

ANALYSIS OF LEBANON'S EDUCATION SECTOR





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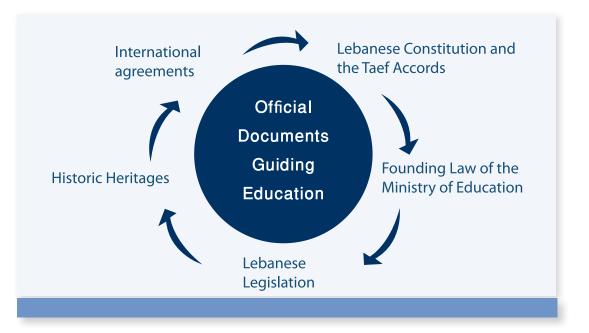
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LEBANON'S EDUCATION GUIDELINES

The Lebanese Constitution, through article 10, and the National Reconciliation Accord (Taef Agreement), through the Educational reforms, have recognized the importance of education and defined its general principles and guiding regulations. These guidelines stress the freedom of and the right to education as well as accessibility and equality in opportunities and requirements of education to all. The same principles have also been emphasized in international conventions that Lebanon abides by, including: Declaration of Human rights; the International Convention of Economic, Social, and Cultural Rights; and the International Agreement on the Rights of the Child.



Based on these documents, the guiding principles regarding the strategic approach to education in Lebanon can be summed as follows:

(1) Education is a process to build the future, and it constitutes the main tool for developing mankind;

(2) Education is the key engine for progress in all realms of life, contributing to sustainable development establishing a Society of Knowledge;

(3) Education must ensure the comprehensive development of the person and the respect of human rights and fundamental freedoms as well as reinforce the active participation of society;

(4) Education develops citizenship in its three dimensions: national identity recognition, civic participation, and human partnership.

Meanwhile, the principles regarding the rights and means to achieve education in Lebanon include:

- (1) The right and freedom to education;
- (2) Availability of education on the basis of equal opportunity;
 - o Public education available to all
 - o Care for learners with special needs
 - o Secondary education (general, vocational, and technical) equally available

(3) The close cooperation between the public and private systems (until reaching a partnership)

o Education in Lebanon is a dual system, where responsibilities are shared between the public and the private sectors.

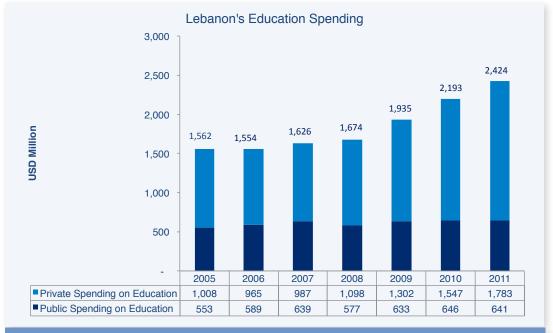
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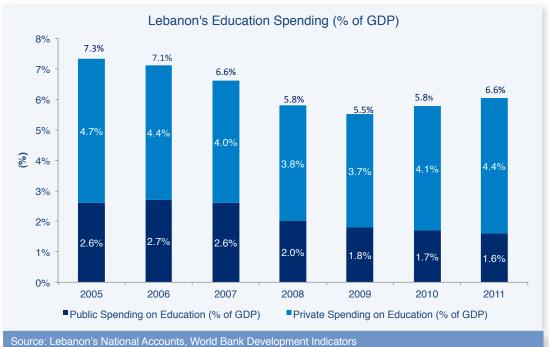
LEBANON'S EDUCATION EXPENDITURE

The education sector constitutes one of the main contributors to Lebanon's GDP. In fact, total expenditure on education has been consistently expanding, driven by increased awareness to the importance of education. By 2011, according to Lebanon's National Accounts, total expenditure on education reached USD 2,424 million. Public expenditures related to education were estimated at approximately USD 641 million, 1.6% of GDP. Meanwhile, spending on education by the private sector totaled USD 1,783 million, representing 4.4% of GDP. As such, the education sector has contributed to 6.6% of GDP during the year 2011.

Private spending on education is high and exceeds public spending by far. Household spending on education surpasses 10% of the household's total expenditure. This compensates for low government spending, but is contingent to families' ability to pay. Conversely, public expenditure on education is not only low, but also greatly depends on external donor funding.



Source: Lebanon's National Accounts, World Bank Development Indicators

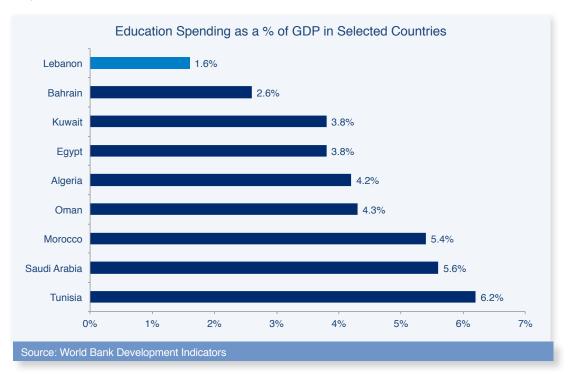


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LEBANON'S EDUCATION EXPENDITURE

When compared with other Arab countries, Lebanon's public expenditure on education is considered low. In fact, the government spent in 2012 an amount equivalent to 1.6% of GDP on education. This amount compares to 3.8% of GDP spent on education in each of Kuwait and Egypt, 5.4% spent in Oman, and 6.2% spent in Tunisia. This low amount can be justified by the fact that public resources are channeled indirectly to education in the form of employment benefits granted to government employees, who then spend these resources on private education.



