

## Ukraine's higher education system: quantity does not always lead to quality

According to the Executive Opinion Survey, the education system of Ukraine does not contribute to the growth of regional competitiveness, despite the relatively high scores it receives for individual indicators in the index. The scores for the indicators secondary education enrollment rate and tertiary education enrollment rate place the country among the top 20 in the WEF Global Competitiveness Index (Table 3.1). It is ranked 8th among 142 countries included in the report according to number of students at higher educational institutions (79.4%).<sup>1</sup> However, Ukraine's overall score under the Higher education and training pillar puts the country in the lower global ranking of 51st place. The reason for this low ranking is Ukraine's poor Quality of education and On-the-job training. Every year, these two sub-pillars contribute to a lower overall education score for the country. Just four years ago, Ukraine was ranked 55th on its Quality of education and 83rd on its On-the-job training. This year, it ranks 72nd and 103rd respectively. Despite its low ranking, the score of the Quality of higher education in Ukraine has been growing over the last three years, which means that Ukraine is lagging behind other countries in the rate of its educational improvement rather than in absolute terms.

Ukraine's poor performance in the Higher education and training pillar leads to a weakening of its overall competitiveness rating. This pillar is included under the sub-index of Efficiency Enhancers, which are paramount in calculating the scores of countries at the second stage of development (under WEF methodology) – which means they will be very important for Ukraine in the near future. The importance of Efficiency Enhancers is demonstrated by the high correlation between its Index value and the welfare of the region evaluated in terms of Gross Regional Product (Figure 3.1). It will be very difficult for Ukraine to improve its competitiveness and welfare without improving its education system, particularly Quality of education and On-the-job training.

Today, the most problematic factors of Ukraine's education system are the following:

**The quality of education does not meet the current expectations of employers.** There is a gap between the skills of Ukrainian graduates and the needs of Ukrainian employers. According to Executive Opinion Survey 2011 (hereinafter referred to as the Survey), one in five employers considers poorly qualified employees a problem for their business; six percent of executives believes it is the biggest problem. In terms of sectors, food processing and agriculture suffer the most difficulties as a result of poorly qualified employees. In these sectors, 29% of (food processing) and 26% of (agriculture) business executives noted that poorly qualified employees hinder the operation of their business. The mining industry faces the same problem: nine percent of employers note poorly qualified workers as their biggest problem. Considering that over 30% of Ukraine's working-age population is employed in one of the above three sectors, qualification criteria is surely an important issue for the overall economy.

In addition, each year Ukrainian business has become less and less satisfied with the qualifications of the

<sup>1</sup> World Economic Forum Global Competitiveness Report 2011.

**Table 3.1** Results for Ukraine in the higher education and training pillar and its components

Indicator	2011 (out of 142)		2010 (out of 139)		2009 (out of 133)		2008 (out of 134)	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
5th pillar: Higher education and training	51	4.58	46	4.61	46	4.38	43	4.46
A. Quantity of education	14	6.23	13	6.23	16	5.59	21	5.58
B. Quality of the education	72	3.97	67	3.95	61	3.92	55	4.09
C. On-the-job training	103	3.54	97	3.65	89	3.64	83	3.70

Source: World Economic Forum Global Competitiveness Reports 2008 - 2011

available workforce. For example, last year, 'the poor quality of the country's workforce' ranked 13th in a list of the biggest hindrances to doing business in Ukraine. In 2011, it ranks 10th out of 18.

**The number of higher education graduates does not meet the needs of the economy.** This has led to a shortage of certain types of graduates and a high number of 'over-qualified' people at certain skills levels. On the one hand, employers experience difficulties in finding employees with the required skills; and on the other hand, university graduates cannot find jobs. The Ukraine Labor Demand Study, produced by the World Bank, demonstrates this mismatch of skills in the Ukrainian labor market.<sup>2</sup> A shortage of skilled blue-collar workers and an oversupply of white-collar workers were recorded in 2009. The study also demonstrates a lack of skilled employees in the public sector and many unfilled vacancies as a result.

