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Youth Employment in Lebanon: Skilled and Jobless

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Executive summary

Lebanon suffers from a high youth unemployment rate of 24%. This rate hinders economic growth and needs to be addressed in order to create a more prosperous economy and inclusive society. Two major culprits of youth unemployment are typically the educational system that affects labor supply on the one hand, and economic policies that affect labor demand on the other. With respect to the former, although the learning outcomes of Lebanese students are, on average, relatively high, the educational system is fraught with inequalities. Youths from poorer backgrounds have a lower completion rate of primary education, less access to private schools that produce higher quality education, much lower learning outcomes, and lower rates of university enrollment than students from more advantageous socioeconomic backgrounds. These inequalities are accentuated by public education spending rates that are much lower than those of private spending.

The failures on the labor supply side account for only part of the youth unemployment rate, as Lebanon still produces more educated job seekers than the domestic labor market needs. Many of the causes of youth unemployment can therefore be sought in the demand for skills by the private sector that depends on the structure of the economy. The economy remains locked in a low productivity and low-wage equilibrium due to macroeconomic uncertainty, poor governance (broadly defined to include corruption), and a weak public infrastructure that includes the high cost of an unreliable electricity supply. The presence of migrant workers depresses wages, makes them more attractive workers compared to Lebanese nationals and results in unwillingness among employers to pay higher wages or train new employees.

To reduce youth unemployment, this policy paper recommends a two-pronged approach. First, there is a need to reorganize and expand public expenditures on education to increase access to high-quality education for all Lebanese and to improve the linkages between education and employers, especially with their training system. Second, this must be complemented with policies that increase government accountability, reduce rent-seeking opportunities, and encourage high value-added activities by firms through fiscal policies, regulatory reforms, better infrastructure, and improved migration management.

Introduction

Compared to employers in other regions of the world, Arab employers complain most about lack of skills among the youth. At face value, this complaint could suggest that the education and training systems in the Arab world are faltering -an assertion that is repeated in many publications on the subject.[1] In turn, this is linked to the high youth unemployment rates in the Arab region, especially among the more educated youth.[2] If this is true, measures to reduce unemployment should focus on the labor supply side, for example, an increase in the quality of education and learning outcomes, making education more relevant to the needs of the modern labor market and changing the expectations of job seekers away from government employment that induces "queuing".

Although this is a well-articulated line of reasoning, it is not the only one. For example, it is possible that under conditions of low demand for skills arising from low productivity techniques chosen by employers (and resulting in low wages), youth have few incentives to invest in high quality education that is typically more expensive both in terms of fees and invested effort. This explanation focuses on labor demand. In order to assess which of these two competing explanations best pertains to the situation, one must examine each empirically. One explanation may prove more relevant at one point in time and the other at another point.

This paper examines questions of inequality and inefficiency among youth unemployment in Lebanon and its impact on the current labor market. Lebanese employers are indeed the most vocal in the Arab region with regards to complaints about skill shortages. Yet skilled Lebanese citizens are an abundant factor of production to the point that they constitute a significant export "commodity": Skilled emigration in Lebanon is among the highest in the world. To address this paradox, this paper examines labor supply (output from schools, vocational education, and universities); labor demand, as inferred from the economy's structure; and the institutional context of the labor market using existing studies, surveys, and publicly available data.

The paper argues that skills in Lebanon are not an important labor market constraint compared to structural impediments that affect the structure of production and the resulting labor demand. This assertion proves compatible with a number of facts. First, on the supply side, Lebanon produces more educated and potentially skilled workers than it can use locally -although this does not mean that access to education as well as the quality of education cannot be improved. This is evident from the low wage premiums that educated Lebanese face locally, as well as high unemployment rates, especially among educated women. Second, many of the well-educated and potentially skilled graduates

[1] See the results of enterprise surveys conducted by the World Bank; IMF (2010) MENA Regional Economic Outlook; ILO (2008), "Skills for employability of workers and productivity of enterprises in Arab States" presented at the Employment Forum on Development and Employment, Doha, November 15-16.

[2] Youth is defined as the period between childhood and adult age, typically between the age of 15 and 24 years.

emigrate for challenging and better jobs to high income and technologically developed countries, leaving the less well-educated to compete in the local labor market with migrant workers for low-paying jobs. Third, labor market governance remains weak by enabling (either intentionally or through inability) laissez-faire immigration of low-wage workers. Fourth, the structure of production in Lebanon is biased toward labor intensive, low-skill, and low-wage activities, which relates to the initial point above, namely that many Lebanese who can afford to pursue good-quality education eventually emigrate.

The paper concludes by offering recommendations both for transforming the Lebanese economy and improving the education system - irrespective of whether or not education and skills currently serve as a constraint in the labor market.

With respect to education, policies should aim to further improve the relatively good performance of Lebanese students by paying attention to the duality of the education system. More specifically, policies should aim to raise the education attainment of those in the "bottom half" by increasing their access to good quality education and keeping them in the system longer. In broad terms these policies should include (a) reallocation in the first instance of public expenditures on education toward areas that would benefit those in need rather than those who satisfy other criteria (for example, education allowances paid only to employees in the public sector); (b) increase in public spending on education that is low both by international and regional standards for a high middle income country like Lebanon; and (c) improvements in the linkages between the human development system and the skill requirements of the local economy through greater participation of employers in the management and financing of education and training.

On the economic front, policies should encourage high value added activities and reduce rent-seeking opportunities. Such policies range from macroeconomic ones (for example, fiscal policies involving effective public spending and fair revenue raising) to those affecting more directly individual sectors and firms (for example, availability, costs and reliability of electricity, and telecommunication services). In broad terms these policies include (a) improved governance, better regulatory frameworks and reduction of corruption; (b) effective provision of public goods including infrastructure, public transport, electricity, water, and telecommunications; and (c) management of immigration focusing on undocumented low-skilled workers.

This paper is divided into three sections. The first section assesses the labor supply by reviewing selective educational indicators. The second section examines labor demand and labor market outcomes and it benchmarks Lebanon against regional economies. The third section presents the key challenges and offers policy recommendations.

I The education system is fraught with inequalities

Although the learning outcomes of the educational system are, on average, relatively high compared to those of other Arab countries, there are significant challenges. These include low primary school enrollment and completion rates, which are related to the relative inaccessibility of quality education for poor families resulting from low public expenditures on education and regional inequalities. All of these lead to large gaps in learning outcomes and university enrollments between low- and high-income groups. These factors have contributed to creating a large number of uneducated and low-skilled workers, which consequently encourages employers to concentrate on low value-added activities. Low-skill immigration further exacerbates this problem.

a Enrollment and completion rates are low in primary education

Gross enrollment rates in primary education are nearly universal with no real gender gap (table 1 in the appendix). Completion rates of primary education are low (72%), though most who complete this level proceed to secondary level (97%, table 1). Consequently, secondary enrollment rates are lower than primary school rates, especially for boys, which results in girls outnumbering boys by a significant margin. Appendix table 1 conveys the regional and underlying income disparities that exist at the secondary level.[3]

Although the gross rates for the whole of Lebanon differ slightly from those reported in figure 1, the net rates suggest that about 8% of boys and 9% of girls of primary school age are not in school. The difference between gross and net rates indicates that there are many late starters and/or repeaters.

[3] According to one estimate, dropout rates are 18.9% at the elementary level, 22.8% at the intermediate level and 10.6% at the secondary level. "Country Analysis: Lebanon," European Training Foundation (2005), 11.

Figure 1 **Enrollment rates by gender, 2010**

Note **FG: Female Gross, FN: Female Net, MG: Male Gross, MN: Male Net**
Source **UNESCO Institute of Statistics Database: Tertiary includes ISCED 5 and 6 and applies to those aged 20 to 24 years.**

In fact, the completion rates for primary education are quite low, more so for boys (table 1), but it seems that even most of those who do complete primary education proceed to the secondary level. Still, the education system seems to leave 10 to 20% of children today ill equipped for achieving a productive future. International evidence shows that low-education (and child labor) correlates strongly to inter-generational transmission of poverty.[4]

[4] Zafiris Tzannatos et al., "Policy Options to Eradicate Child Labor and Promote Education in Latin America" in Child Labor and Education in Latin America: An Economic Perspective, ed. Peter F. Orazem, Guilherme Sedlacek and Zafiris Tzannatos (New York: Palgrave, 2010).

Table 1 **Primary school completion rate and transition rate to secondary education, 2009**

	Net primary school completion rate[1]	Transition rate to secondary education[2]
Girls	74.7	96.1
Boys	70.6	97.3
Total	72.4	96.7

Source **Central Administration of Statistics (2009).**

b The dominance of the private sector exacerbates regional differences and income disparities

As much as 60% of students in primary education are in private schools, 14% in NGO-managed schools, and the rest in government-run schools. Thus, the private sector plays a dominant role at the primary level. Although its share declines at successive levels of education, it remains a significant factor (table 2).

Table 2 **Number of students by education level, 2009**

Level	Public	Private	Private/Public (%)
Primary	125,945	335,774	267
Secondary	154,939	228,287	147
Tertiary	74,134	100,163	135

Source **Central Administration of Statistics (2009) and UNESCO Institute of Statistics Database.**

Unsurprisingly, regional differences relate to the public and private provision as well as family incomes. Students in Beirut are the most likely to attend private schools at the primary level (69%), compared to only 35% of students in North Lebanon. Among the latter, only 5% from poor families attend private schools, while the share of non-poor students in private schools (60%) is almost as high as that in Beirut. Nationwide, only 5% of students who come from poor families attend private schools, as opposed to 66% of students from wealthier families.

