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LEBANON

PUBLIC EXPENDITURE REVIEW

Education Sector

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ACRONYMS

ACS	<i>Administration Centrale de la Statistique</i>
CDR	Council for Development and Reconstruction
MCHE	Ministry of Culture and Higher Education
MENA	Middle East and North Africa
MNEYS	Ministry of National Education, Youth, and Sports
MSA	Ministry of Social Affairs
MTVT	Ministry of Technical and Vocational Training
NCERD	National Center for Education Research and Documentation
OECD	Organization for Economic Co-operation and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

This report was prepared by Benoît Millot (MNSHD, team leader) and François Orivel (IREDU, consultant). It reflects the findings of a Public Expenditure Review mission which sojourned in Lebanon in July 1998. The mission was part of a larger mission covering also the health sector and the welfare sectors, and coordinated by Sarosh Sattar (MNSD). This report was edited by Lisa Meyer, and laid out by Karine Pezzani. The findings and recommendations expressed in this report are entirely those of the authors and should not be attributed in any manner to the World Bank.

LEBANON

Public Expenditure on Education

Table of Contents

FOREWARD	i
CONCLUSIONS	ii
RECOMMENDATIONS	ii
A. GENERAL OVERVIEW OF LEBANON'S EDUCATION SYSTEM	1
A SEGMENTED SYSTEM	1
COVERAGE AND QUANTITATIVE ACHIEVEMENTS	3
PUBLIC SPENDING	7
<i>Recurrent expenditures</i>	7
Structure of recurrent expenditures	7
Evolution of the recurrent budget of the three education ministries	8
Other recurrent expenditures	9
<i>Capital expenditures</i>	10
PRIVATE SPENDING	12
TOTAL SPENDING ON EDUCATION	15
B. MAIN SECTORAL ISSUES	16
A COSTLY SYSTEM	16
LOW EFFICIENCY	17
DIFFERENTIATED PERFORMANCE	18
COMPETITION	19
FUNDING INEQUITIES	20
LACK OF STRATEGIC VISION	22
C. FUTURE SCENARIOS	22
D. RECOMMENDATIONS	24
REFERENCES	26
ANNEX	27
Table A 1. Enrollments by level of education and by sector	27
Table A 2. Enrollments by level of education and by type of school	28
Table A 3. CDR: Actual expenditures on education projects (1992-98)	28
Table A 4. Unit costs supported by the public budget (grants not included) (LBP millions)	29
Table A 5. Unit costs (gross) supported by families (LBP millions)	29
Table A 6. Proportion of repeaters by type and by level of education, 1995-96	29

Tables

Table 1. Enrollments by level of education, by sector, and by type of education (1995-96).....	1
Table 2. School-age population (1996).....	4
Table 3. Schooling rates by age (1997).....	5
Table 4. School life expectancy in selected countries (1995).....	5
Table 5. Net enrollment rates by level.....	6
Table 6. Enrollment ratios by province (1996).....	6
Table 7. Recurrent expenditure in the MNEYS (1997).....	8
Table 8. Evolution of the recurrent budget of the education ministries, 1992-98 (current LBP billions).....	9
Table 9. Budgetary recurrent education expenditure outside the three education ministries (1998).....	10
Table 10. Capital expenditure by the ministries of education and by CDR, 1992-98 (LBP millions).....	10
Table 11. Evolution of expenditures (recurrent and capital) by the three education ministries, 1992-98 (LBP billions).....	11
Table 12. Consolidation of public education expenditures (1998).....	12
Table 13. Fees per pupil by level of education and by sector, 1997 (LBP thousands).....	13
Table 14. Other education expenditure per pupil by level of education and by sector, 1997 (LBP thousands).....	13
Table 15. Grant per pupil by level of education and by sector, 1997 (LBP thousands).....	14
Table 16. Net contribution of households to education expenditure (LBP millions).....	15
Table 17. Total expenditure on education by type and by source of funds (1998).....	15
Table 18. OECD countries according to share of GDP allocated to education expenditure.....	15
Table 19. Unit costs, by source of finance, level of education and sector (LBP millions).....	16
Table 20. Unit cost as percentage of the GDP per capita (1998).....	16
Table 21. Educational expenditure per student in secondary and tertiary education relative to per-student expenditure at the primary level (1994-97).....	17
Table 22. Student achievement at the end of Grade 4 (passing rate).....	18
Table 23. Student achievement at the end of Grade 9 (passing rate).....	18
Table 24. Breakdown of teaching staff by level, sector, or type.....	19
Table 25. MNEYS recurrent budget by scenario, 1998/2001/2004 (LBP billions).....	23

FOREWORD

Human development is key to social and economic development, and education is central to human development. The finance and provision of education services is often a major concern of governments, with significant attention paid to improved efficiency. The discrepancy between the extent of public expenditures for education in Lebanon and their productivity suggests that these resources could be used more efficiently.

At the request of the Government of Lebanon, the World Bank conducted a review of public spending in the social sectors, including education, in close collaboration with Lebanese counterparts. The objective of the review was to shed light on the allocation and utilization of government resources for education. This note summarizes the findings of the review as presented to and discussed with key officials of the Government of Lebanon.

The review occurred at a particularly opportune time: total spending for education had reached 9 percent of GNP and Lebanon was experiencing both dangerously high levels of indebtedness and a stagnating economy. At the same time, the government had renewed its priority for a healthy and accessible education system and its commitment to transparent and efficient spending.

It is our hope that this analysis will encourage decision-makers to critically evaluate existing education policies, intensify the process of education sector reform, and thereby support Lebanon's efforts to rebuild its economy through human development.

An abridged version of the public expenditure review covering health, education and welfare was issued separately. We believe, however, that the original, detailed version of the PER can be used as a background document for further work and investigation. This is why it is proposed here as a MNSHD paper series. As other papers issued in this series, it should not be considered as a finished product, but as a working document.

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SUMMARY

Conclusions

The education sector in Lebanon is characterized by the following unique features:

- total expenditures on education are amongst the highest in the world, and private spending is at particularly high levels;
- private initiative is one of the most dynamic in the world, and two thirds of students in general education are enrolled in either unsubsidized private or subsidized private schools;
- primary education is almost universal, and enrollments in secondary and tertiary education are amongst the highest in the Middle East & North Africa region;
- gender distribution is even, but inter- and intra-regional disparities are significant;
- heavy repetition and drop-out at all levels of education contribute to low internal efficiency;
- on average, educational outcomes seem lower in the public sector than in the private sector, with the subsidized sector standing in-between;
- complex political, religious and community relationship interfere with rational school mapping;
- unit costs are high in public schools, mostly because of uniquely high teacher-student ratios;
- physical facilities in public schools are often rented and ill-suited;
- subsidies to parents encourage parents to enroll their children in private schools; and
- lack of reliable data hamper a sound monitoring of the system and lack of qualified staff in the administration prevent the development of a strategic, global vision for education.

Recommendations

Short-term actions to be implemented by the ministries:

- improve data collection, improve data reliability and availability; organize data to feed a sound management information system (MIS) and to LBP in decision-making;
- staff the ministry in charge of education with high-level personnel responsible for the general guidance of the entire sector; develop adequate programming and planning tools;
- rationalize the management of the teaching staff, through inventory of personnel, better control of movements, a redeployment of teachers and upgrading teachers' skills;
- reduce the burden of rented facilities, especially when the latter are ill-conceived for education purposes; rehabilitate and, if needed, extend existing facilities;
- encourage more responsibility--and accountability--at the school level, to stimulate local initiatives involving both parents and municipalities;
- adapt the assessment system to the new curricula and reduce the burden of heavy repetition rates.

Long-term, sector-wide actions, involving all actors:

- prepare a sector-wide strategy, involving all sectors and levels of the education system, laying out the costs and expected benefits of the actions to be taken;
- rationalize the grant/fee system to eliminate hidden incentives currently hindering a true competition between sectors and to introduce more equity in the system;
- target the population of school-aged children who never went to school or who dropped out early, and design special programs to reach them and to enroll them in primary schools; and
- increase inter-sectoral cooperation between the public sector and the private and subsidized sectors.

A. GENERAL OVERVIEW OF LEBANON'S EDUCATION SYSTEM¹

1. A segmented system

Lebanon has traditionally placed a high priority on schooling. Today, about one third of the population—roughly 950,000 students and 83,000 staff—comprises the country's education system. The system has developed over the centuries into a mosaic of institutions, characterized by the prevalence of private funding and the coexistence of independent sectors. General education has three main sectors: public, subsidized private, and unsubsidized private. The unsubsidized private sector, the largest of the three in terms of enrollment, is completely privately funded at all grade levels, from preschool through university. In the early 1970s, just before the civil war (1974-1990), the sector already had the largest enrollment. By the early 1990s, as the war had weakened the State's capacity for providing public services, the private, non-subsidized sector reached its pinnacle, about 56 percent of national enrollment from grades 1 through 12 (Table 1).

Table 1. Enrollments by level of education, by sector, and by type of education (1995-96)

	Public	Private subsidized	Private unsubsidized	All sectors
Pre-school	27,900	26,800	108,100	162,800
Primary	109,800	84,000	184,300	378,100
Junior secondary (<i>Complémentaire</i>)	84,300	0	128,400	212,700
Senior secondary (<i>Secondaire</i>)	31,400	0	44,200	75,600
Total (general sector)	253,400	110,800	465,000	829,200
Vocational and technical	10,500	0	37,600	48,100
Tertiary	34,100	0	40,500	74,600
Total (all sectors)	298,000	110,800	543,100	951,900

Note: Pre-school age is 2; primary, 6; junior secondary, 3; and senior secondary, 3.

