

# EDUCATION FOR SOME MORE THAN OTHERS?

A REGIONAL STUDY ON EDUCATION  
IN CENTRAL AND EASTERN EUROPE  
AND THE COMMONWEALTH  
OF INDEPENDENT STATES (CEE/CIS)

For every child  
Health, Education, Equality, Protection  
ADVANCE HUMANITY

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All correspondence should be addressed to:  
UNICEF Regional Office for CEE/CIS  
Education Section  
Palais des Nations  
CH 1211 Geneva 10  
Switzerland

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## FOREWORD

*Education for Some More than Others?* examines how far the trend towards increased disparities in education has continued in Central and Eastern Europe and the Commonwealth of Independent States. It is a follow-up to the Regional Monitoring Report on education issued by Innocenti Research Centre. Assessment of progress is both timely and important as we are now mid-way between the starting and ending dates of the Millennium Development Goals.

Since the end of the 1990s, the economic and social situation in the region has significantly changed. According to Innocenti Research Centre's *Social Monitor 2006*, the absolute number of children living in income poverty has decreased in the Commonwealth of Independent States and South-Eastern Europe. To a large extent, this is because national income has increased and is being shared in many countries among populations that are falling or remaining stable in size. Nevertheless, one in four children is still living in poverty, children have a higher probability of being poor than adults and disparities in wellbeing, both material and non-material, have widened. Those who live in large and non-nuclear families, in rural and disadvantaged areas as well as in the Caucasus and Central Asia are particularly vulnerable to the risk of poverty.

While increased public expenditure on education and reform efforts have taken place in many countries, education systems are generating growing inequalities in access, especially preschool enrolment and attendance and basic education completion. Nearly 2.4 million children of primary-school age and almost 12 million of lower- and upper-secondary-school age were estimated to be out of school in 2004. Demand for education is falling due to the poor quality of services and insufficient perceived benefits from schooling. Other factors such as socio-economic disadvantage, ethnicity, disability, violence in school and child labour contribute to early dropout and low completion rates in basic education.

Recognizing the imperative to achieve the Millennium Development Goals, this study proposes a set of policies to improve equity in access to quality education with the goal to promote respect for human rights, social cohesion and economic competitiveness. In some countries, prioritizing policy efforts and financial allocations to improve the quality and equity of education is already taking place within the Education for All Fast Track Initiative and Millennium Development Goals frameworks, Poverty Reduction Strategies and European Union accession and affiliation processes. While the visibility of children excluded from education varies in these initiatives, overall, there is a need to raise awareness among governments and stakeholders of the importance of quality education for all if individual, social and economic development is to be secured. It is hoped that this report will contribute towards this effort.



Maria Calivis  
Regional Director, UNICEF CEE/CIS

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## ACRONYMS

CAI	Computer-aided instruction
CIS	Commonwealth of Independent States
CST	Computer skills training
ECCE	Early childhood care and education
EFA	Education for All
ENP	European Neighbourhood Policy
EU	European Union
FTI	Fast Track Initiative
GDP	Gross domestic product
IDP	Internally displaced person
ILO	International Labour Organization
IMF	International Monetary Fund
IRC	Innocenti Research Centre
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Surveys
MLA	Monitoring Learning Achievement
MTEF	Medium-Term Expenditure Framework
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OSI	Open Society Institute
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPP	Purchasing power parity
TIMSS	Trends in International Mathematics and Science Study
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund



## COUNTRY GROUPINGS USED IN THE STUDY

**Countries covered by this study** are: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

Montenegro became independent following a referendum in May 2006. However, for the purpose of this study, Serbia and Montenegro are generally treated as one country, except in cases where they have separate data.

For the purpose of this study, the **CEE/CIS region** (referred to as 'the region') is divided into the following country groupings: Albania, Baltic States, Bulgaria and Romania, Caucasus, Central Asia, Central and Eastern Europe, Countries of the former Yugoslavia (for brevity, labelled 'Former Yugoslavia'), Turkey, Western Commonwealth of Independent States.

**Sub-regions** are defined as follows:

**Baltic States:** Estonia, Latvia, Lithuania;

**Caucasus:** Armenia, Azerbaijan, Georgia;

**Central Asia:** Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan;

**Central and Eastern Europe:** Czech Republic, Hungary, Poland, Slovakia, Slovenia;

**Countries of the former Yugoslavia:** Bosnia and Herzegovina, Croatia, Montenegro, Serbia, The former Yugoslav Republic of Macedonia;

**Western Commonwealth of Independent States:** Belarus, Moldova, Russian Federation, Ukraine.

Other country groupings referred to in the study are:

**Commonwealth of Independent States:** Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan;

**European Union (EU) 8:** Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia;

**EU15:** Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom;

**South-Eastern Europe:** Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Romania, Serbia, The former Yugoslav Republic of Macedonia;

**Focus-group countries:** Albania, Azerbaijan, Moldova, Tajikistan, Turkey.



## EXECUTIVE SUMMARY

This study is a follow-up to *Education for All?*, UNICEF Innocenti Research Centre's (IRC) 1998 Regional Monitoring Report in Central and Eastern Europe and the Commonwealth of Independent States. That report found a marked increase in disparities in the quantity and quality of education throughout the region since the onset of transition. In response, it recommended Twelve Steps towards Education for All to remedy the problems.

The present study addresses two main questions, with a focus on the poorer countries and this time with the inclusion of Turkey: (1) *How far has the trend towards increased disparity – Education for Some More than Others – continued?* (2) *How far have the Twelve Steps towards Education for All been taken and what additional steps are needed now?*

The Twelve Steps are:

1. Teaching methods that encourage participation and individual development;
2. Reconsideration of streaming and selection in schools;
3. Fair exam systems that allow each child to demonstrate his or her achievement;
4. Re-stimulation of extra-curricular support by schools;
5. Increased parental and community involvement in education;
6. Investigation of child labour and its links to school attendance and learning;
7. More attention to access to and quality of education for children from low-income families;
8. Integration of disabled children into regular schools;
9. Attention to the needs of ethnic minorities;
10. Encouragement of early childhood development in the broadest sense through various means;
11. Sufficient central control over local administration of schools, including curricula;
12. Adequate financial transfers to local governments with weak resource bases.

Changes in educational systems, practices and outcomes have taken place in the following **context**:

- > The agenda and activities of international agencies, including Education for All (EFA), the Millennium Development Goals (MDGs), the European Union's National Action Plans, and the programmes of the Asian Development Bank, Organisation for Economic Co-operation and Development (OECD) and the World Bank.
- > Economic recovery in all countries since 1998 and in Turkey since 1989.
- > Fiscal difficulties in the weaker economies, particularly Armenia, Georgia, Kyrgyzstan, Moldova and Tajikistan.
- > Rising average standards of living but with a huge range, from Slovenia (near the European Union average) to Tajikistan (comparable to Rwanda).
- > Increases in income inequality in every country except Turkey.
- > Rising unemployment rates, higher among the young than among adults.
- > Declining poverty rates but persistent poverty in several countries.
- > Child labour, with the percentage of working children in some countries comparable to that in developing countries.
- > Recovery in life expectancy, but continuing low levels for males, especially in the Russian Federation.

- > A downward trend in school-age populations, expected to continue in all countries except Tajikistan and Turkey.
- > A complex pattern of international migration, and growing numbers of refugees and internally displaced persons fuelled by armed conflict.

Against this background, education **reform** has followed a common sequence, beginning with (1) a period of euphoria and experimentation with external models in an atmosphere of new-found freedom; followed by (2) a phase of cautious reappraisal of external models; and (3) as fatigue sets in, an attempt to give reforms a more national flavour. Fatigue with reforms is nothing new. As a Russian teacher wrote in 1923, "My school has no window glass, and the building has no roof. But, with the complex method, my instruction proceeds." Important advances have been made, however, including adoption of educational standards in place of a focus on inputs, introduction of choice for parents and children (at least for the middle class) and recognition, at least in principle, of free education as a human right.

The lessons from the main reform attempts can be summarized as follows:

- > Reform of teaching has concentrated on in-service training, leaving pre-service training largely unreconstructed. Teachers need to be more involved in the teaching-reform process and to be better paid. Meanwhile, traditional whole-class teaching is often the only realistic option.
- > Agreed curriculum standards are still needed in many countries, along with greater involvement of teachers and communities (and more interaction between the central government and localities). The danger of curriculum overload is widespread.
- > Books and materials should be subsidized for those who cannot afford them but textbook rental schemes can work if they are carefully developed. Free textbooks for all are not a fiscally feasible option.
- > Developing a national system of learning assessment requires a skilled and independent agency. Although assessment has been widely adopted, there are doubts about its effective implementation. There is a danger, also, of increased pressure on students, reflected in the growth of private tutoring.
- > The quality of early childhood education has improved, thanks to innovation. However, enrolment is low and the disadvantaged are excluded. There is a case for making the immediate pre-primary year compulsory.
- > Separate education of children with special needs still prevails and wider reforms can encourage exclusion of such children. In poorer countries and locations, little evidence can be found that these children are being included in regular schools.
- > The old model of vocational education (producing ready-to-work recruits with narrow skills for industry) no longer works. Students are in any case voting with their feet and preferring general education. There is a need for convergence of vocational and general education, focusing on new rather than old skills.

The impact of reform in the classroom depends on ensuring adequate and equitable **access** to education. In **aggregate**:

- > Preschool enrolment rates have risen but they are still low in the Caucasus, Central Asia, South-Eastern Europe and Turkey.
- > Most countries are on track for MDG 2 (universal primary education completion by 2015) but seven (Croatia, Georgia, Kyrgyzstan, Moldova, Romania, Tajikistan and Ukraine) are in danger, with three (Georgia, Moldova and Tajikistan) unlikely to achieve the goal. Nearly 2.4 million children of primary-school age were estimated to be out of school in the region in 2004.

- > The enrolment rate in upper secondary education is still below 50 per cent in eight countries (Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Moldova, Tajikistan and Turkmenistan), and almost 12 million children of (lower and upper) secondary-school age were estimated to be out of school in the region in 2004.
- > A rush towards mass higher education at the expense of quality has occurred in some countries, particularly the new EU members, but enrolments are still low in Central Asia.
- > The private sector is expanding, mainly in higher and post-secondary further education, and in a few countries in upper secondary general education.

As for **equity** in access:

- > Gender disparity goes both ways in different countries at different levels, with Tajikistan and Turkey the only countries in major trouble with MDG 3 (elimination of gender disparity at all levels of education by 2015).
- > Family background has a significant impact on access to preschool, less of an impact in basic education, more in upper secondary (with the disadvantaged over-represented in vocational schools) and most in higher education. Children from poor and otherwise disadvantaged families have less access at every level.
- > Urban-rural disparities in access to secondary education are virtually always to the detriment of rural students.
- > Ethnic minorities are frequently at a disadvantage in access, most strikingly in the case of the Roma, who are growing as a percentage of the youth population in several countries.
- > Opportunities for children with special needs outside institutions are limited and many children with disabilities are not enrolled in school.

How far is inequity in access compounded by inequity in learning and labour market **outcomes**? International test results – in the Progress in International Reading Literacy Study (PIRLS), the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) – give an opportunity to measure **learning outcomes**. As far as **average outcomes** are concerned:

- > There is a hierarchy of countries, with the eight new European Union members near the top, and The former Yugoslav Republic of Macedonia and Turkey at the bottom, among those who have participated in all six of these international tests.
- > Spending more money per head on education produces better results – up to a certain point. Among the countries in the region in the sample, only Slovenia appears to have increased public educational expenditure per head beyond the point where it has a favourable impact on average ranking in these tests.
- > Trends over time in average test outcomes are mixed. Some countries (Latvia, Lithuania and Poland) have seen an improvement in performance, others (Bulgaria, Slovakia) a deterioration.
- > A worrying aspect is that the countries in the region tend to do better, relative to OECD countries, in PIRLS and TIMSS (which reward accumulation of facts) than in PISA (which rewards skill in using knowledge in real-life situations).

Within-country **disparities** in learning outcomes are significant, and less dependent on a country's geographical situation and average income level. There is no apparent trade-off between average quality and equity: the best achievers often have the lowest disparities in outcomes. Disparities tend to reflect differences in socio-economic background, with mother's level of education a powerful

influence, and in quality of schools. Gender disparities in outcomes vary: girls consistently do better than boys in reading (arguably the most important skill for labour market success), and in some countries in mathematics and science.

Over the longer term, education has a dynamic impact on comparative advantage: away from growth based on cheap labour and towards growth based on skills. From the viewpoint of a ministry of finance, this is what justifies public spending on education equivalent to 5 per cent or more of the gross domestic product (GDP). More immediately, it has an impact on **labour market outcomes** of individuals.

A question that arises is whether the shortfalls in enrolments and in some cases problems in achieving the Millennium Development Goals reflect a response to labour market signals. There is an apparent contradiction in this respect between labour market statistics and views expressed in focus-groups that were conducted for this report – but the contradiction is only apparent. Statistics on unemployment rates and average earnings show that young workers, even those who work abroad, benefit from staying in the education system as long as possible. The returns to higher education are particularly significant. However, focus-group discussions revealed that poorer people in the poorer countries, for whom higher education is an unachievable dream, are sceptical about reaping these benefits, especially in the case of girls in Azerbaijan, Tajikistan and Turkey. Weak demand for education is also attributed to the hidden costs of schooling (such as contributions to school funds, cost of textbooks and clothing), corruption and private tutoring, conditions in schools and child labour.