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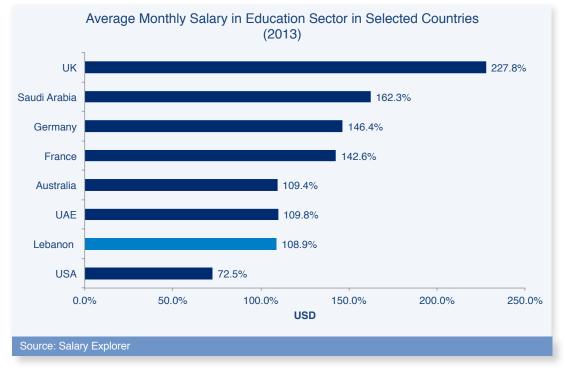


AVERAGE SALARIES IN EDUCATION SECTOR

The average monthly salary of teachers in Lebanon is considered competitive. While the average monthly salary of all jobs in Lebanon is estimated at about USD 2,100, the average monthly salary in the teaching profession is about USD 900. For instance, a chemistry teacher's average monthly salary is about USD 860, while the average monthly salary of a geography teacher is approximately USD 780.



Even when compared with education sector salary base regionally and internationally, Lebanon's education workforce is considered cheaper than its counterparts. For instance, the average yearly wage of a teacher in Lebanon is equivalent to about 108.9% of per capita GDP, compared to 146.4% of GDP in the Germany, 162.3% of GDP in Saudi Arabia, and 227.8% of GDP in UK.



ENROLLMENT RATE

Despite the fact that the educational system's learning outcomes are high, pre-primary and secondary school enrollment rates are relatively low and alarmingly declining. This can be attributed to the inaccessibility of quality education to low-income households as well as to low public expenditure on education. This has resulted in a gap in education between low-income and high-income households. Furthermore, it has led to the entrance of low-skilled workers into Lebanon's labor market, resulting in the necessity to establish low value-added jobs.

Gross enrollment rate is defined as the number of children enrolled in a level of education, regardless of age, divided by the population of the age group that officially corresponds to the same level. Gross enrollment rate in pre-primary education has increased over the period 2007-2012 to reach 91.1% in 2012. Given that the rate is lower than unity indicates that there remains children not enrolled in pre-primary education at the official age. On the other hand, gross enrollment rate in primary education recorded 106% in 2012. This shows that the enrollment rate of children increases naturally with age, given that the behavior of households raises pressure for enrolling children when they turn 4 years old rather than at 3 years of age. Further, this discrepancy can be attributed to the fact the pre-primary education is not available in public schools, hence making enrollment in pre-primary school low.

Meanwhile, gross enrollment rate at intermediate school has slightly improved over the period 2007-2012, reaching 86.3% in 2012. On the other hand, gross enrollment rate at upper secondary school deteriorated during the abovementioned period to reach 62.6% in 2012.

Gross Enrollment Rate by Level of Education										
	2007	2008	2009	2010	2011	2012				
Pre-Primary Education	74.1%	75.3%	78.5%	82.5%	84.9%	91.1%				
Primary Education	101.5%	101.4%	102.4%	103.4%	103.7%	106.6%				
Intermediate Education	83.9%	83.0%	84.9%	85.2%	85.9%	86.3%				
Secondary Education	68.1%	67.5%	67.6%	64.0%	66.8%	62.6%				

Source: UNESCO Institute of Statistics

Net enrollment rate is defined as the number of children enrolled in a level of education excluding late starters and grade repeaters, divided by the population of the age group that officially corresponds to the same level. The net enrollment rate in primary education recorded 93.3% in 2012. This signals that almost 7 in 100 children may remain uneducated for several decades into the future. In fact, Lebanon's large pool of unskilled workers has had its origin in missing early education.

Furthermore, it can be observed that the gap between gross enrollment rate and net enrollment rate increases with the level of education. For instance, the gap is limited for pre-primary education, with the difference between the two enrollment measures at 3.3%. Meanwhile, this gap increases in intermediate education with gross enrollment rate exceeding net enrollment rate by 19%. These differences reflect that repetition rate – whether due to failure, educational disability, or retention – increases as students move to higher education levels.

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When compared with other countries in the region, Lebanon's gross and net enrollment rates are considered low. For instance, net enrollment in secondary education reaches 96% in Qatar, 87% in Jordan, 88% in China, and 109% in France.

Net Enrollment Rate by Level of Education										
	2007	2008	2009	2010	2011	2012				
Pre-Primary Education	71.5%	72.5%	75.8%	79.7%	81.9%	87.8%				
Primary Education	88.4%	88.6%	89.4%	90.7%	91.3%	93.3%				
Intermediate Education	64.7%	64.4%	65.8%	66.6%	67.0%	67.3%				
Secondary Education	54.6%	54.0%	55.5%	55.9%	54.3%	57.3%				

Source: UNESCO Institute of Statistics

Lebanon also faces the challenge of over-aged and under-aged students enrolled in primary and secondary education levels. Despite the fact the over-age enrollment rate in primary education has declined over the past years, it is still as high at 7.9%. As for the issue of under-age enrollment in primary and secondary education, this rate has increased in the past years, reaching 4.2% for primary education and 2.1% for secondary education in 2012. This signals that an expanding number of children are getting enrolled in school at an early age.

Over-age and Under-age Gross Enrollment Rate by Level of Education									
	2007	2008	2009	2010	2011	2012			
Over-age in Primary Education	9.3%	9.2%	9.3%	8.8%	8.3%	7.9%			
Under-age in Primary Education	3.7%	3.6%	3.6%	4.0%	4.1%	4.2%			
Under-age in Secondary Education	0.8%	0.9%	0.8%	1.3%	1.8%	2.1%			

Source: UNESCO Institute of Statistics

STUDENTS

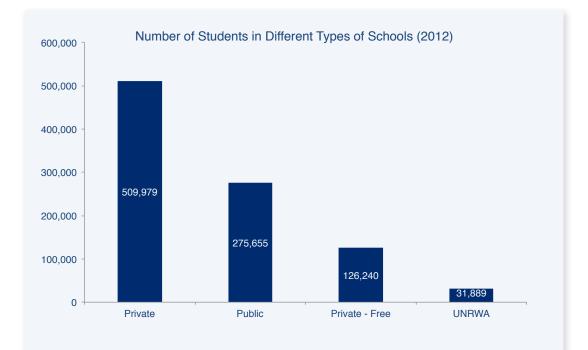
DISTRIBUTION BY EDUCATION LEVEL AND GENDER

The Lebanese educational system accommodated, in the academic year 2011-2012, 943,763 students for general education. Of these students, the largest portion (456,206 students) were enrolled in primary education, followed by 204,547 students enrolled in intermediate education. When it comes to the distribution of students by gender, it can be observed that at early stages of education, the proportion of males and females are approximately equivalent. Meanwhile, female students exceed male students in higher education levels. For instance, in intermediate education, females constitute 52.3% of total enrolled students in that level while males constitute 47.7%. The disparity is even higher in secondary education where females account for 55.8% of total students enrolled in that level while males account for 44.2%.