Source: NCERD

The second largest education sector is public. Although free in principle, most public schools maintain a private fund, replenished mainly by parents, for the purchase of specific inputs--i.e., non-salary recurrent expenditures not provided for by the government. The public sector is prevalent more in rural than in urban areas and likely attracts students of lower socio-economic background. At the beginning of the 1997/98 school year, public school enrollment increased, to the detriment of the private sector, by 30,000 students. Observers expect this shift to continue, a shift commonly attributed to the economic crisis that has restricted a family's capacity for paying generally high private school fees.² This is a plausible assumption, given an unexpected low growth rate, likely caused by high interest rates. But there is no direct evidence to suggest the situation might degenerate or that change in income distribution patterns during this period will affect low-income, at-risk groups. Improvements in Lebanon's socio-political situation may have, in part, bolstered public trust in the Government and its ability to provide better services, among which is education. Despite this, however, the share of public school enrollments from grades 1 through 12 is about 31 percent, still modest by international standards.

¹ Although each sector of the education system was considered at the outset of this work, this report focuses mainly on general, pre-tertiary education, where the most fundamental issues have been found.

² Fees for enrolling a child in an unsubsidized private primary school are roughly 43 percent of the minimum wage; for a child in unsubsidized private secondary school, fees are 54 percent.

3. The third sector is private and is subsidized by public funds. Enrollments in this sector represent 22 percent of total enrollments at the primary level (there are no subsidized schools at the secondary level). This sector, purportedly free to families, is financed by per capita grants from the Ministry of National Education, Youth and Sports (MNEYS). The grant amount is 1.25 times the monthly minimum salary (LBP 250,000), or LBP 312,500. This amount is not enough to operate schools efficiently, as it covers only 20 percent of the average fee for private schooling.³ In principle, grant-receiving schools are prohibited by law from charging fees. But given the insufficient amount of the grant to cover expenses, schools are permitted to charge families a maximum fee of 1.3 times the minimum salary (in 1998), or LBP 325,000. This amount is still small relative to expenses incurred, so many schools must use other means to supplement their budgets.

4. NGOs operate unsubsidized private schools and own the majority of Lebanon's roughly 400 subsidized private schools. (Others are run by private entrepreneurs as for-profit businesses.) Subsidized schools face deficit. As an NGO commonly runs both unsubsidized and subsidized schools, profits from one generally offset the financial losses from the other. NGO benefactors can also decrease the financial gap between the two sectors through local fundraising or through donations from countries with similar religious affiliations. A third way of generating revenue is from profitable NGO activities in fields other than education—for example, by renting property or operating commercial activities.

5. In 1991, newly established private schools were no longer eligible for public subsidies, which has resulted in a slight decline each year in the number of private schools.⁴ The policy to end subsidies was likely prompted by the Government's decision to enlarge the public school network. Suspicions of profiteering by private owners may have also influenced this decision, but given the actual gap between unit cost and per-pupil subsidy, Government concerns seem exaggerated. The Ministry of Education now monitors each subsidized school during the second quarter of the school year, to verify the number of pupils and the school's adherence to state regulations. The public subsidy—a one-time lump sum—is committed at the end of the school year, but actual disbursement, many schools claim, is often delayed by one year.

6. A second distinguishing characteristic of Lebanon's education system is that schools are run by religious communities. Lebanon's various immigrant communities have maintained their customs over the years, and they have become integrated or are closely located to one other. Other areas throughout the country are less homogenous, however, in which case some communities might be served by several schools. The community-level administration of schools, combined with the sectoral division of the education system, may result in ineffective school mapping. These factors also prevent the country from using potentially promising economies of scale, and they have also lead to substantial transportation needs for students who attend religious schools not located in the communities in which their families reside. The resulting costs have been shared by the entire population.

7. Compared with general education, vocational and technical education (VTE) has seen only modest developments. Both public and private funds support the training of students for certain trades or skilled labor. The public sector's 35 centers, in which 16,000 students are enrolled, provide capital-intensive training. The private sector, on the other hand, has about 280

³ *Administration Centrale de la Statistique*, 1998

⁴ Some schools close for different reasons, such as the owner's retirement or death.

centers, with a total enrollment of 42,000 students. Graduates of private schools can be found mainly in the service field. It is alleged that neither curriculum prepares students to meet the demands of a modern economy. Because of the weak links between training and enterprises, the Government has sought to review curricula and introduce the dual approach (combining theory and practice) at training. To date, 75 enterprises have already revised curricula and have compiled lists of trades. VTE, still the second best solution for low achievers or those who are unable to pursue studies in general education, does not lead to tertiary (university) education, and no higher-level training exists for those in technical or engineering jobs. To double the size of VTE's public sector, the Government hopes to attract about 40 percent of junior secondary school graduates to vocational and technical training.⁵

8. Higher education is above average both quantitatively and qualitatively, compared with that of countries with similar levels of economic development.⁶ Tertiary education in Lebanon is provided jointly by the public and the private sectors. The one public university, Lebanese University, covers all academic fields and has several regional branches throughout the country. Lebanon also has 18 smaller private universities. In 1997/98, Lebanese University enrolled 47,000 students; the private sector, an estimated 40,000. With 46 percent of Lebanon's student population in private tertiary institutions, enrollment is close to that of Jordan and the Netherlands and is superceded by only few countries—namely, Japan, Korea, India and Belgium.⁷ One fourth of the student body is non-Lebanese, which illustrates the sector's appeal to neighboring countries (Lebanese students study abroad, but no data exist on the size of this population). Information on education quality is limited. The three or four most prestigious private universities are presumably close to Western standards, a remarkable achievement for Lebanon, considering the size of the population (an estimated 4 million), but the Lebanese University cannot compare to its own counterparts in the private sector. Internal efficiency is low, as reflected by the high proportion of students who do not graduate.⁸

2. Coverage and quantitative achievements

9. The Lebanese population has traditionally invested in education. Not only are families willing to fund education, they continue to do so even after compulsory education has been completed, for example, through the university and the post-graduate levels. Three indicators customarily used for estimating coverage and assessing accumulated human capital—schooling ratios, years of education, and enrollment rates—show that schooling is almost universal in Lebanon. They also suggest that high repetition tends to artificially increase school attendance rates.

10. Schooling ratios. Obtaining accurate estimates of schooling ratios is difficult because little data on the school-age population exist; no census has been conducted in the past sixty

⁵ A vocational and technical education project was recently prepared. It outlines the main issues in this sector.

⁶ Data on this sector are unreliable, as no specialized agency oversees collection.

⁷ See World Bank, 1995. Indeed, the barrier between public and private institutions is rarely clear, as most private institutions receive state subsidies in Lebanon (more for the Netherlands). Several criteria are usually combined to assess the degree of "privatization" of a university (status of teaching staff, methods of accreditation, origin of funds for research).

⁸ Students in the Lebanese University are probably, on average, from a low socio-economic level. Admission policies are also likely to be less severe than in private university.

years. During the war, a segment of the population left the country, another was displaced, and the geographical distribution of the population within Lebanon changed. Since the end of the war in 1990, some emigrants have returned to Lebanon, and the various religious communities have had markedly different population growth rates. While none of these changes has been precisely measured, two recent household surveys have generated estimates on Lebanon's population. The first survey was initiated by the Ministry of Social Affairs (MSA); the second, by the *Administration Centrale de la Statistique* (ACS). The two estimates of total population differ, but those of age distribution are similar. The MSA survey, for example, used for estimating the school population,⁹ suggests that the size of cohorts born during the war was constant--between 60,000 and 65,000 children. The cohort now enrolled at the university level is slightly smaller, roughly 57,000 (Table 2).

Table 2. School-age population (1996)

Age group (in years)	Estimated population	Yearly average
Under 6	314,380	62,876
6-11	369,013	61,502
12-15	254,719	63,680
16-18	187,107	61,369
19-22	226,773	56,693
Total	1,351,992	61,454

Source: Estimates by T. El-Hachem, 1998, based on MSA Survey

11. The survey also shows that large proportions of the youth in Lebanon attend school at some grade level (Table 3).¹⁰ Of children between ages 6 and 11, over 96 percent are registered in school, 3 percent are not in school, and 0.8 percent have prematurely dropped out. An estimated 3.1 percent of this cohort will become illiterate adults,¹¹ which represents an average 1,800 children per cohort, or 9,000 for the five primary grades. For children ages 11 to 15, another 10 percent drop out; for those between ages 16 and 18, an additional one third exit the system (the other two thirds remains enrolled). Such groups are priority targets for policies against social exclusion.

⁹ These two surveys are based on a sample of households used for assessing the main demographic characteristics of Lebanon (using extrapolation methods). According to the MSA survey, Lebanon has about 3.1 million inhabitants; according to the ACS, the population is 4 million. Both surveys describe similar structural characteristics of the population, in terms of age, sex, occupation, etc. This implies that the percentages are accurate, but not absolute numbers. Both surveys also provide similar results for school attendance. According to the MSA and the ACS surveys, 30.4 percent and 30.9 percent of the population, respectively, attend school.

¹⁰ These rates could be considered net participation rates by level of education (primary, junior secondary, upper secondary, and tertiary), provided all students were registered for a certain grade at the appropriate age. This is not the case for Lebanon. A large percentage of pupils are older than the theoretical age for any given grade. According to a recent publication of the MOE (CNRDP, 1995), one third of the pupils in primary education are older than the norm; two thirds are found at the junior and upper secondary levels.

¹¹ Part of the 3 percent not in school might attend later. For instance, some 6 year olds may enter school at age 7. Only 2.3 percent of children between ages 12 and 15 are not in school. These data might suggest that up to 2.3 percent (those having never been in school at the age of 12) and 0.8 percent (those having dropped out before the end of primary education) will become illiterate.