As for **costs, financing and governance**, governments all over the region are grappling with the task of redefining the basic package of educational services to be provided free of charge by the state. Should all levels be free or just mandatory education? What about meals, books, transportation, extra-curricular activities? A basic principle in answer to such questions is that achieving equal outcomes requires unequal provision of free inputs: more to those who need them, less to those who do not. The financial situation can be summarized as follows:

- > Public expenditure on education represents a varying percentage of GDP. Many countries are above the OECD average but several suffer from budget deprivation.
- > Most public funding for education goes to basic education, in some countries a high proportion to preschools and a varying proportion to higher education. By category, most of it is spent on remuneration, very little on improving quality.
- > Many countries allocate additional resources to children with special needs. OECD members in the region give such resources to a relatively high proportion of disabled primary-school children but less to the socio-economically disadvantaged.
- > The low level of teacher salaries is reflected in low morale and commitment, recruitment difficulties and corruption, to the detriment of quality.
- > Private tutoring is spreading in response to low salaries and eroded quality. There is an obvious danger of unethical practices and low-income families, with less access to high-quality private tutoring, lose out.
- > Public expenditure per student varies widely. It tends to be a higher percentage of GDP per head than in OECD countries for preschool, higher for vocational than for general school, below OECD averages for primary and secondary general, and varying for higher education, depending on the extent of cost recovery.
- > Student/teacher ratios have been falling everywhere, except Central Asia and Turkey. The 'demographic dividend', together with rationalization of school networks, presents an opportunity for increases in student/staff ratios and class size in some countries.

- > Decentralization has been proceeding at a varying but generally slow pace. It mainly consists of transfers of funds from the centre. From the equity point of view, this slow progress is not necessarily unfavourable: 'real' decentralization often means that weaker localities have less money.
- > A crucial new tool for education planning is the Medium-Term Expenditure Framework (MTEF) – a costed framework for analysing trade-offs between alternative targets.
- > Another relatively new element is the model of formula funding ('money follows the student') and autonomous schools. In principle, this model can help quality and efficiency, but care needs to be taken to establish standards and monitoring, and to promote the interests of the disadvantaged.

In conclusion, it is clear that a country's economic situation matters for education. The five countries with the lowest GDP per head, the highest poverty rates and the biggest fiscal difficulties are among those with problems achieving MDG 2, low preschool and secondary enrolment rates and declining quality, due to budget deprivation. Within each country, 'education for some more than others' usually prevails. Families with higher incomes tend to gain disproportionate access to preschooling, ensure that their children's basic education is relatively well funded (by themselves, if necessary), provide a home environment that reinforces learning advantages and exam performance, steer their children into secondary schools (the better ones, general rather than vocational, private, if necessary) and hire good private tutors – all towards their ultimate objective of the higher-education qualification that makes it easier to get a relatively well-paid job.

At the other end of the spectrum, poorer families do not expect to reap the benefits of schooling and are less able to afford the hidden costs, resulting in non-attendance and dropout. Ethnicity, special needs and in some countries (especially Tajikistan and Turkey) gender compound their disadvantage. Public expenditure on education reinforces, rather than counteracts inequality. The fall in school-age populations has reinforced inefficiencies in education systems, symbolized by low student/staff ratios, more in some countries than others.

What about the **Twelve Steps towards Education for All**? Achievement is varied:

1. Teaching methods are more diverse, but new approaches that encourage participation and active learning are not widely spread.
2. There has been an increase in streaming within schools and in selective admission to elite (mainly state) schools.
3. External assessment of learning achievement has been introduced but there are doubts about its effective implementation.
4. Extra-curricular activities are scarce and under-resourced, with teachers and parents distracted by problems of poverty.
5. School boards have been established in some cases but there is less parental involvement in poorer communities.
6. The aims of the movements against child labour and for education for all are not yet fully integrated (they have been described as "ships that pass in the night") but conditional cash transfers (to help children avoid work and stay in school) are a promising initiative.
7. Low-income children have less access to and receive lower-quality education.
8. Separate provision for children with disabilities is still the rule.
9. There is little evidence of any improvement in the situation of ethnic minorities, particularly the Roma.

10. Early childhood education is the area showing the most innovation but it is not reaching those who need it.
11. Top-down reform and grass-roots innovation interact insufficiently, leading to overloaded and fragmented curricula.
12. Central governments, especially in fiscally challenged countries, tend to pass the funding burden to local communities.

To create the conditions for effective implementation of the Twelve Steps and to get away from the uncoded, 'wish-list' approach to education planning in which everything is a priority, an MTEF approach is recommended. This provides a framework within which alternative targets can be analysed, recognizing, for instance, that different levels of schooling compete for resources. The most important figure in the MTEF is the total amount available for education – the 'envelope' for education planning over the period. Countries with public expenditure on education equivalent to less than 4 per cent of GDP should be spending more. Those spending less than 6 per cent should resist pressure from the ministry of finance to cut expenditure on education due to falling school-age populations. The 'demographic dividend' should be spent to increase the quantity and improve the quality of education, rather than being diverted to other sectors. In this approach, a distinction should be made between policy changes that increase public expenditure and those that reduce it.

**Desirable changes that increase public expenditure** include the following:

- > Expand pre-primary, basic and secondary enrolment to achieve MDG 2 and other objectives;
- > Increase teacher pay;
- > Increase expenditure on reform in schools but with a bias towards the disadvantaged of all kinds;
- > Integrate as many special-needs children as possible into regular schools, with the necessary funding;
- > Reform pre-service teacher training, which requires more funding and changing attitudes;
- > Improve the physical quality of schools, which cannot be left entirely to local communities;
- > Provide free textbooks for disadvantaged children (but not for all students);
- > Abolish fees for mandatory education, including the pre-primary year;
- > Provide conditional cash transfers to encourage disadvantaged children to attend school – for girls in countries that are lagging in progress towards MDG 3 but for other categories also;
- > Provide transport between home and school, where networks have been rationalized by the closure or merging of schools that are below optimum size, hiring rather than buying buses, if possible.

**Desirable changes that reduce public expenditure** to offset those above include the following:

- > Change the criterion for subsidies to preschool (available to all but effectively going to more prosperous families) and to higher education (based on academic merit, also favouring the better-off) to need;
- > Promote convergence of vocational and general education, resulting in higher quality and improved equity at a lower average unit cost;
- > Increase student/teacher ratios and even more so student/non-teacher ratios, and rationalize school networks;
- > Organize textbook rental schemes for all except disadvantaged children who should receive textbooks free;



- > Reduce the number of special-needs children in institutions and close as many of these institutions as possible;
- > Ensure fair treatment for private educational institutions but subject them to government supervision of standards;
- > Raise money from the private sector, the community, donors and others to help fund some of the expenditure-increasing measures.

**Reinforcing changes** include:

- > Anti-discrimination legislation, for instance to prevent exclusion from regular state schools of children without birth certificates, non-citizens, refugees, internally displaced persons and other disadvantaged groups;
- > An active campaign against corruption, which would have to be accompanied by substantial pay increases for teachers;
- > Within any formula-funded autonomous-school model, formulae that favour the disadvantaged, giving an incentive to schools to recruit and look after such students;
- > Strengthened capacities to plan, manage, monitor and deliver educational services in support of reform at central, sub-national, school and community levels.

Finally, moving from 'Education for Some More than Others' to 'Education for All' means breaking vicious circles that involve lack of access to quality schooling at different levels for children with various disadvantages. This means moving from a distribution of public expenditure that reinforces inequality to one that counteracts inequality. This is not a responsibility that can be passed entirely to local authorities, communities, schools and parents. Only central governments can create the conditions that will ensure Education for All.

# CHAPTER 1



## CHAPTER 1: INTRODUCTION AND CONTEXT

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 1: INTRODUCTION AND CONTEXT

In 1998, UNICEF Innocenti Research Centre published *Education for All?*, a regional monitoring report that questioned whether education for all was a reality in the countries of Central and Eastern Europe and the Commonwealth of Independent States. It asked:

*Do all children receive the type of education that is their right, and that is so important in the construction of the new societies and economies in which they live?*<sup>1</sup>

In addition to some positive educational reforms, the report found several worrying changes since the onset of transition, including the following:

- > Families' costs of educating children had gone up, often sharply.
- > School quality had fallen.
- > Enrolment and attendance had often dropped, especially in less developed parts of the region.
- > Selectivity and competition had increased, as shown by the development of elite, better-funded upper secondary schools and private schools.
- > War and ethnic tensions had severely disrupted the education of thousands of children in several countries.
- > Many young people faced unemployment upon finishing their full-time education, although education had a positive effect on employability and earnings.

These changes reflected a marked increase in disparities in the quantity and quality of the education provided. Children from some ethnic minorities, from families caught up in war and from poorer, rural families suffered disproportionately. Educational disparities between countries had increased, with systems in the Caucasus and Central Asia suffering far more than those in Central and Eastern Europe.

This study sets out to examine the extent to which those trends – towards 'Education for Some More than Others' rather than 'Education for All' – have continued. It asks how much the disparities in access to high-quality education, and in learning and labour-market outcomes have increased within and between countries. It focuses particularly on the region's poorer countries and Turkey. An important context for the study is the Millennium Development Goals for education: Three countries in the region (Georgia, Moldova and Tajikistan) are considered unlikely to achieve MDG 2 (universal completion of primary education) by 2015, and two (Tajikistan and Turkey) failed to achieve the first milestone of MDG 3 (elimination of gender disparity in primary and secondary education) by 2005.

As far as policy is concerned, this study looks again at the Twelve Steps towards Education for All (box 1.1), which the 1998 report set out as the "agenda for policy to increase educational opportunities and quality for less-advantaged children, thereby reducing disparities in access and achievement".<sup>2</sup> The study asks how far these 12 steps have been taken and what additional steps are needed now.



### Box 1.1: Twelve Steps towards Education for All

1. Teaching methods that encourage participation and individual development;
2. Reconsideration of streaming and selection in schools;
3. Fair exam systems that allow each child to demonstrate his or her achievement;
4. Re-stimulation of extra-curricular support by schools;
5. Increased parental and community involvement in education;
6. Investigation of child labour and its links to school attendance and learning;
7. More attention to access to and quality of education for children from low-income families;
8. Integration of disabled children into regular schools;
9. Attention to the needs of ethnic minorities;
10. Encouragement of early childhood development in the broadest sense through various means;
11. Sufficient central control over local administration of schools, including curricula;
12. Adequate financial transfers to local governments with weak resource bases.

*Source: UNICEF, 1998: Table 4.9.*

The egalitarian logic underlying the Twelve Steps was as follows:

- > Teaching methods that encourage participation and active learning help disadvantaged children develop.
- > Reconsideration of streaming and selection into different types of secondary school is aimed at avoiding polarization of educational opportunities.
- > Fair exam systems should ensure selection on the basis of merit.
- > Extra-curricular support (such as health and nutrition actions) and organized after-school activities are particularly important for children from disadvantaged backgrounds.
- > Encouraging parental involvement in school life may help maintain enrolment and attendance of children from disadvantaged backgrounds.
- > Investigating child labour and its impact on schooling is particularly important for children from rural backgrounds and low-income families.
- > Lack of textbooks, fees, the cost of clothing and the need to pay bribes can severely threaten access to quality education for children from low-income families.
- > Integrating disabled children into regular schools wherever possible is in their best interest, rather than isolating them in separate institutions or allowing them to drop out.
- > Attention to the needs of ethnic minorities should include considering the language of instruction, teaching the national language and encouraging involvement in governance of local school systems.
- > Early childhood care and education should cover health, nutrition, socialization and learning, and it should not be confined to formal kindergarten, which is often inaccessible to children from rural and lower-income families.
- > Central government should retain adequate control over local administration to ensure universal adherence to minimum standards of education.
- > In decentralized systems, central government should be able to redistribute funds from richer to poorer areas.

## Methodology and Structure of the Report

The report is based on fieldwork and analysis of a wide range of studies and statistics. It is supplemented by a survey of the views of disadvantaged parents and children in five of the region's poorer countries – Albania, Azerbaijan, Moldova, Tajikistan and Turkey – intended to give a voice to people who are often ignored. For this purpose, more than 20 focus groups and workshops were conducted with parents and school-aged children (grades 7 to 11) during the summer of 2006. Findings from these focus groups were also discussed in targeted open-ended interviews with key informants in each country, including education experts from ministries of education, principals, teachers, staff from local and international non-governmental organizations (NGOs) working in education, and UNICEF education officers and other staff in each country. More than 30 interviews were conducted in the targeted countries.<sup>3</sup>

The remainder of chapter 1 sets the scene by looking at the context of changes in educational systems, practices and outcomes.

Chapter 2 reviews progress in educational reform, focusing on the structure of educational systems, and teaching and learning in schools (such as curricula, teaching methods and materials, learning assessment and examinations), and whether reforms have been implemented equitably.

In the framework of MDGs 2 and 3, chapter 3 assesses changes in enrolment, attendance, drop-out and completion rates, in equity of access (by gender, ethnicity, household consumption quintile, parents' education level and occupation, urban-rural location) and in provision for children with special needs, including those in residential care.<sup>4</sup>

In chapter 4, learning and labour market outcomes are explored. How do students perform in international achievement tests, and how do graduates from various levels and types of education perform in labour markets? In both cases, the focus is on inequality in outcomes within countries, and on the causes and consequences of inequities in learning and labour markets, including those faced by people with disabilities and special needs. The chapter uses statistics and the results of focus-group interviews to explore the reasons for disappointing enrolment and attendance rates in some countries in relation to the MDGs and other targets. It seeks to determine whether the outcomes reflect supply constraints (school places not being available to those who want them) or demand constraints (determined by family decision-makers comparing the costs and benefits of schooling).

