%	4%
Others	2%	1%	1%	1%	0.5%	0.6%	1%
Primary and Secondary Education (System Improvements)							
$ million	**1**	—	—	—	—	—	—
Investment	0.5%	0%	0%	0%	0%	0%	0%
Higher Education							
$ million	**5**	**4**	**4**	**4**	—	—	—
Investment	0%	0%	0%	0%	0%	0%	0%
Construction	0%	0%	0%	0%	0%	0%	0%
Equipment	3%	2%	2%	2%	2%	0%	0%
Non material	1%	1%	1%	1%	0%	0%	0%
Total External Aid							
$ million	**188**	**259**	**241**	**275**	**287**	**244**	**396**

Summary and Directions for Future Analysis

The four scenarios discussed in this chapter evaluate the financial and fiscal impact of key policy choices regarding the future development of the Congolese education system. Certain assumptions are common to all scenarios, including those relating to demographic and economic growth, the extent of private provision, norms for quality improvement and financing shares of government, households and external partners. One key assumption is maintaining teachers' earnings (including the *prime de motivation*) at their current level in relation to per capita GDP; however, the *prime de motivation* paid by families is progressively reduced and eliminated with all salaries being paid by the state. Another crucial assumption is the elimination of all fees and charges in primary education. Some policy goals are also invariant, notably the universal completion of primary education by 2015 and improvement in basic quality parameters at all levels of education. The policy choices selected for analysis through the various scenarios are ones that are either currently under discussion in the DRC (universal pre-primary education provided in the public sector as proposed in the EFA plan) or have been discussed earlier in this report (introduction of multigrade teaching, rationalization of staffing norms, restricting student flow at the post primary levels).

The main conclusion of the above analysis is that restricting publicly provided pre-primary education, introduction of staff rationalization measures at the primary and secondary levels and restricting the transition of students to upper secondary education and higher education, are required in order to put public expenditure requirements on a sustainable trajectory. Under scenario 1 (universal pre-primary education), domestic public spending on education would constitute 35 percent of the state budget by 2015, while external aid requirements would total $4.9 billion between 2005 and 2014. However, renouncing the policy objective of universal and publicly provided pre-school education, as in scenario 2, while ameliorating the financial burden, does not render the public financing requirements sustainable: domestic public spending on education in 2015 would represent 28 percent of the state budget and US$3.1 billion in foreign aid would be required over the 10 year period. The introduction of multigrade and staff rationalization under scenario 3 generates considerable savings for quality improvement and eliminates the disparities between Kinshasa and other provinces; however, the impact on fiscal indicators is negligible.

The parameter with the greatest impact on expenditures is the transition rate between different levels of education after lower secondary education. This policy option is captured in scenario 4, where domestic public spending on education reduces to 19 percent of the total state budget and the total external aid requirement also drops to US$2.7 billion. A key feature of this scenario is that the current high transition rate between primary and lower secondary education is maintained (about 80 percent), which means that the majority of children will be able to complete 8 years of education. However, after lower secondary education, only 50 percent of students proceed to higher secondary education; only 35 percent of those who complete higher secondary education go on to higher education; and only 40 percent of those who complete undergraduate education proceed to postgraduate education. Despite these very significant reductions in transition rates, coverage indicators and the number of graduates produced at the end of each cycle are acceptable at all levels of education in relation both to other countries of sub-Saharan Africa and the requirements of educated labor in the modern sectors of the economy.

This scenario highlights the tradeoff that the government will need to make between greatly expanded access in higher secondary education and beyond or an improvement in quality. In this report, the emphasis has been on moderately expanding access while considerably improving quality, in order to reverse the decline in standards that has occurred over the last two decades and to set the foundation of a strong education system. Such a policy choice will require the introduction of effective mechanisms to regulate the flow of students between different levels (through reform of examinations and entrance requirements).