Table 3. Schooling rates by age (1997)

Age group (in years)	Not attending school	Attending school	No longer in school	Total
under 6	67.0	33.0		100
6-11	3.0	96.2	0.8	100
12-15	2.3	87.7	10.0	100
16-18	3.4	61.3	35.3	100
19-22	4.1	34.7	61.3	100
over 23	20.8	2.2	76.9	100

Source: ACS, 1997

12. Expected number of years of education. The second indicator for assessing the accumulation of human capital measures at age 5 the anticipated total number of years a child will spend in school. Lebanon's indicator, 12.6 years, is high by international standards. This indicator exceeds that of other countries of the Middle East and North Africa (MENA) but is close to that of many Eastern European countries and the average for OECD members (15 years), which ranges from 9 (Turkey) to over 17 (Canada and Belgium) (Table 4). Lebanon appears at the middle, between MENA countries and OECD member states.

Table 4. School life expectancy in selected countries (1995)

Lebanon	12.6	Canada	17.5
Algeria	10.5	USA	15.8
Egypt	9.5	France	15.4
Iraq	8.3	Greece	13.8
Kuwait	9.0	Portugal	14.3
Saudi Arabia	8.7	Romania	11.4
Tunisia (a)	9.3	Sweden	14.3

(a) 1985

Source: ACS, 1997 (for Lebanon), UNESCO, 1998 (for other countries)

13. Net enrollment rates. Net enrollment rates¹² for secondary education are high in Lebanon and are above the averages in MENA countries; the rates for primary education are relatively low (Table 5).¹³ These rates tend to underestimate the real probability of a child's accessing school at both levels, because the number of over-aged students is grossly underestimated (more than one third of pupils are older than the theoretical age for a given grade level). Causes have not been critically examined, but high number of over-aged students might be linked to the war or to the ambitious curricula requiring aptitude in the two languages of instruction.¹⁴ The internal efficiency of the system, therefore, should be assessed further (see paragraph 42).

¹² Net enrollment rates are estimated by calculating the ratio, dividing the number of pupils attending primary and secondary school, respectively, at normal ages (6 to 11 for primary, 12 to 18 for secondary) by the number of children belonging to the age group.

¹³ These results indicate that net enrollment rates are a sufficient proxy for assessing coverage achievements. Any attempt at measuring the latter must include other indicators, such as the above participation by age and the expected number of years of education at a given age.

¹⁴ Education systems in which two languages are used, or in which the language of instruction is not the mother tongue, usually require six years of primary education instead of five.

Table 5. Net enrollment rates by level

	Primary	Secondary
Lebanon	82.7	51.7*
Jordan	96.0	52.0
Tunisia	97.0	43.0
Morocco	72.0	30.0
MENA Average	87.1	46.5

*junior and senior secondary

Source: World Bank, 1995

14. Regional statistics indicate relatively small differences in overall access to primary education, and slightly more pronounced differences at the junior secondary level (Table 6). Gross enrollment ratios at the primary level vary between 93 and 101 percent; net ratios, between 81 and 83.6 percent. Surprisingly, Beirut has the lowest gross and net ratios, and the Bekaa Valley, the highest. One assumption for this unusual pattern would be the prevalence of child labor in Beirut's poor, suburban households. At the junior secondary level, the regional variability in gross enrollment ratios is between 73 percent (in the northern region) and 100 percent (in Beirut); net enrollment ratios range from 50 to 71 percent. The large differences between gross and net ratios reflect the large proportion of over-aged students at the junior secondary level. The northern region lags behind at this level, while the South and the Bekaa Valley are close to the national average. Recent work based on the MSA survey shows a substantial variation within each province, among districts (involving rural/urban differentiation, and many other micro-level parameters). The variations are not captured by averages at the provincial level.¹⁵ Gender differences in education access are moderate.¹⁶

Table 6. Enrollment ratios by province (1996)

Province	Primary education		Junior secondary	
	Gross ratio	Net ratio	Gross ratio	Net ratio
Mount Lebanon	95.4	83.6	96.3	71.5
North	99.4	81.0	73.0	50.0
Bekaa	101.2	84.2	86.8	60.8
Beirut	93.5	83.3	100.7	75.6
South	97.4	82.8	85.4	60.0
Nabatiyeh	97.2	83.0	92.0	65.8
Lebanon	97.6	82.7	88.3	63.6

Source: MSA survey, computed by T. El-Hachem, 1998

15. As mentioned above, existing demographic data are insufficient for tracking schooling indicators over time, so an indirect approach may be used to assess school participation. Given the stable size of new cohorts and the same school participation rates over the past 20 years, the number of pupils would remain constant, regardless of the displacement of communities. But data on enrollment show that the number of pupils has not stabilized. In fact, between 1991 and

¹⁵ For instance, in the urban areas of North Mohafazat, primary gross enrollment rates vary from 82 to 99 percent. Rural-urban differentiation also is at stake: in the Bekaa, primary enrollment rates range from 79 percent (El Hermel) to 95 percent (Rashaayya).

¹⁶ Gross ratios for primary education are 100 percent for boys and 95 percent for girls. Net ratios are close, however, because girls tend to perform better and are less likely to repeat grades at the primary level. In junior secondary, gross ratios are 93.6 percent for girls and 83.3 percent for boys. Girls maintain these higher ratios at the upper secondary level (60 percent v. 56.3 percent for boys) but regress slightly at the tertiary level.

1996, the total number of pupils from kindergarten to senior secondary education has increased by about 105,000 pupils, or 14.5 percent (Annex A1). The highest increase is found in primary education (+33,000), followed by kindergarten (+30,000), by junior secondary (+28,000), and finally by senior secondary education (+12,000). In relative terms, the order is slightly different, with kindergarten first (+24 percent), followed by senior secondary (+20 percent), junior secondary (+15 percent), and finally primary (+9.6 percent).¹⁷ These rates of increase are close proxies for the evolution of school participation ratios. The proxies indicate a rapid increase of schooling ratios. They also indicate that the 10-percent increase for primary education over five years is encouraging, because a continuation of this trend would lead to the eradication of illiteracy in a short time.

3. Public spending

16. The institutional complexity of the Lebanese educational system is reflected in its financial structure, which has never been extensively documented and analyzed. Few data on education expenditures in Lebanon can be found in relevant publications—namely, by UNESCO and by other regional organizations. The scant information which exists focuses on earlier periods and often underestimates public spending.¹⁸

Recurrent expenditures

17. Public recurrent expenditures are recorded in the three ministries of education and in other ministries that provide grants to their employees whose children are enrolled in private school. Pension provisions for former education employees are included in a special budget line, the budget reserves, and the salaries of education inspectors are recorded under the Prime Minister's budget. Below is the structure of recurrent expenditure within each of the three ministries responsible for education.¹⁹

Structure of recurrent expenditures

18. Ministry of National Education, Youth and Sports (MNEYS). Most of the MNEYS budget covers personnel costs (Table 7); 84.7 percent of the budget, in fact, is allocated for salaries of school staff.²⁰ The allocation of large portions of the budget toward personnel is not uncommon in the region. But this percentage is high, compared to OECD countries where the average wage bill is 82 percent of total expenditure (figures range from 55 percent, in the Czech Republic, to 98 percent, in Mexico). An unknown part²¹ of the wage bill does not reflect education activities, as it covers wages of former MNEYS teachers who are now permanently part of other administrations. Rectifying this anomaly would make the budget more transparent. An additional 4.5 percent of the MNEYS budget goes to the National Center for Education Research and Documentation (NCERD), an autonomous entity in charge of curriculum

¹⁷ It is easier to increase participation ratios which are far below 100 percent than those which are close to this level.

¹⁸ Education Strategy Sector Note, Middle East and North Africa, World Bank, 1998.

¹⁹ In 1993, the former Ministry of Education was split into three ministries.

²⁰ The MNEYS is also in charge of sports, and this department represents 2.7 percent of the 1998 budget, most of which goes to salaries of teachers responsible for physical education. The Youth and Sports Department is, therefore, included in education expenditure.

²¹ May be as high as 10 percent.

development, education reform, preparation of didactic material (in particular, textbooks), data collection and evaluation. Part of this 4.5 percent is earmarked for NCERD staff salaries. The MNEYS also subsidizes the purportedly free private sector, which receives 5.5 percent of the budget. Here again, the bulk of this subsidy is allocated for salaries of teachers employed in the private sector.

Table 7. Recurrent expenditure in the MNEYS (1997)

	LBP Million	percent
Central administration	2,300	0.6
Teacher salaries (1997)	260,500	72.2
Temporary teaching staff	10,000	2.8
Other staff	3,300	0.9
Allowances (family, transport, incentives)	31,500	8.7
Subtotal salaries	307,600	85.3
Subsidy to private schools	20,000	5.5
Rent for schools	16,700	4.6
NCERD	16,300	4.5
Total	360,600	100.0

Source: MNEYS

19. The only significant non-personnel expenditure is rent for schools that do not belong to MNEYS. Renting facilities (which constitutes capital expenditure) represents 4.6 percent of the budget, while the standard share of capital cost in other education systems worldwide is about 7 percent of total expenditure. The budget does not include appropriation for non-salary expenditure in schools, except for educational supplies from the NCERD. Non-salary expenditures at the local level are paid for by families. At the central level, the share of recurrent expenditures representing administrative costs in the MNEYS is only 0.6 percent (excluding NCERD), a modest share by international standards.

20. Ministry of Technical and Vocational Training (MTVT). Despite having the smallest budget of the three ministries, the MTVT focuses more on non-salary expenditure than do the other ministries. In 1998 the share was only 13.2 percent (84.5 percent went to salaries). A transfer of about 2 percent of the MTVT goes to private schools in this sector.

21. Ministry of Culture and Higher Education (MCHE). The MCHE budget is transferred almost entirely to the Lebanese University, the country's only public university. The Lebanese University is autonomous and manages its recurrent budget directly. In 1998 the transfer represented 94 percent of the Ministry's budget in 1998. Central administration receives 3.5 percent.²² From 1994 to 1997, the Ministry obtained a credit line (about 2 percent of its total budget) for scholarships to poor, talented students attending private universities. This credit line was frozen in the 1998 budget, due to severe restrictions on public expenditure.