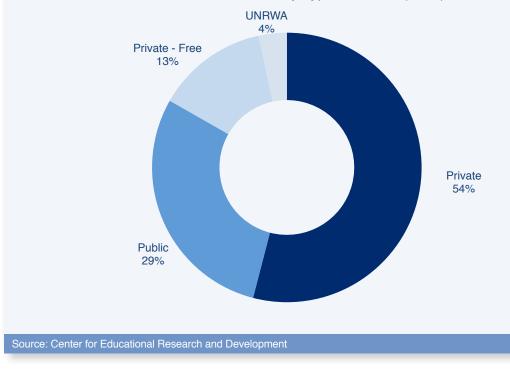
Distribution of Students by Education Level (2012)								
	Total Students	% of Males	% of Females					
Pre-Primary Education	158,873	51.6%	48.4%					
Primary Education	456,206	51.7%	48.3%					
Intermediate Education	204,547	47.7%	52.3%					
Secondary Education	124,137	44.2%	55.8%					
Total	943,763							



Most of these students are enrolled in private schools (54% of total). This compares to a previous share of 49% for private schools, hence indicating an expanding role of the private sector in education. This signals the important role played by the private sector in education, given the limited resources available for public education. In fact, only about 29% of total students are enrolled in public schools. They are followed by a 13% proportion of students, who are enrolled in private-free schools (a number of private schools at pre-primary and primary levels are free, i.e. subsidized by the public or private sectors). Furthermore, UNRWA schools accommodate about 4% of total school students in Lebanon.



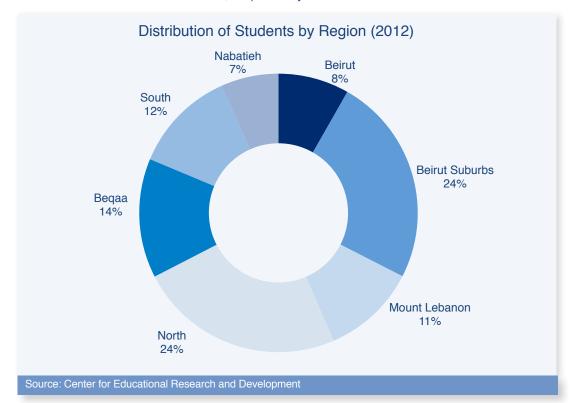
Distribution of Students by Type of School (2012)





DISTRIBUTION BY REGION

The regional distribution of enrolled students shows that Beirut suburbs accommodate the highest 24% proportion of students . Similarly, 24% of total enrolled students in Lebanon are located in the North region. It is followed by Beqaa region where 14% of students are enrolled there. Each of Mount Lebanon region and South region account for about 12% of total enrolled students. Meanwhile, Beirut and Nabatieh regions accommodate 8% and 7% of total school students in Lebanon, respectively.



In Beirut, the majority students are enrolled in private schools (68%) while about one-fifth of students are enrolled in public schools. The case in similar in Beirut suburbs and Mount Lebanon region where private schools accommodate 76% and 66% of total students, respectively. In each of the Beqaa, the South, and Nabatieh regions, private school enrollment still dominates public school enrollment, but the difference is less acute. In particular, 43% of students in Beqaa are enrolled in private schools while 31% of them are enrolled in public schools. Private free schools also play an important role in Beqaa, accommodate 13% of students in that region, most of whom are of the Palestinian nationality. Meanwhile, public schools are dominant in the North with a share of total enrollment reaching 44%, compared to 39% share for private schools.

Distribution of Students by Region and School Type (2012)									
	Total Students	% in Private	% in Public	% in Private- Free	% in UNRWA				
Beirut	77,793	68%	22%	6%	4%				
Beirut Suburbs	229,108	76%	13%	11%	1%				
Mount Lebanon	103,660	66%	24%	8%	1%				
North	225,891	39%	44%	13%	4%				
Begaa	130,891	43%	31%	25%	1%				
South	113,222	39%	35%	12%	13%				
Nabatieh	63,198	41%	37%	21%	2%				



DISTRIBUTION BY NATIONALITY

While 91% of students enrolled in schools are Lebanese, students with several other nationalities, especially Palestinians and Syrians, have been on the rise in the past years. While more than half of Lebanese students are enrolled in private schools, only one-third are enrolled in public schools. With respect to other nationalities, the majority of Syrian students are enrolled in public schools (70%), while Palestinian students are mostly (69%) enrolled in UNRWA schools.

