

# CHALLENGES AND DEVELOPMENTS IN VOCATIONAL EDUCATION AND TRAINING SYSTEM REFORM IN EASTERN EUROPE

## INTRODUCTION

This briefing is based on the ETF 2010-11 Torino Process country reports for Eastern Europe. The ETF drafted the reports for Armenia, Azerbaijan, Georgia and the Republic of Moldova in close consultation with the national authorities, while the national authorities in Belarus, Russia and Ukraine prepared their own reports as a form of self-assessment. All the reports were based on a common analytical framework and their findings were validated in the countries and at the international Torino Process conference held in Turin in May 2011.

## CONTEXT

A number of key features are common to these countries affect vocational education and training (VET) policy and drive VET modernisation.

The transition to a market economy after the command economy collapsed 20 years ago led to significant declines in industry and exports but also had negative repercussions for existing VET systems and their ties to companies (based on a quasi-apprenticeship system). Governments therefore had to rebuild VET almost from scratch as a school-based system, while coping with the uncertainties and

volatility of newly emerging labour markets, privatisation and ongoing restructuring, all in a context of insufficient funds.

The region consists of five small countries (with between 3 and 9 million inhabitants) and two large countries (Ukraine and Russia with 46 million and 142 million inhabitants, respectively). The total population is around half that of the EU in 2009. The proportion of the population made up of people of working age is higher than the EU average of 67% in all the countries. The region has a rapidly shrinking and ageing population and is becoming one of the 'oldest' regions in the world.

Armenia, Georgia, Republic of Moldova and Ukraine belong in

the lower-middle income category, while Azerbaijan, Belarus and Russia are classified as upper-middle income countries. Before the global crisis, their economies were developing extremely rapidly, with growth in gross domestic product (GDP) above 8% in 2007 (except in the Republic of Moldova). It even reached 25% in Azerbaijan, as a result of the country's vast oil revenues. However, the low GDP of these countries represents a major constraint in terms of investment in education in general and in VET in particular, with new demands on VET systems, especially initial VET.

Since the different states took over full responsibility for VET implementation from the early 90's, substantial progress has been made in modernising VET



systems. Each country has given its own direction to VET policy, but in all countries it is seen as a shared responsibility between governments and the private sector.

## KEY CHALLENGES FACING VET POLICY MAKERS

A number of economic, social and other challenges directly affect VET, or are still to be addressed by it.

- While there has been substantial economic growth in all the countries, the drivers of growth vary. Overall, VET systems are facing difficulties in adequately responding to economic development and employment opportunities. While the contribution of agriculture to GDP has declined in most countries, its share of total employment has increased since 2000 in Armenia and Georgia. The service sector's contributions to GDP and employment have increased substantially. The increase, however, has mostly been in low added-value areas such as trade, repairs and personal services, with only a small share accounted for by higher added-value sectors in business and finance. Although nearly all the countries experienced de-industrialisation in the early years of transition, industry has gained ground over the past decade and currently contributes to over one-third of GDP in most countries (Figure 1). However, employment rates have declined and are relatively low, while few jobs have been created. Furthermore, most jobs created were in the informal sector. In Armenia, for example, informal jobs now account for around 50% of total employment. A skills gap seems to exist not only at the bottom of the skills pyramid, but also in highly qualified occupations. The reason is the inadequate responsiveness of the education system to the labour market, combined with inflexible wage policies and a lack of labour market and career information.
- The limited availability of jobs, poor wages in poorly functioning labour markets, and the resulting poor quality of life have meant that labour emigration and the associated brain drain have become major features of the region. Russia absorbs the largest number of migrants (in 2005, 1–2 million from Ukraine, around 1 million from Azerbaijan and nearly 500,000 from Armenia), followed by Europe. Ukraine has the highest number of emigrants abroad: more than 6 million in 2005. Although skills range across all levels, many migrants are young (aged 20–40) and highly educated. However, most migrants work in low-skilled or unskilled jobs abroad and there is a common pattern of skills wastage. In parallel, where there are jobs, employers perceive the quality of education and training inadequate for their needs.
- Since these societies and education systems tend to favour academic education over VET, academic drift in education at both secondary and higher education levels

has become more marked. VET has also been negatively affected by education policy choices over the past two decades. In most of the countries the trend is towards post-secondary non-tertiary VET. However, only Russia comes close to the EU average participation rate in secondary VET (ISCED 3) of 50% (Figure 3).