Chapter 5 addresses questions of cost, financing and governance. It asks: Has public expenditure on education increased or fallen in real terms? What is the composition of education expenditure? What resource constraints are there on the plans of education reformers? How much is spent per student at different levels? How much has the methodology for allocating funds to different levels and types of education been reformed? How far has managerial authority been decentralized to autonomous schools? And what are the implications for equity of changes in the cost, financing and governance context?

Chapter 6 spells out the conclusions of the study along with their implications for policy. In particular, it assesses the extent to which the Twelve Steps towards Education for All have been implemented and their continued adequacy as policy prescriptions.

## Global Context: The Reform Agenda of International Agencies

The global context for education reform in the region is the reform agenda of international agencies, including the Asian Development Bank, European Union, Organisation for Economic Co-operation and Development, Open Society Institute (OSI) (also known as the Soros Foundation), United Nations Educational, Scientific and Cultural Organization (UNESCO), UNICEF and the World Bank. The influence of these organizations is especially strong where they provide substantial financing and external monitoring – for example in EU accession countries, in countries required to file a National Action Plan for Social Inclusion and in countries associated with the European Neighbourhood Policy (described below).

While they are, on the whole, benign both in intent and implementation, there is a question whether these reform agenda are sufficiently grounded in national educational traditions and aspirations to survive once external financing ends. For example, many externally funded projects include small pilot initiatives, involving a limited number of schools or teachers. Only rarely do such initiatives make a wider and more lasting impact on national education policy. In addition, even those pilots that are successful on their own terms are not replicable beyond their initial remit – because they are too costly or because the conditions that made them successful are not present elsewhere. Therefore, they often sink without a trace, especially where they lack resonance with local traditions or where little effort has been made to engage national policy makers in their evaluation and possible inclusion in long-term education strategies.

For that reason, over-arching efforts, such as the global Education for All strategy, European benchmarks, European Neighbourhood Policy, MDGs and National Action Plans for Social Inclusion, stand a better chance of bringing a coherent reform agenda to the region. The challenge is to ensure that ‘child-friendly’ reforms actually reach those for whom they were intended.

The EFA effort established six specific quantitative and qualitative goals for education, subject to periodic reviews and monitoring.<sup>5</sup> At least two of these fit with global development goals set by international organizations, such as the United Nations and the World Bank, and are now part of the MDGs: (1) elimination of gender disparities in primary and secondary education by 2005 and at all levels by 2015, and (2) achievement of universal primary education. (An additional EFA goal, not included in but consistent with MDG 2, is wider access to early childhood care and education, which is especially important for children from disadvantaged backgrounds.)

The key international actors and their agenda are as follows:

*Asian Development Bank:* Provides loans and technical assistance, based on its aims to increase equity and access, improve quality, strengthen management, mobilize resources and foster partnerships to apply innovative technologies at every level of schooling. It focuses on five countries in the region: Azerbaijan (school buildings and early childhood development); Kazakhstan (basic education); Kyrgyzstan (early childhood development, vocational education and training); Tajikistan (primary and secondary education); and Uzbekistan (information and communication technology in basic education, textbook development, improved teaching and learning environments, and rural basic education).

*OECD:* Works in its 30 member countries (including in the region the Czech Republic, Hungary, Poland, Slovakia and Turkey) on six objectives: promoting lifelong learning, and improving its linkages with society and the economy; evaluating and improving education outcomes; promoting quality teaching; rethinking tertiary education in a global economy; building social cohesion through education; and building new futures for education. Through its Unit for Co-operation with Non-Member Economies,



OECD also conducts reviews of education policy (about 47 since 1991) and coordinates the Education Reform Initiative of South Eastern Europe. In The former Yugoslav Republic of Macedonia, OECD and UNICEF are exploring the possibility of collaboration on gathering statistics and indicators on students with disabilities, learning difficulties and disadvantages, with a view to promoting more inclusive education policies.

*OSI*: Leading non-governmental organization, primarily involved in grant-making and programming. Initiatives in the region include the Education Support Program to promote reform to combat exclusion from quality education, increase accountability and efficiency in management and governance, and foster open society values. The International Higher Education Support Program facilitates teaching and learning of the humanities and social sciences. OSI is a major funder and policy advocate on Roma issues as well as on gender equity and women's empowerment.

*UNESCO*: Principally involved in capacity building, standard setting and exchange of information to promote universal primary and secondary education, within the human rights framework, as well as quality education, including promotion of peace and sustainable development. Additional concerns include science and technology education, technical and vocational education, and higher education. Activities and resources are concentrated on EFA, of which UNESCO is the lead agency. In Central Asia, UNESCO is working jointly with UNICEF to facilitate the EFA mid-decade assessment. In Turkmenistan, UNESCO and UNICEF work together on undertaking an analysis of the national curriculum and developing a national education master plan. In Moldova, the two agencies cooperated closely on the application to the Fast Track Initiative (FTI).

*UNICEF*: Primarily involved in the region in the Commonwealth of Independent States and South-Eastern Europe. It focuses on evidence-based advocacy and technical support, founded upon alliances to promote investment to improve services for children, women and relevant duty bearers. In close collaboration with the World Bank, UNICEF has been coordinating and supporting countries' application to FTI in Albania, Georgia, Kyrgyzstan, Moldova and Tajikistan. UNICEF aims to promote human rights-based approaches to basic education, focusing on developmental readiness for school, especially among marginalized groups; access, participation, completion and transition, particularly among girls and disadvantaged populations; education quality, achievement and retention, with standards based on child-friendly schools; and education in emergency and post-conflict situations. UNICEF's core framework in education is for rights-based, child-friendly systems and schools that are inclusive of children, effective for learning, healthy and protective, gender sensitive, and encouraging the participation of children, families and communities.

*World Bank*: Gives policy advice, technical assistance and credits (with an active portfolio of education projects worth \$127 million in June 2006), aimed at improving the quality and relevance of education systems. The emphasis is on realigning secondary and higher education to meet the demands of dynamic labour markets led by the private sector and the needs of open societies; combating poverty through monitoring equity and targeting educational resources to the poor; improving sustainability and equity in education financing, particularly through the use of per-student funding; spending resources more efficiently and improving sector governance through public participation and accountability, and improving the public sector's ability to regulate and manage the delivery of educational services.

The ambition to accede to the European Union has had a substantial impact on social policy across the region. A prime trend-setting example is the National Action Plans for Social Inclusion, which show the way each country interprets the EU's common guidelines for social inclusion.<sup>6</sup> At present, the emphasis is on poverty reduction and improved access to basic services (such as housing, health and education), and less on the implementation and protection of human rights. However, subsequent

Plans may well move in that direction, once poverty and equity issues are considered less pressing. Meanwhile, these standard-setting National Action Plans raise a new awareness of social exclusion issues far beyond present EU boundaries.

Under EU rules, each Member State determines its own education policy, although there is some convergence, especially with regard to qualifications and monitoring of quality. In March 2003, the Education Council of the European Commission adopted five benchmarks for monitoring education performance. Three of them are at the core of the acquisition of key competencies through completing appropriate levels of education by 2010:

- > The percentage of low-achieving 15-year-olds in reading literacy in the EU should have decreased by at least 20 per cent since 2000;
- > An EU average of no more than 10 per cent of early school leavers should be achieved;
- > At least 85 per cent of 22-year-olds in the EU should have completed upper secondary education, up from 76 per cent in 2002.

While the European Neighbourhood Policy (ENP) initiative is chiefly aimed at increasing stability and security around EU borders, and not primarily at social issues such as education or poverty reduction, it promotes the kind of dialogue that benefits the wider human rights agenda, including the right to education. Originally, the policy was intended to apply to the EU's immediate neighbours: Algeria, Belarus, Egypt, Israel, Jordan, Lebanon, the Libyan Arab Jamahiriya, Moldova, Morocco, the Occupied Palestinian Territory, the Syrian Arab Republic, Tunisia and Ukraine. In 2004, it was extended to include the countries of the Caucasus with whom the then-candidate countries (Bulgaria, Romania and Turkey) share either a maritime or land border (Armenia, Azerbaijan and Georgia).<sup>7</sup> Although the Russian Federation is also a neighbour of the EU, relations with it are instead developed through a Strategic Partnership.<sup>8</sup> Action Plans have so far been agreed with two of the region's ENP countries (Moldova and Ukraine), though Moldova remains in a difficult position because of the continuing conflict with Transnistria. The first progress reports are due in 2007. Further ENP Action Plans are under negotiation with Armenia, Azerbaijan and Georgia.

Taken together, the agenda of international agencies serve to focus attention on the need to progress towards full implementation of universal human rights, towards economic prosperity and social justice for all, and towards protection of vulnerable groups, including children.

## Transformation and Economic Recovery

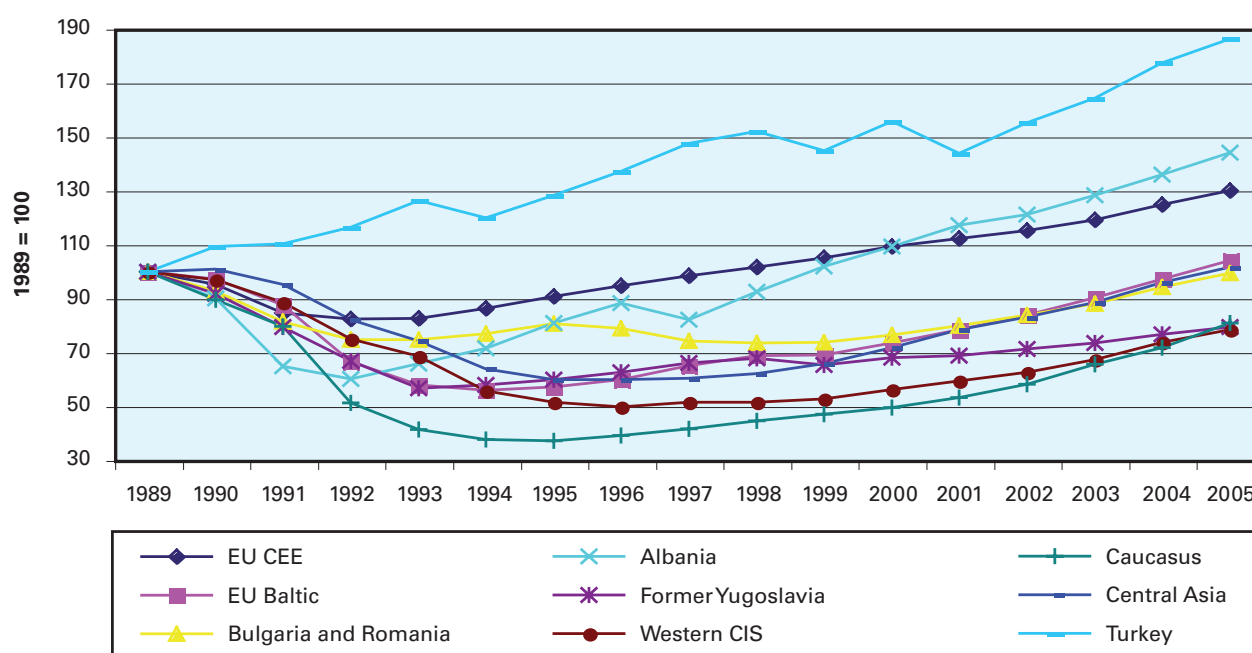
All the countries in the region except Turkey have undergone a major transformation since the early 1990s. Focus-group participants were well aware of the effects of this transformation. They associated changes in education mainly with changes in the economy, arguing that economic pressures had shifted their focus from education to survival. They said they give less priority to education than they used to.

### Box 1.2: A comparison with Soviet times

A mother in Azerbaijan summarized the contrast between today and the Soviet era very clearly: "If we compare the Soviet period with today, everything then was affordable. At least parents could work in factories and support their families. And we didn't need to think about anything except education. We were sure to find something to eat after returning from school. We had only one commitment, which was to study. Today's children work as conductors in public buses. Can these children have a good education? Are they interested in learning? No, they can never think of studying or attending school."

In general, the economic context has improved since 1989. Throughout the region, countries are recovering from the severe recession caused by the transformation itself, the disintegration of the Soviet Union and the Council for Mutual Economic Assistance trading system, and the difficulties in gaining access to new markets (figure 1.1). In terms of gross domestic product, countries reached turning points at different times. Central and Eastern Europe and Albania bottomed out first, as early as 1992. Next were the countries of the former Yugoslavia in 1993, with the exception of war-torn Bosnia and Herzegovina. The turning point for the Baltic States was 1994. The Caucasus reached its lowest point in 1995, with Azerbaijan and Georgia hardest hit, followed a year later by Central Asia and the Western CIS. The biggest initial casualties of transition were Azerbaijan, Georgia, Moldova and Tajikistan. Moldova's economy was the last to begin to revive and it had begun from the lowest point relative to its pre-transition level – 'transition to destitution' was a just description of its experience in the 1990s.<sup>9</sup> Bulgaria and Romania did not sustain an early recovery but began to revive again from 1998 onwards. Since then, all the sub-regions have enjoyed fast growth, with some of the early laggards growing fastest of all. The completely different recent history of Turkey's economy is illustrated by its sustained, if fluctuating, growth over the whole period.