Distribution of Students by Nationality and School Type (2012)									
	Total Students	% in Private	% in Public	% in Private- Free	% in UNRWA				
Lebanese	861,956	57%	29%	14%	0%				
Syria	27,234	17%	70%	12%	1%				
Palestinian	43,469	16%	11%	4%	69%				
Other Arabs	4,964	48%	38%	12%	2%				
Non-Arabs	4,827	89%	8%	3%	0%				
Unspecified	1,313	18%	74%	7%	1%				

Source: Center for Educational Research and Development

SCHOOLS

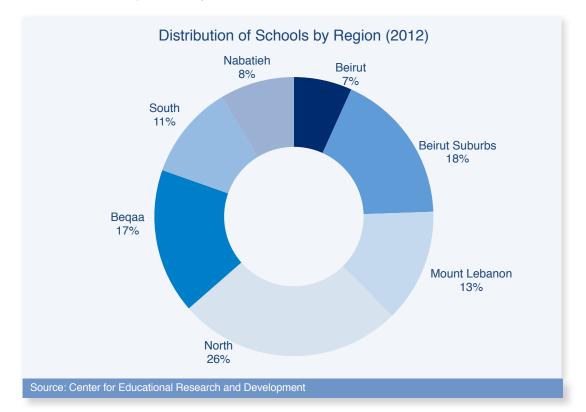
DISTRIBUTION BY REGION

During the academic year 2011-2012, Lebanon's educational system encompassed 2,786 schools for general education. Of these schools, the largest portion (1,282 schools) were public schools, followed by 1,077 private schools. More than half of public schools are intermediate schools, i.e. they provide education up to intermediate level only. Meanwhile, 20% of these public schools provide secondary education. In contrast, almost half of private schools cover all educational levels up to secondary levels while 40% of them only provide education up to intermediate level. As for the 69 UNRWA schools, 50.7% of them are intermediate schools while 13% are secondary schools. This highlights the importance of the private sector in secondary education and signals that the gap in accessibility to education level.

Distribution of Schools by Type and Education Level (2012)								
	Total Schools	% Primary Schools	% Intermediate Schools	% Secondary Schools				
Public	1,282	15.5%	60.5%	20.0%				
Private	1,077	8.4%	39.5%	49.0%				
Private-Free	358	100.0%	0.0%	0.0%				
UNRWA	69	36.2%	50.7%	13.0%				
Total	2,786							



The regional distribution of schools reveals that the North region encompasses the highest 26% proportion of schools. It is followed by Beirut suburbs, which contain 18% of total schools in Lebanon. Third comes the Beqaa region with 17% share of total schools. Meanwhile, Mount Lebanon and the South regions account for 13% and 11% of total schools, respectively. As for Beirut, it encompasses only 8% of total schools in Lebanon.



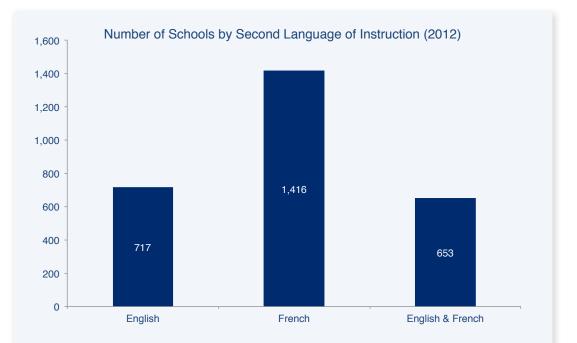
In Beirut, almost 53% of the schools are private while about 35% are public. The situation is similar in Beirut suburbs, where private schools account for 64% of total schools in that region. In each of the Beqaa, the South, and Nabatieh regions public schools dominate the picture. In particular, 49%, 50%, and 54% of schools are public schools in the Beqaa, the South, and Nabatieh regions, respectively. Private free schools are mostly found in the Beqaa region (19%), Nabatieh region (16%), and Beirut suburbs (14%). As for UNRWA schools, they constitute 10% share of schools in the South region and 3% of schools in Beirut.

Distribution of Schools by Region and School Type (2012)										
	Total Schools	% Private	% Public	% Private- Free	% UNRWA					
Beirut	188	53%	35%	9%	3%					
Beirut Suburbs	493	64%	21%	14%	1%					
Mount Lebanon	366	43%	47%	10%	1%					
North	724	27%	59%	11%	2%					
Beqaa	469	31%	49%	19%	1%					
South	305	29%	50%	10%	10%					
Nabatieh	241	30%	54%	16%	0%					

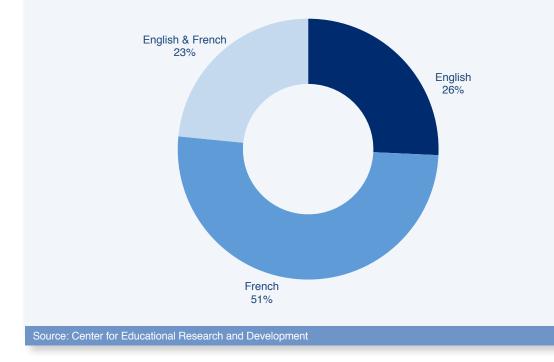


DISTRIBUTION BY LANGUAGE OF INSTRUCTION

More than half of schools in Lebanon use French as the second language of instruction. This is due to the fact that French was an official language in Lebanon until 1941 and the main dialect spoken back then. Meanwhile, about 26% of total schools use English as the second language of instruction. They are followed by a 23% proportion of schools, which use both English and French as second languages of instruction.



Distribution of Schools by Second Language of Instruction (2012)