North Lebanon has the highest rate of students who drop out of school after they complete the elementary level (almost half of them at a rate of 43%). Some villages in Lebanon have dropout rates in excess of 65%.[5] The lowest enrollment rates in secondary education are in South Lebanon (on average 30%, but declines to only 14% for poor children).[6] Mount Lebanon has the highest enrollment rates in secondary schools (over 50%). Relatedly, illiteracy rates are highest in the Beqa` (15%), followed by South Lebanon (12%).

The above regional and income disparities affect repetition and completion rates. Out of 1,000 students who enter the first year of primary school, 75 ultimately earn their baccalaureate without repeating a year. This number is 161 for students living in Beirut, 40 for those living in North Lebanon, and 24 for those in the Beqa'. The number rises to 224 for students from middle class families and falls to 27 for students from disadvantaged families. Nationally, this number comes to only 9 for students in public schools and 225 for students in private schools.[7]

At face value, the above statistics demonstrate that public schools have failed to achieve general standards of quality. In addition, public schools in low-income areas and at the primary level prove especially inadequate. Lastly, in general, public schools are of a lower quality than private schools and often fail to effectively serve all children in disadvantaged regions.[8]

c Educational achievements mask wide inequalities

Overall, Lebanese students fare well in terms of educational achievements. For example, table 3 ranks the Arab countries that participated in the latest International Mathematics and Science Survey.[9] Lebanon scored close to the world average and ahead of all other Arab countries, including those with well-funded education systems like the GCC economies.

[5] "The Torino Process: Lebanon," European Training Foundation (2011), 11.http://www.etf.europa.eu/webatt.nsf/0/ACFE28256ED4AC41C125788D00339BF2/$file/Torino%20Proces s%20-%20 Lebanon.pdf

[6] Ibid., 10.

[7] Charbel Nahas, "Financing and Political Economy of Higher Education: The Case of Lebanon," Prospects Vol. 41 (2011): 71.

[8] Gabriella Gonzalez et al., "Facing Human Capital Challenges of the 21st Century: Education and Labour Market initiatives in Lebanon, Oman, Qatar and the United Arab Emirates," RAND - Qatar Policy Institute, (2008): 215.

[9] The Trends in International Mathematics and Science Study (TIMSS) is conducted by the International Association of Educational Achievement and compares student achievement in Mathematics and Sciences between participating countries (48 countries in 2007).

Table 3 **The International Mathematics and Science Survey 2007 assessment for grade 8 students**

Country	Rank*	Score
Chinese Taipei	1	598
International average		451
Lebanon	55	449
Jordan	61	427
Tunisia	63	420
Syria	73	395
Egypt	76	391
Oman	84	372
Kuwait	90	354
Saudi Arabia	94	329
Qatar (last)	100	307

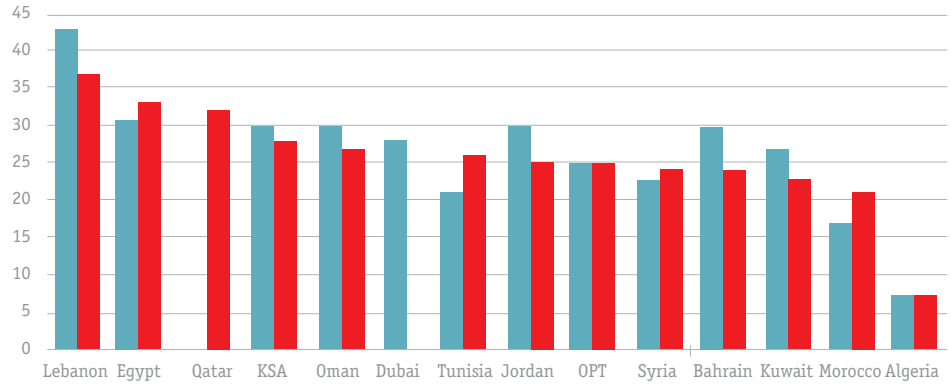
Source **TIMSS - Third International Mathematics and Science Survey (2007).**

* Percentage of participating countries scoring higher than the country in math tests

However, Lebanon's relatively good performance masks its shortcomings related to regional disparities. A substantial gap exists in the learning outcomes between students from well-off backgrounds (who presumably attend private schools) and their relatively less fortunate counterparts. Figure 2 shows the gap in achievement between children from families at the top 20% of the income distribution and those from the bottom 20%. Lebanon has the largest gap among all Arab countries in math and the second largest in science. This finding proves especially significant, considering that the Arab region remains an outlier to the rest of the world. For instance, the European average gap between rich and poor children is only about 16%, which includes the Nordic countries where the gap is barely 10%.[10]

[10] Djavad Salehi-Isfahani et al., "Equality of Opportunity in Education in the Middle East and North Africa" (paper presented at the Economic Research Forum, Cairo, 2012).

Figure 2 **Inequality in education outcomes is highest in Lebanon**
(% Difference in scores between students from the lowest and highest quintile, TIMSS, 2007)



Source **Salehi-Isfahani et al.,"Equality of Opportunity in Education in the Middle East and North Africa."**

d High student-teacher ratio but no teacher evaluation system

Lebanon has a relatively low number of students per teacher at 9:1.[11] In addition, the geographical distribution of teachers remains a concern, with significant shortages in certain areas. Furthermore, the quality of teachers is a concern in the public system, where as many as 54% do not hold a university degree and only 4% hold specialized degrees.[12] In the public system, 71% of teachers have an average age of 58. The remaining 29% are contracted teachers.

Moreover, a performance-based incentive system for evaluating teacher performance does not exist. There are neither laws nor a regulatory framework defining the mechanisms for contracting new teaching personnel. Thus, the quality of the teaching staff serves as one of the factors associated with high dropout rates.[13]

e Vocational education and training is highly fragmented

Vocational and technical education (VTE) falls under the purview of the Ministry of Education and Higher Education (MEHE) as a separate department since 2000, when the Ministry of Vocational Education was merged with the Ministry of Education. VTE caters to about 26% of the student population at the secondary level. There are 86 public VTE schools operating under the Vocational Education and Training Directorate (DGVTE) of the MEHE and 390 accredited private providers (partly for- profit and partly non-profit). There are also agricultural schools run by the Ministry of Agriculture as well as public technical programs at the Technical Institute of Tourism, the Technical Teachers Institute, the Industrial Technical Institute, and the Higher Institute for Marine Science. In addition, there is a training center and three mobile units operated by the Ministry of Labor and about 70

[11] Dima Sayess, "The State of Education Financing in Lebanon: Facts, Figures and Suggestions," Ministry of Education and Higher Education (Beirut, 2004). The Middle East and North Africa Region has an average of 17 students for every teacher while the world average is 24:1. "Education for Employment: Realizing Arab Youth Potential," International Finance Corporation (2011). http://www.e4earabyouth.com/downloads/IFCBook_A4_Online_Complete.pdf.

[12] "Quality Education for Growth: National Education Strategy Framework," Ministry of Education and Higher Education (2010).

[13] "The Torino Process: Lebanon," European Training Foundation (2011), 8.

community development centers run by the Ministry of Social Affairs. The formal VTE system comprised seven levels of qualifications, ranging from skilled workers (Certificat d'Aptitude Professionnelle) to higher technicians (Licence Technique).

Enrollment in technical and vocational education programs is around 100,000, of which 54% are in private programs. Private providers include for-profit schools and schools operated by non-profit NGOs with subsidies from the Lebanese government, or local or international donors. These institutes offer training in such areas as accounting, social work, and physical therapy. The national Employment Office, managed by the Ministry of Labor, operates on a very limited scale. One of its operations focuses on accelerated vocational training for job seekers by sub-contracting NGOs to provide short courses. However, no mechanism exists to ensure the quality of these courses and none are certified nationally.

The VTE sector in Lebanon faces several challenges. First and foremost, it is highly fragmented. Many ministries and private providers exist without any type of strategic vision or overarching mechanism for defining skills acquisition (see below on governance).[14] In addition, the VTE's relevance proves problematic. Those in public vocational training receive very limited and outdated competencies and practical experience. For instance, the dual system approach, which combines learning and on-the-job training to facilitate a smooth transition into the labor market, remains limited in Lebanon, compared to other countries.

Lastly, the VTE is a rigid system and does not facilitate open pathways for education in terms of linkages between the different levels. Those who complete vocational education have limited avenues for proceeding to higher education. As for those who drop out of school, the current system does not provide them with a "second chance." Informal vocational training in Lebanon usually consists of accelerated courses of varying complexities and entry levels provided by private organizations or NGOs. Completion of such training is acknowledged with a certificate that nevertheless has little public recognition. In summary, the mobility of people among different levels of the education system and within the labor market remains limited.

[14] It must be noted here that Lebanon is working towards a national qualifications framework with support from the European Training Foundation. Although it is in its early stages, the political commitment to this endeavor is in itself significant.

f The dominance of private universities perpetuates class divisions

Lebanon has long been considered a regional center for higher education, possessing a significant number of high quality private universities. Indeed, all but one university in Lebanon are private (table 4). Therefore, it is not surprising that Lebanon has the highest rate of first-degree university graduates in the Middle East.[15]

[15] Gonzalez et al., "Facing Human Capital Challenges of the 21st Century," 224.