**Figure 1.1: Trends in real GDP, by sub-region, 1989-2005**



*Notes:*

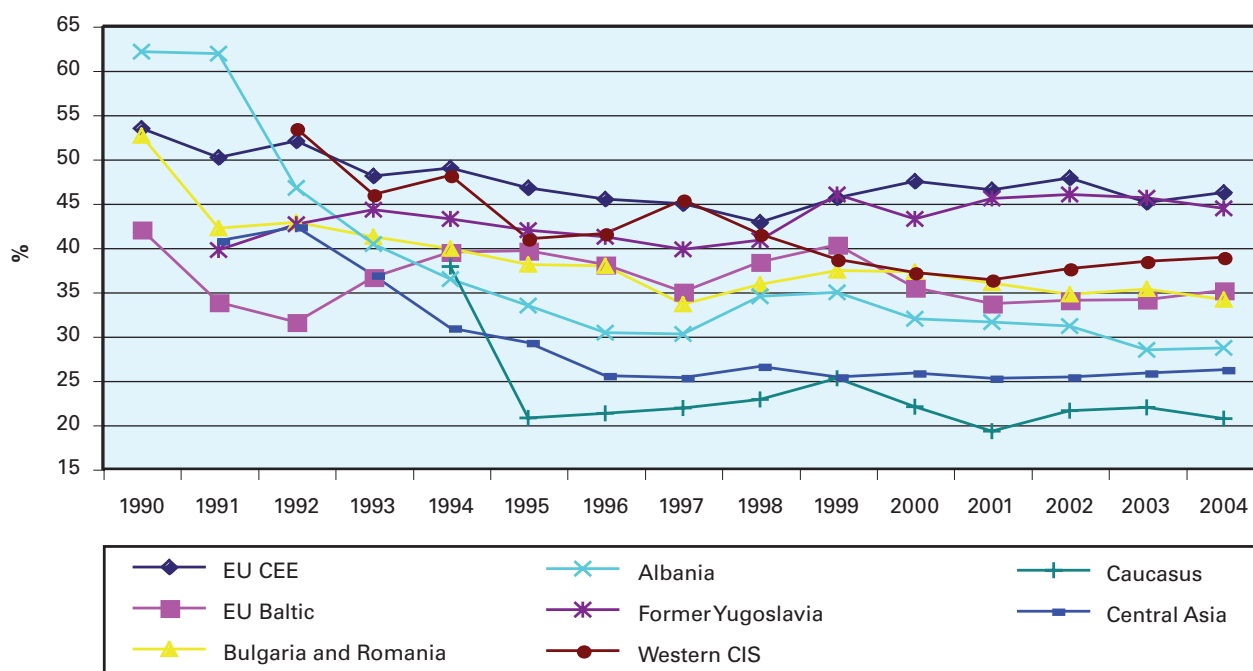
- Sub-regions are defined as follows:<sup>10</sup>
  - > **Baltic States:** Estonia, Latvia, Lithuania;
  - > **Caucasus:** Armenia, Azerbaijan, Georgia;
  - > **Central Asia:** Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan;
  - > **Central and Eastern Europe:** Czech Republic, Hungary, Poland, Slovakia, Slovenia;
  - > **Countries of the former Yugoslavia:** Bosnia and Herzegovina, Croatia, Montenegro, Serbia, The former Yugoslav Republic of Macedonia;
  - > **Western Commonwealth of Independent States:** Belarus, Moldova, Russian Federation, Ukraine.
- Sub-regional index is unweighted average of countries.
- Bosnia and Herzegovina is not included due to lack of data.

*Sources:* UNICEF, TransMONEE database, 2006; Turkey: International Monetary Fund (IMF), World Economic Outlook database, 2006.

### Government Expenditure

Faster growth might be expected to mean more government resources available for social sectors, including education, but it is not as simple as that. One of the purposes of the transition was to reduce the once-pervasive role of the state (reflected in the more than 50 per cent share of total government expenditure in the GDP of many countries at the outset). As figure 1.2 shows, the reduction in government's share of expenditure has gone way beyond this in some sub-regions, particularly the Caucasus and Central Asia. Combined with the initial collapse and only partial recovery of real GDP, this means that, while the public finances of the new EU members are in relatively good shape, the majority of countries in the region are operating with smaller real budgets than in the early 1990s. Five highly indebted countries in the CIS are in particular fiscal difficulty: Armenia, Georgia, Kyrgyzstan, Moldova and Tajikistan. In 2003, these countries' public and publicly guaranteed external debt service on average equalled over 38 per cent of central government revenue, squeezing the resources available for other purposes. Faster growth and debt relief, especially in Armenia and Tajikistan, have eased the situation slightly since then, but vulnerabilities remain. All these countries except Armenia will likely need further debt relief.<sup>11</sup>

**Figure 1.2: Trends in government expenditure as per cent of GDP, by sub-region, 1990-2004**



**Notes:**

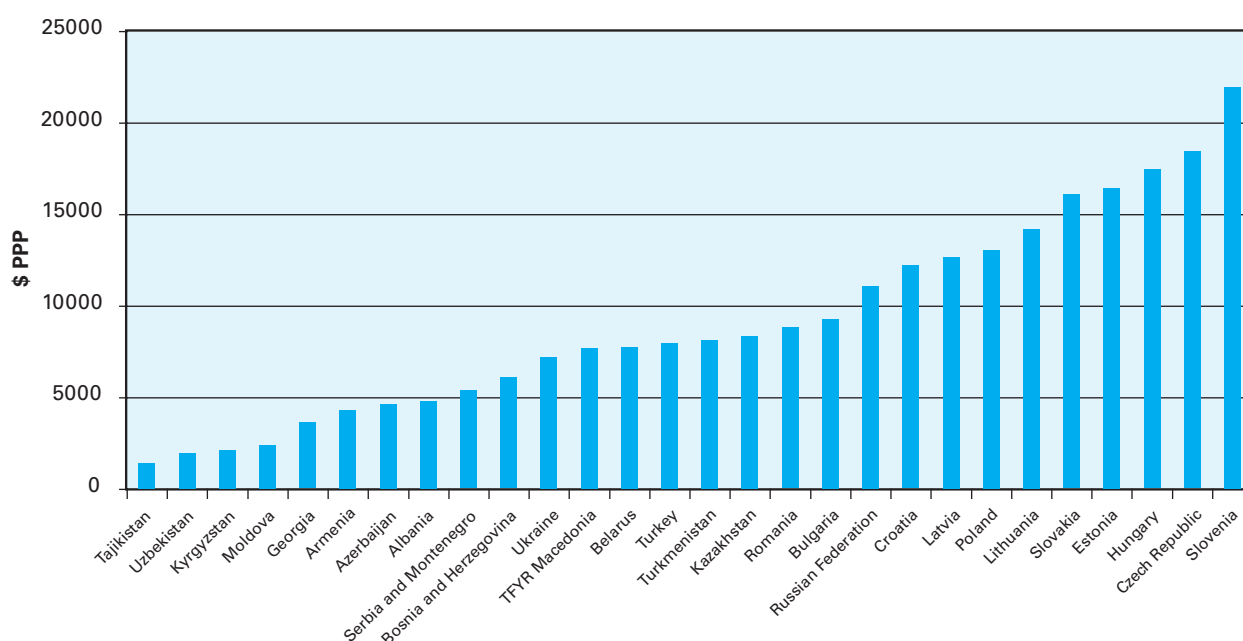
1. Sub-regional index is unweighted average of countries.
2. Missing data for Caucasus: 1990-1993; Central Asia: 1990; Countries of the former Yugoslavia: 1990; Western CIS: 1990-1991.
3. Bosnia and Herzegovina and Serbia and Montenegro are not included due to lack of data.

Source: UNICEF, TransMONEE database, 2006.

## Standard of Living

Average standard of living varies widely in the region, from Slovenia, with GDP per head not far below the Euro zone average, to Tajikistan, on a level comparable to Rwanda (figure 1.3). Turkey falls in the exact middle of the range. Since 1998, improvement has been particularly fast in Turkmenistan, with an increase of 200 per cent, Armenia (144 per cent), Azerbaijan (115 per cent), Kazakhstan (110 per cent), Tajikistan (98 per cent), Latvia (94 per cent) and Ukraine (93 per cent).

**Figure 1.3: GDP per head, 2005**



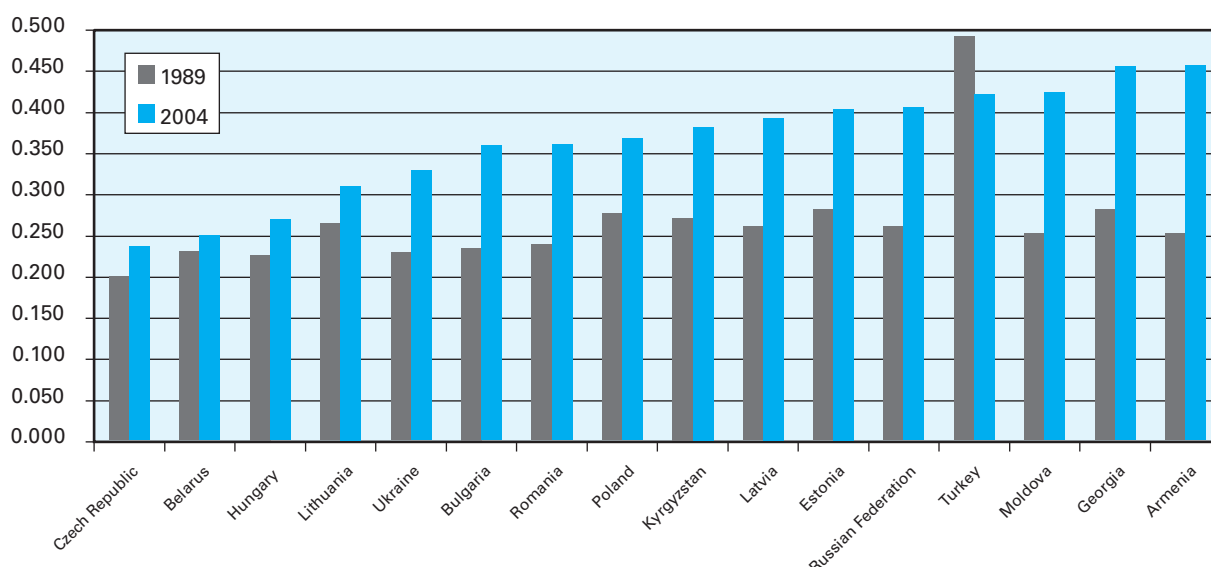
Sources: IMF, *World Economic Outlook database*, 2006; Turkey: Turkish Statistical Institute, 2006.

## Inequality

However, growth in output and in average income per head has been accompanied by a tremendous increase in inequality in many countries, as figure 1.4 shows. These data should be treated with caution since they come from differing original sources with differing definitions, but the picture they give is consistent with what can be observed on the ground.

As their economies collapsed, growing inequality was the first result of the transition for many middle-income and low-income CIS countries, such as Armenia, Georgia, Kyrgyzstan, the Russian Federation and Ukraine. For the Central and Eastern European countries and the Baltic States that have joined the EU, inequality advanced more gradually but has accelerated in recent years. The range in inequality outcomes is wide – from fairly equal Czech Republic to fairly unequal Armenia – but median inequality in the region as a whole is lower than in developing countries and broadly comparable to that in OECD countries.<sup>12</sup> Despite decreasing inequality, Turkey is still near the top of the range.

**Figure 1.4: Change in inequality - Gini coefficient, 1989 and 2004**



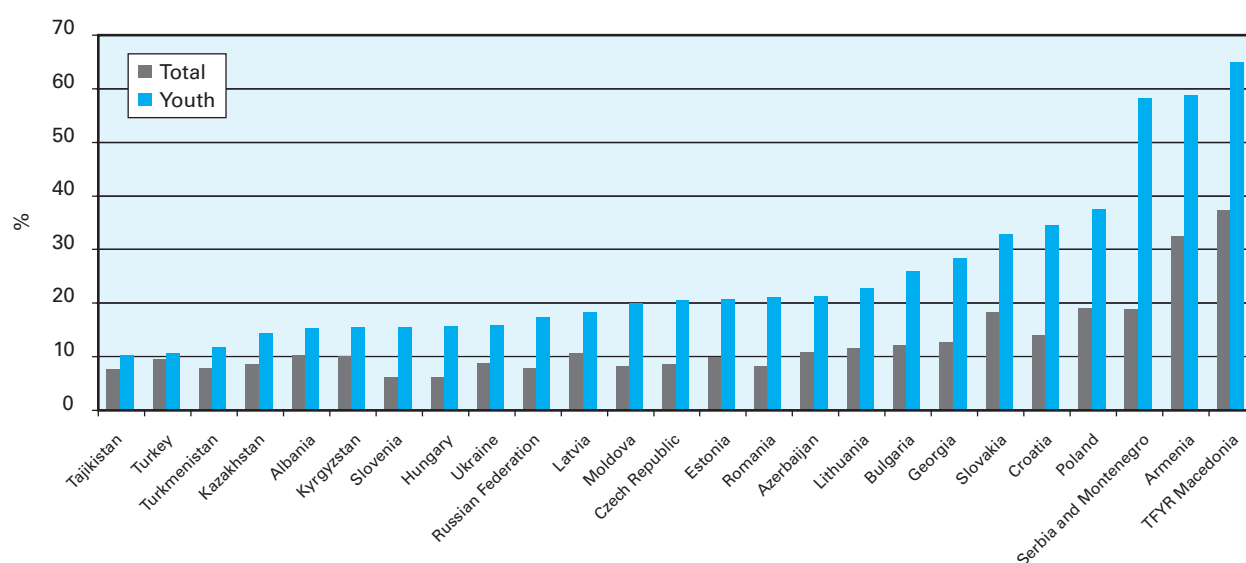
*Note:* The Gini coefficient is a measure of the degree of inequality in the distribution of earnings. It is equal to 0 in the case of total earnings equality (everyone receives the same income) and to 1 in the case of total inequality (one person receives all the income).