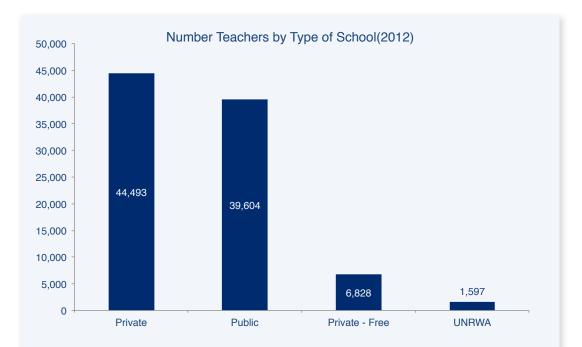


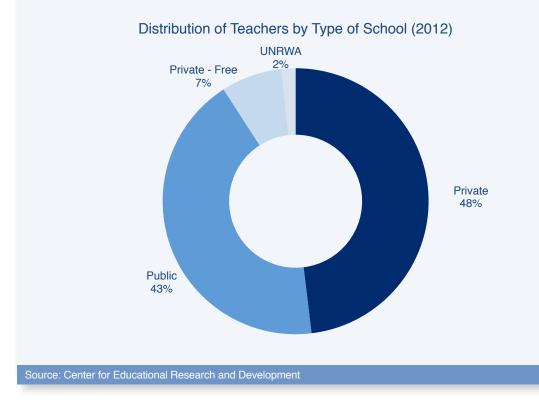


TEACHERS

DISTRIBUTION BY SCHOOL TYPE

During the academic year 2011-2012, 92,522 teachers have been employed in Lebanon's general education sector. Of these teachers, 48% (44,493 teachers) were employed in private schools while 43% (39,604 teachers) were employed in public ones. Furthermore, 7% (6,828 teachers) of total primary and secondary teachers in Lebanon are employed in private free schools, while 2% are employed in UNRWA schools.







DISTRIBUTION BY EDUCATIONAL LEVEL

When it comes to the distribution of primary and secondary teachers in Lebanon by the highest degree earned, it is noted that about 48% of these teachers hold a Bachelor's degree. Additionally, teachers holding a Master's degree constitute 6%, while those holding a Doctoral degree account for 1% of total primary and secondary teachers. Moreover, a significant 26% share of teachers hold only a school degree. Meanwhile, 10% of the teachers hold an education diploma, and 8% hold a technical and vocational degree. This highlights the fact that the qualifications and criteria for teaching positions range from one school to another, thus lacking a coherent structure and regulation. In fact, some schools require a degree in the field of education or a subject matter along with a teaching diploma; other schools base their selection on the teacher's contribution to the students' achievements in governmental exams; still other schools just require a university degree.

Distribution of Teacher	e .e.y :g. :eet = e.g. e	,
	Total Teachers	% of Total
octoral Degree	442	1%
ngineering Degree	312	0.4%
aster's Degree	5,434	6%
achelor's Degree	40,473	48%
ducation Diploma	8,579	10%
chool Degree	22,269	26%
echnical and Vocational Degree	6,847	8%
ther	437	1%

Source: Center for Educational Research and Development

STUDENT-TEACHER RATIO

Student-teacher ratio is the number of students, who attend a school divided by the number of teachers in the institution. This ratio for primary-education have been fluctuating over the period 2007-2012, reaching 15.6 in 2012. This indicates that there is one teacher for every 16 students in pre-primary school. The student-teacher ratio declines gradually at higher education levels. For instance, the aforementioned ratio recorded 11.1 for intermediate level, shows that the average class size is approximately 11 students. As for secondary level, the students enjoy a student-teacher ratio of 7.7. It is noteworthy that smaller classes are usually perceived as allowing teachers to focus more on the needs of individual students and reducing the amount of class time needed to deal with disruptions. As such, Lebanon performs well on the student-teacher ratio when compared to countries in the region. For instance, each of Egypt, Qatar , and Kuwait have a higher student-teacher ratio for secondary education of 12.1, 9.7 and 8.2, respectively.

	Student-Teacher Ratio								
	2007	2008	2009	2010	2011	2012			
Pre-Primary Education	15.8	15.8	16.1	15.8	15.2	15.6			
Primary Education	14.3	14.2	13.9	14.1	14.2	14.3			
Intermediate Education Secondary Education	10.9 7.6	10.8 7.8	10.7 7.7	10.9 7.8	10.9 7.3	11.1 7.7			

Source: UNESCO Institute of Statistics

It is also important to note that the ratio is calculated by dividing the number of students over the number of teachers, which increases in the higher grade levels due to subject specialization. This explains why the ratio is the lowest in the secondary level.



PERFORMANCE RATES

Lebanon has made significant progress in achieving higher rates of enrollment in primary, intermediate, and secondary education. Similarly, repetition rates – the percentage of students repeating a grade out of total enrolled students in that grade – has also witnessed improvements in the past years. Specifically, the repetition rate in primary education dropped from 9.2% in 2007 to 8.2% in 2012. Meanwhile, the repetition rate in intermediate education fell from 12.5% in 2007 to 11.7% in 2012.

On the other hand, drop-out rate – the percentage of students leaving school at a certain grade out of total enrolled students in that grade – has improved for primary education but deteriorated for intermediate education. During 2012, Lebanon's drop-out rate reached 6.7% in the primary education level and 17.3% in intermediate education level. This shows that the drop-out phenomenon in Lebanon is considered a serious challenge to the country's education system.

In fact, several factors have contributed to the high drop-out rate in Lebanon:

(1) Quality of education: violence committed against students by the teacher, harshness of the administrative system in some schools, and teacher's incompetence when the dealing with delayed students;

(2) Delay and failure: delayed students have no desire to learn;

(3) Tuition increase in private schools in comparison with the minimum wages, which results in higher school drop-out in households with limited income.

	Repetiti	on Rates	6			
	2007	2008	2009	2010	2011	2012
Repetition Rate in Primary Education	9.2%	8.7%	8.9%	8.0%	9.1%	8.2%
Repetition Rate in Intermediate Education	12.5%	12.3%	12.5%	12.3%	12.9%	11.7%
	Drop-o	ut Rates				
	2007	2008	2009	2010	2011	2012
Drop-out Rate in Primary Education Drop-out Rate in Intermediate Education	12.2%	5.5%	10.7%	8.2%	9.5%	6.7%
	17.0%	19.9%	14.9%	20.0%	18.5%	17.3%

Source: UNESCO Institute of Statistics

In order to better assess the quality of education in Lebanon, the TIMSS scores achieved by Lebanese students are compared to those achieved by students from other countries in the region. The TIMSS focuses on policies and educational systems through the assessment of academic achievement, hence provides input to help improve teaching and learning of mathematics and science. The test is conducted every four years under the auspices of the International Association for the Evaluation of Educational Achievement (IEA).