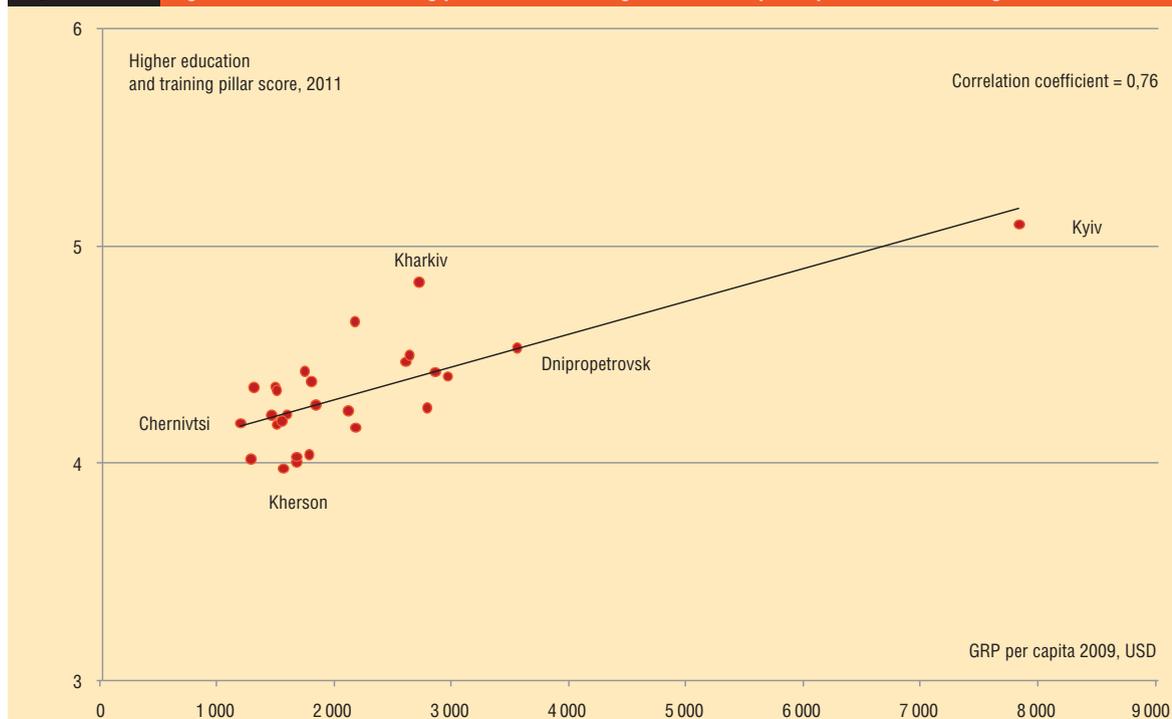
The skills mismatch in the labor market can be partially explained by a decline in Ukraine's vocational education. Thus, the share of students seeking vocational qualifications<sup>3</sup> from among the total number of Ukrainian students has dropped from 62% in 1990-1991 to 27% in 2010-2011 (Figure 3.1).

Some professions in Ukraine are ageing, primarily

in the public sector. These are low-paid professions as a result of a non-competitive labor market. The ageing phenomenon is also observed in jobs with fairly specific working conditions and qualifications. As a result, young specialists are reluctant to work in these fields. Many experts note that this will eventually lead to a significant shortage of such specialists, and thus to higher head-hunting and recruitment costs.

**The system of education does not develop skills important for competitiveness.** The quality of management training, which is a key element in any modern company's performance, is very low in Ukraine. The country does not train Western-style executives who can successfully handle all the challenges of a market economy. Most surveyed company executives noted that Ukrainian business schools do not meet international standards. They score 2.97 out of a possible seven points, with the international average being 4.18 points.