- Higher education benefited most from education changes during transition. Growing demand led most countries to opt for liberalised higher education systems by opening up to fee-based public and private universities. Most enrolment is in academic higher education (ISCED 5A); enrolment in vocational higher education (ISCED 5B) has been decreasing since the early 2000s (in 2008, the rates ranged between 12% in the Republic of Moldova and 27% in Azerbaijan). Fields such as engineering, manufacturing and construction have seen the lowest increases and even decreases in enrolment compared with other fields.

Figure 1: GDP and employment structure by economic sector (%) (Source: ETF)

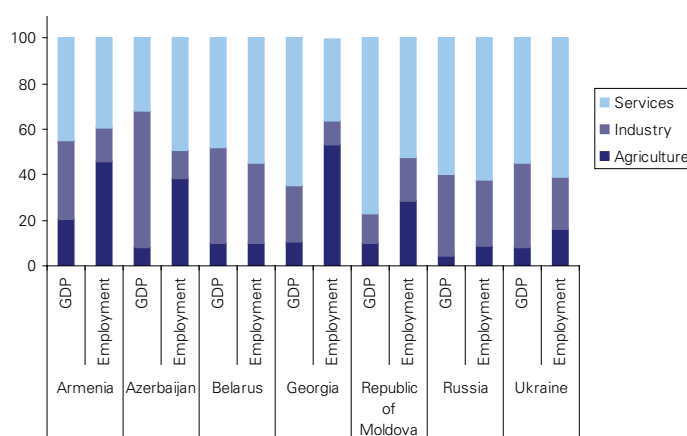
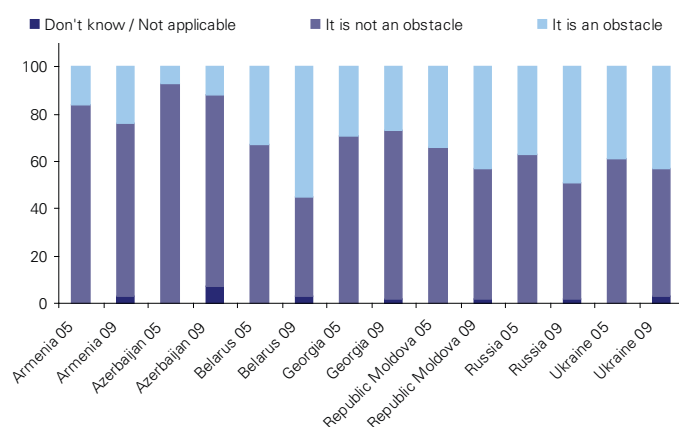


Figure 2: An inadequately educated workforce as an obstacle to companies (%) (Source: EBRD/World Bank (2010)).

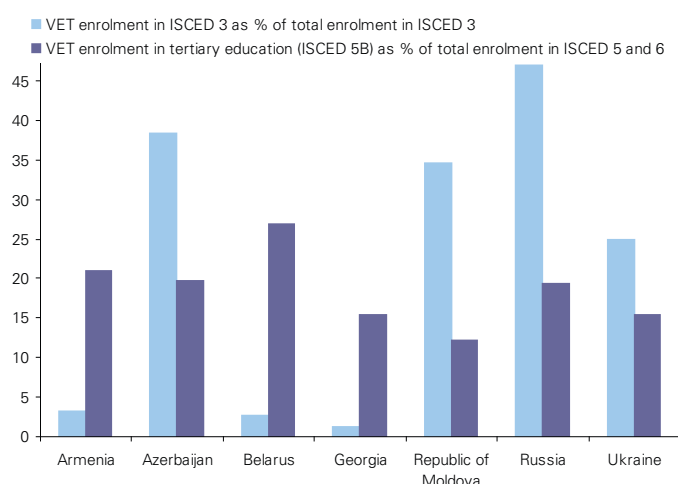


NB: 2005 and 2009 data are not fully comparable owing to methodological changes.