In 2011, Lebanon ranked 25th among 63 countries in the classification of the results of mathematics and ranked 39th in the results of science. Furthermore, Lebanon's score on mathematics (452 points) and science (406 points) was below the international average of 500 points for both subjects, yet improving from 2007 scores of 449 points in mathematics and 404 points in sciences. Regionally, Lebanon came in 2nd place in mathematics results, right after UAE, which ranked first in the region. As for science results, Lebanon came in 10th position in the region, which highlights that the country still lags behind in school science education.

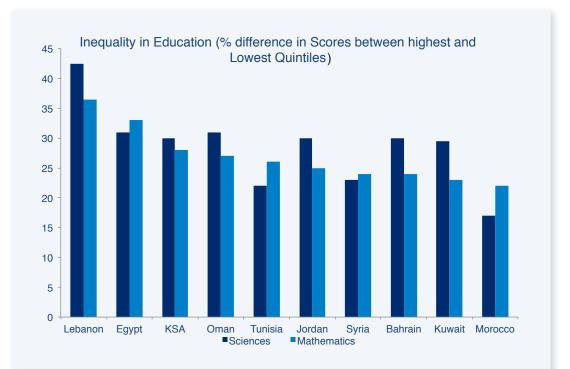
	Rank	Average Score	
UAE	23	456	
Lebanon	25	452	
Tunisia	30	425	
Qatar	33	410	
Bahrain	34	409	
Jordan	35	406	
Palestine	36	404	
Saudi Arabia	37	394	
Syria	39	380	
Morocco	40	371	
Oman	41	366	

Source: TIMSS 2011

	Rank	Average Score	
AE	24	465	
ahrain	26	452	
ordan	28	449	
inisia	29	439	
audi Arabia	31	436	
/ria	33	426	
alestine	34	420	
man	36	420	
atar	37	419	
ebanon	39	406	
orocco	41	376	



The average acceptable performance of Lebanese students, especially in mathematics masks a significant shortcoming: there is a remarkable gap in learning outcomes between students from different schools (private versus public). In fact, the percentage difference in scores between students of the lowest and highest quintile shows that Lebanon exhibits the widest gap among Arab countries in education.



Source: Djavad Salehi-Isfahani et al, "Equality of Opportunity in Education in the Middle East and North Africa," Economic Research Forum, Cairo (2012).

VOCATIONAL AND TECHNICAL EDUCATION

Lebanon's vocational and technical education sector has expanded over the years to encompass an increasing number of students. The sector, which is supervised by The Directorate General of Technical and Vocational Education, is one of the Directorate Generals of the Ministry of Education and Higher Education in Lebanon. Compared to many countries in the world, the vocational and technical education in Lebanon is carried out by both the public and private sectors separately. However, the private sector contributes to almost 75% of this education. This sector is comprised of two separate areas: vocational training and technical education.

Vocational training is related to manual trades where technological development does not implicate extensive general knowledge. There are three different branches of vocational education, which can lead to the following three certificates:

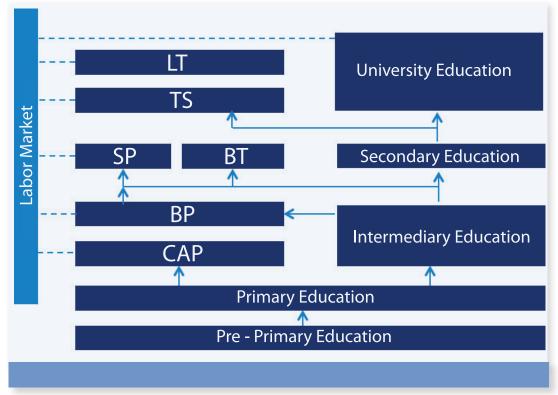
- Vocational Training Certificate (Certificat d'Aptitude Professionnel CAP);
- Vocational Certificate (Brevet Professionnel BP);
- Advanced Vocational Training (Secondaire Professionnel SP).

Technical education is related to trades, which require high scientific and technological skills, and hence necessitates more extensive general education. There are three different branches of technical education, which can lead to the following three certificates:

- Technical Baccalaureate Diploma (Baccalauréat Technique BT);
- Higher Technicians' Certificate (Diplôme de Technicien Supérieur TS);
- Technical Diploma (Licence Technique LT).

As such, there are three types of establishment offering these certificates:

- Training centers: offering training to the CAP and BP certificates;
- Technical schools: preparing for SP and BT certificates;
- Technical colleges: preparing for the TS and LT certificates.





VOCATIONAL AND TECHNICAL EDUCATION

VOCATIONAL AND TECHNICAL STUDENTS

DISTRIBUTION BY GENDER

The Lebanese educational system accommodated, in the academic year 2011-2012, 76,157 students for vocational and technical education. Of these students, the largest portion (42,529 students) were enrolled in BT certificate, followed by 17,862 students enrolled in TS certificate. When it comes to the distribution of students by gender, it can be observed that in vocational education, the proportion of males exceeds the proportion of females by far. This is mainly due to the fact that most majors in vocational education are male-oriented. Meanwhile, female students exceed male students in higher technical degrees like TS and LT certificates. For instance, in the LT certificate, females constitute 51.7% of total enrolled students in that level while males constitute 48.3%. The disparity is even higher in TS certificate where females account for 57.8% of total students enrolled in that level, while males account for the remaining 42.2%.