Table 4 **Higher education enrollments, 2008/2009**

University	Males	Females	Total	% of Enrollments	% Foreigners
Lebanese University	25,816	48,318	74,134	43	8
Beirut Arab University	9,272	6,061	15,333	9	50
Lebanese International University	6,289	4,849	11,138	6	6
Université Saint-Joseph	3,575	6,056	9,631	6	4
American University of Beirut	3,635	3,629	7,264	4	18
Université Saint-Esprit Kaslik	3,215	3,682	6,897	4	1
Notre Dame University	3,689	2,183	5,872	3	4
Lebanese American University	2,749	2,453	5,202	3	18
Imam Ouzai Islamic Faculty	2,320	2,282	4,602	3	84
Islamic University of Lebanon	2,432	2,050	4,482	3	24
Arab Open University	2,711	1,308	4,019	2	4
Balamand University	1,848	1,698	3,546	2	6
Institute of Management and Computer Science (Hawaii)	1,925	791	2,716	2	13
AUST	1,569	1,056	2,625	2	6
Université de la Sagesse	1,430	1,077	2,507	1	1
Institut C&A Amercai University	1,306	794	2,100	1	14
Université Antonine	1,183	580	1,763	1	0
Jinan University	1,116	626	1,742	1	44
University Institute for Technology and Teaching	590	409	999	1	0
University Institute for Business and Sciences	536	460	996	1	16
Canadian Hariri University Group for Sciences and Tech.	657	302	959	1	4
Ecole Supérieure et Internationale de la Gestion des Affaires	502	303	805	0	0
American Institute University for Technology	389	271	660	0	0
University Center for Technology	445	192	637	0	1
Haikazian University	258	358	616	0	7
Daawa University Institute for Islamic Studies	379	155	534	0	63
Islamic University of Beirut	312	155	467	0	32
Tripoli Institute for Islamic Studies	154	192	346	0	40
Ecole Supérieure des Affaires	130	147	277	0	1
Saidoun Higher Institute for Dental Laboratories Technology	177	98	275	0	39
Inst. Supérieur Sainte-Famille (Infirmière/ Physiothérapie)	49	172	221	0	0
Manar University	130	81	211	0	2
Higher Education Institute for Physiotherapy	87	106	193	0	1
Makassed University in Beirut	87	99	186	0	12
Middle East University	88	46	134	0	34
Joya Technology University Institute	79	33	112	0	0
Saint-Paul Institute for Philosophy and Theology	62	18	80	0	51
Theology Faculty for the Middle East	10	6	16	0	63
Total	81,201	93,096	174,297	100	15

Source **Center of Research and Teaching Development.**

The only public university, the Lebanese University, caters to almost half of enrollments at university level (43%). As for basic education, there are regional disparities at the higher level. Beirut and Mount Lebanon have the highest enrollment rates, with 26% and 17%, respectively. As table 2 in the appendix displays, more than half of Lebanese students attend a post-secondary degree, which is more than double the average for other Arab countries. Additionally, the rate of enrollment for students from affluent families is more than double that of students from less privileged backgrounds.[16] The high costs of attending the private and more prestigious universities deter less affluent students from attending.

[16] "The Torino Process: Lebanon", European Training Foundation (2011).

Table 5 shows the distribution of graduates by field of study. The ratio of the number of graduates with degrees in social sciences, business, law and humanities combined to that of graduates with degrees in sciences and engineering is around 2:1. This ratio reflects the unbalanced composition of the Lebanese economy (see section 2).

In terms of prospects, there are concerns over Lebanon's ability to maintain its regional reputation and maintain the quality of its higher education system. Governmental agendas often focus on requiring more quality assurance mechanisms within the education system. Although the reform of the Lebanese higher education system has begun, the process is far from complete.

Table 5 **Graduates by specialization and gender, 2000-2010**

Total	2000	2005	2010
Education	297	1,158	1,680
Humanities and arts	1,904	4,108	4,015
Social sciences, business, and law	7,151	11,353	15,841
Science	1,201	2,059	4,096
Engineering	1,797	3,294	4,540
Agriculture	125	100	150
Health and welfare	1,669	2,890	4,045
Services	249	738	236
Total	14,393	25,700	34,608
Percent of FEMALES			
Education	91.2	91.6	89.0
Humanities and arts	66.0	71.7	71.4
Social sciences, business, and law	51.8	52.6	52.3
Science	43.0	45.2	62.1
Engineering	24.2	19.2	25.6
Agriculture	47.2	43.0	62.7
Health and welfare	59.4	67.1	67.1
Services	35.3	35.0	55.9
Total	50.9	53.6	55.7

Source **UNESCO Institute of Statistics Database.**

g Low public spending and high private spending accentuate inequalities

The Government provides funding for education both directly and indirectly. Direct spending pertains to the Ministry of Education and Higher Education and the Lebanese University, while indirect spending consists of educational allowances and transfers to support the operations of private schools and to cover the costs of private tuition for children of certain government employees.[17]

Direct public expenditure on education at all levels (general, vocational and higher) in Lebanon is low -at around 1.8% of GDP. This percentage is also low by regional standards, considering the average public expenditure on education as a percentage of GDP for 18 Arab countries stood at 6.4% in 2003 (World Bank 2008). Moreover, in Lebanon, as much as 90% of this expenditure goes towards wages and salaries. However, private spending on education is high and far exceeds government spending. Household spending on education exceeds 10% of the household's total expenditure in 2004.[18] Although this could make up for low public spending, private spending on education remains contingent on each family's financial position. Thus, private education cannot constitute a public good. Nonetheless, private schools contribute to Lebanon's relatively high expenditure per pupil at $1,222 per primary school student and $938 per secondary school student.

[17] Nahas, "Financing and Political Economy of Higher Education," 75.

[18] Ibid.

h Government attempts at educational reform excludes VTE

Since the early 1990s, Lebanon has been attempting to reform and upgrade its education system. In March 2010, it adopted a comprehensive national strategy for education that included an education sector development plan (2010-2015) for general education. The strategy aims to address all the existing challenges, including improving the achievement levels of all students and curbing low public school enrollment rates. In public schools, low achievement rates primarily stem from low qualifications of the teaching and administrative staff, a lack of coherence between teacher specialization and curricular requirements, and the absence of a legal framework that could improve the quality of education (Ministry of Education, 2011). However, this strategy only addresses general education and excludes vocational education.

In terms of vocational training, no official strategy exists. In practice, despite being part of the Ministry of Education and Higher Education, VTE appears to function independently of other components of the education system. The Ministry of Education manages separately every aspect of the Department of Vocational Training and Education, including its schools, curricula, and teachers. Despite a small number of limited initiatives, relationships with businesses are practically nonexistent. Adult education is operated primarily by the highly fragmented and uncoordinated civil society and NGO sector.[19] Almost all VET activities in Lebanon work with partner agencies, including the Arab Development Fund, the Islamic Bank, the European Union, the World Bank, and Financial Protocols with France.

[19] "The Torino Process: Lebanon," European Training Foundation (2011) 6.

II The economy has low appetite for skilled labor

In addition to an education system that fails to sufficiently serve all of Lebanon's young people, the size and structure of the economy is problematic. The Lebanese economy is small relative to the aspirations of Lebanese as evidenced from high emigration rates. In addition, the structure of the economy remains locked at a low productivity, low value added and low-wage equilibrium. Specific factors contributing to a low level of labor demand and skills include macroeconomic uncertainty, poor governance, corruption, and weak public infrastructure including high costs of unreliable electricity supply. These factors reduce the scale of production and lead to lower demand for labor and high unemployment.

a Output and employment are skewed to non-tradables

In 1970, nearly 20% of employment was in agriculture, another approximately 20% was in industry and 6% in construction. The share of employment in transport, telecommunications, trade, and services accounted for around 55%, but their share increased to 66% in 1997 and to 73% in 2009. This suggests a significant decline of agriculture's share in employment by two-thirds. The share of employment in industry experienced a less dramatic decline, albeit still substantial by one-third.

Although not evident from table 6, the annual output growth was 3.7% between 1997 and 2009, with transport and telecommunication increasing annually by 8% followed by trade (4.1%) and services (3.6%).[20] Output in other sectors increased by less, with annual agricultural growth at 1.1% and industrial growth at 1.7%. On its own, this data may not seem significant. To make sense of it, one must compare the changes in employment with changes in the value of output. Table 6 makes such an attempt in terms of relative productivity by comparing the share of sector output in GDP to the share of employment in the corresponding sectors.

[20] This excludes public administration.

Table 6 **Employment and output distribution (%) and relative productivity by sector**

Sector	Employment		Output		Productivity	
	1997	2009	1997	2009	1997	2009
Agriculture	9	6	7	5	73	77
Industry	14	12	13	9	88	73
Construction	11	9	9	8	78	87
Trade	26	27	21	24	83	89
Transport & telecommunication	5	7	5	10	106	147
Services	35	39	45	45	131	114
Total	100	100	100	100	100	100

Source **Adapted from World Bank (2011).**

The last two columns in table 6 show that that levels of relative productivity increased by 40% in the transport and telecommunication sectors, by 12% in construction, 7% in trade, and 5% in agriculture. However, the relative productivity declined in services (-13%) and most significantly in industry (-17%).