Evolution of the recurrent budget of the three education ministries

22. From 1992 to 1998 the recurrent budget of the three ministries of education increased threefold in current Lebanese pounds (LBP). Whether assessed in constant currency terms or in dollar terms, public education expenditures have recovered considerably since the end of the civil

²² The Department of Antiquities, which is in charge of the National Museum, is allocated 2.5 percent.

war.²³ Two major wage increases occurred during this period (Table 8). The first (+70 percent), in 1995, was the result of a 72-percent increase in the salaries of primary and secondary school teachers. The 1997 increase (+43 percent) was due mainly to a rise in university staff salaries (+150 percent). Teachers' salaries today are comparable to international salaries. In 1997, salaries represented 1.4 times Lebanon's per capita GDP, a ratio similar to that observed in OECD countries, although the salaries might seem low compared with pre-war salaries.

Table 8. Evolution of the recurrent budget of the education ministries, 1992-98 (current LBP billions)

	1992	1993	1994	1995	1996	1997	1998
Ministry of Education, Youth and Sports	204.2	161.3	166.2	294.9	290.7	360.6	446.0
Ministry of Technical and Vocational Training	0.0	9.6	11.8	18.5	20.3	23.9	26.9
Ministry of Culture and Higher Education	0.0	56.1	64.5	98.6	55.0	138.7	139.6
Total recurrent	204.2	227.0	242.5	412.0	366.0	523.2	612.5
Rate of growth		11.2	6.8	69.9	-11.2	43.0	17.1

Source: Ministry of Finance

Other recurrent expenditures

23. Three types of public education expenditures fall outside the budgets of the three education ministries (Table 9). The first type provides grants for public employees who have children in school. The grant is higher for private schools because of the significantly higher fees. The grant amount also varies slightly from one ministry to another. Security and defense personnel, for example, tend to have more generous schemes from their line ministry than do civilian staff. Civilian staff are provided grants by the *Mutuelle des Fonctionnaires* whose budget is appropriated by the Presidency of the Council of Ministers. The *Mutuelle des Fonctionnaires* also covers another type of education expenditure—education inspector salaries—which is not included in the budgets of the education ministries. This expenditure is combined with that for all public inspectors. The third and last type of education expenditure not included in education ministries is for pensions to former education staff.²⁴

²³ The real increase is difficult to infer because the assessment of the purchasing power of the LBP leads to contradictory results: using the domestic inflation rate, the value of the Lebanese pound has declined. But using the exchange rate of the Lebanese pound with other currencies, it has significantly appreciated during the same period: in 1992 the rate for pounds to US dollars was 1,732:1; in 1998 the rate was 1,530:1.

²⁴ Former employees of the three ministries responsible for education are treated no differently than other government employees. The share of education staff within public employees (25 percent) was applied to the total pension budget in order to estimate the share for education staff.

Table 9. Budgetary recurrent education expenditure outside the three education ministries (1998)

Section number	General title	Education purpose	Amount (LBP billion)
3	Presidency of the Council of Ministers	Salaries of education inspectors	2.5
3	Presidency of Council of Ministers	Grant for subsidizing school fees paid by civil servants, managed through the <i>Mutuelle des Fonctionnaires</i>	40.0
3	Id.	Same purpose as above, for state security staff	0.8
6	Ministry of the Interior	Same as above, for general security staff	4.8 plus 2.6
6	Id.	Same as above, for interior security staff	24.0 plus 8.3
8	Ministry of Defense	Same as above, for military staff	60.8 plus 7.6
32	Budget reserves	Pensions for former education staff	125.0
Total			276.4

Source: Ministry of Finance

Capital expenditures

24. Capital expenditures for public schools are found in five different budgets: the three ministries of education, the Council for Development and Reconstruction (CDR), and the Council of the South, whose mission is similar to that of the CDR but for the southern part of the country. During the seven years of reconstruction (from 1992 to 1998), the three ministries of education spent on average LBP 50 billion per year for capital expenditure; the CDR, LBP 23.4 billion, or roughly half the amount of the line ministries (Table 10). The Council of the South's budget, which is not made public, may be an estimated LBP 3.5 billion.²⁵ Therefore, total yearly capital expenditures have reached LBP 77 billion. Investments by the CDR have benefited about 1,300 schools, which is close to the total number of public schools in the country, but some CDR interventions (routine maintenance, for example) have been limited. During the same period, the Council of the South built 127 schools and rehabilitated 44.

Table 10. Capital expenditure by the ministries of education and by CDR, 1992-98 (LBP millions)

	1992	1993	1994	1995	1996	1997	1998
Ministry of Education, Youth & Sports	2,400	17,000	67,500	26,700	23,700	27,300	9,600
Ministry of Technical & Vocational Training	0	9,600	13,400	21,500	12,400	16,000	5,700
Ministry of Culture & Higher Education	0	3,800	15,700	6,500	5,600	11,200	55,700
Subtotal (ministries)	2,400	30,400	96,600	54,700	41,700	54,500	71,000
CDR (actual expenditures)	1,101	13,267	62,932	40,228	20,884	28,961	NA
Total (ministries and CDR)	3,501	43,667	159,532	94,928	62,584	83,461	NA

Source: Ministry of Finance, CDR

25. Lebanon faces a period of unusually high capital expenditure. Schools had suffered from the direct effects of the war and slow deterioration over two decades. Capital expenditures are often characterized by constant fluctuations related to changes in priorities over time. Shortly after the war national priorities focused on the urgent rehabilitation of primary and secondary schools. The biggest achievement occurred in 1994 was a total budget of LBP 68 billion (for the MNEYS only), equivalent to 30 percent of the recurrent budget. Technical and vocational training later benefited from the peace dividends. Today the focus is on higher education. Projects include creating a new campus for the Lebanese University, presently in about 40

²⁵ Schools built by the Council of the South represent about 13 percent of the number of schools handled by the CDR. Unit costs are presumably 5 percent higher in the south than in the rest of the country, due to additional transportation costs for building material, as well as the more difficult working conditions.

different locations. The upgrading of primary and secondary schools have been reduced, as have CDR activities. These activities are to rehabilitate damaged buildings or reconstruct destroyed ones, rather than to expand existing schools or create new facilities (Lebanese University being an exception) (Annex A.3). A joint, permanent mechanism of communication among the planners (NECRD), the contractors (CDR), and the users (MNEYS) is necessary to adequately program capital expenditure, using standardized norms, and properly implemented, equipped and staffed.

26. **Trends in total public expenditure.** Given the paucity of data, analysis on the evolution of total public spending on education is possible only for the budgets of the three ministries of education. From these budgets four conclusions can be drawn: (i) the share of the GDP which is spent by the three ministries of education has increased from about 2 percent immediately after the war to 2.6 percent in 1998; (ii) primary and secondary education are allocated about two thirds of the total education budget, with a slightly declining trend; (iii) technical and vocational training, despite the government's declared priority, has fallen from 8 percent to 5 percent of the total; and (iv) higher education is the main beneficiary of the recent evolution (Table 11), with its share having grown from 23 percent in the early 1990s to 28 percent today. It is also above the MENA region average (20 percent in 1996)²⁶ and the OECD (20 percent in 1994).

Table 11. Evolution of expenditures (recurrent and capital) by the three education ministries, 1992-98 (LBP billions)

	1992	1993	1994	1995	1996	1997	1998
Ministry of Education, Youth and Sports	206.6	178.3	233.7	321.6	314.4	387.9	455.6
Ministry of Technical and Vocational Training	0.0	19.2	25.2	40.0	32.7	39.9	32.6
Ministry of Culture and Higher Education	0.0	59.9	80.2	105.1	60.6	149.9	195.3
Total	206.6	257.4	339.1	466.7	407.7	577.7	683.5
Total public expenditure, debt servicing included	1,654.0	3,400.0	4,106.2	5,630.0	6,458.0	6,433.0	8,905.0
Debt servicing	421.6	1,542.0	1,358.5	2,278.5	2,600.0	2,700.0	3,650.0
Total public expenditure, debt servicing excluded	1,232.4	1,858.0	2,747.7	3,351.5	3,858.0	3,733.0	5,255.0
Share of MNEYS in public budget, debt servicing included	12.5	7.6	8.3	8.3	6.3	9.0	7.7
Share of MNEYS in public budget, debt servicing excluded	16.8	13.9	12.3	13.9	10.6	15.5	13.0
GDP	9,499.0	13,121.6	15,305.0	18,027.6	20,417.0	23,034.0	26,121.0
Share of MNEYS in GDP	2.17	1.96	2.22	2.59	2.00	2.51	2.62
Share of MOEYS		69.3	68.9	68.9	77.1	67.1	66.7
Share of Technical and Vocational		7.5	7.4	8.6	8.0	6.9	4.8
Share of Culture and Higher Education		23.3	23.7	22.5	14.9	25.9	28.6

Source: from Ministry of Finance

²⁶ Ranges vary from 18.5 percent in Tunisia to 39 percent in Jordan.

27. **Consolidation of public expenditures on education.** For a more accurate assessment of actual spending on education, other public education expenditures must be included. Global results can be consolidated for 1988 only because of limited data. Public education expenditures, when consolidated, account for 10.9 percent of total public outlays, including debt servicing which may appear low by international standards (the average share in OECD countries is about 13 percent) (Table 12). The share rises to 18 percent if debt servicing is excluded from public expenditure. Total public expenditures, 3.7 percent of the GDP, are still below the world average (5.1 percent) and the regional average (5.9 percent). This stems both from the modest involvement of the state in education and from the relatively small size of the public budget in the GDP. Lebanon's share of capital in total education expenditure (8 percent) is slightly above the world average. This is a direct consequence of the war. In fact, an even higher percentage could have been estimated, given the need for reconstruction.