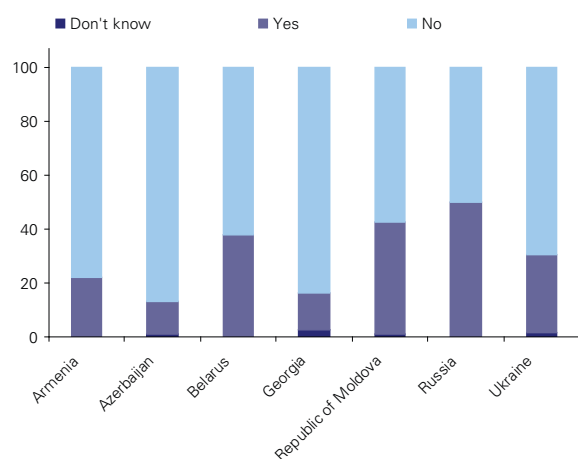
Although continuing vocational training and adult learning opportunities appear to be on the rise, overall adult training provision is underdeveloped in the region. The coverage of private training provision is still narrow and is mainly concentrated in the larger cities. The proportion of enterprises providing training to their employees ranged from 12% in Azerbaijan to nearly 50% in Russia in 2009 (Figure 4). The rates are generally lower than in advanced transition economies, and training is more likely to be provided in larger and multinational companies. Overall comparison with the EU is difficult as reliable data is not available. Enterprise surveys (e.g. on continuing vocational training) and crucial indicators for participation in lifelong learning, which would provide important evidence on the scale and nature of training, still need to be developed in the region.

Despite the fact that all seven countries have made progress in VET reform over the past decade, albeit at different paces, they face many tremendous external and internal challenges in further developing their VET systems:

**Figure 3: Upper secondary and tertiary VET participation, 2008 (%) (Source: Unesco (2010))**



**Figure 4: Provision of in-company training for permanent full-time employees, 2009 (%) (Source: EBRD/World Bank (2010))**



- They face the dual challenge of improving the attractiveness of VET as a viable education and training option for young people, and of shaping overall VET supply to better meet labour market demands.
- Irrespective of the fact that their VET systems vary considerably in size, all the countries face the challenge of improving the overall quality of VET provision.
- They also all face evident difficulties in translating a long-term vision of VET into proper implementation mechanisms, despite existing VET traditions and emerging strategy development in most countries.
- Linked to these difficulties are structural weaknesses in VET governance, with increasing but nevertheless insufficient social partner and stakeholder involvement in VET policy and implementation. Finally, a key challenge is to ensure that proper funding and better resource efficiency are achieved in the VET system.

## POLICY PRIORITIES FOR POLICY MAKERS

The Torino Process led to the identification of the following main priority areas for VET reform in the region.

### Policy vision

While education policies in the region continue to be geared towards higher education, new VET policies are emerging as a response to increased external and internal demand for VET. This dynamism of growing policy aspirations needs to be maintained and supported by proper and better implementation mechanisms and capacities (e.g. a VET master implementation plan, annual and multi-annual targets, and closer monitoring of outcomes and impact). VET policies also need to adopt a longer-term perspective, take outcomes and accountability more into consideration and develop a vision for the future. As the Russian self-assessment report states: 'The system of VET designed for an industrial period of extensive development in a non-competitive environment must be fundamentally changed'.



Repositioning VET in relation to higher education could be the key not only to tackling academic drift in education but also to improving the societal attractiveness of VET and its relevance to labour market needs. The ways in which this could be achieved include enabling vertical mobility between VET and higher education, and developing high-quality and practice-oriented VET pathways parallel to tertiary education pathways, with high-status qualifications that are competitive on the labour market.