Distribution of Students by Education Level (2012)				
	Total Students	% of Males	% of Females	
CAP	759	86.7%	13.3%	
BP	10,691	67.5%	32.5%	
SP	2,188	93.6%	6.4%	
BT	42,529	55.4%	44.6%	
TS	17,862	42.2%	57.8%	
LT	2,128	48.3%	51.7%	
Total	76,157			

Source: Center for Educational Research and Development

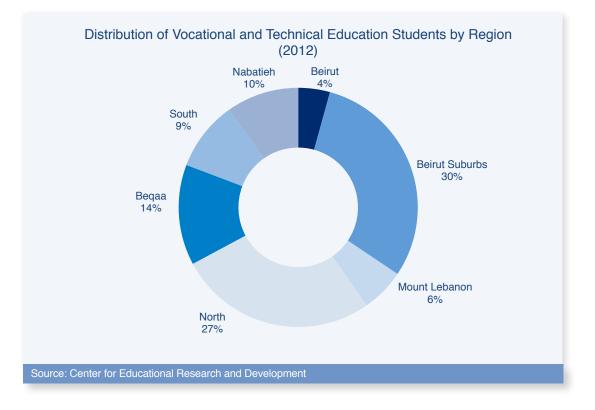
DISTRIBUTION BY REGION

The regional distribution of students enrolled in vocational and technical education shows that Beirut Suburbs accommodate the highest 30% proportion of students . Similarly, 27% of total enrolled students in Lebanon are located in the North region. It is followed by the Beqaa region where 14% of students are enrolled there. Meanwhile, the South and Mount Lebanon regions account for about 9% and 6% of total enrolled students, respectively. As for Beirut, it accommodates the lowest 4% share of students in vocational and technical education.

Distribution of Students by Region and School Type (2012)		
	Total Students	
Beirut	3,262	
Beirut Suburbs	22,925	
Mount Lebanon	4,482	
North	20,453	
Beqaa	10,354	
South	7,190	
Nabatieh	7,446	



VOCATIONAL AND TECHNICAL EDUCATION



SUCCESS RATE

In order to assess the quality of vocational and technical education in Lebanon, the success rate in these certificates is considered. It is noted that the highest success rate is achieved in the CAP and BP certificates, where about 91% and 81% of candidates passed official exams in 2012, respectively. Meanwhile, more advanced certificated had much lower success rates. For instance, only 49% of candidates for BT certificate passed official exams, while 42% achieved the LT certificate.

Success Rate in Vocational and Technical Education (2012)			
	Total Candidates	Success Rate	
CAP	270	91.1%	
BP	3,607	80.9%	
SP	383	71.3%	
BT	14,619	48.7%	
TS	5,633	54.4%	
LT	1,822	41.9%	

Lebanon has the oldest universities in the region, dating back to 1866 when the American University of Beirut (AUB), formerly named the Syrian Evangelical College, was founded. It was followed by the University of Saint Joseph (USJ), which was established in 1875, then the Lebanese American University (LAU), which was founded in 1948 and was known as Beirut University College until 1996. The Lebanese University (LU), which is the sole public university in Lebanon was founded in 1951, followed by Haigazian University in 1955, and the Beirut Arab University (BAU) in 1960 as a result of collaboration with the Egyptian University of Alexandria.

Today, Lebanon encompasses 42 higher education institutions, most of which were legalized in the 1990s, when the education system in the country rapidly expanded following 15 years of civil war over the period 1975-1990. Lebanon's higher education system's freedom and independence are protected by the constitution. The system operates under the supervision of the Directorate General for Higher Education, which is responsible for licensing and validating the degrees and disciplines offered by the institutions.

Higher education institutions in Lebanon can be classified as follows:

• Universities: they must include at least three faculties, one of which should be for human sciences and another should be for general sciences. Universities can grant all degrees, from Bachelor's degrees to doctoral studies;

• University Colleges: a university college or university institute of technology must have at least one faculty. University colleges usually deliver Bachelor's degrees, while a few can grant higher degrees.

Among the 42 higher education institutions operating in Lebanon, there are 32 universities, seven university colleges, and three university colleges for religious studies.

These institutions offer about 160 programs, which lead to several qualifications. The first degree granted in higher education is a Bachelor's degree, which is obtained following three years of study after secondary school. Afterwards, students need at least two additional years of study to obtain a Master's degree. Alternatively, the higher education institutions grant a teaching diploma which can be obtained after four years of study following secondary school. A Master's graduate can get a Ph.D. degree after at least three years of study. Meanwhile, the years of study required for medical sciences and engineering vary between four or five years for a degree in engineering, six or seven for a Medicine Diploma, five or six years for a degree in dentistry or pharmacy, and four or five years for a Bachelor in Physiotherapy.

ENROLLMENT RATE

Enrollment in a higher education institution in Lebanon remains low despite the high quality of education granted. This is attributed to the limited availability of public higher education, with only one public university in the country. Additionally, the rising tuition fees in private universities have negatively affected the affordability of higher education to low-income households. Gross enrollment rate in higher education is defined as the number of students enrolled in universities, regardless of age, divided by the population of the age group that officially corresponds to higher education level. Gross enrollment rate in higher education in Lebanon has almost remained stable over the past years, recording 46.3% in 2012. When compared with other countries, Lebanon's higher education enrollment rate is considered low. For instance, Australia, Germany, France have net enrollment rates of 89%, 61% and 59% in higher education. While this low rate is attributed in part to the unaffordability of higher education to all income groups, it can be also due to the fact that it has become increasingly popular for students at the age of higher education to enroll in vocational and technical education, which guarantees a sooner entrance to the labor market than higher education.

2007	2008	2009	2010	2011	2012
46.7%	48.3%	48.2%	47.8%	49.7%	46.3%



HIGHER EDUCATION STUDENTS

DISTRIBUTION BY UNIVERSITY

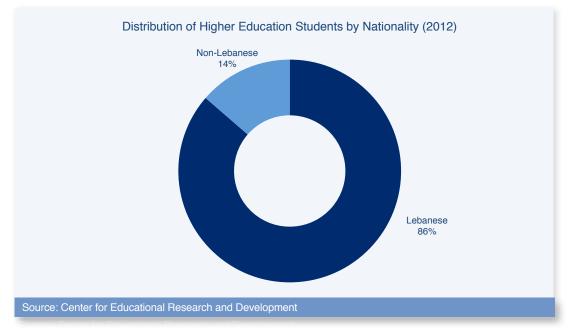
The Lebanese educational system accommodated, in the academic year 2011-2012, 192,522 students for higher education. Of these students, the largest 38.3% portion (73,698 students) were enrolled in the Lebanese University (LU), followed by 8.7% of students enrolled in Lebanese International University (LIU). Third came the Beirut Arab University (BAU) which accounts for around 6% of students in higher education, followed by Université Saint-Joseph (USJ) with around 5% share. Meanwhile, each of the American University of Beirut (AUB) and Université Saint-Esprit De Kaslik (USEK) accommodated about 4% of students.