Table 12. Consolidation of public education expenditures (1998)

	LBP billions	percent
Three ministries of education (recurrent, 1998)	612.5	63.4
Other ministries (1998)	276.4	28.6
Subtotal (recurrent expenditures)	888.9	92.0
Three education ministries (capital, average 1992-98)	50.0	5.2
CDR (Average 1992-1998)	23.4	2.4
Council of the South (average 1992-1998)	3.5	0.4
Subtotal (capital expenditures)	76.9	8.0
Total	965.8	100

Source: Mission estimates from Ministry of Finance

4. Private spending

28. Employers contribute to the cost of education, but households are the major source of private funding. Families with children enrolled in private school contribute the most to private expenditures, but families with children in public and subsidized private schools also bear part of education costs. Information on private expenditures became available after the *Administration Centrale de la Statistique*²⁷ conducted a 1997 household survey which showed the Lebanese household's strong involvement finance of education. These findings have been supported by other sources, in particular an unpublished survey, recently commissioned by the NCERD, of a large random sample of households.

29. **Fees.** School fees constitute the most direct and sizable item of private expenditures on education. They are also the most substantial. Households spend on average LBP 1,269 million in fees each year, for all levels and school sectors combined (Table 13). These fees represent 12 percent of the average household income, or LBP 10,510 million, if the family has one child in school; 24 percent if it has two. The NCERD survey distinguishes between unsubsidized schools and subsidized private schools (where fees per student are three times lower).

²⁷ The ACS survey likely overestimates Lebanon population, but this possible bias does not affect expenditure figures which constitute a reliable basis. The survey distinguishes between public and private education, expenditures by level of education, and it has information on grants from their employers aimed at helping families to support the cost of school fees. It separates fees and "other education expenditures," but does not disaggregate the latter by categories and lumps together expenditures for textbooks, school supplies, private lessons, and expenditures on transportation, which are very significant in Lebanon.

Table 13. Fees per pupil by level of education and by sector, 1997 (LBP thousands)

Level of education	Public schools	Private and subsidized schools	Average
Pre-school	143	1,299	1,090
Primary	111	1,328	942
Junior secondary	134	1,740	1,101
Vocational (first level)	190	1,464	1,026
Senior secondary	180	2,379	1,442
Vocational/technical (second level)	254	1,644	1,194
Tertiary	218	6,517	3,250
Average	147	1,817	1,269

Source: ACS, 1997

30. **Other direct costs.** Families also pay for school supplies, textbooks, and transportation. Anecdotal evidence suggests that transportation costs are high, especially for pupils attending unsubsidized private schools, and may account for the difference in cost between private and public schools (Table 14). The average difference in transportation costs, estimated for all pupils in junior and senior secondary school (including those living close to school), is about LBP 250,000 per year and amounts to roughly half the total of other costs. Assuming that half of all students in Lebanon use some form of transportation, the yearly cost per capita is LBP 500,000, or about one fourth of total unit costs. This extra expense is a consequence of complex school mapping which does not factor in the hidden costs, such as the opportunity cost of transit time or the environmental impact of traffic.²⁸

Table 14. Other education expenditure per pupil by level of education and by sector, 1997 (LBP thousands)

Level of education	Public school	Private school	Average
Pre-school	143	298	271
Primary	160	381	311
Junior secondary	222	465	368
Vocational (first level)	371	427	408
Senior secondary	317	560	457
Vocational/technical (second level)	515	585	562
Tertiary	633	1,039	863
Average	274	446	391

Source: ACS, 1997

31. A family's total expenditure on fees and other costs for enrolling one child in primary school is an average LBP 1,253, or 12 percent of the average annual household budget (LBP 10,510 million). The annual expenditure goes up to 39 percent, if one child is enrolled in tertiary school, but this percentage is atypical globally. Most worldwide household surveys show significantly low shares for primary-level schooling, between 1 and 3 percent. Compared to world standards, Lebanese households spend more on education. But differences in expenditures between the sectors are even more striking—for example, a family with one child enrolled in public school (at any level) allocates 4 percent of its average household budget to education; for a child in private school, the average is 22 percent.

32. **Grants.** All households with school-age children contribute to school fees and/or to direct education costs. To alleviate the financial burden, some employers provide grants to families. Children of public employees comprise one group of grant recipients.²⁹ About 19 percent of all

²⁸ The number of traffic jams increases significantly when school is in session.

²⁹ See para. 23.

students in Lebanon—about 150,000—are children of public employees entitled to grants. A grant amount depends on three factors: the ministry in which the person is employed (military and security staff tend to have more generous schemes than do civil employees), the type of school in which the pupil is registered (public, subsidized private, and unsubsidized private), and for private schools, the amount of the fees paid by the household (the greater the fees, the higher the grant).

33. The second group of beneficiaries is households in which at least one member is a private-sector wage earner. Any person registered in the social security system as a wage earner can claim an education grant from his or her employer.³⁰ The grant is worth LBP 200,000, if the child is registered in a public school; LBP 300,000 if he or she is registered in the (public) Lebanese University; and LBP 500,000 if the child is registered in private school. Grants can be claimed for a maximum of three children and cannot exceed LBP 1 million. According to the unpublished survey, 5.7 percent of pupils—about 45,000—have received grants from private employers. This low proportion is consistent with ACS survey findings which suggest that some employers avoid paying grants. Finally, a third group, between 8 and 9 percent of the students are simply exempted from paying school fees. Schools may increase revenues from donations or may charge fees, slightly higher than unit costs, to regular students who *de facto* pay for needy children from the same community.

34. Average grant per pupil by level of education. Only 20 percent of households interviewed for the ACS survey declared they were entitled to a grant. More households claimed this entitlement (24.5 percent from employers and another 8 to 9 percent did not pay school fees), according to the NCERD survey. The grant, for all education levels, was an average LBP 1,124 million, or 10.7 percent of the average household budget (Table 15).

Table 15. Grant per pupil by level of education and by sector, 1997 (LBP thousands)

Level of education	Public school	Private school	Average
Pre-school	275	862	838
Primary	286	864	820
Junior secondary	298	1,021	901
Vocational (first level)	372	1,085	931
Senior secondary	428	1,228	1,093
Vocational/technical	766	1,001	963
Tertiary	554	5,011	3,340
Average	397	1,195	1,124

35. Total net contribution of households to education expenditure. The household's financial contribution toward education can be easily calculated from the above data. Assuming that households who receive grants have the same number of pupils as do those without grants, and 20 percent of pupils (195,000) receive grants, then 20 percent of households are entitled to a grant. Total gross annual household expenditure was LBP 1,617 billion, and total net expenditure³¹ reached an aggregate LBP 1,398 billion (Table 16).

³⁰ Decree, dated January 18, 1995

³¹ Obtained by subtracting grants from gross expenditures.

Table 16. Net contribution of households to education expenditure (LBP millions)

	Gross household expenditure	Grant	Net household expenditure
Average per pupil	1,660	1,124	n.a
Number of pupils	974,000	195,000	n.a
Total	1,617,000	219,000	1,398,000

Sources: ACS survey and mission estimates

5. Total spending on education

36. Combining net public expenditures, household payments, and private employer contributions yields the final, aggregate national expenditure on education.³² This consolidation shows that 9.3 percent of Lebanon's GDP goes to education, with private expenditures alone representing 5.6 percent (Table 17).

Table 17. Total expenditure on education by type and by source of funds (1998)

Type of funds	Source of funds	Amount (LBP billions)	Percent of GDP
Public expenditure	Three ministries of education	662.5	2.5
	Other ministries	276.4	1.1
	CDR & Council of the South	26.9	0.1
Private expenditure	Households	1,398.0	5.3
	Private employers	70.1	0.3
Grand Total		2,433.9	9.3

37. Lebanon is exceptional in two respects: (i) the country spends almost 3 percent more of its GDP than does any country of the OECD (member countries spend on average 5.9 percent; even Denmark and Canada, that rank first in OECD countries, spend less than 8 percent of their GDP on education) (Table 18); (ii) the relative contribution of private sources (mainly users) is almost 5 times the average for OECD countries. In no other OECD country is private spending greater than public expenditures. These factors raise the following issues: (i) the effective use of funds; (ii) the equal distribution of the burden of expenditure; and (iii) the exact role of the state in the sector. These issues are addressed in the following chapter.

Table 18. OECD countries according to share of GDP allocated to education expenditure

Total education Expenditure <3 percent of GDP	Total education expenditure >3 percent and <5 percent of GDP	Total education expenditure >5 percent and <6 percent of GDP	Total education expenditure >6 percent and <7 percent of GDP	Total education Expenditure >7 percent and <8 percent of GDP
Greece	Turkey Italy Netherlands Japan	Iceland Portugal Austria Mexico Spain Ireland Australia Germany	France Korea Hungary United States Finland Sweden	Denmark Canada

Source: OECD, 1997

³² The private employer contribution is calculated by subtracting the share of the state budget in the provision of grants (an estimated LBP 148.9 billion) from the amount of grants received by households. This leads to a contribution of LBP 70.1 billion.

B. MAIN SECTORAL ISSUES

1. A costly system

38. For a more accurate assessment of education's real cost, aggregate figures must be weighed using the beneficiary population. This will generate unit, or per-student, costs. The lack of data or, if available, their incomparability makes it difficult, however, to estimate unit costs for each of the three sectors. Such limitations can be found on the cost side and on the enrollment side, with discrepancies over the temporal baseline.

39. If unit costs are consolidated, the public sector becomes the most expensive sector at each level of education, except tertiary (Table 19). The unit costs of primary education in the subsidized private sector are less than half of those in the public sector. For secondary education, the public sector is 54 percent more costly than the private sector. For pre-primary and primary, cost differences can be attributed to the variability in pupil-teacher ratios: 20:1 in the subsidized private sector and 8:1 in the public sector. The rules governing resource allocation account for the difference between public and private, in particular the severe financing constraints in the subsidized private sector. Poor management of teaching staff accounts for the public sector's excessive pupil-teacher ratio.