*Sources:* UNICEF, TransMONEE database, 2006; Russian Federation: Mitra and Yemtsov, 2006: Table 1; Turkey: Turkish Statistical Institute, 2006.

The driving force behind increasing inequality has varied from country to country. The growth of the private sector has been accompanied by an increase in wage differentials, particularly in the front-running economies. The collapse of government revenue in the weaker economies (figure 1.2 above) has reduced governments' capacity to use transfers to offset deterioration in income distribution. The transfer of previously publicly owned assets to private individuals and companies, and an increase in the share of income going to property owners have had a negative effect on distribution. The restructuring of these economies has resulted in a shift of people from wage employment towards unemployment, subsistence activities, the shadow economy or inactivity.<sup>13</sup>

## Unemployment

As a comparison of figures 1.3 and 1.5 shows, the poorest countries do not necessarily have the highest unemployment rates. This is largely because few there can afford to be unemployed (according to the strict ILO definition of unemployed as both not working and seeking work) in the absence of effective unemployment benefits or family resources to support job search. Within each income category, some countries have found ways to generate less unemployment than others – for instance, Hungary has a lower unemployment rate than Poland, Romania a lower rate than Bulgaria, and Tajikistan a lower rate than Kyrgyzstan. At least five countries – Armenia, Poland, Serbia and Montenegro, Slovakia and The former Yugoslav Republic of Macedonia – are in a state of labour-market crisis, judging by their unemployment rates. As always, youth unemployment rates are higher than those of adults but here again in the poorer countries young people's employment problems often take a different form: low and precarious earnings, unpaid family labour and so on, rather than outright unemployment. The labour markets with the greatest bias against the young (judged by the ratio of youth to total unemployment rates) are by no means the least developed: Hungary, Romania, Serbia and Montenegro and Slovenia.

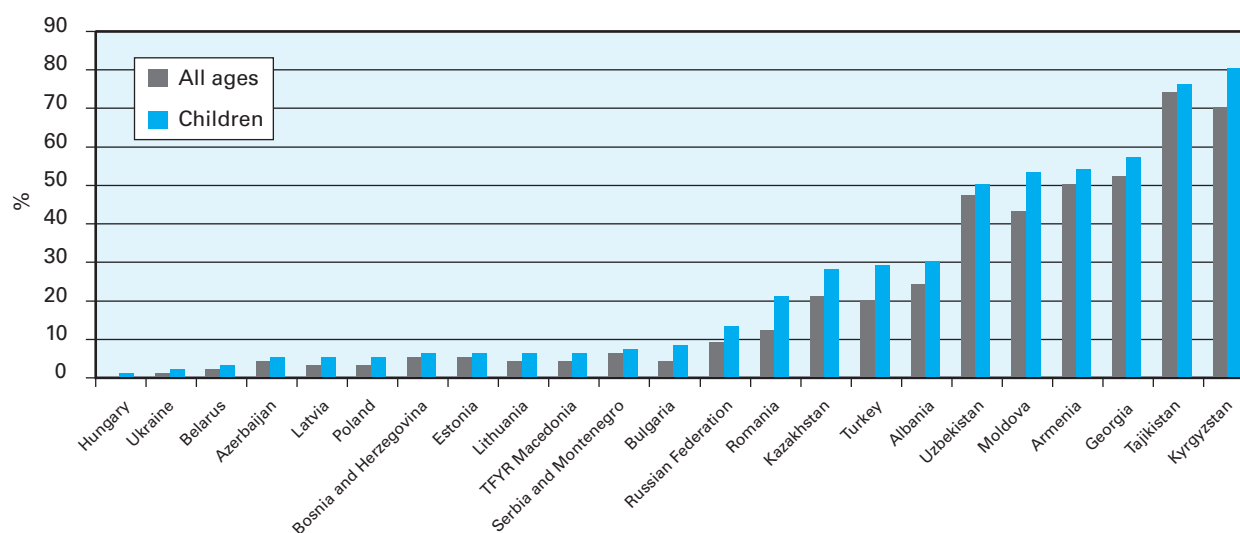
**Figure 1.5: Total and youth unemployment rates, 2004**

Sources: UNICEF, TransMONEE database, 2006; Turkey: Turkish Statistical Institute, 2006.

## Poverty

If the poverty rate is based on the percentage earning less than purchasing power parity (PPP) \$2.15 per day, as shown in figure 1.6, the majority of countries in the region do not appear to have a huge absolute income poverty problem.<sup>14</sup> But several do, including Romania, with 12 per cent of the population below this level. In six countries (Armenia, Georgia, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan), the problem is still severe.<sup>15</sup>

In all countries, the incidence of such poverty among children is higher than among adults (other characteristics that raise the risk of poverty are rural location, unemployment and low education level). The poverty risk for children has increased over the past five years. The recent rapid economic growth in the region's lower-income countries (figure 1.1 above) is estimated to have lifted more than 40 million people out of absolute poverty since 1998.<sup>16</sup> Of the countries for which data are available, only Georgia, Lithuania and Poland experienced an increase in the absolute poverty rate over this period.

**Figure 1.6: Absolute income poverty rate, all ages and children, latest available year**

Note: Years vary between 2001 and 2003.

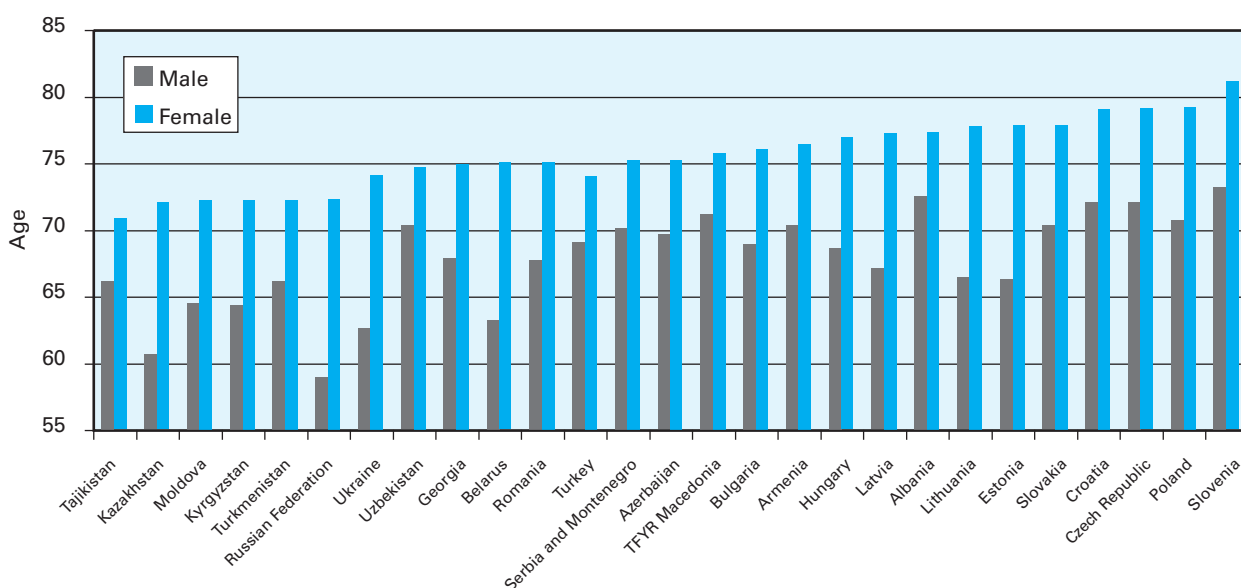
Source: World Bank, 2005: Annex B, Table 2.

Of course, relative as well as absolute poverty affects people’s welfare. The proportion of children living in relative poverty, defined as households where income is less than half the national median, is likely to have increased in many of the countries in the region given growing inequality (figure 1.4 above). For example, as in many other OECD countries, Hungary’s relative child poverty rate increased during the 1990s, from 6.9 to 8.8 per cent, while Poland’s increased from 8.4 to 12.7 per cent.<sup>17</sup>

### Life Expectancy

Life expectancy at birth fell throughout the region in the early years of transition (figure 1.7). It recovered quickly in the Caucasus, Central Asia and most of the EU8 countries, but less quickly elsewhere. Male life expectancy is particularly worrying – in six countries (Belarus, Kazakhstan, Lithuania, Moldova, Russian Federation and Ukraine) it is still below pre-transition levels. In the Russian Federation, male life expectancy has fallen steadily for 15 years, turning up slightly only in 2004. A recent analysis by the World Bank of the causes of the country’s extraordinarily high mortality and morbidity rates found that heart disease, cancer and injuries account for 78 per cent of deaths among the male working-age population.<sup>18</sup> Possible contributing factors include high consumption of alcohol and tobacco, a diet high in fat and salt, and low in fruit and vegetables, low safety standards, restricted access to quality health care and pollution. As in other countries in the region, especially in the CIS, the incidence of tuberculosis and HIV/AIDS has also been rising steeply, spreading from intravenous drug users and commercial sex workers to the general population. The implications for future trends in life expectancy are alarming.

**Figure 1.7: Life expectancy at birth, by gender, 2004**



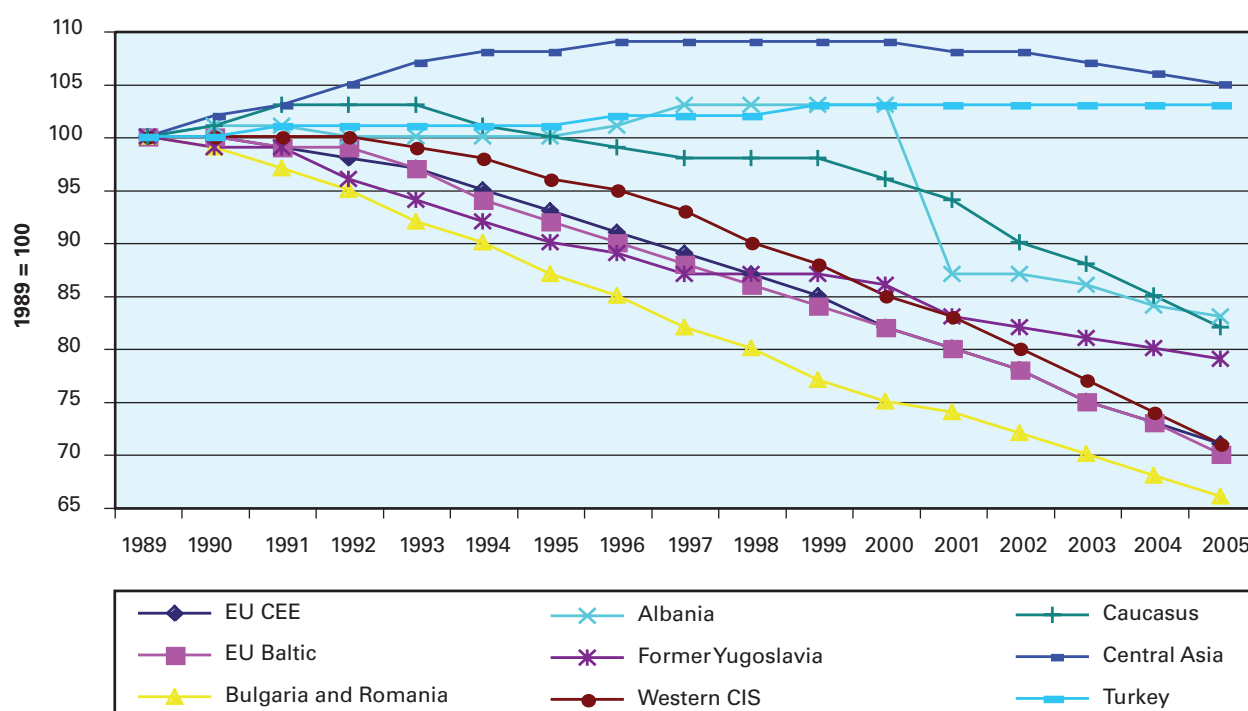
Sources: UNICEF, TransMONEE database, 2006; Turkey: Turkish Statistical Institute, 2006.



## School-age Population

Fertility rates have been falling in every country in the region, including Turkey, and this is reflected in a steep downward trend in the population aged 0 to 17, since the early 1990s in most sub-regions and since 1999 in Central Asia, where the decline is still less steep (figure 1.8). Since 1999, Turkey has had virtually no increase in school-age population. Countries with the largest fall in such numbers (by a third or more over the whole period) include Bulgaria, Estonia, Georgia, Latvia, Moldova and Romania.<sup>19</sup> Finance ministers in several countries have consequently been arguing for a smaller share for education in national budgets. It is also arguable that the fall in school-age population has contributed to a lowering of standards for entry to post-compulsory education institutions in some countries.