In terms of quality of math and science education, the key indicator for measuring the development of logical thinking and critical analysis, Ukraine lags far behind most developed countries. The average regional score is 4.21 points on a scale of one to seven. Ukraine thus exceeds the global average by 0.27 points, but places

**Figure 3.1** Higher education and training pillar and Gross Regional Product per capita of Ukraine's regions

Source: State Statistics Service of Ukraine, calculations of the Foundation for Effective Governance

<sup>2</sup> Ukraine labor demand study, 2009, World Bank, Washington, DC.

<sup>3</sup> Students from vocational schools and higher education institutions of levels of accreditation 1 and 2.

70th in the global list of 142 countries - at the level of Benin, Zimbabwe and Kenya. This point is underlined in the Trends in International Mathematics and Science Study 2007 (TIMSS), where Ukrainian school children's educational achievements in these areas fall below average. Ukrainian fourth- and eighth- grade school children scored 469 (26th out of 36) and 462 (25th out of 45) points, respectively, with the average international score being 500 points. The mathematics and science knowledge of Ukrainian school children are far below most EU and CIS countries participating in the survey, and lower than the levels of Singapore, China and Hong Kong. School children from Georgia, Romania, Turkey and a number of Asian and African countries scored lower than their Ukrainian peers.

The reasons for the above problems in the area of higher education and training are the following:

**Funds allocated for educational purposes are inefficiently used.** In recent years, Ukraine's national and local budgets have allocated about 7% of GDP<sup>4</sup>, which is quite a large amount, to education. OECD countries spend an average of 4.6% of GDP on education, EU-27 countries - 5.07%, and the EU-15 - 4.97%.<sup>5</sup> At the same time, most budget funds allocated to education in Ukraine are spent on paying salaries and utility bills (according to some estimates, the share of these expenses exceeds 70% of budget outlays). Investment in improvement of educational facilities and equipment, as well as innovation, comes last on Ukraine's 'to-do list'.

**Lack of financial and academic autonomy for Ukrainian educational institutions.** The system of education in Ukraine is centralized. In order to change curriculum, approve expenses, make serious changes or introduce something new, one has to obtain the consent of the Education Ministry and go through a complicated bu-

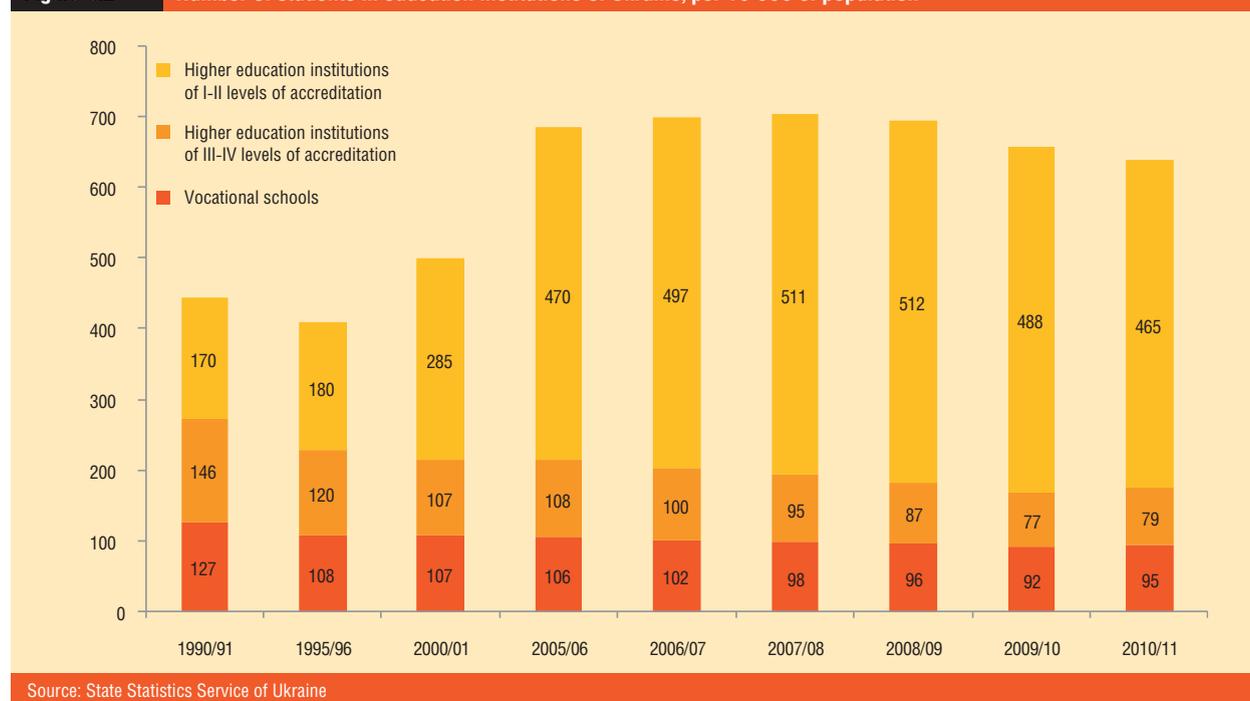
reaucratic procedure. Even private higher education institutions are to some extent vulnerable to this problem. Ukraine's centralized system of education and its quantitative rather than qualitative approach to assessment of education institutions means a poor educational infrastructure, low quality equipment, an obsolete curriculum and little practical application of education.