Table 19. Unit costs, by source of finance, level of education and sector (LBP millions)

Sector	Source of finance Grants included in private	Primary/ junior secondary	Senior secondary	Vocational/ Technical	Tertiary
Public	Public	1,674	2,779	1,815	2,970
	Private	532	532	532	851
	Total	2,206	3,311	2,347	3,821
Private, subsidized	Public	256	n.a.	n.a.	n.a.
	Private	680	n.a.	n.a.	n.a.
	Total	936	n.a.	n.a.	n.a.
Private, unsubsidized	Public	0	0	0	0
	Private	1,760	2,145	2,145	5,617
	Total	1,760	2,145	2,145	5,617

40. In terms of unit costs as a percentage of GDP per capita, the cost of education in Lebanon seems high, especially in the public sector (primary and secondary levels) and in the private unsubsidized sector (tertiary level) (Table 20). Costs are significantly lower in the subsidized private sector, which, paradoxically, is on the decline.

Table 20. Unit cost as percentage of the GDP per capita (1998)

Level of education	Public	Private (subsidized)	Private (unsubsidized, 1997)
Pre-primary, primary & junior secondary	26.9	11.4	21.5
Secondary	40.4	n.a.	26.2
Technical/vocational	28.6	n.a.	26.2
Tertiary	46.6	n.a.	79.5

41. Comparatively, primary education—both public and unsubsidized private—is more costly in Lebanon than that in all MENA countries (except Yemen). But the cost of subsidized private primary education is as low as Syria's or Iran's. For private sector secondary education, Lebanon's average (26 percent of the GDP per capita) is comparable to that of the OECD; in the public sector Lebanon's average cost exceeds that of the OECD. At this level, variability in cost

is large in the MENA region, from 10.7 percent in Iran to 48.3 percent in Yemen. For tertiary education, the OECD average is lower than that in Lebanese private universities (49 percent of the GDP per capita against 79.5 percent); averages in the public sector are comparable (46.6 percent). In general, the unit costs of education in Lebanon are affected more by the *type* of institution (the 3 sectors) than by the *level* of schooling. This, combined with high costs at the primary level, is also reflected by the fact that expenditure does not sharply increase with each progressive level of education, a pattern more common in OECD countries than in developing and MENA countries (Table 21).

Table 21. Educational expenditure per student in secondary and tertiary education relative to per-student expenditure at the primary level (1994-97)

Country	Type of institution	Education expenditure per student in secondary education relative to education expenditure per student in primary education	Education expenditure per student in tertiary education relative to education expenditure per student in primary education
Lebanon	Public	1.5	1.7
	Private	1.2	3.2
Yemen	Public	1.8	6.7
Morocco	Public	3.4	10.3
Turkey	Public	0.7	4.9
United Kingdom	All	1.3	2.3
Spain	All	1.3	1.6
Germany	Public	1.8	2.5
Belgium	All	1.7	1.9
Korea	All	1.2	2.4

Sources: Mission estimates (Lebanon) World Bank, 1998 (MENA Countries); OECD 1997

2. Low efficiency

42. A survey conducted by the NCERD (1995) showed that 33 percent of the students do not complete primary education. At the junior secondary and higher levels, the rate is 25 percent. Repetition rates vary from one sector to the other: essentially, the proportion of repeaters at the primary level is five times larger in the public sector than in the subsidized private sector; at the secondary level it is three times larger (Annex A.6). Overall, 63.5 percent of all repeaters are found in the public sector, which enrolls only 34 percent of the children in Lebanon. High repetition rates burden the budget and weaken the public school image.

43. The number of over-aged pupils is striking: 37 percent of primary-level pupils is one or more years older than the theoretical age of children in that grade. Repetition increases this number to 52 percent for junior secondary education and 46 percent for secondary. Pre-tertiary education is normally 12 grades, particularly where instruction is in the mother tongue. Where instruction is not in the mother tongue, primary education lasts six years instead of five, resulting in a 13-year pre-tertiary curriculum. Many Lebanese schools provide a choice in the language of instruction: either French or English, neither of which is regularly spoken at home. Not surprisingly, average or low achievers take longer to learn. In Lebanon, the shorter, 12-year curriculum takes 13 to 14 years to complete, resulting in an increase in the real cost of education. It also penalizes the children pedagogically and the parents financially. Thus, the high unit costs observed reflect low internal efficiency. (Issues on external efficiency—the diploma's market worth, for example—are not discussed here.)

3. Differentiated performance

44. A second way to assess the effectiveness of resources is by measuring and comparing the quality of output—*i.e.*, student performance—which is based on internationally developed standardized tests.³³ Lebanon has not yet been included in such studies. The Lebanese education system has a positive reputation regionally: the most prestigious universities are comparable to international universities, suggesting that pre-tertiary education is consistent with international norms.

45. Comparative data on pupil performance are lacking. NCERD surveys, however, measure student competencies in different fields of study by sector (Tables 20 and 21). Overall, these comparisons reveal weaknesses in public school. At the primary level, even low-cost subsidized private schools perform better than do public schools. Unsubsidized private schools are systematically more efficient than other schools, particularly in foreign language instruction. Test scores for the Arabic language, used more often in public school, are lower than those in private school. The overall passing rate is 50 percent higher in private than in public school.

Table 22. Student achievement at the end of Grade 4 (passing rate)

	Public schools	Private subsidized	Private unsubsidized	National average
Arabic language	56.0	72.0	82.0	71.3
English language	32.1	70.5	94.6	65.4
French language	3.2	7.9	57.1	36.6
Mathematics	46.9	67.6	70.2	60.6
Sciences	52.0	68.7	79.9	64.4
Practical knowledge	46.2	54.0	53.3	52.9
All fields	50.4	64.8	77.1	65.4

Source: NCERD, 1995

Table 23. Student achievement at the end of Grade 9 (passing rate)

Field of study	Public schools	Private unsubsidized	National average
Arabic language	86.3	91.6	90.0
English language	16.5	60.1	49.7
French language	11.5	56.5	42.0
Mathematics	21.5	58.3	44.8
Sciences	53.6	73.8	72.7
Practical knowledge	61.2	60.7	60.9
All fields	27.8	71.8	55.6

Source: NCERD, 1996

46. The surveys do not elicit causes for the differences in scholastic aptitude. However, one argument suggests there may be a link between a household's socio-economic status and the choice between public or private schooling. The cost of unsubsidized private education is prohibitive for low-income families. Subsidized private schools, which have the lowest level of school inputs, are close to public schools in terms of cost to families and in terms of student performance (except in the French language). Another observation on the variability of school quality in Lebanon is that averages are significant when education sectors are compared, but variability is even larger when school-by-school comparisons are made, particularly in the subsidized private sector. The quality of education in Lebanon's most efficient institutions is

³³ Such international comparative assessments are developing rapidly, with the support of the International Educational Achievement network (IEA) and the OECD.

close to that of OECD schools. With the exception of the country's top institutions, education quality is uneven and in some cases, very poor. The same can be observed in developing countries where the small, exclusive private sector provides high-quality education for 2 to 5 percent of the students, while the performance for the majority of public schools remains low. Lebanon is unique in terms of the size of the private sector, the high enrollment at all levels, and the volume of resources allocated to the education system as a whole. Internal efficiency as well as overall school performance must improve dramatically before public schools can compete with the private schools.

4. Competition

47. The most critical education input, in terms of budget implication and pedagogical impact, is the quality and quantity of school staff. Employing a well-trained and well-paid teaching force would justify high unit costs, if the investment actually generated outstanding academic achievement. But Lebanese schools do not seem to produce overall qualitatively outstanding results. The major reason for these high costs is the size of the staff in the sector. The MSA survey estimates that in 1995/96, the education sector employed 8.8 percent of the total work force. Compared to the OECD average (5.4 percent), this proportion is high, but it is consistent with the share of the GDP allocated to education (9.3 percent). This share and that of education staff tend to be close, as education is a labor-intensive service and teachers' revenues correlate to per capita GDP. According to the MSA survey, of the 83,100 persons employed in the education sector, roughly 64,000 are teachers. The other 19,200 non-teaching staff comprise 23 percent of the total staff, less than the 31 percent in OECD countries. Therefore, the overstaffing in Lebanon seems to affect mainly teachers.

48. According to MNEYS data, on the other hand, the total number of teachers is even higher (Table 24). This figure would increase the share of teachers in Lebanon's labor force to more than 8 percent, higher than anywhere else in the world (including China, at 5.3 percent). This figure is not consistent with MSA survey findings, and no compelling explanation can account for the difference. The difference may simply result from the lack of reliable data on the labor force, or it may come from the double counting of public school teachers who also work in private schools.