In addition, it is important to compare the skill contents of various economic sectors (table 7). As shown, the least skill-intensive sector is manufacturing, excluding agriculture and construction.

Table 7 **Shares of skill content of various economic sectors**

Sector	Informal/Low skill	Formal/High skill
Agriculture, forestry and fishing	63	37
Mining and quarrying	37	63
Manufacturing	55	45
Electricity, gas, steam, and air conditioning supply	46	54
Construction	76	24
Low services*	44	56
High productivity services**	49	51
Admin/education/health	38	62
Other	81	19

Source **Adapted from World Bank (2011).**

* Wholesale and retail trade, repair of motor vehicles; transportation and storage, accommodation and food service activities, real estate activities.

** Information and communication; financial and insurance activities; professional, scientific and technical activities.

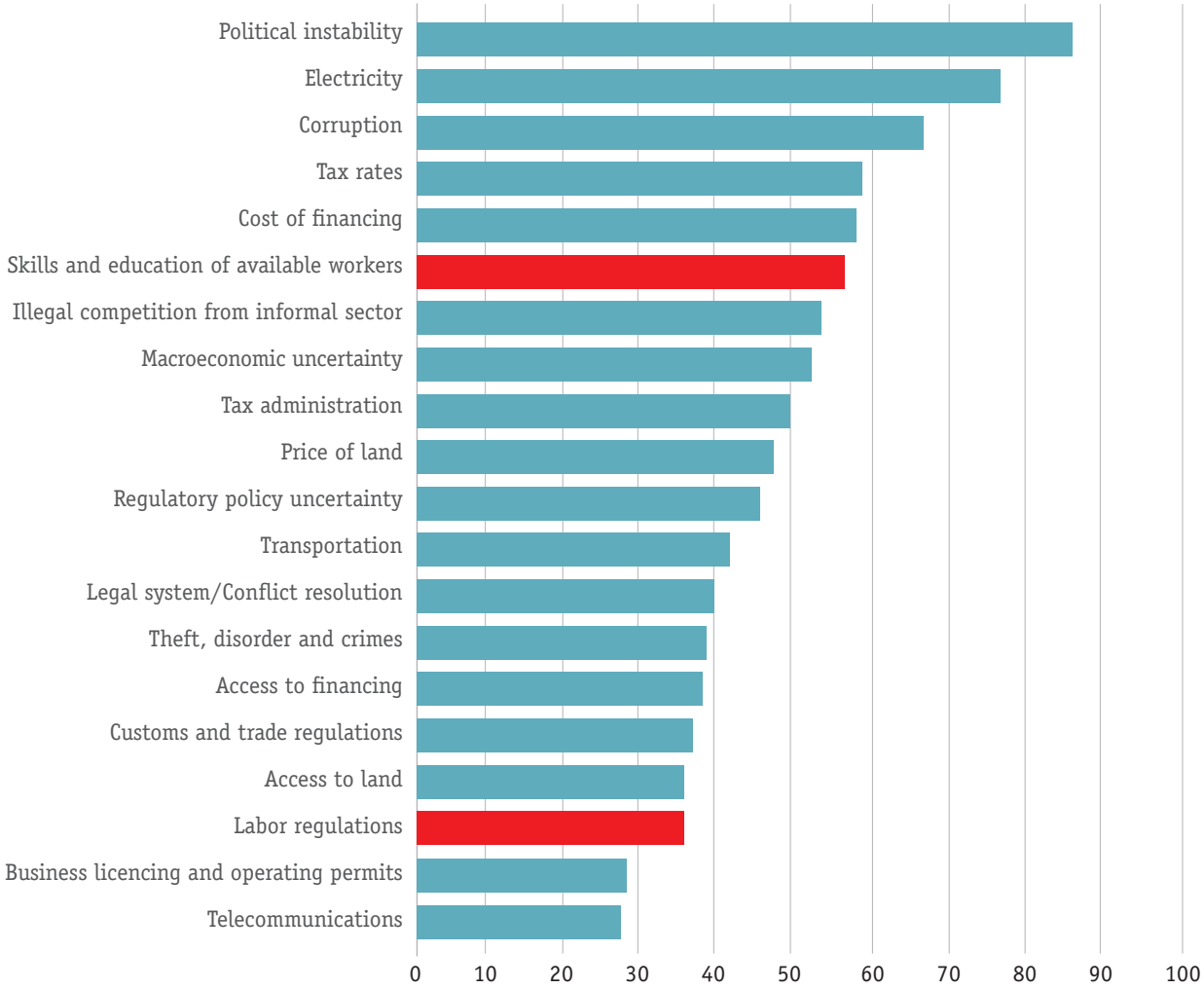
Although it is difficult to infer with confidence from these observations whether Lebanon produces too few university graduates in sciences and engineering (table 4), the Lebanese structure of production seems rather skewed towards the production of non-tradables.

Departing from the aggregate volume of employment, a large segment of production is organized along informal lines. Self-employment in non-agricultural sectors accounts for 40% of the Lebanese labor force, which is higher than in Egypt, Syria, Algeria, Tunisia, Djibouti, and Morocco. However, seasonality and underemployment remain rampant, as does emigration. Figure 1 in the appendix confirms this for the whole economy, assuming that the non-professional and self-employed operate mostly in the informal sector. As will be discussed later, the informal sector may not require the obtainment of additional skills.

b Employers face multiple constraints

Figure 3 lists important constraints facing enterprises in Lebanon as identified by employers. Predictably, political instability occupies the top position. Next ranks electricity, with three out of four enterprises listing it as a "major" or "very severe" problem. Corruption ranks third, followed by tax rates and the cost of finance. The sixth most identified constraint is "skills and education of available workers," with nearly half (55%) of enterprises listing a general lack of skills among employees as a serious constraint. This is up from 38%, as reported by a comparable survey also conducted by the World Bank in 2005 before the short-lived, but devastating Israeli war. Had the 2005 trend prevailed, lack of skills would have occupied one of the lowest positions in the 2009 survey.

Figure 3 **Leading constraints to Lebanese enterprises, 2009 (% of firms identifying constraint as major or very severe)**



Source **World Bank (2010).**

A 2008 survey displays additional rankings pertaining to Beirut where production requirements might demand a more advanced skill set (table 7). Interestingly, table 3 in the appendix shows that the difference in the availability of skilled or educated workers versus unskilled workers is relatively small (2.9 versus 2.2), compared to the difference between finding educated or skilled workers (2.9) and electricity (4.0). This small difference implies that perhaps the skill constraint is present, but not as significant if employers find it difficult to hire even unskilled workers whose supply is almost unlimited and, at times, undocumented. In other words, Lebanon is a labor surplus economy at "both ends." At the top end, many educated Lebanese emigrate because they are not in demand. At the bottom end, there is a large pool of migrant workers and Lebanese who did not finish primary school, if they went to school at all.

This is reflected in table 8, in which lack of qualified personnel is identified as the fourth constraint for company expansion. In addition, table 4 in the appendix indicates that employers are more concerned with soft skills than technical skills, which serve as the perennial concern of VTE.

Table 8 **Expansion constraints faced by companies (% of companies)**

Constraints	Percentage*
Negative political situation in the country	44%
Negative economic situation in the country	36%
Lack of cash capital	29%
Lack of qualified personnel	10%
Unclear government law	7%
High competition	6%

Source **InfoPro (2008).**

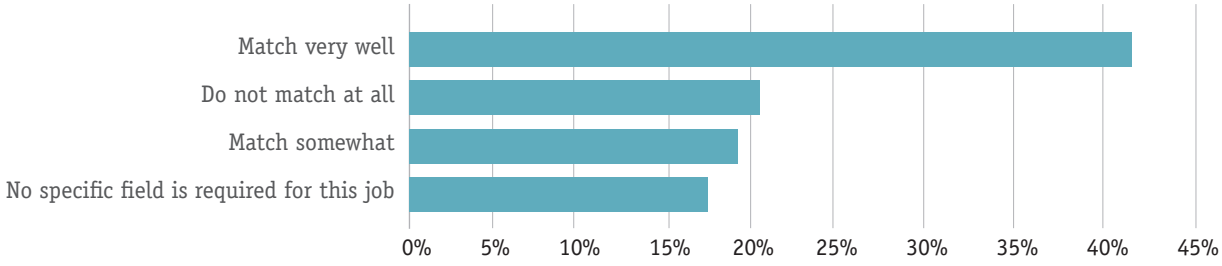
* Multiple Responses

c A weak match between education and work

There will always be skill shortages in growing and dynamic economies. For example, there may be a shortage of engineers by 20%. However, equally important, is what the other 80% of already employed engineers are doing. A propos, one of the most versatile degrees is engineering, as evident by the predominance of engineers in the financial sector when that sector needed extra firepower during its pre-2008 boom.

More generally, the correspondence between specific education fields and work is quite weak unless one were to deal with the few certified and licensed occupations (doctors, lawyers, and practicing engineers, etc.). Most educated workers can work in a wide variety of jobs, especially when the share of the services sector is large, as it is in Lebanon. Figure 4 and table 10 indicate that no type of education has a close match to employment. Overall, the data cast doubt on the validity of the proposition that "if you want more of a certain type of worker, you just have to produce more of them."