With the strong demographic decline and growing and more competitive economies Continuing Vocational Training needs to be stimulated through incentives and public funds aimed at enhancing the role played by VET and post-secondary institutions in providing lifelong learning opportunities for different stakeholder groups, including upskilling for the employed and providing training for unemployed people, etc.).

### **Reinforcing VET policy and system links to the labour market**

Although there are several initiatives in the countries, a systemic and coherent analysis of labour market needs is missing. A well coordinated approach of anticipation of skill needs through a good mix of quantitative and qualitative collection and analysis with a broad stakeholder involvement would provide better directions for education and training strategies.

VET needs to be more energetically reconnected with the business sector in order to ensure improved provision and enhance its status. A new governance model for VET should be developed. Measures to enhance trust building with the private sector (including SMEs) should be adopted and incentives offered to encourage businesses to engage in VET provision by offering work-based learning programmes, internships and continuing training.

### **Improving the quality, efficiency and attractiveness of the VET system**

Remixing the 'VET cocktail' could enhance the attractiveness and outcomes of VET. The new mix could be based on developing broader and internationally relevant qualifications

and on creating a new skills mix in VET that is less theoretical/academic and more practical and work-based, and that includes more key competences, such as entrepreneurship learning, environmental concerns and career management skills.

Quick wins can act as important catalysts, especially since policy making often operates over short cycles. The applicability and use of European VET tools and instruments (e.g. quality assurance, career guidance, non-formal and informal learning, entrepreneurship learning, etc.) could be explored. Mutual learning within the region inspired by the approach in the Copenhagen Process could be another quick-win option, in particular for solutions to problems that neighbouring countries have dealt with.

### **Enhancing the governance and financing of the VET system**

There needs to be a shift from mono-governance to multilevel governance in VET, which requires more coordination in order to overcome the existing fragmentation, and which should be more output-oriented. It is necessary to increase employer and stakeholder involvement and to decentralise towards local decision making in VET.

VET systems are still centralised, with few opportunities for schools to decide on content, staffing and finance. VET funding needs to be changed. It needs to better award school performance than in the past, and re-allocation needs to be considered in some cases. A priority is to focus on increasing efficiency (e.g. through optimisation of school networks or by switching from input/item-based to per capita/programme-based funding). Incentives and funds should be directed in particular at a VET innovation system and improving the evidence base (e.g. by developing lifelong learning indicators and conducting enterprise surveys). Further measures will be necessary in some of the countries, owing to the chronic underfunding and current shape of the infrastructure.

### **Enhancing capacity**

A general challenge in the partner countries relates to the need for policy learning, capacity building and enhanced

regional dialogue on topics of common interest and on priorities identified in the Torino Process country reports. Issues for discussion and include skills needs analysis and forecasting methods, national qualifications frameworks, governance models, stakeholder involvement, continuing vocational training and also the overriding issue of how to improve the attractiveness of VET in general.