Table 24. Breakdown of teaching staff by level, sector, or type

Sector/type/level	Number of teachers
General (total)	68,000
Public	31,000
Pre-primary, primary, junior secondary	25,000
Secondary	6,000
Private (unsubsidized)	32,000
Private (subsidized)	5,000
Technical & Vocational Training	7,000
Higher Education	7,000
TOTAL	82,000

Source: mission estimates, from MNEYS sources

49. The conventional way to assess the size of the teaching force is to calculate the student-teacher ratio. No fixed number exists in this area, and neither is there a proven correlation between class size and academic achievement (excluding findings concerning very small schools

or over-crowded classrooms).³⁴ However, countries can be ranked according to their averages, and world averages can provide one benchmark. For Lebanon, both the MNEYS and the more conservative MSA figures are outside the global benchmarks. For general education, the overall average ratio is 12:1. Inter-sector differences are also striking: 8:1 in public schools, 14:1 in private school, and 22:1 in subsidized schools. These differences are not justified by parallel outcome differences, since public schools rank last, and private schools, first, on the achievement scale (*see* para. 45). In public schools only, the ratios are 8.9:1 at the primary/junior secondary level and 5.2 at the secondary level, two figures unmatched even in the richest OECD countries (OECD averages are 20:1 and 16:1, respectively).³⁵

50. The circumstances surrounding the size and quality of the teaching force is known but not well-documented. The actual number of public school teachers who have no specific teaching duties is difficult to assess, but according to NCRD data 18.7 percent teach fewer than 10 hours per week. Observations confirm that some schools lack personnel; others are crowded. The displaced population during the war may account for this phenomenon. The MNEYS is tackling the issue slowly, given social and political sensitivities³⁶ which have compounded the quantitative and budgetary aspects. The oversupply of teachers is combined with the qualitative deficiencies: only 34 percent of the total public teaching staff (teaching and non-teaching) holds a higher education degree. The MNEYS is concerned particularly with the poor training of most contractual teachers. One option would be to replace these teachers with better-trained, tenured civil servants, to increase education quality in public schools. The cost-effectiveness of this project has not yet been properly assessed. Teachers in private schools are not necessarily better trained; they are simply held accountable for student performance.

51. As mentioned above, resources for non-salary inputs are not collected directly from the budget. Information is not available on exactly what transpires in classrooms nor is their information on the availability of teaching materials. In public schools, the balance of the central recurrent budget (after paying staff and rent) is close to nothing, so parents must pay for the new, high-quality books printed by NCRD.

5. Funding inequities

52. About 25 percent of all students in Lebanon are entitled to government grants. A minority of the recipients are selected by schools and NGOs because their families cannot afford the school fees. But the majority (four fifths) of the recipients do not qualify for grants on the basis of need. About 75 percent of them are children of public employees, who are neither wealthy nor poor. Public servant salaries are comparable to those of the middle class, and the public servants are entitled a degree of job security. The remaining 25 percent of grant recipients are children of personnel who are employed in the private sector and who are registered in the social security system by their employer. These households comprise the formal private sector,

³⁴ Instead, a correlation has been established between GNP per capita and pupil-teacher ratios (high ratio/low GNP and low ratio/high GNP), reflecting the ability to pay for the bill (UNESCO, 1998); combining the two outliers for primary schools, namely Korea (31.7:1) and Norway (9.5:1) shows how strongly contextual factors may influence the education production function (OECD, 1997).

³⁵ The UNESCO special issue of the World Education Report (1998) on teachers reports 12:1 for the primary level. This figure does not take into account excess supply.

³⁶ A specific study on this issue is being completed as an input to the preparation of a Bank-financed project

which guarantees greater job security and higher salaries than for those in the informal sector. In addition, the law (1995 decree) is not strongly enforced, which may imply that those who benefit belong to the best performing segment of the formal private sector. The remainder of students who do not receive grants (70 percent), probably belong to the richest quintile or decile of Lebanese households (and do not need a grant) or belong to the poorest (and do not know how to get one). From an equity perspective, the present grant system is far from optimal, as it neglects the most needy.

53. The Lebanese education system may seem irrational and creates incentive for public employees to select private school over public. The size and increase in the amount of the grants, for example, correlates to school fees. Even public teachers are encouraged to send their children to private school, and this does little to enhance the image of the public school sector. Public schools must accept children from low socio-economic backgrounds, which commonly has a negative impact on overall student performance. Consequently, part of the comparatively low achievement of public schools is a user effect, and not a supply effect.

54. The Lebanese government is aware of the counter-productive impact of the present grant system, but changing the system by promoting means-based grants, for example, could generate strong opposition from public employees who constitute Lebanon's most privileged group. To avoid such reactions, a new scheme is being contemplated, under which the equivalent of the grant's value would be added to the wages as a consolidated package of bonuses.

55. From the perspective of resource allocation, this new system, if implemented, would change education financing in Lebanon. Grants would no longer be considered a public education expenditure but a public employee compensation because they would not be earmarked. Households would exercise their own discretion in spending this extra income.³⁷ Net education expenditure by household would equal gross expenditure, and Lebanon's atypical structure of education finance would become even more pronounced. If the global demand for private education were to remain unchanged after implementing the new scheme, the global weight of education expenditure in the GDP would also remain the same. But the share of public expenditure in the GDP would fall to 3.1 percent, and the share of households would grow to 6.0 percent. More adjustments could be observed if additional wages were integrated and internalized. The critical issues would then be (i) whether growth of the global share of (private) education would continue and (ii) which segment of the population would benefit, or lose, from this new scheme.

56. Decisions on these issues will affect the private sector, an important actor in maintaining reasonable education services despite extraordinarily difficult circumstances. The present policy could lead to improvement in public sector quality, but at what cost? Public schools are already more expensive than are private ones, and additional resources may have to be mobilized to ensure their improvement. Yet the fiscal situation of the country is not propitious to allocate more resources to the sector. To improve the performance and the image of public schools, requisite finances can be acquired by countering internal inefficiency and revamping management. Cooperation between the different sectors will also be necessary and will be aimed at preserving what has been achieved. At the same time, it would homogenize the sectors. A

³⁷ Which would differentiate it from a voucher system.

scheme has to be designed, tested and agreed upon to end the current system of cross-targeting fees and grants which deters children of public employees from the public education system and which ignores the most vulnerable.

6. Lack of strategic vision

57. In many countries, these issues are addressed by the ministry of finance, the ministry of planning (or its equivalent), and technical ministries. In Lebanon, however, such collaboration barely exists. In addition, education ministries in Lebanon have neither the tools nor the staff for planning long-term education strategies which affect both the public and the private sector. At present, without highly talented, experienced staff in each of the three ministries and without a national consensus, such a vision would be difficult to develop. Moreover, basic data do not exist for creating plausible scenarios, for simulating their budgetary effects, and for implementing decisions. This gap is found in every sector at every level of the system and it is true for enrollment, internal efficiency, of achievements, of staff recruitment and promotion, of financing. Indeed, it applies to the public sector, and even more to the other two sectors. The lack of data, or, if they exist, their lack of reliability or availability are serious obstacles to becoming transparent and have detrimental effects on the managers of the system and on its users.

58. Finally, senior MNEYS staff must forego the day-to-day routines of the system in order to engage in strategic planning and to focus on the general guidance. For this to happen, the ministry(ies) responsible for the education sector will have to relinquish direct control over each school and to streamline central government activities, using a management information system (MIS). The actual size of the country is not an obstacle in coordinating the education system, and although the public sector is relatively small, delegating responsibility to the schools at the local level would benefit the central administration as well as the schools (parents and municipalities). Two prerequisites for this initiative would be: (i) increased quality control by the central services of the MNEYS and (ii) greater accountability at the local level, to avoid clientelism and pure laissez-faire. Aspects of school life (and finances) transferred to the local level would be separate from those still under the ministry's direct control.

C. FUTURE SCENARIOS

59. The major problem education authorities face is not quantitative, but qualitative. The number of pupils is not likely to increase significantly because participation rates are relatively high, and the school-age population is generally stable. Increased enrollment will result later from the 3 to 4 percent of the children not presently attending school. The State's main challenges are to ensure equity, efficiency, and quality. In order to address these challenges, the Ministry will need to shift to a policy-making role and to adopt a truly sectoral approach.

60. The high level of spending in the education sector does not reflect an equally high level of academic performance. Rather, it is a symptom of low internal efficiency and sub-optimal use of resources (such as staff) especially in the public sector. The financing scheme is made of a complex system of grants and fees, which may counteract one another or may bias parents in their choice of school. Positive steps have been taken, in particular the rehabilitation of damaged schools and the launching of modernized programs. But these steps have not addressed the latest challenges which call for a comprehensive approach, involving all actors and users of the education system.

61. Rapidly shifting the number of enrollments from the private to the public sector would not be cost effective, given the high cost and poor quality of the public and the relatively low (public) cost and good quality of the private. In budgetary terms, maintaining the status quo would have the least impact on public spending, but indeed also on the issues to be resolved. On the other hand, having public schools absorb all pupils currently enrolled in the subsidized schools and half of the children of public employees currently in private schools would mean a twofold increase of the MNEYS within 6 years, in spite of the economies made in terms of grant cuts. The budgetary impact of such moves could be reduced through productivity measures, such as an increase of the pupil-teacher ratio (Table 25).

Table 25. MNEYS recurrent budget by scenario, 1998/2001/2004 (LBP billions)

Scenario	1998	2001	2004
1. Status quo with slight quality improvement: MNEYS budget increases by 5 percent p.a. in real terms	460	530	610
2. Progressive absorption by public schools of children currently enrolled in subsidized primary schools (and simultaneous attrition of the subsidies)	460	590	730
3. Same as scenario No. 2, plus progressive integration by public schools of half of the children currently enrolled in private schools (and simultaneous attrition of the grants paid to public employees)	460	740	910
4. Same as scenario No. 3, plus savings generated by progressive increase of the pupil/teacher ratio from 9:1 to 15:1	460	630	690

Source: mission estimates

62. In addition to more precise estimates, non-budgetary factors must also be considered, such as the rebuilding of a nationally harmonized system that would preserve the social and political equilibrium and promote inter-community citizenship. Transforming public schools into refuges for children of low-income families undermines educational objectives. The public system should be restored, not simply expanded.

63. These scenarios, however simple, also dismiss the idea of transferring students from one sector to another. It would be more appropriate for the State first to (i) improve efficiency and quality of the public sector, (ii) eliminate biases and counter-productive incentives engendered by the grant system, and (iii) encourage cooperation between the three sectors, relying on the comparative advantages, and upgrade low-performing schools in each.