The skills mismatch in the labor market can be partially explained by **poor planning in vocational and higher education**. The current planning in Ukraine focuses on maximizing the number of students and retaining teaching staff to ensure maximum funding. As a result, the system produces graduates with skills and knowledge that are not in demand and quite often do not meet the real needs of the economy.

**Ukraine has poor quality control for its education system.** The Ministry of Education, universities and schools are assessed using quantity rather than quality indicators. Educational institutions obtain funds based on the number of students that they enroll rather than on the quality of knowledge and skills that they provide. There are no incentives for educational institutions to improve the quality of education. Internationally recognized external monitoring does not exist. Ukraine has never participated in international monitoring initiatives such as PISA<sup>6</sup>, PIRLS<sup>7</sup> or IAEP<sup>8</sup>, and just once took part in TIMSS in 2007. No Ukrainian university is included in popular international ratings of universities. Only in 2011 were two Ukrainian universities - Kyiv Polytechnic Institute and Donetsk National University - entered among QS World University Rankings' top-700 universities.

The problems associated with high demand for quality personnel also contribute to a labor market imbalance. A shortage of employees with certain skills can be explained by **low salaries**. Education is an investment

Figure 3.2 Number of students in education institutions of Ukraine, per 10 000 of population



<sup>4</sup> The main performance indicators of higher education institutions of Ukraine as of beginning 2010-2011, State Statistics Service of Ukraine.

<sup>5</sup> OECD, Public Spending on Education (2010), Eurostat Education Database (<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database>).

in the future, and as a rule students choose to enter a profession that will pay good money. In June 2011, the average monthly salaries in Ukraine's healthcare and education sectors were UAH 1,862 and UAH 2,502 respectively, against an average national salary of UAH 2,708. For comparison, the machine building and equipment manufacturing sector pays UAH 2,605, while the average salary in Ukraine's electronics and optical devices sector is UAH 2,340.

Employers also bear some of the blame for the country's poorly qualified workforce. It turns out that **most companies do not invest in the training and retaining of their staff**. The nation's average score for extent of staff training is very low – 3.15 points, against the international average of 3.96 points. On the one hand, Ukraine's flexible regulation of its labor market<sup>9</sup> does not impose any obligations on employers to train their staff. On the other hand, employers do not take it upon themselves to invest in personnel, who are not regarded as a strategic resource or a competitive edge. Also, planning is often short-term, partly because of the high risks of operating a business in the country.