## **READINESS FOR EVIDENCE-BASED APPROACHES**

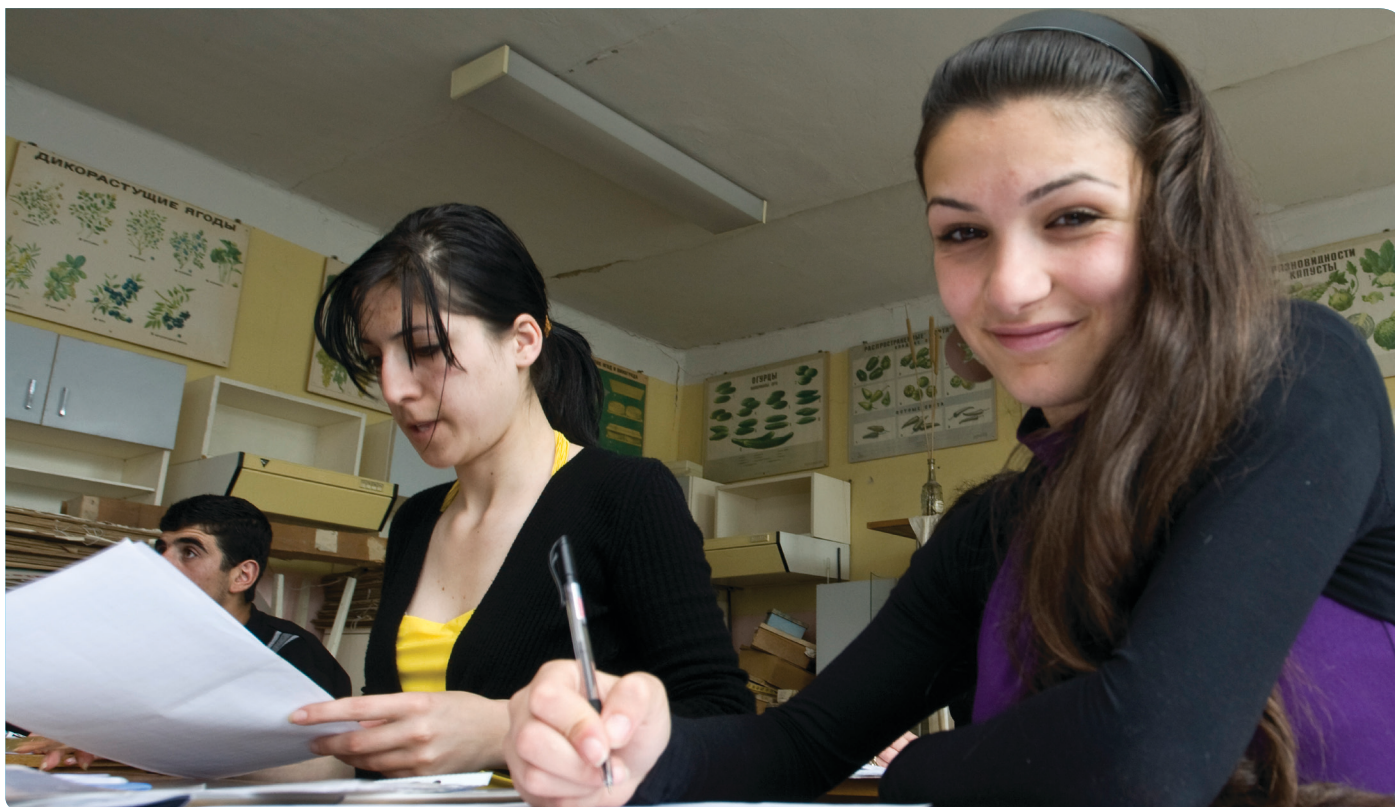
Although evidence-based or informed policy making is a relatively new concept for the region, increasing interest in this approach has been detected in some of the countries. The smaller countries still need to develop structures and capacities to collect meaningful evidence that could be used in the VET policy-making process. The most serious evidence gaps exist in the areas of VET financing, continuing training and lifelong learning, and research into, and measurement of, the effectiveness and efficiency of VET policies. Although structured information on continuing training is part of the Torino Process analytical framework, little information on this topic has been gathered in the countries concerned.

## **THE ETF IN THE REGION**

In the light of the findings of the Torino Process, and developments in the EU education and external relations priorities and policies, the ETF is supporting the partner countries in the following policy areas:

- Overall VET policy and vision development
- Facilitate policy learning with all countries of opportunities and options for continuing training policies;
- Identify interest and good examples of practice to encourage VET policies for sustainable development and green skills.





#### **Reinforcing the VET policy and system links to the labour market**

- human capital development in the context of small and medium sized enterprises;
- support to Platform 2 of the Eastern Partnership to develop follow-up action plans for employment and social policy area in all countries;
- career guidance in Russia.

#### **Improving the quality, efficiency and attractiveness of the VET system**

- national qualifications frameworks for Ukraine, Russia, the Republic of Moldova and Azerbaijan;
- Curricula reforms on the basis of occupational standards revisions in Georgia
- Quality assurance mechanisms in Georgia and Russia
- validation of prior learning of returning migrants;
- Teacher training support to Azerbaijan.