64. Restoring the public school's quality and image will take time, and the other two aspects of the strategy—(i) and (ii), above—should be developed simultaneously. Reforming the grant system cannot be developed in isolation but within a comprehensive fiscal and wage package. Reforms would also apply to private schools and would be based on a flexible voucher system—namely, a system of per-pupil public subsidy based on a proportion of the unit cost. The allocation of the voucher to a given school could be determined by two principles. The first principle would be to link the value of the voucher to the degree of compliance to State regulations and quality insurance.

65. The second principle would be based on the application of a normative unit cost and would prevent the taxpayer from funding the high unit costs for top-rate schools. The normative unit cost could be determined in different ways. One way would be to use a scale, based on a percentage of the GDP per capita. The norm would be obtained by taking the average of both developed and developing countries. Lebanon, from an educational perspective, falls somewhere

between the two groups.³⁸ Any given school would be eligible for a voucher, calculated as a variable percentage of the normative unit costs, depending on how closely the school follows State regulations. The State must remedy regulations on curricula, secularization, criteria for enrollment, teacher skills, and scholastic goals. Lebanon's objectives are to harmonize the school sectors. One advantage of the proposed voucher system is to support the continued willingness of families to pay the schooling costs and also to make education more equitable. Finally, the system should be economically sustainable. For instance, if all pupils were enrolled in schools applying the above unit costs, and if all schools had signed an agreement making them eligible for the 80 percent voucher rate (80 percent of the normative unit cost unit cost), the public effort for education would amount, with present numbers of pupils, to 4.6 percent of the GDP. Other simulations could be run, but this seems like the most appropriate for Lebanon, given present international standards. Indeed, such a system would require a serious upgrading of the MNEYS capacities to ensure quality assessment. It would also imply a radical shift of the ministry role from a provider of services to a regulatory agency for the whole sector.

D RECOMMENDATIONS

66. The recommended approach is to restore enough credibility in the public-school sector to make it responsive to increasing demands from parents and to make it a feasible alternative for all children. Instilling transparency in the financing of education would foster greater efficiency and equity. Regardless of which policy is developed, the following specific actions are recommended to ensure universal access and quality assurance. Some actions are urgent and are within direct control of the MNEYS and the other ministries in charge of education; others are long term and sector wide, and they require a broader consensus.

Short-term actions to be implemented by the ministries

- (a) improve data collection, gather data for making international and temporal comparisons, improve data reliability and ensure their regular production along standardized and permanent definitions; make the data available to each level of the educational structure, as well as to the users of the education system; organize data for a sound management information system (MIS);
- (b) staff the education ministry(ies) with a core of high-level personnel responsible for the general guidance of the overall sector and for assisting decision makers to shape linkages between sectors (public, unsubsidized private, subsidized private), relationship amongst the sectors (general, tertiary, and vocational) and consistency with the overall governmental policy (budget issues, labor market issues); equip this staff with adequate programming and planning tools; and upgrade skills of the staff in general administration;
- (c) manage teaching staff: register personnel by field, skill, and region; control movement and redeployment of teachers; upgrade teachers' skills; streamline the budget by integrating teacher salaries into the budgets of the ministries;
- (d) reduce the cost of rented facilities, especially when they do not meet education requirements; rehabilitate and, if needed, expand and equip existing facilities;

³⁸ For instance, 15 percent of the GDP for primary education, 20 percent for secondary, and 40 percent for tertiary education. At present, these percentages would be translated into LBP 1.2 million for primary education, 1.6 million for secondary, and 3.2 million for higher education.

- (e) encourage more responsibility (and accountability) at the local level to encourage the involvement of parents and municipalities; devise mechanisms to ensure regular quality control and evaluation of institutions and their staff; and
- (f) adjust the assessment system: accommodate the new curricula and revise the system for advancement from one grade to another to reduce heavy repetition rates.

Long-term, sector-wide actions

- (a) prepare a sector-wide strategy, involving all sectors and levels of the education system, detailing the linkages between the public sector and the two private sectors, and examining the costs and benefits of future actions;
- (b) rationalize the grant/fee system to eliminate hidden incentives currently impeding competition between sectors and to increase equity by providing a range of school choices for children of unprotected sectors of the population;
- (c) target school-aged children who never went to school, or who dropped out early, and design special programs to find and enroll them in primary school;
- (d) increase inter-sectoral cooperation between the public sector and the private, subsidized sectors to rationalize school mapping, avoid duplication, and minimize transportation costs; and
- (e) prepare the line ministry to move to a regulatory role, to develop and to enforce quality targets and criteria for the entire system.

* * *

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ANNEXES

Table A 1. Enrollments by level of education and by sector

Sector	1991/92	1992/93	1993/94	1994/95	1995/96
Public	236,253	239,866	235,820	242,371	253,485
Private (not subsidized)	369,566	380,202	420,128	447,786	464,993
Private (subsidized)	119,014	113,16	114,651	111,784	110,860
Total	724,833	733,228	770,599	801,941	829,338
Public	32,59	32,71	30,60	30,22	30,56
Private (not subsidized)	50,99	51,85	54,52	55,84	56,07
Private (subsidized)	16,42	15,43	14,88	13,94	13,37
Total					
Public					
Kindergarten	22,027	21,876	22,491	23,176	27,885
Primary	109,429	112,397	107,708	107,220	109,826
Junior secondary	80,469	79,286	80,055	82,600	84,335
Senior secondary	24,328	26,307	25,566	27,827	31,439
Subtotal	236,253	239,866	235,820	242,988	253,485
Private (not subsidized)					
Kindergarten	83,540	88,143	100,286	106,979	108,117
Primary	142,726	146,691	167,122	174,021	184,315
Junior secondary	104,457	106,200	117,342	126,626	128,351
Senior secondary	38,843	39,168	38,378	41,300	44,210
Subtotal	369,566	380,202	420,128	448,927	464,993
Private (subsidized)					
Kindergarten	25,507	25,485	25,623	27,266	26,815
Primary	93,507	87,675	89,028	84,926	84,045
Subtotal	119,014	113,160	114,651	112,192	110,860

Table A 2. Enrollments by level of education and by type of school

Sector	Sector	1992/93	1993/94	1994/95	1995/96
Public					
Kindergarten	3.04	2.98	2.92	2.89	3.36
Primary	15.10	15.33	13.98	13.37	13.24
Junior secondary	11.10	10.81	10.39	10.30	10.17
Senior secondary	3.36	3.59	3.32	3.47	3.79
Subtotal	32.59	32.71	30.60	30.30	30.56
Private (not subsidized)					
Kindergarten	11.53	12.02	13.01	13.34	13.04
Primary	19.69	20.01	21.69	21.70	22.22
Junior secondary	14.41	14.48	15.23	15.79	15.48
Senior secondary	5.36	5.34	4.98	5.15	5.33
Subtotal	50.99	51.85	54.52	55.98	56.07
Private (subsidized)					
Kindergarten	3.52	3.48	3.33	3.40	3.23
Primary	12.90	11.96	11.55	10.59	10.13
Subtotal	16.42	15.43	14.88	13.99	13.37

Table A 3. CDR: Actual expenditures on education projects, 1992-98

	1992	1993	1994	1995	1996	1997	1998 (4 mo.)
Ministry of Education, Youth and Sports							
Technical Assistance	256.8	21.5	85.4	210.6	157.0	398.6	0
Rehabilitation of administrative buildings	0	0	0	1199.7	145.3	74.3	0
Rehabilitation of public schools	844.9	12683.4	42588.5	17277.9	3775.9	700.0	0
Extension of public schools	0	0	0	0	4.2	224.0	207.0
Reconstruction of destroyed schools	0	91.2	1218.6	610.5	2186.2	2029.0	709.7
Teacher training colleges	0	0	177.9	22.6	21.6	0	0
Subtotal	1101.7	12796.1	44070.4	19321.3	6290.2	3425.9	916.7
Ministry of Technical and Vocational Training							
Technical Assistance	0	0	57.0	961.6	1008.0	2446.0	146.7
Rehabilitation of administrative buildings	0	0	0	616.6	0	0	0
Rehabilitation of schools	0	136.8	11274.6	10560.5	7077.6	3193.2	726.1
Building of new schools	0	0	0	7.9	0	0	985.6
Subtotal	0	136.8	11331.6	12146.6	8085.6	5639.2	1858.4
Ministry of Culture and Higher Education							
Technical Assistance	0	0	0	180.5	431.7	223.1	0
Rehabilitation of the Faculty of Sciences	0	333.8	7530.5	8579.5	6076.5	3999.8	0
Lebanese University Campus	0	0	0	0	0	15403.0	1158.0
Subtotal	0	333.8	7530.5	8760.0	6508.2	19625.9	1158.0
Total	1101.7	13266.7	62932.5	40227.9	20884.0	28691.0	3933.1

Source: CDR

Table A 4. Unit costs supported by the public budget (grants not included) (LBP millions)

	Total	Number of pupils (1995/96)	Unit cost (recurrent)	Unit cost (8% capital included)
Budget total 1998	446,000	n.a.	n.a.	n.a.
Primary/junior secondary	285,000	222,046	1.283	1.385
Senior secondary	72,500	31,439	2.306	2.490
Subsidies (private sch.)	20,000	84,045	0.237	0.256
Not allocated by level	68,000	253,485	0.268	0.289

Table A 5. Unit costs (gross) supported by families (LBP millions)

Sector	1996 survey (unpublished)	1997 (adjusted: x coeff 1.1)
Public	0.484	0.532
Private, subsidized	0.680	0.748
Private, unsubsidized (primary)	1.600	1.760
Private, unsubsidized (secondary)	1.950	2.145

Table A 6. Proportion of repeaters by type and by level of education, 1995-96

	Public	Subsidized	Private
Primary	28.0	12.3	5.2
Junior secondary	23.9	n.a.	7.9
Senior secondary	17.6	n.a.	5.2

Source: El Hachem, 1998

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