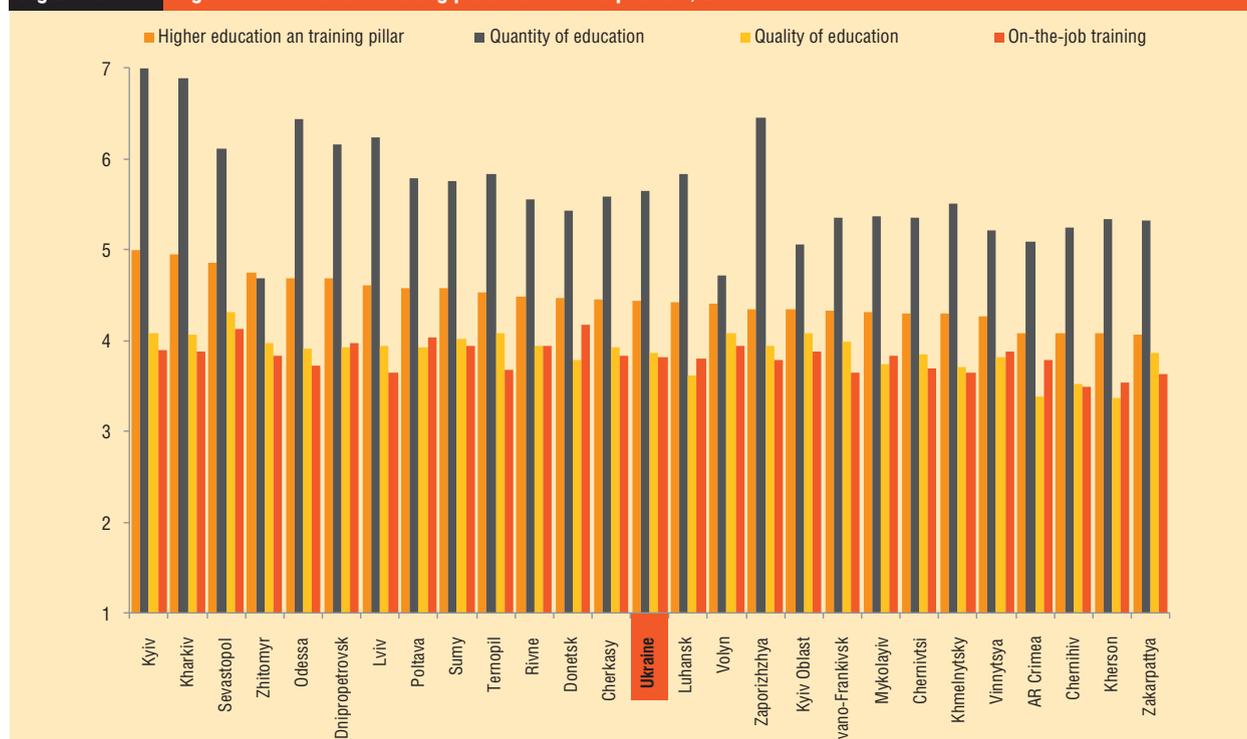
This low score could be explained by relatively low local availability of specialized research and training services. On average, business executives in the regions gave only 4.48 points (out of a possible seven points) to access to such services, which earned Ukraine a global ranking of 60th place.<sup>10</sup>

## Education in Ukrainian regions: employers' opinion

Quality and quantity indicators of Higher education and training are different across the regions of Ukraine (Figure 3.3). Quantity indicators, which include secondary education enrollment rate and tertiary education enrollment rate, are quite high in all the regions of the country. The cities of Kyiv and Sevastopol as well as Kyiv Oblast lead the country in secondary education enrollment rate (100%). Donetsk Oblast has the lowest secondary education enrollment rate - 88.5%. The scores of regions in tertiary education enrollment rate vary widely. Kyiv city and Kharkiv Oblast demonstrate the best performance (100%), while Zakarpattya (29.06%) and Kyiv Oblast (35.06%) have the worst. The wide disparity is the result of the uneven distribution of universities across the country.