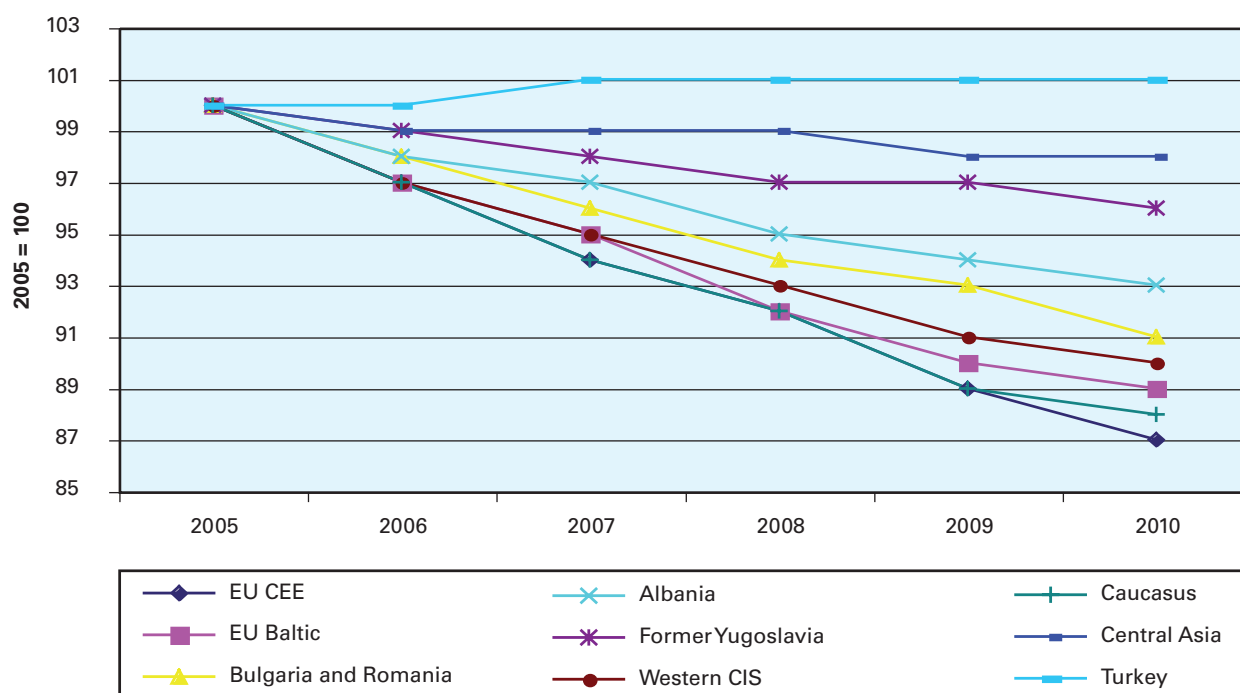
**Figure 1.8: Trends in population aged 0-17, by sub-region, 1989-2005**



Sources: UNICEF, TransMONEE database, 2006; Turkey: Turkish Statistical Institute, 2006.

The fall in school-age population is projected to continue over the next few years, as figure 1.9 shows, especially in the Caucasus and EU8 countries. Of the countries represented in the figure, only Tajikistan and Turkey are expecting a small increase by 2010. The biggest declines are predicted in Belarus, Georgia, Lithuania, Moldova and Poland.

**Figure 1.9: Projections of population aged 0-17, by sub-region, 2005-2010**



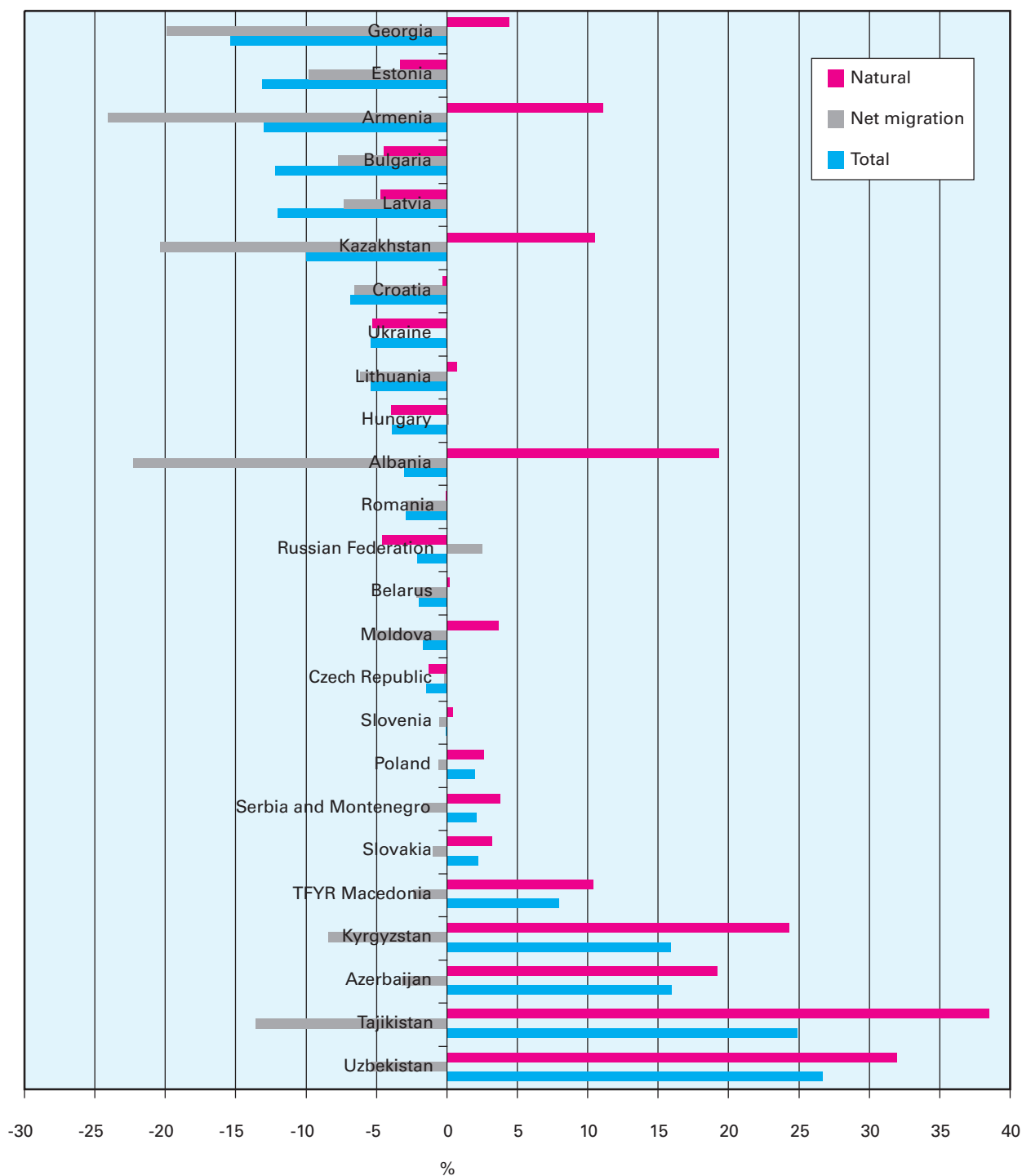
Sources: Estimations from UNICEF, TransMONEE database, 2006; Turkey: Turkish Statistical Institute, 2006.

### International Migration

A complex and ever-changing pattern of international migration has emerged with the transition. Initially, this was in response to redefined national boundaries but more recently it reflects the pull of market forces (figure 1.10). Since the mid-1990s, migrants have flowed from Central and Eastern Europe to Austria and Germany. The other main flow has been within the CIS, from lower- to higher-income countries, particularly the Russian Federation. Since May 2004, workers in the EU8 countries have been able to move without restriction to Ireland, Sweden and the United Kingdom. In April 2006, the remaining EU15 countries (with the exception of Austria, Denmark and Germany) announced they would lift or ease their restrictions. The scale of such migration (subsequent to that shown in figure 1.10) has been large. For instance, Ireland alone received 186,000 workers from the new EU member countries between May 2004 and February 2006, compared with 35,000 in the 16 months prior to accession. Most of the 112,000 who arrived in 2005 were from the EU8 countries: 65,000 from Poland, 18,700 from Lithuania, 9,300 from Latvia, 9,200 from Slovakia and 4,500 from the Czech Republic.<sup>20</sup>

One of the countries that has been most distorted by migration is Moldova. Preliminary results of the October 2004 population census put the number of Moldovans working abroad at around 470,000 people, equivalent to approximately 22 per cent of the population aged 18 to 59. Children whose parents are working abroad tend to absent themselves from school and drop out prematurely.<sup>21</sup>

**Figure 1.10: Change in population, natural, due to net migration and total, 1989-2002**



Source: UNICEF, 2004: Figure 3.1.

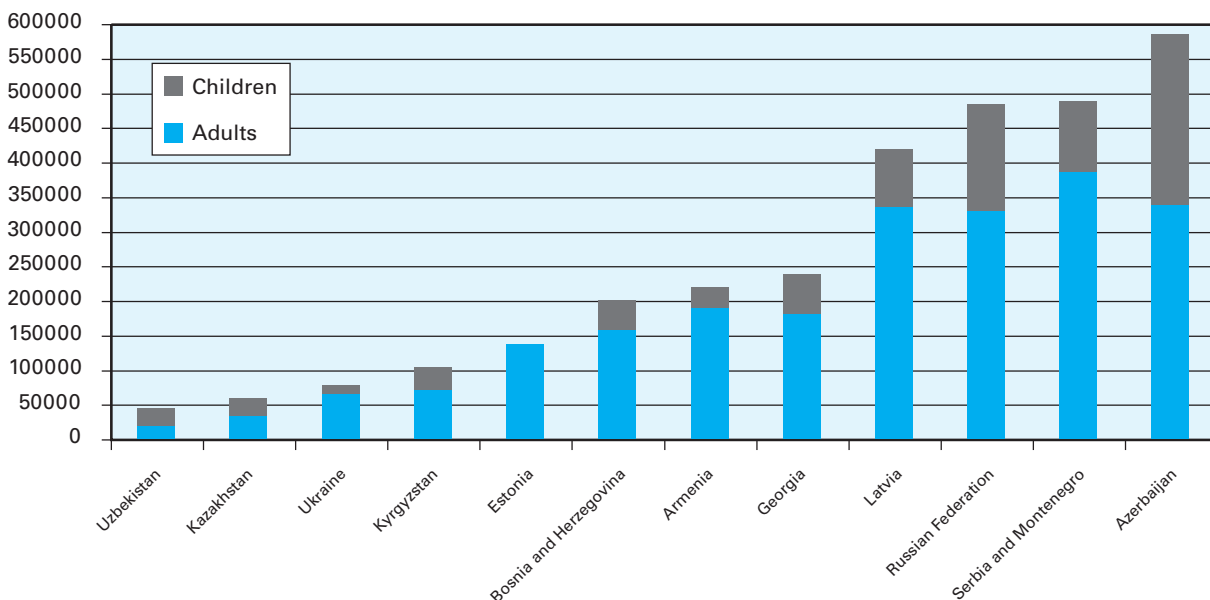
### Armed Conflict



The effects of war, conflict and displacement loom large, especially in South-Eastern Europe (in particular Bosnia and Herzegovina, Croatia and the UN Administered Province of Kosovo) and to a considerable extent in the Caucasus and Central Asia, notably in Tajikistan, but also in Armenia, Azerbaijan, Georgia and some parts of the Russian Federation, for example Chechnya. Armed conflicts disrupted life in at least 9 of the 27 transition countries between 1990 and 2000, and no country in the region was entirely unaffected. Conditions have

improved in the past few years but at the end of 2005 more than 3 million people were classified as ‘population of concern’ by the United Nations High Commissioner for Refugees (UNHCR): refugees, asylum-seekers, returned refugees, internally displaced persons (IDPs), returned IDPs and stateless and other persons, including more than 827,000 children under the age of 18. Almost all these people – 97 per cent of refugees and internally displaced persons, and 98 per cent of those known to be children – are in the 12 countries shown in figure 1.11. Azerbaijan, the Russian Federation and Serbia and Montenegro alone account for half of those in this category. Thus significant numbers of school-age children across the region are still living in protracted and uncertain conditions that affect not only their present access to schooling but also their future prospects.

**Figure 1.11: Number of refugees and internally displaced persons, children and adults, selected countries, end of 2005**

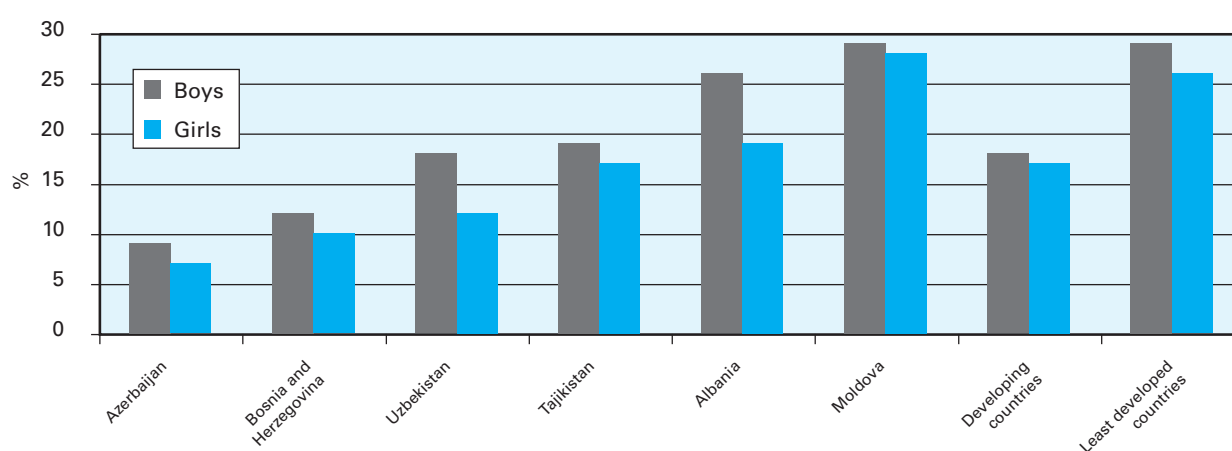


Source: UNHCR, 2006.