Two elements that constitute a significant share of costs at the primary level are the provision of food to poor students and volume of construction. Providing school canteens is included in the government's EFA plan, although in this analysis only 30 percent of students are considered eligible for free meals. However, both the recurrent and capital costs of this strategy are significant. Expenditure on construction is also large, comprising as much as one-third of total public spending on primary education.

While illustrating the elements of some important policy choices, these financial simulations need to be extended in various directions to explore the feasibility of other options. The scenarios presented in this chapter are illustrative examples, which highlight the significant fiscal and financial impact of key policy choices. The following issues could be considered in followup simulations:

- Revising the assumptions with respect to salary levels; for instance, raising the salaries of the primary teachers and reducing the differential between staff of different levels of education;
- Reducing the unit costs of classroom construction;
- Reducing the number of children who are eligible for school meals (as per capita income rises);
- A delayed sequencing of investment at post-primary levels and part financing of recurrent expenditures by external aid, in order to reduce fiscal pressures at the beginning; and
- Increasing the level of private financing in secondary and higher education (through a more rapid expansion of the private sector as well as increased contributions by families in public institutions).

Finally, a more detailed analysis of the options for the future expansion of secondary education should be undertaken. This should include an analysis of the impact of the proposed reduction in the number of secondary schools and an evaluation of alternative options. Restructuring the organization of secondary education is also an important policy choice. Modification of the curriculum in secondary education with, for example a lengthening of the *tronc commun* (which would reduce the need for specialist teachers) and a reorganization of the technical and vocational streams, would deserve special consideration.

ANNEX 6.1: Quality Improvement Measures

Table A 6.1. Quality Improvement Measures—norms

			Secondary				
	Pre-primary	Primary	General	Normal	Technical	Professional	Higher
Number of textbooks per pupil	2	4	8				
Per pupil cost of pupil materials (FC)	2000	2913	5700				30000
Uniforms—per pupil (FC)	1500	1500	1500				
Cost of school materials/ class (FC)	10000	15000	75000	75000	200000	200000	
Non-personnel recurrent cost per student (FC)							60000
Maintenance rate for buildings	0.50%	0.50%	0.50%				
Maintenance rate of equipment	2%	2%	2%				
Other non-personnel expenditures per class (utilities, office) (FC)	30000	Kinshasa : 50000; Hors Kinshasa : 30000	Kinshasa : 60000; Hors Kinshasa : 40000				
Furniture cost per classroom (FC)	300000	300000	400000	400000	500000	500000	
Pedagogical equipment cost per class room (FC)	35000	35000	50000	50000	1000000	1000000	
Construction cost per classroom (million FC)	2.18	2.18	3.7				
Equipment cost per student (FC)							30000
Furniture cost per student (FC)							100000
In-service training frequency (years)	5	5	5				
In-service training session cost (FC)	25000	25000	25000				
% of double shift classes	0%	0%	0%				
% primary schools with a canteen		100%					
% primary students receiving food aid		30%					
Cost per meal per pupil (FC)		70					

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The education system in the Democratic Republic of Congo has been remarkably resilient in the face of economic crisis and armed conflict, setting the country apart from many other countries emerging from conflict. Enrollment has grown at all levels but has been most rapid in higher education, despite the virtual collapse of public financing of education since 1986. Households currently finance 80-90 percent of education expenditures at all levels. Many of the structures of educational administration still exist, including school-level committees.

The challenges, however, are enormous. Four important categories of problems have been identified: (i) a relatively low coverage at the primary level, with huge inequalities in access, co-existing with relatively high coverage in higher education—the inequality at the base of the education system therefore accentuates social and economic inequalities; (ii) a serious deterioration in the quality of education at all levels as reflected in extremely poor student learning outcomes and the conditions of teaching and learning; (iii) a proliferation of administrative structures in the education sector; and (iv) low levels of expenditures, and an inefficient and inequitable system of education financing. Financial simulations highlight the inevitable policy choices that will need to be made as the country articulates a fiscally-sustainable education strategy.

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