	Total Students	% of Total
Lebanese University (LU)	73,698	38.3%
Lebanese International University (LIU)	16,721	8.7%
Beirut Arab University (BAU)	11,392	5.9%
Université Saint-Joseph (USJ)	9,362	4.9%
American University of Beirut (AUB)	7,826	4.1%
Université Saint-Esprit De Kaslik (USEK)	7,745	4.0%
Arts, Sciences and Technology University in Lebanon (AU	7,023	3.6%
Notre Dame University (NDU)	6,827	3.5%
Lebanese American University (LAU)	6,320	3.3%
American University of Science and Technology (AUST)	5,015	2.6%
University of Balamand	4,723	2.5%
American University of Culture and Education (AUCE)	4,425	2.3%
Others	31,445	16.3%
Total	192,522	

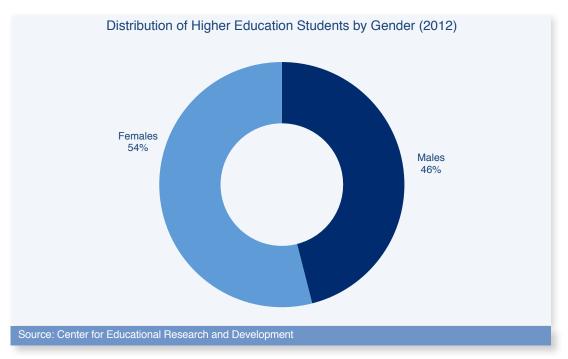
Source: Center for Educational Research and Development

DISTRIBUTION BY GENDER

When it comes to the distribution of students by gender, it can be observed that the proportion of females exceeds the proportion of males by eight percentage points, with females accounting for 54% of students and males constituting the remaining 46%. As for the nationality of students in higher education, the majority are Lebanese (86% share), while non-Lebanese account for 14% of students.







DISTRIBUTION BY MAJOR

During the academic year 2011-2012, almost 27% of students were enrolled in Business and Economics majors. Literature and Humanities (Language, Translation, History, Philosophy..) accounted for 14.8% of total students. Meanwhile 11.7% of students majored in Engineering (Architecture, Civil, Mechanical, Electrical, Agricultural, Interior, Landscape...) and 9.1% of students majored in Natural Sciences (Physics, Chemistry, Biology..) and Mathematics. Law major ranks sixth in popularity with a 5.5% of total higher education students, followed by Pharmacy, Nursing, and Laboratory (3.9%), as well as Media, Press, and Advertising (3.5%). Lastly comes Medicine, Education, and Teaching with 2.9% and 1.9% of total students, respectively.

Distribution of Higher Education Students by Major (2012)		
	Total Students	% of Total
Business and Economics	51,973	27.0%
Literature and Humanities	28,565	14.8%
Engineering	22,599	11.7%
Natural Sciences and Mathematics	17,486	9.1%
Computer and Information Technology	15,692	8.2%
Law	10,534	5.5%
Pharmacy, Nursing, and Laboratory	7,598	3.9%
Media, Press, and Advertising	6,827	3.5%
Medicine	5,531	2.9%
Education and Teaching	3,753	1.9%
Others	22,036	11.4%

Source: Center for Educational Research and Development

PROFESSORS

Academic Staff in higher education can be classified into five categories for top-notch universities:

• A full professor with a PhD degree, 10 years of experience and more than 10 publications;

• An associate professor with a PhD degree, five years of experience, and more than eight publications;



• An assistant professor with a PhD degree, three years of experience, and at least three publications;

- A lecturer with a PhD degree;
- An assistant's post may be occupied by a graduate student preparing a PhD degree.

During the academic year 2011-2012, 19,186 academic employees have been employed in Lebanon's higher education sector. Of these academic staff, 32.1% (6,153 teachers) were employed in Lebanese University (LU), while 10% (1,921 teachers) were employed in Lebanese International University (LIU). Furthermore, 9.5% (1,832 teachers) of total academic staff in higher education were employed in Université Saint-Joseph (USJ). Meanwhile, each of the University of Balamand and the American University of Beirut (AUB) employed about 6% of teachers. It is noteworthy that there is no national standard for selecting academic staff. It is a purely market-oriented process.

6,153	
-,	32.1%
1,921	10.0%
1,832	9.5%
1,132	5.9%
1,094	5.7%
833	4.3%
679	3.5%
610	3.2%
413	2.2%
299	1.6%
206	1.1%
4,014	20.9%
-	1,832 1,132 1,094 833 679 610 413 299 206

Source: Center for Educational Research and Development

In conclusion, the educational sector serves as a major contributor to the Lebanese GDP; yet it still faces major weaknesses and challenges. Students' achievement levels in Lebanon are low in comparison to those of their peers in other countries. Furthermore, enrollment rates in public schools are significantly declining given the widening gap in the level of achievement between public and private schools. In fact, low public schools' achievement is directly related to the teaching and administrative staff's low qualifications, as well as the mismatch between the teachers' qualifications and the needed requirements. Furthermore, the lack of a suitable learning and teaching environment (infrastructure and equipment) and the absence of clear laws and regulations which are required to facilitate educational development. Additionally, Lebanon faces high repetition and drop-out rates, thus negatively impacting economic growth due to low labor force qualifications given students are leaving school without proper educational attainment. As such, it is vital that Lebanon's education sector should be properly regulated within a clear strategy in order for this sector to play an important role in prompting the economy forward.

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