#### **Enhancing the governance and financing of the VET system**

- social dialogue and education and business cooperation in Armenia, Azerbaijan and Belarus;
- school-enterprise cooperation in Armenia;
- role of social partnership and sector councils in the Republic of Moldova and Ukraine;
- optimisation of school networks in the Republic of Moldova and Ukraine.

#### **Enhancing evidence based policymaking approaches**

- Belarus, Republic of Moldova and Ukraine are active in the ETF Torinet initiative launched in 2011 to analyse evidence-based capacity needs and develop tailored methodologies, tools and approaches to support policy makers and stakeholders based on EU experience.
- validation of prior learning of returning migrants;

- qualification transparency;
- human capital development in the context of small and medium sized enterprises;
- national qualifications frameworks for Ukraine, Russia and Azerbaijan;
- school-enterprise co-operation in Armenia;
- follow-up of action plans for employment strategies in Belarus, Armenia, Georgia, and Ukraine;
- social partnership and equal opportunities in Ukraine;
- governance in Armenia, the Republic of Moldova and Russia;
- social dialogue and education and business cooperation in Azerbaijan and Belarus;
- vocational education for sustainable development;
- recognition of prior learning for returning migrants.

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Additional information and references can be found in the 2010 ETF Torino Process regional reports on [www.etf.europa.eu](http://www.etf.europa.eu).

KEY INDICATORS IN EASTERN EUROPE									
	Year	ARMENIA	AZERBAIJAN	BELARUS	GEORGIA	REPUBLIC OF MOLDOVA	RUSSIA	UKRAINE	EU 27
Population, total (million)	2008	3.1	8.9 (1)	9.7	4.3	3.6	141.8	46.2	497.7
Dependency rates (% of working age population)	2008	47.3	41.6 (1)	40.2	46.1	39.5	38.9	43.5	48.7
Dependency rates (aged 0-14 as % of working age population)	2008	30.2	32.1 (1)	20.8	25.0	24.0	20.4	20.2	23.3
Dependency rates (aged 65+ as % of working age population)	2008	17.0	9.6 (1)	19.4	21.1	15.5	18.5	23.3	25.4
Life expectancy, years	2008	73.5	70.2	70.6	71.5	68.4	67.8	68.3	79.2(9)
GDP per capita, PPP (current international \$,000)	2008	6.1	8.8	12.3	5.0	3.0	15.9	7.3	...
GDP by economic sector, value added (% of GDP)									
Agriculture	2008	18.0 (1)	6.0	8.5	10.0	11.0	4.8 (9)	7.8	1.8
Industry	2008	36.0 (1)	71.0	38.6	24.0	15.0	38.6 (9)	35.5	26.4
Services, etc.	2008	46.0 (1)	23.0	52.8	66.0	74.0	56.8 (9)	56.7	71.8
Global Competitiveness Index (rank, out of 133)	2009/2010	97	51	...	90	...	63	82	...
Employment rates (% , total aged 15-64)	2008	52.8	60.0 (6)	55.6 (6)	52.3 (6)	43.0 (6)	56.7 (6)	59.3 (17)	64.6/53.7(6)
Employment rates (% , female aged 15-64)	2008	42.4	55.9 (6)	54.1 (6)	44.9 (6)	40.1 (6)	51.3 (6)	54.0 (17)	58.2/46.6(6)
Youth unemployment rates (% , total aged 15-24)	2008	57.4	14.0 (9)	2.4 (9)	35.5	14.4	14.5 (9)	13.3	15.5
Youth unemployment rates (% , total aged 25-34)	2008	28.3	7.9 (9)	1.1 (9)(8)	25.9	5.8	...	7.0 (8)	...
Youth unemployment rates (% , female aged 15-24)	2008	67.5	10.5 (9)	3.3 (9)	40.7	12.4	14.7 (9)	13.6	15.5
Youth unemployment rates (% , female aged 25-34)	2008	38.7	7.3 (9)	1.4 (9)(8)	28.2	3.7	...	7.1 (8)	...
Unemployment rates (% , total aged 15+)	2008	29.4 (2)	6.6 (2)(9)	1.1 (9)	16.5	4.0	6.3 (15)	6.4 (17)	70(18)
Unemployment rates (% , female aged 15+)	2008	36.4 (2)	5.3 (2)(9)	1.31 (9)	16.1	3.4	6.1 (15)	6.1 (17)	75(18)
Participation in lifelong learning (% , total aged 25-64)	2008	...	...	...	...	...	...	...	9.4
Completion of at least upper secondary education (% , total aged 25-64)	2008	88.1 (3)	88.6 (9)	85.8 (10)	89.5 (11)	82.6	88.0(11)	89.7 (9)	71.4
Gross enrolment rate - primary (ISCED 1)	2008	105.1	116.2	99.2	107.4	94.0	96.8	98.4	...
Gross enrolment rate - lower secondary (ISCED 2)	2008	94.8	100.9	113.5	90.4	90.1	85.2	95.9	...
Gross enrolment rate - upper secondary (ISCED 3)	2008	74.8	115.7	72.3 (9)	89.5	82.8	84.2	91.5	104.5
Gross enrolment rate - higher (ISCED 5+6)	2008	34.2 (9)	15.8	72.8	34.3	40.0	77.2	79.4	...
Participation in VET (% of upper secondary)	2008	3.3	38.40	2.6	1.2	34.5	47.0	24.9	48.9
Student/teacher ratio in VET (%) (ISCED 3)	2008	7.3 (4)	12.3 (7)	...	...	12.1 (13)	...	...	...
Student/teacher ratio in general education (ISCED 3)	2008	...	...	...	7.8 (4)	...	...	...	...
Private VET (% of total VET - ISCED 3)	2008	...	80.8	...	27.1 (4)	2.1 (14)	1.5 (9)	0.5 (18)	25.2
Private general education (% of total general education - ISCED 3)	2008	1.4 (4)	0.5	...	6.4 (4)	...	0.6 (9)	...	13.9
Public expenditure on education (% of GDP)	2008	2.8 (5)	2.7 (9)	5.8 (9)	3.0 (12)	8.2	3.9 (16)	5.3 (9)	5.0(9)