Figure 4 **Correspondence between qualifications and work performed**



Source **Adapted from World Bank (2011).**

Table 9 **Degree of relation of alumni's current job to their major field of study**

Degree	Very related	Somewhat related	Not at all related
Education	100%	0%	0%
Humanities and the arts	59%	24%	18%
Social sciences, business, and law	42%	41%	18%
Science			
Engineering, manufacturing, and	70%	18%	12%
construction	52%	38%	10%
Agriculture	0%	100%	0%
Services	43%	43%	14%
Health and welfare	50%	29%	21%
All Majors	51%	34%	15%

Source **AUB et al. (2009).**

Note The above includes graduates working outside of Lebanon.

Practitioners have good knowledge of the fact that skills formation follows the types of jobs that are created, not vice versa.[21]

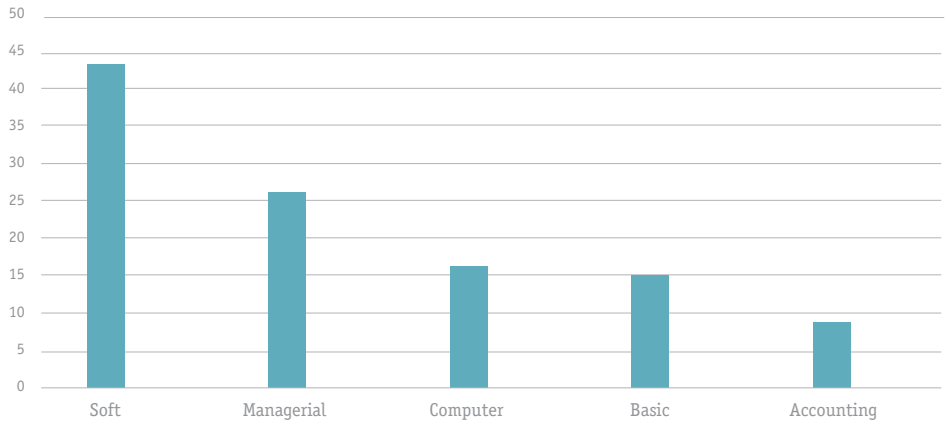
"We are teaching students for jobs that do not yet exist using technologies that have not been invented in order to solve problems we do not even know they are problems yet."

The fluidity of the future labor market is reflected in the projection that today's youth will have had 10 to 14 jobs by the age of 38 and one in two workers will be with their current employer for less than five years.[22] As technical information doubles every five years, students starting a four-year degree may learn that their first year of study will be outdated by the time they reach their third year of study.

d Employers provide non-technical training

In fact, Lebanese employers do offer training, but not where one might expect, such as in technical fields (figure 5). This is not surprising considering that companies do not find it difficult to hire skilled technicians (7 to 8 weeks to fill a vacancy) compared to hiring managers (3 to 4 months), as conveyed by the Investment Climate Survey mentioned above. Although the education system cannot provide ready-made managers for specific companies, many Lebanese universities have management courses. In Lebanon, perhaps employers use the term "lack of skills" to mean "lack of experience." Alternatively, they may be indicating that they are unprepared to pay high wages for skills.

Figure 5 **Types of training offered by companies (%)**



Source **InfoPro (2008).**

[21] See "What Sony played at its annual shareholder meeting in 2009 Innovation America" at: http://www.google.com.lb/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB4QFjAA&url=http%3A%2F%2Facsi.co.za%2Fsites%2Facsi.co.za%2Ffiles%2FEstelle%2520Nel%2520IEB.ppt&ei=pAhcUJ2tKYq20QWr4oG4CQ&usg=AFQjCNFbHDDULXF-1K9hWkiW4YrEENfs3Q&sig2=2tc4LsBlJFHNM8wH4GEZzA

[22] As expected, the education attainment of workers in greater Beirut area is much higher- suggesting another dimension of regional disparities. According to an establishments' survey for Beirut in 2008, 76% of workers among the reporting companies had a post secondary qualification for which 20% was at institute level and another 46% at university level. "The Labor Market: A Comprehensive Guide for Lebanon", InfoPro (2008).

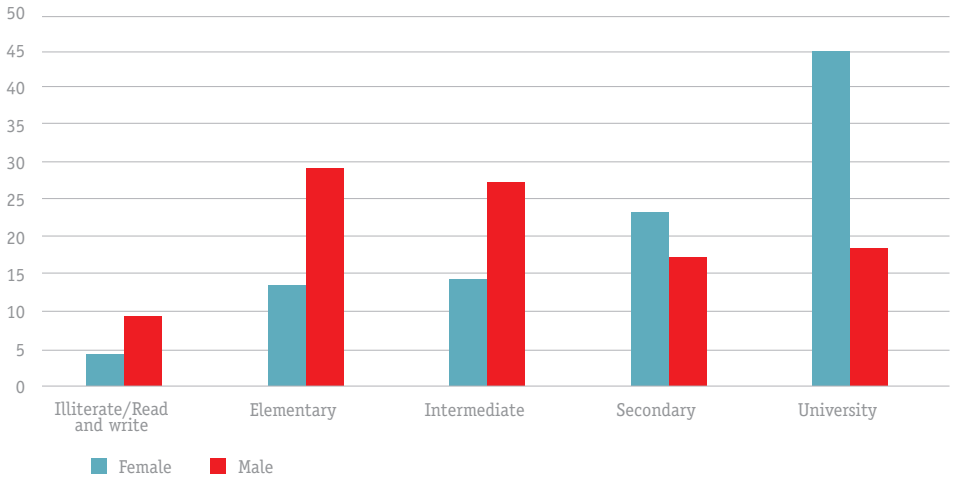
e The educated are also unemployed

Despite the fact that young and well-educated Lebanese emigrate and employment in Lebanon is dominated by older and less-educated cohorts, the profile of the labor market is an educated one (figure 6). One in five Lebanese men has a university qualification. The corresponding figure for women is even higher with more than four out of ten working women possessing a university qualification.[23] This reflects the fact that female employment in Lebanon is dominated by young women because older women are generally not in the labor force.[24] Therefore, Lebanon is in no short supply of young and (over) qualified job seekers, as is argued next by examining unemployment.

[23] Relatively few Lebanese women work after the age of 35 years (see figure 6).

[24] Average estimated outflow between 1996 and 2001.

Figure 6 **Percentage distribution of employed according to education level and gender, 2009**



Source **Central Administration of Statistics (2009).**
Note Percentages among those with at least primary education and for whom the education status was known.

Examining unemployment provides some additional insights. People do not work unless their wages are high. In fact, differences in wages between educated and less educated workers tend to be relatively modest in Lebanon. In other words, there is a low skill premium to education, which implies that the domestic labor market undervalues human capital. This reflects low levels of productive investments in sectors that demand skilled labor, especially the service sector. Table 6 shows relative productivity declined even in the manufacturing sector over time. Therefore, the highest rates of unemployment exist at the secondary and above levels for both women and men (table 10).

Table 10 **Unemployment rates according to education level and gender (working age population 15-64, 2009)**

Age categories	Women	Men	Total
15-19	30.3	17.4	19.8
20-24	20.5	13.1	15.6
25-29	13.4	6.5	8.8
30-34	7.2	3.7	4.7
35-39	6.1	2.1	3.1
40-44	5.2	1.4	2.2
45-49	4.4	1.6	2.2
50-54	0.3	2.0	1.6
55-59	0.0	2.1	1.8
60-64	1.2	3.7	3.4
Education level			
Illiterate	3.7	4.7	4.4
Elementary	9.1	4.1	4.6
Intermediate	10.5	4.4	5.2
Secondary	14.3	5.3	7.7
University	11.4	7.0	8.8

Source **Central Administration of Statistics (2009).**

Additionally, in terms of long-term shifts, employment prospects for educated job seekers have worsened (table 11). Although it takes a shorter period of time to search for their first job (still one and a half years), the duration of unemployment among the educated is equivalent to that of the less educated (table 12). Most unemployed people (80%) find jobs through personal contacts, whatever their level of education.

Table 11 **Shares of skill content of various economic sectors**

Education Level	1997	2007
Illiterate	5.2	4.2
Read & write, pre-school	6.3	6.2
Elementary	10.2	8.7
Intermediate	10.1	9.1
Secondary	8.3	9.7
University	6.1	11.1
National average	8.6	9.2

Source **Adapted from World Bank (2011).**

Note 1. There can be issues of comparability between 1997 and 2007 as the respective surveys differ.
2. Figures subject to rounding.

Table 12 **Average duration of job search and unemployment (years)**

Education level	Job search first time job seekers	Duration of unemployment < 35 years	> 35 years
Primary education	3.8	1.3	2.6
Secondary education	2.2	1.4	1.7
Tertiary education	1.5	1.2	1.7

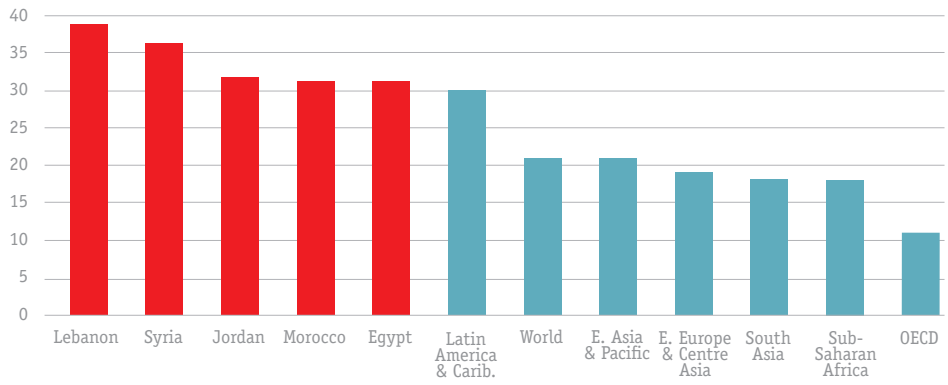
Source **Adapted from World Bank (2011).**

e Lebanon in a regional context

Although suggestive in many respects, the previous analysis of the situation in Lebanon appears rather circumstantial. Lebanon remains notorious for the absence of labor market and social statistics, leaving aside the fact that there is no recent official population census.