## Child Labour

Statistics on the extent of child labour in the region are relatively rare and of doubtful reliability. Figure 1.12, which includes four of the five countries visited for focus-group discussions, summarizes data from household surveys on the percentage of children involved in work. It shows that the proportions for Albania and Moldova are relatively high, comparable to those found in least developed countries. In Tajikistan and Uzbekistan, the percentages are slightly lower, comparable to developing countries. Azerbaijan and Bosnia and Herzegovina have the lowest incidence among the countries represented. In all cases, a higher proportion of boys than girls is involved in child labour (as defined in the note to figure 1.12).

**Figure 1.12: Per cent of 5-14 year olds involved in child labour, selected CEE/CIS countries compared with developing and least developed countries, latest available year**



### Notes:

1. Years vary between 1999 and 2004.
2. Children considered to be involved in child labour are: (a) children 5 to 11 years of age who did at least 1 hour of economic activity or at least 28 hours of domestic work in the week preceding the survey; and (b) children 12 to 14 years of age who did at least 14 hours of economic activity or at least 28 hours of domestic work during the week preceding the survey.
3. Data for developing countries exclude China.

Source: UNICEF, [www.childinfo.org/areas/childlabour/countrydata.php](http://www.childinfo.org/areas/childlabour/countrydata.php).

Children work in several sectors: in agriculture on family-owned farms, in construction and in various trades, from shoe making to brick kilns, as well as in unpaid domestic work. They are also used in illegal activities (begging, petty theft and drug dealing) and are victims of sexual exploitation. Their involvement in such activities may take place in their home areas or through trafficking away from home within or beyond their own countries.<sup>22</sup>

An International Labour Organization (ILO) project to counter labour and sexual exploitation of children, including trafficking, in Central and Eastern Europe attributed the emergence of large-scale child labour there to the exclusion of poor families from the benefits of growth, and the collapse of social assistance and protection systems.<sup>23</sup> Aggravating factors include:

- > High rates of migration, which have weakened social support for children;
- > High numbers of children in institutions (chapter 3 below);

- > Discrimination against ethnic minorities, especially the Roma (chapter 3 below);
- > Deterioration in the rule of law and growth of the shadow economy (box 4.2 below);
- > Armed conflict and the consequent emergence of a market for goods, arms and people;
- > Breakdown of family and community values.

Most of this analysis also applies to parts of the CIS and South-Eastern Europe in which the incidence of child labour is significant (figure 1.12 above).

Child labour is an obvious threat to the achievement of education for all, just as expanding high-quality education is a key element in the fight against child labour. However, the EFA and child labour elimination movements are “two ships passing in the night”, says a recent ILO global report. It calls on education specialists to recognize that “a concern for child labour is part and parcel of their concerns, and that enrolment, retention and attainment concerns require addressing both school and out-of-school factors that constrain families and working children”.<sup>24</sup>

### **Summary of the Context**

The context in which different countries’ varying progress towards Education for All can be judged can be summarized as follows:

- > Pressure from international agencies for progress towards full implementation of Education for All, the Millennium Development Goals and other agenda related to human rights.
- > A long-awaited economic recovery, now taking place throughout the region.
- > Persistent fiscal difficulties in the region’s weaker economies, particularly the highly indebted ones.
- > Large increases in the average standard of living in the past few years in many countries, including some of the poorest.
- > Growing income inequality, particularly in middle-income and low-income CIS countries.
- > Rising unemployment rates, especially for younger people, that vary significantly between countries.
- > A decline in absolute income poverty rates as average incomes have risen, but continuing poverty, particularly for children, in several countries.
- > Substantial child labour, usually to the detriment of schooling.
- > Recovery in life expectancy after an initial fall but lower male life expectancy than before the transition in six countries, with the situation in the Russian Federation particularly worrying.
- > Steep downward trend in the population aged 0 to 17 in all countries since the early 1990s.
- > Emergence of a complex and ever-changing pattern of international migration from and between countries in the region.
- > Large numbers of refugees and internally displaced persons, including many children, as a result of armed conflict.

This situation offers opportunities for educational reform but they vary between countries and in some cases may be outweighed by difficulties. The remainder of this report assesses the extent to which educational reformers have seized opportunities and overcome difficulties, and the implications for future policy. The assumption throughout is that education is a fundamental human right. In the words of the Dakar Framework for Action, which defined the goal of Education for All, “all children, young people and adults have the human right to benefit from an education that will meet their basic learning needs in the best and fullest sense of the term, an education that includes learning to know, to do, to live together and to be.”<sup>25</sup>

Maintaining investment in an equitable education system is key to the material welfare of individuals and to social cohesion. In societies with high average education levels and high-quality schooling, citizens are more likely to cooperate across boundaries that normally divide them. A final argument for giving priority to education in the region is its importance as a determinant of an economy's comparative advantage and international competitiveness. The region's economies have the potential for a skill-based high-technology role (rather than one based on cheap, unskilled labour or relatively unprocessed raw materials) in the rapidly changing world economy. This will benefit current and future generations of children. The development of education systems, and hence of people with economic creativity, is crucial to the realization of that potential.



# CHAPTER 2





**CHAPTER 2: EDUCATION REFORM – WHERE ARE WE NOW?**

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 2: EDUCATION REFORM – WHERE ARE WE NOW?

Most of the Twelve Steps towards Education for All (table 1.1 above) concern change in schools, classrooms and communities. They address teaching methods, class organization, how students learn and are assessed, parental involvement, after-school activities, and the need to ensure not only enrolment but attendance and completion. The Twelve Steps address the need to integrate children from all backgrounds and of all abilities into a school environment that respects their right to an education of acceptable quality.

Despite the changes outlined in this report and even though every country in the region has ratified the Convention on the Rights of the Child, reforms have penetrated the classroom only slowly and unsteadily. They have been hampered by 'reform fatigue', scepticism among teachers and deteriorating material conditions in schools. Most countries have gone through periods of political instability and economic reversals that have to some extent negated early enthusiasm for bringing effective freedom into schools. Old rigidities have been replaced by new ones, and where de jure freedoms have survived, they may be denied de facto by lack of basic necessities such as heat, books and regular salary payments to teachers. Dramatic demographic changes (falling birth rates, economic migration, a gradual 'greying' of society) are beginning to have their own destabilizing effects on communities, families and schools.

In practice, schools carry on much as they always have, the best still delivering high-quality education against all odds. Fundamental curriculum reforms and agreed standards to ensure quality for all children are receiving serious attention at national levels. But now, 16 years after the transition began, teachers and parents are disenchanted with the notion of top-down reform. The popularity of pre-Soviet types of schooling, such as classical gymnasia and lycées, reflects nostalgia for an un-reformed past. The fact that such schools are also the most selective, on the basis of both student ability and family means, can create new problems of access and equity for disadvantaged youngsters.



In rural areas and in the poorer countries, schools are still more concerned with survival than with change. So are many communities, families and children. Here too, the unchanging classroom has become a symbol of calm and stability, often presided over by teachers tired of mandates without resources, who see their first duty as not to innovate but to safeguard the children, and the certainties embedded in traditional curricula and textbooks. The past remains to a large extent the present (box 2.1).

### Box 2.1: Teachers, parents, children and officials talk about reform

During focus-group interviews in Albania, Azerbaijan, Moldova, Tajikistan and Turkey, teachers expressed a fairly simple concept of reform. For example, a group of teachers in the periphery of Tirana (Albania) described reform this way: "Instead of 34 teaching weeks a year, there are now 35. More outside-school activities are organized and pupils are informed about their rights." Similarly, teachers in Tajikistan viewed reform as having computers, better food, higher salaries and more activities for children. Two other aspects of reform mentioned by teachers were more foreign language options, and more interest and involvement from international organizations.

To parents and children, education 'reform' is almost synonymous with curriculum changes. Nearly all parents said that one of the major changes in the new educational system is that it is harder for students. While not expressing much concern about homework, most parents said the current curriculum requires knowledge beyond what they can provide to their children. Parents are unfamiliar with the topics in their children's curricula, and have trouble assisting them in subjects such as mathematics and physical sciences. In addition, most parents simply do not have the time to spend with their children.

Some officials felt that a possible reason for the parents' failure to assist their children with schoolwork was the switch from fact-based teaching to a more research-oriented approach. Especially in poor areas, the lack of school libraries, resource books and other materials is seen as preventing children from fulfilling the needs of this approach. For example, several officials in Turkey noted that children are required to work with cardboard, glue and coloured markers, but these items are impossible to find in small rural settlements.

### Reforms in Learning, Teaching and Schools

Looking back over the turbulent years since 1990, some patterns do appear. Education systems emerging from a Soviet past tend to move through a series of stages. First comes euphoria about new-found freedom and a great rush of new initiatives as the controls of the past collapse. External models and influences are strong, each agent advancing a particular view of needed change.

The second stage is a more cautious appraisal of these initiatives. Efforts are made to rationalize and coordinate among them by creating more coherent policy 'frameworks' and projects. These, however, still tend to be externally conceived and sector-specific, such as the EU's Phare projects in secondary vocational education.<sup>26</sup> They lack strong connections to the country's traditions and often do not enjoy a firm commitment from the country's political leadership. Because these initiatives are sector-specific – for example focused on vocational education or specific types of higher education – they lack overall coherence and connection with national goals.

The third stage, now typical of many countries in the region, aims to achieve a closer match between the earlier reforms, and the country's developing sense of identity and unique circumstances. The first wave of post-1990 education laws has been revised to reflect more home-grown priorities and values, and to focus more closely on retaining efficiency and quality controls over a diversifying system. But this third stage is also characterized by reform fatigue, especially where the fabric of school life has worn thin through chronic lack of resources. When for example, a concept for the '12-year school' was put forward in the Russian Federation in 2000, many warned that it would be irresponsible to place yet more demands on under-funded schools, under-paid teachers and students who could barely cope with the 11-year curriculum.

Schools in any country are no strangers to ‘hurricanes’ of change and in fact the stoic resilience of most education systems may well be a result of surviving them. Teachers know that although there may be never-ending changes, or what are called ‘mutations’ (local adaptations of a textbook here, a new teaching method there), true systemic reforms are rare.

The key characteristic of systemic reform is that it originates at central (policy) level, and is communicated to local authorities and schools in the form of laws and decrees that may or may not be compatible with the situation on the ground. Among teachers, this creates a perception of random change for change’s sake to which they respond with their own adaptations, or what has aptly been called “shallow coping”.<sup>27</sup> Shallow coping does not mean teachers are not trying to implement reform but they find it difficult to see just what is required of them in practical terms.

For example, if reforms call for the “humanization, humanitarianization and differentiation of learning”, does this mean that children should be grouped by ability?<sup>28</sup> Or that teachers need to change their methods and materials? Teachers in any system commonly will interpret – and often dilute – the central reform agenda and adapt it to their own situation, not because they are opposed to reform in principle but because it does not translate into workable classroom practice. Moreover, when some aspects of the central reform agenda seem foreign to local custom – for example the idea of child rights or the inclusion of children with disabilities in regular classes – they will not readily find their way into classroom practice.

Implementation of systemic reform in the region has also been hampered by administrative inefficiencies and frequent changes in political leadership (box 2.2). For example, Bulgaria and Estonia have had 10 ministers of education since 1990; Moldova and Serbia have had 9 ministers. In such circumstances, implementation of reforms is likely to be disjointed and subject to sudden reversals. By contrast, Slovenia, a small and politically stable country, had one minister for more than six years, and systemic reform was coherent and quick. In times of political instability, systemic reforms are hard to achieve; instead, piecemeal change and mutation become the bane of school life, especially if teachers feel beleaguered by demands they lack the resources to meet.

### **Box 2.2: The impact of frequent leadership changes in Serbia**

Frequent leadership changes lead to over-regulation that turns to no regulation at all at the classroom level. Teachers tend to ignore directives, dampening the effect of bad decisions made at central level but also preventing good decisions from being implemented if they do not happen to fit with teachers’ interests.

During the 1990s, surveys revealed that about 20 per cent of teachers in Serbia at least tried to change their practices, especially if they had in-service training from projects by international organizations or NGOs, such as Active Learning. But other conditions (overloaded and overly detailed curriculum, lack of good materials, prevailing school ethos, and so on) made it difficult for teachers to work differently, even if they were motivated to do so. After 2000, political changes supported greater teacher autonomy and active learning. However, when teachers were faced with the reality of what this meant in terms of time and responsibility, many said they preferred the old situation. After another government change in 2004, almost all systemic changes were once again reversed. Nevertheless, more teachers (at a rough estimate, 30 per cent) now say they use modern teaching practices at least sometimes.