Notes: ... = missing data. (1) 2009, (2) Age group 15-64, (3) 2000, (4) 2008/09, (5) 2006/07, (6) Age group 15+, (7) Total VET, (8) Age group 25-29, (9) 2007, (10) 1999, Educational levels included are 'higher', 'secondary vocational', 'primary vocational' and 'secondary general' education. (11) 2002, (12) 2004/05, (13) 2007/08, total ISCED 3 considered. (14) 2007, total ISCED 3 considered. (15) Age group 15-70, (16) 2006, (17) Age group 15-70, (18) Total ISCED 3, (19) Age group 15-74.

Sources: Federal State Statistics Service of Russia; ILO - Labour Statistics database; Kuddo, A., 'Employment services and active labour market programmes in Eastern European and Central Asian countries', Social protection and labour discussion paper, no. 918, World Bank, 2009; LFS; Ministry of Education and Science of Georgia; Ministry of Finance of Armenia; Ministry of Finance of Azerbaijan; Ministry of Finance of Moldova; National Bureau of Statistics of Moldova; National statistical committee of the Republic of Belarus (2000-01, 2004, 2006 and 2008). Labour and employment in Belarus, Minsk; National statistics office of the Republic of Belarus (2000-01, 2004, 2006 and 2008). Labor and employment in Belarus, Minsk; National Statistics Office of Georgia; National Statistical Service of the Republic of Armenia; OECD; State employment agency of Armenia; Statistical office of Belarus (2009). Statistical yearbook, Minsk 2009; State Statistics Committee of Ukraine; State Statistical Office of Azerbaijan; State Statistical Office of Belarus; United Nations Development Programme; UNECE Statistical Division Database; UIS; World Bank - World Development Indicators; World Economic Forum.