It remains important for Lebanese policy makers to inform themselves about other regional economies. First, Arab employers are the most vocal concerning lack of skills and Lebanese employers rank high among them (figure 7). However, this may be the case because of high emigration among Lebanese job seekers (table 13). In this case, the correct assessment of the situation is that Lebanon produces skills but the local economy is not in a position to retain them. More generally, Arab employers complain about skills but are the least willing to train their "deficient" workers (figure 8). A similar conclusion is derived at face value from figure 9 as Arab firms are the only ones that complain more about the lack of skills of workers than they actually end up training them.

Figure 7 **Percentage of firms stating skills as a major constraint**



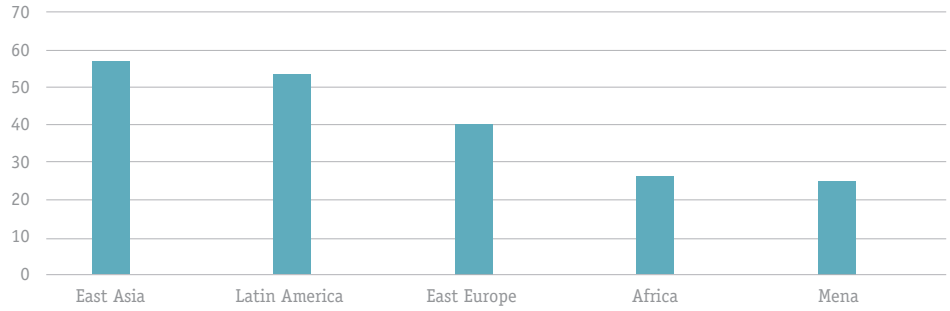
Source **IMF (2010).**

Table 13 **High-skilled emigration rates to the OECD and GCC countries, 2000 (%)**

	44 receiving countries (1)	OECD countries (2)	GCC countries (3)
Lebanon	45.3	43.9	3.2
Yemen	31.3	6.0	28.1
Morocco	19.1	18.6	0.7
Tunisia	13.2	12.6	0.6
Iraq	11.5	10.9	0.4
Jordan	11.3	7.4	4.3
Algeria	9.7	9.5	0.3
Egypt	8.3	4.7	3.9
Syria	7.9	6.2	1.6
Bahrain	6.0	5.1	0.9
Qatar	2.3	2.1	0.2
Saudi Arabia	1.1	0.9	0.1
United Arab Emirates	0.9	0.7	0.1
Oman	0.5	0.4	0.1

Source **World Bank (2009a).**

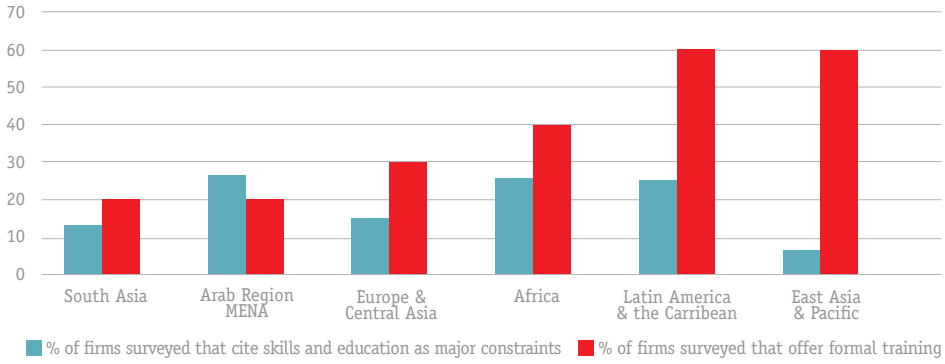
Figure 8 **Percentage of firms that offer training, by world region**



Source **Rita K. Almeida and Reyes Aterido, "Investment in Job Training: Why Are SMEs Lagging So Much Behind?" World Bank, Policy Research Working Paper 5358 (2010).**

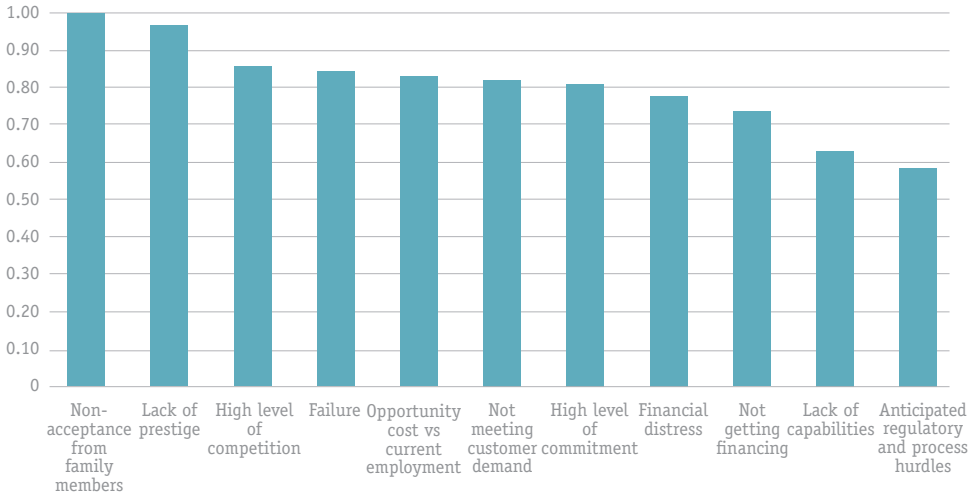
The analysis has so far been at an aggregate level. Could more training in general help foster entrepreneurship among the youth? Figure 10 provides an answer by displaying that skill constraints constitute the most prominent reason for youth not wanting to start a business. Interestingly, those surveyed do not seem to view red tape and regulations as significant hurdles.

Figure 9 **Arab firms that provide training are fewer than those that are constrained by lack of skills, 2000s**



Source **International Labour Organization (2007).**

Figure 10 **Pre-launch challenges for entrepreneurs in MENA, 2011**



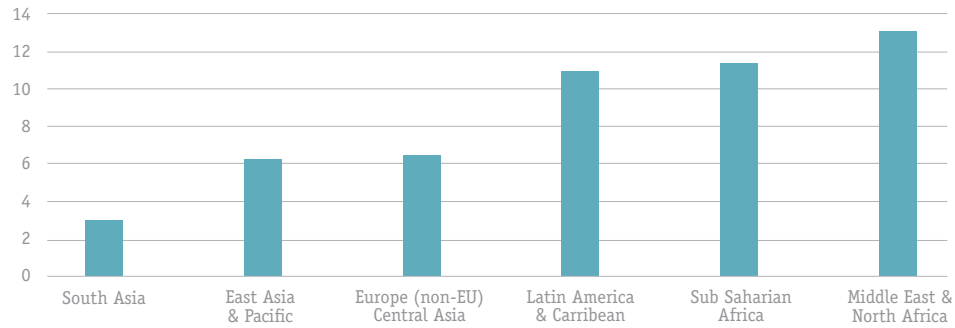
Source **A. Youssef, C. Zein and R. Soueid, "Easing Entrepreneurship," Executive (May, 2011).**
Note measured as an index with 1 being most challenging.

However, one has to be careful not to throw the baby out with the bathwater. The Jordanian case seen in figure 2 in the appendix is indicative of this point. When one talks about "employers," "companies," "enterprises," and so on, a wide variety exists among them in terms of size, nature, and sectors in which they operate, to name a few variables. Thus, what constitutes a constraint for firms belonging to one sector may not constitute a constraint for firms belonging to another.

In this respect, the message of appendix figure 2 is twofold. First, skills may not always serve as an important constraint for small businesses, which relates to the message from the previous figure. Second, if skills are a constraint for large export firms, who should pay for the skills employees need? In fact, big firms often train their employees and pay for it themselves. If they did not and, instead, they relied on governments and teachers to provide their employees with skills, they would most likely not be as successful.

However, there seems to be an area within the Arab labor market that would benefit from additional education (figure 11). In turn, this can help Arab companies to modernize (figure 3 in the appendix).