The quality of education in the regions received a worse evaluation. The regions' average score is 3.87, versus a global average of 4.01. Out of all the indicators under the quality of education sub-pillar the quality of management schools turned out to be the lowest (2.97). The regions' score for quality of business schools varies widely. Dnipropetrovsk Oblast received the highest score (3.60), and Chernihiv Oblast – the lowest (2.44). The indicators for quality of the education system, quality of math and science education and internet access in schools received a more positive evaluation. Business executives evaluated the quality of the education system in Ukraine's regions at 3.92 on average. Sevastopol and

Figure 3.3 Higher education and training pillar and its components, 2011



Source: calculations of the Foundation for Effective Governance

<sup>6</sup> PISA – The Programme for International Student Assessment.

<sup>7</sup> PIRLS – Progress in International Reading Literacy Study.

<sup>8</sup> IAEP – The Internal Auditing Education Partnership.

<sup>9</sup> Average regions' score of the labor market flexibility – 5.02, and 4.51 – the nation's average.

<sup>10</sup> The world's average score of access to the services is 4.1.

**Figure 3.4** Inadequately educated workforce as a problem for doing business in Ukraine's regions, 2011

Chernivtsi Oblast show the best performance (4.27 for both regions), while Kherson Oblast has the worst score (3.08). Company executives believe that Sevastopol has the best quality of math and science education (4.69) and that the Autonomous Republic of Crimea has the worst (3.56). The internet access in schools indicator across the regions is relatively high (4.37) and exceeds the global average of 4.16.

Out of all the scores under the Higher education and training pillar, the average score of the On-the-job training sub-pillar in Ukraine is the lowest (3.81) falling below the global average by 0.22 points. According to the Executive Opinion Survey, the On-the-job training is the best in Donetsk Oblast (4.18) and Sevastopol (4.13), but the worst in Chernihiv Oblast (3.49). Such a low evaluation is first of all the result of a low score for the indicator extent of staff training (3.15 compared to the global average of 3.96). Odesa Oblast is the worst performer in this indicator (2.74) and Volyn Oblast is the best (3.53).

According to the Executive Opinion Survey, employers in different regions of the country face different problems as a result of poorly qualified workers (see Figure 4). Business executives from Zhytomyr, Chernivtsi, Donetsk and Luhansk oblasts experience the most dissatisfaction. The sectors suffering from a poorly qualified workforce in these oblasts are the same as for Ukraine in general: the food processing and agriculture sector. In Zhytomyr Oblast, business executives working in the food processing industry and in other business services experience the most dissatisfaction: 56% of company executives (in food processing) and 50% (in other business services) believe that an inadequately educated workforce is the biggest problem for doing business. In Chernivtsi Oblast, this problem mostly worries company executives in the agriculture, food processing and public utility (gas, electricity and water) sectors. In Donetsk Oblast, it's the training of public utility employees that

causes the most worry.

On the other hand, in Kyiv, Ivano-Frankivsk and Volyn oblasts, most companies are satisfied with the level of education of their workforce. If taken by sector, investment companies and hotel and restaurant businesses experience the least problems related to the education of their staff. Only 10% (of investment company) and 11% of (hotel and restaurant) business executives indicated that they face problems as the result of a poorly qualified workforce. As mentioned earlier, food processing companies (29%) and agricultural enterprises (26%) experience the biggest problems in this regard.

### Competitive education is the major contributor to the country's competitiveness

This assessment of Ukraine's education system demonstrates that the country has so far maintained a satisfactory standing in the global ranking of the pillar of Higher education and training. The analysis of trends in this pillar, however, shows that the country's performance is declining as the result of its low quality of education and poor on-the-job training. As competitive education directly and indirectly contributes significantly to the country's overall competitiveness, making it a priority in state and regional policies is justified.

An analysis of Ukraine's regions demonstrates high quantity indicators of education in all regions. Quality indicators are low across the country, but differ significantly by region.

The removal of wide disparities in regional performance and the rollout of effective reform of the higher education and training system in Ukraine can have significant potential to increase the country's Global Competitiveness Ranking.