Figure 11 **An area requiring more education: Percentage of managers with less than secondary education**

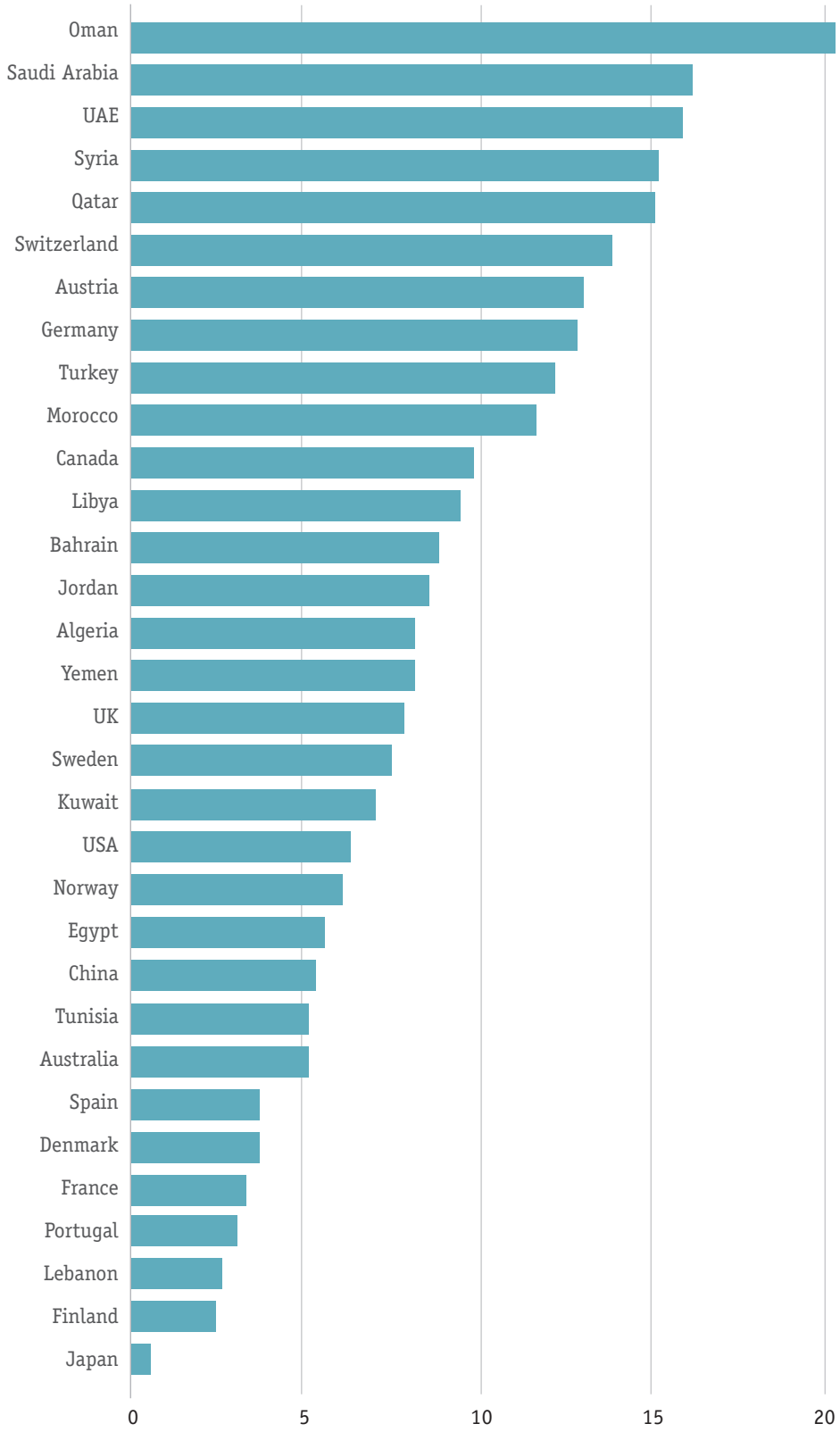


Source **World Bank (2009b).**

f Overall Consequences

Based on opinion surveys among executives, the World Economic Forum's "Global Competitive Index Report 2012" ranks Lebanon last (that is, best) compared to all other Arab states in terms of "inadequately educated labor force". Lebanon's percentage is only 2.9% against an Arab average of 10.8% and more than 12% for Switzerland, Austria and Germany (figure 12).

Figure 12 **Lebanon has a more adequately educated workforce than many other countries in the world and certainly all other Arab countries (% of local firms reporting inadequately educated workforce, 2011)**



Source **World Economic Forum (2012).**

Is labor demand in Lebanon constrained because of restrictive labor regulations? This would have been surprising given that the labor market is a buyer's market due to the presence of excess labor supply. Under these conditions evasion of regulations is appealing to both employers and workers: The same report places Lebanon last in this respect with a response of 2.1% compared to an Arab average of 12.4% and more than 20% for Sweden, France, Finland and Germany (see also figure 3). And in terms of "poor work ethic", the percentage for Lebanon is 4.6% against an Arab average of 7.5% that is almost on par with that for Australia, the US and China.

II Summary and policy recommendations

The learning outcomes of the education system in Lebanon are relatively high considering the country's development level. Moreover, the fact that so many Lebanese graduates successfully work in technologically developed and high-income countries or in managerial positions in the Arab region, such as in the GCC states, indicates that they are in demand, despite this not being the case in their own country where they face the choice between either low wages or unemployment.

However, this is a result of a largely private education system, both on the supply side of education (private providers) and on the demand side (ability of a family to pay). As a result, substantial differences exist in education outcomes between rich and poor families that relate to regional disparities. The education system faces many challenges including weak institutional and management capacity and low levels of efficiency, which are outside the scope of this paper.

The objective of this paper is to shed light on whether employment outcomes are due to a lack of skills or to a lack of demand for skills. The above analysis shows the latter to contribute more significantly to the deficiencies in Lebanon's labor market. For example, although Lebanon does not produce cars or mobile telephones, neither is in short supply. Similarly, young and educated Lebanese are not in short supply relative to the economy's demands.

Thus, the primary issue plaguing Lebanon's labor market seems to be more on the labor demand side. Labor demand is derived demand, which means that it depends on both the level and structure of production determined by economic and institutional policies. As mentioned above, employment is concentrated in low productivity sectors. In addition, unemployment rates remain high among the educated, especially women, who, along with migrant workers, create labor surplus conditions that prolong the school-to-work transition for job seekers and reduce incentives to adopt high productivity techniques for employers. Therefore, the economy remains locked in an unproductive equilibrium.

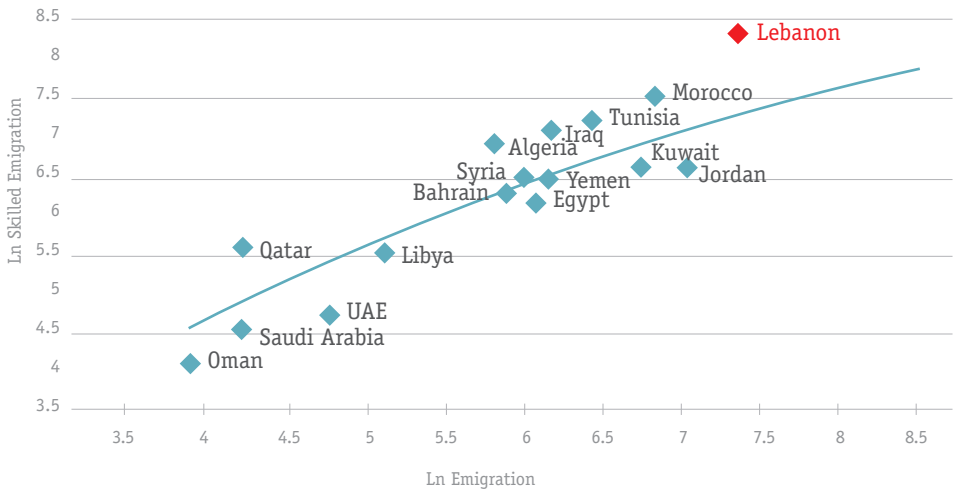
Questions that need to be addressed before one blames students, job seekers, and the Ministry of Education include:

- Do macroeconomic, fiscal (taxes and subsidies), financial, trade, investment, industrial, investment and business climate policies encourage high value added activities and a move to a knowledge economy?
- Do the regulatory framework and efficiency, transparency and accountability of the government encourage profit-seeking or rent-seeking activities?
- Other than the cost of labor, what is the burden on the economy of infrastructure, including unreliability of electricity, lagging telecommunications services –and including internet, transport, and water facilities?
- Are there policies (and willingness) in place to manage migration at the lower end of skills, which will then induce employers to opt for higher productivity technologies that would make better use of the educated Lebanese?

Over the next 10 years there will be an average of 19,000 new entrants into the labor market each year. To absorb them, the economy would need to create more than five times the number of jobs it currently offers. On average, only 3,400 net jobs were created each year between 2004 and 2007. Can Lebanon rely on its current pattern of letting about 32,000 of its citizens go abroad every year and continue to be the regional Arab leader in terms of both emigration and skilled emigration? (figure 13).[25]

[25] Average estimated outflow between 1996 and 2001.

Figure 13 **Emigration rates and skilled emigration rates in MENA, 2010 or latest (% of local firms reporting inadequately educated workforce, 2011)**



Source **World Bank (2011b).**
Note In logs of numbers of emigrants out of 100 persons. Emigration rate is measured as the percentage of emigrants to total domestic population. Skilled emigration rate is measured as the percentage of tertiary education graduates who have emigrated compared to their counterparts at home.

This paper puts forward the proposition that lack of skills does not constitute the only constraint in the Lebanese labor market.[26] To clarify, lack of skills is not a constraint because Lebanon has many other and much more important issues to address. However, this does not mean that the education and skills development system should not and cannot be improved. Indeed, the public and private disparities in the quality of education and the disparities in learning outcomes for poor and well-off students is a major issue. Several policy directions can be recommended to address these issues.

[26] This paper did not expand on other challenges Lebanon faces such as geopolitical considerations, high levels of public debt and the large exposure to sovereign risk, the quality of governance, the investment climate, "Dutch disease" symptoms arising from remittances, and making local goods and services unaffordable for lower and middle-income groups, among others.

a Improve the process of educational attainment through better access to quality education

With respect to education, policies should aim to further improve the relatively good performance of Lebanese students by paying attention to the duality of the education system. More specifically, policies should aim to raise the education attainment of those in the "bottom half" by increasing their access to good quality education and keeping them in the system longer. In broad terms these policies should include:

- Reallocation in the first instance of public expenditures on education toward areas that would benefit those in need rather than those who satisfy other criteria (for example, education allowances paid only to employees in the public sector);
- Increase in public spending on education that is low both by international and regional standards for a high middle income country like Lebanon;
- Improvements in the linkages between the human development system and the skill requirements of the local economy through greater participation of employers in the management and financing of education and training.

b Encourage high value added activities and reduce rent-seeking opportunities

On the economic front, policies should encourage high value added activities and reduce rent-seeking opportunities. Such policies range from macroeconomic ones (for example, fiscal policies involving effective public spending and fair revenue raising) to those affecting more directly individual sectors and firms (for example, availability, costs and reliability of electricity and telecommunication services). In broad terms these policies include:

- Improved governance, better regulatory frameworks and reduction of corruption;
- Effective provision of public goods including infrastructure, public transport, electricity, water, and telecommunications;
- Management of immigration focusing on undocumented low-skilled workers.

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Appendix

Table 1 **Gross enrolment rates (%) by education level and gender, 2009**

Regions	Primary			Secondary		
	Girls	Boys	Gender parity (G/B)	Girls	Boys	Gender parity (G/B)
Beirut governorate	99.2	99.3	1.00	83.3	84.5	0.99
Mount Lebanon governorate						
Beirut suburbs	98.3	99.2	0.99	88.5	79.8	1.11
Remaining Mount Lebanon districts	99.1	97.8	1.01	92.4	91.6	1.01
North Lebanon governorate						
'Akkar and Minya-Danniya districts	98.6	96.6	1.02	75.6	59.2	1.28
Remaining North Lebanon districts	96.2	96.2	1.00	77.3	61.0	1.27
Beqa` governorate						
Baalbek and Hirmil districts	98.1	98.8	0.99	91.3	89.7	1.02
Remaining Beqa` districts	99.1	98.3	1.01	85.9	75.6	1.14
South governorate	98.1	98.8	0.99	83.0	76.7	1.08
Nabatiya governorate	99.5	99.1	1.00	86.3	75.2	1.15
Lebanon	98.4	98.3	1.00	85.2	77.4	1.10

Source **Central Administration of Statistics (2009).**

Table 2 **Gross enrollment ratio in post-secondary and tertiary education, by gender 2010**

	Arab States	Lebanon
Females	23.9	58.8
Males	23.5	49.4
Total	23.7	54.0

Source **UNESCO Institute of Statistics Database.**
Note Includes education that starts at post-secondary age (17 or 18 years) and comprises of ISCED 5 (education of 3 to 4 years that does not lead to a first university degree) and ISCED 6 and 7 (education of also 3 to 4 years that leads to a university or postgraduate university degree or the equivalent).

Table 3 **Obstacles faced by companies across sectors**

Type of Obstacle	Manufacturing	Trade	Service	Total
Electricity	4.3	4.0	3.9	4.0
Corruption	3.5	3.3	3.1	3.3
Macroeconomic uncertainty (e.g. inflation, exchange rate)	3.2	3.0	3.1	3.1
Smuggling or dumping	3.2	3.0	2.5	2.9
Availability of skilled/educated workers	3.2	2.8	2.9	2.9
Tax rates	3.3	2.8	2.7	2.8
Tax administration	3.0	2.4	2.3	2.5
Terms of financing and debt re-structuring	2.8	2.1	2.3	2.3
Customs and trade regulations	2.6	2.3	2.1	2.3
Availability of unskilled labor	2.5	2.1	2.2	2.2
Labor regulations	2.5	2.0	2.2	2.2
IT and internet connectivity	2.3	1.9	2.2	2.1
Water	2.2	1.8	2.3	2.1
Export/Import	2.3	1.9	1.9	2.0
Telecommunication	2.0	1.8	2.1	1.9
Garbage disposal	2.1	1.7	2.0	1.9
Business licensing and operating permits	2.2	1.7	1.7	1.8
Natural gas	2.5	1.5	1.7	1.8
Total	49.6	42.3	43.2	44.0

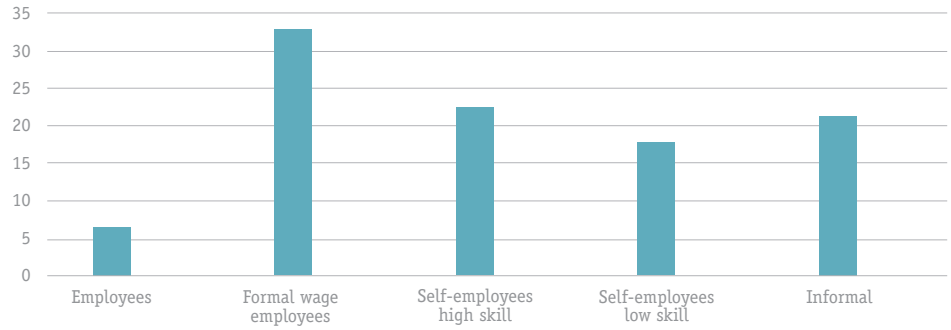
Source **InfoPro (2008).**
Note Scale of 1 to 5, 1 being "no obstacle" and 5 being "very severe obstacle".

Table 4 **Average duration of job search and unemployment (years)**

Skills	Percentage
Leadership	42%
Languages	34%
Analytical	22%
Computer	20%
Technical	18%

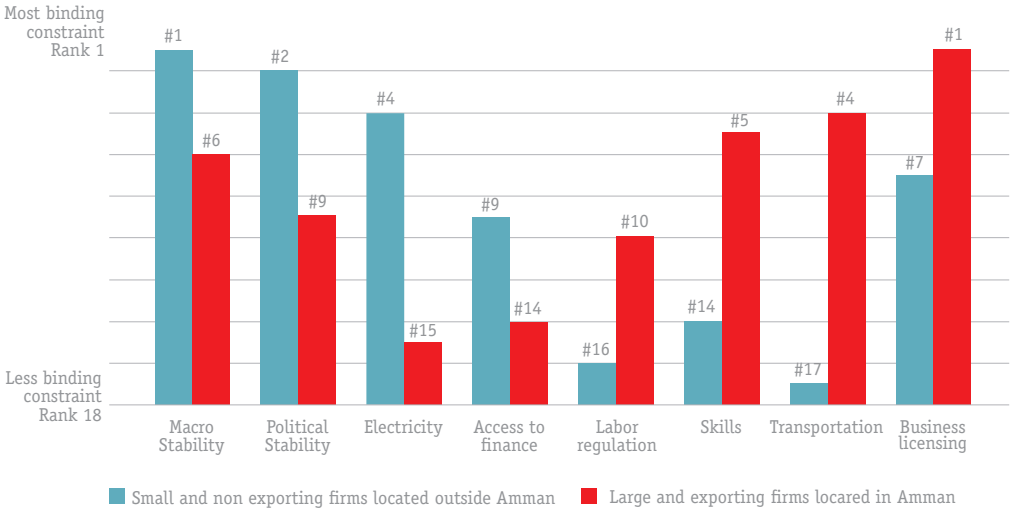
Source **InfoPro (2008).**

Figure 1 **Distribution of employment, 2011**



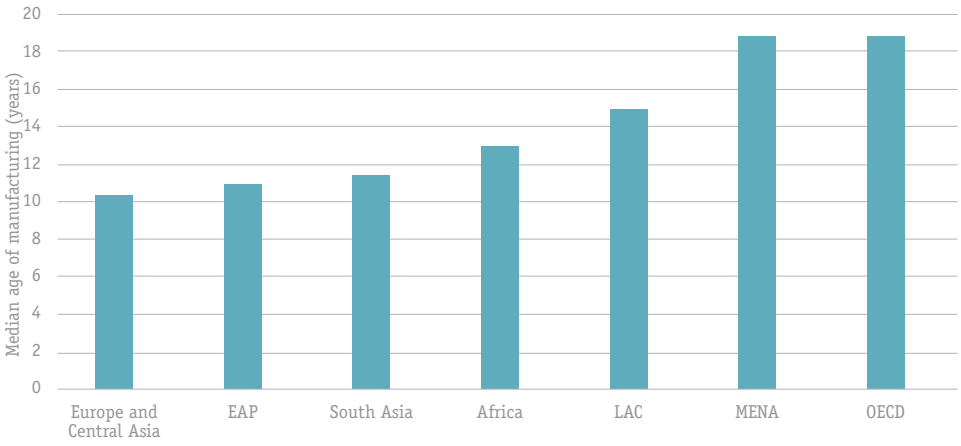
Source **Adapted from World Bank (2011).**

Figure 2 **Ranking of constraints in Jordan: Large exporters versus non-exporting SMEs**



Source **World Bank (Jordan Investment Climate Assessment).**

Figure 3 **Companies in MENA are old**



Source **World Bank (2009b).**

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