*Sources: Interviews in Serbia, 2006; UNICEF, 2005.*

## Taking Stock in 2006: Standards, Choices and Rights

Sixteen years into the transition, to what extent have planned reforms taken root in national systems – legally, structurally, socially and in the labour market – so that they are robust after external resources dry up? Overall, the picture remains mixed as is inevitable when comparing 29 countries with varying histories and experiences before and after 1990, but some general observations can be made.

Important changes, even reforms, have taken place in learning and teaching. The first of these is the emergence of educational standards. As systems diversified and central ministries loosened their grip on textbooks, timetables and methods of instruction, attention shifted from the tight control of input and process to setting and monitoring of standards. The assessment of learning outcomes, traditionally left to classroom teachers, became a key instrument not only for measuring individual student outcomes but for evaluating the performance of the system itself, nationally against curriculum standards, and internationally against common indicators and benchmarks.

Practically every country in the region has made it a priority to establish educational standards. This may seem to re-centralize control and it has met with resentment from teachers who were used to assessing their students according to their own yardsticks. But the paradox is simple: The more diversified the system, the greater the need for standards to ensure that every school delivers what every child is entitled to receive.

The second reform is the introduction of choice. Most countries now have a variety of school types offering a range of educational pathways. Secondary education in particular has become much more porous with multiple entry and exit points, and leading to a variety of qualifications. What used to be a once-and-for-all choice between general and vocational secondary schooling, for example, is now reversible at least in principle as youngsters' interests and the needs of the labour market change. There is also more choice in curriculum, and especially in textbooks and learning materials, supplemented where feasible by Internet access.

Obviously, choice can only be meaningful if there are genuine opportunities to exercise it. If a student has only one vocational secondary school within travelling distance or if a 'good' school charges fees the family cannot afford or if 'good' schools select students on the basis of academic ability and parents' contributions, as is increasingly the case, choice remains an empty promise. But at least the promise is there and, with increased transparency and access to information, at least the better-off, better-informed, middle-class parents and students find ways to make it work for them. For less fortunate families and students with learning difficulties, increased choice can also lead to increased inequality – a trend that needs to be watched.

The third reform, important from the viewpoint of child welfare, is the recognition of the right to education as a fundamental human right, enshrined in article 26 of the Universal Declaration of Human Rights (1948). However, nearly 60 years of experience have demonstrated that human rights law represents no more than "the bare minimum to which governments have grudgingly agreed, and which they will comply with only if forced to do so".<sup>29</sup> Realizing human rights requires recognizing, exposing and opposing their violations, and that requires the courage to publicly challenge non-compliant governments – not always a politically palatable option. Yet the strength of human rights law lies in its enforcement – without enforcement, rights are devoid of meaning.

### Box 2.3: What officials, parents and children think about child rights

Senior government officials in the five countries visited almost never mentioned the Convention on the Rights of the Child or indicated they viewed education as a right. This may reflect the inevitable relationship between rights and responsibilities of the state.

The concept of child rights was raised frequently during focus-group meetings with parents but they were not aware of them. The situation was more positive with children, particularly in Albania, Moldova and Turkey. Children in those countries were aware of their rights because they have been incorporated into the basic education curriculum and are being taught in school. Some children had heard about rights through the work of NGOs but their numbers were few. As the following dialogue from a focus group with children in Albania indicates, their concept of rights is sometimes fairly simple:

Q: Have you ever heard about children's rights?

A (Child 1): Yes, our teachers have told us.

Q: Tell me about some of them.

A (Child 1): The right to speak.

A (Child 2): Right to learn.

A (Child 3): Right to play.

What exactly does article 26 require with regard to education? The bare minimum is minimal enough: "Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory."<sup>30</sup> Although the Declaration was drafted and adopted with unparalleled speed (in less than two years), and the right to education had wide support among the negotiating delegations, huge controversy erupted around the notion that education could be both a right and a duty.

Several states held that it was contradictory to say that a right could be compulsory; one, the United Kingdom, objected that including the word 'compulsory' was dangerous because it could be interpreted as acceptance of the concept of state education. An early vote was taken to delete 'compulsory' from the draft text – but it was saved by one vote. The obligation on governments to provide free, compulsory education was accepted but limited to the basic stage, usually interpreted to mean primary plus lower secondary (in most countries, eight or nine years of schooling).

This notion of free, compulsory basic education, originally linked to the elimination of child labour in 1921, is now generally accepted. It has found its way into, for example, the Convention on the Rights of the Child, the global Education for All strategy and the Millennium Development Goals as well as numerous national constitutions. Most governments are already committed to the right to education through their own laws, which aids its legal enforcement.

A 2001 survey of all written constitutions found that 142 countries guarantee the right to education (44 countries had no constitutional guarantee). A 2003 survey within the World Bank showed 116 countries with a constitutional guarantee of the right to education and among these, 95 countries stipulate that education should be free.<sup>31</sup> In addition, all global human rights treaties dealing with education require that compulsory education be free. The term 'free' means no direct, indirect or opportunity costs – any cost that precludes children from completing any schooling defined as compulsory.<sup>32</sup> When parents cannot afford education, compulsion cannot be enforced; if education is compulsory, it must be free, respecting children's right to education as well as national law.

Yet in nearly all countries in the region, primary education is legally free but not free in practice (chapter 5 below). The charges may be small and informal, or more seriously, schools may be formally allowed to charge for their services. In a few instances, children may be expected to work to help pay for their schooling.

### Box 2.4: Reform is torture – then and now

*My school has no window glass  
And the building has no roof  
But with the complex method  
My instruction proceeds.<sup>33</sup>*

A Russian teacher wrote this in 1923 but today her point still sounds true to many teachers across the region. There are other parallels too. The ‘complex method’ she refers to is the main innovation launched in Russia in 1921/22 and it illustrates that progressive, child-centred pedagogy is nothing new in the region. Instead of a curriculum arranged in the traditional way, by subjects, ‘the complex’ used a range of themes under the rubrics of nature, labour and society. Each day’s study related to the theme of the week, and this in turn to major topics for the month and year. Grade by grade, the themes expanded by geographical area or level of difficulty. Memorization of fragmented facts was discouraged; teachers, pupils and parents assessed pupil progress together in group discussions, and grades and marks were avoided. But ‘the complex’ was much more than a method – it represented all that progressive education in a socialist society could hope to be: “Instead of the study of subjects, we require the study of life itself.”<sup>34</sup>

Then as now, curriculum change was met with skepticism or at best with shallow coping. Recalcitrant teachers refused to implement it or asked in vain for funding, explanations or instructions, which were either not forthcoming or distributed haphazardly. Classroom resources, textbooks or teachers’ guides were unavailable. Parents protested. Then as now, provincial and local education authorities, probably better acquainted with the reality in schools, sided more with the teachers than with the Ministry of Education and they had their own ways of shallow coping. Since then, reform after reform has come and gone, most of them without making a lasting impact on teaching and learning.

No wonder then that teachers meet reforms with a healthy scepticism born of decades of experiment and change. In the summer of 1997, when the Russian Federation’s Ministry of Education announced its next stage of education reform, classroom teachers greeted the draft proposals with derision. More than 70 per cent of teachers surveyed said they wanted nothing more to do with reform. An angry front-page editorial in the *Teachers’ Gazette* at the close of 1997 said:

*We are being swamped by a tidal wave of catastrophes, accidents, explosions, wrecks...and in education, we have crushing debts, salaries unpaid for months on end, work stoppages and hunger strikes, only here the chaos is brought on by humans, not nature. And what have we here, yet more reform? Our teachers would rather walk through fire; to them reform is synonymous with torture. What are they to expect from this reform? What direction will a hurricane take? Will reform bring the school its long-lost revenues, or take away its remaining kopecks? Will reform help them cope with the deception they have experienced; will they take yet more empty promises seriously?<sup>35</sup>*

Source: Holmes, 1991.



## Reform of Teaching

Countless classroom observations throughout the region show that most teachers today work in traditional ways, although many have incorporated a range of methods to vary to some extent the standard ‘frontal’ classroom style. These innovations are mostly the result of in-service teacher training by international organizations and NGOs, such as UNICEF (Active Learning) and Open Society Foundations (Step by Step). But these approaches do not reach all serving teachers, and pre-service teacher training in universities and pedagogical colleges remains largely unchanged.

Much has been written about the status of the teaching profession: about low or unpaid salaries, lack of career structure, lack of motivation and the gradual aging of the teaching cadre as fewer young people enter the profession. Under such conditions, implementing reform requires more energy than the teaching profession is able to give. Evidence of shallow coping with top-down change is widespread, especially where schools struggle to cope with chronic lack of resources.

All the more surprising then that the rich tradition of good teaching in Soviet-era schools remains alive in even the most deprived schools, even when some of the teaching may appear old-fashioned to the Western eye. After all, good learning requires good teaching. Whole-class teaching – still by far the most commonly used method in the region – allows the use of some strategies that respond to how children learn. The organizational strategy – that of working on a single task with all pupils at the same time – is in itself less important, but it allows two characteristics that are critical to teaching and learning: (1) active discourse between teacher and pupils; and (2) conveying of values about the nature and worth of different ways of thinking, knowing and understanding.<sup>36</sup> As long as these two learning properties are protected, innovative methods can achieve good results, particularly for pupils who experience difficulties, but only when they are in well-trained hands and are used judiciously.

Parents in the five countries visited have mixed views about the quality of teachers. While parents in Moldova expressed satisfaction with teacher performance, in Albania, they were quite critical, stating that teachers are not interested in teaching and are not providing the necessary services to their children.

Most of the children are quite happy with their teachers. Where they have criticisms, they focus on private tutoring. Children in Moldova said, “Some teachers only like rich children.” In other cases, students were outright critical about teacher performance. None of the children participating in the focus-group discussions said they wanted to become teachers. When questioned, they gave their reasons as low salaries, hard work and poor conditions in rural areas.

It was interesting to hear that older teachers have embraced educational reform and new ways of teaching more enthusiastically, while newly graduated young teachers have shown more resistance.

### Box 2.5: Albanian children’s views on teachers

Q: Do you prefer the older teachers or the younger ones?

A (Child 1): The older ones.

Q: Why do you prefer the older ones?

A (Child 2): They explain things better.

To be fair, all teachers face extreme pressure due to the tough conditions and poverty in the focus-group countries. In fact, they need to function as social workers as much as teachers. For example, when a child in Tajikistan fails to appear in class for a number of days, the teacher must visit the home, explore the situation and make sure the child returns to school. Similarly, school principals have unprecedented responsibilities, often requiring them to raise almost all the money needed to run the school, except the teacher salaries. This leads them to institute fees, engage in fund-raising and look for other possibilities to find donations. The result is deep variation in quality among schools, and it is common to see a well-kept, prosperous-looking school next to a poorly run and dilapidated one. People often say that the only difference is in the skills and commitment of the principals.

As already observed, traditional teacher-led methods are still the most common. In the worst cases, this produces an unnerving culture of passivity. But in the best cases, whole-class teaching is alive and successful, a diverse mix of teacher-led learning balanced with group work and exercises, leading to development of the skills still valued in the region: a firm grasp of facts, articulate oral responses, confident blackboard performance and discipline. It can then be debated whether this fosters the kind of creativity, independence and problem-solving skills prized in some cultural contexts, or whether these values are still valid in a post-communist world. Possibly not, but the hazards of culture-free transplants are obvious.

### Box 2.6: Teachers' opinions on interactive teaching methods in Azerbaijan

A (Teacher 1): I believe interactive teaching methods give nothing to children. Let's be honest, if we compare our education (we parents are all almost the same age) with the education that our kids are getting now, it is not comparable.

A (Teacher 2): Interactive teaching methods give too much freedom to the children, laxity and lack of discipline. Children feel that they can do whatever they want.

Q: Do you think that teachers are implementing interactive teaching methods properly?

A (Teacher 1): No. We do our best to keep in line with the programme. But there are some problems. There may be some teachers who implement methods properly and some who do not.

Q: Where do you see the weak points in teaching with interactive methods?

A (Teacher 1): It causes grouping in class. Backward children are excluded from active participation in interactive methods.

There are practical drawbacks too. Active learning is not an option in a small classroom where children are crammed three to every two-seater desk and the teacher has barely enough space to stand near a scratchy blackboard. Self-directed, project-based learning is not an option in a school without an atlas, a dictionary, an encyclopaedia or room for children to work, or where homes have no books. Where two or even three shifts a day share the same classroom, teachers cannot display work on walls and children cannot store work in progress in their desks. Where large numbers of teachers are unqualified, underpaid, unmotivated or absent, exhortations to 'innovate' or 'include' will be resented and resisted. Where efforts to slim down an overloaded curriculum result in fewer hours on the compulsory timetable, teachers will fear a loss of income or status. Where ministers and their agendas change every six months, where several parallel reform projects descend on schools at once, where some prestigious schools are declared 'pilot' or 'model' schools and receive computers or science labs while others have no running water, reform becomes no more than externally imposed, piecemeal change, a source of fear and unfairness, rather than renewal and opportunity.

### Box 2.7: E-learning: An aid to generating new skills?

The use of computers in schools falls into two categories: computer skills training (CST), whereby students learn how to use computers, and computer-aided instruction (CAI), whereby computers are used to teach a whole range of subjects. There is little controversy about CST through which students acquire undeniably useful computer literacy. The role of CAI, however, is more controversial.

In an argument that is relevant to the rest of the region, Kerr has made the case for CAI in the Russian Federation as a means to support a shift in learning strategies and outcomes to generate the new skills shown in the table below:

Old skills	New skills
Apply knowledge acquired by rote;	Apply problem-solving strategies;
Use invariant sources of information;	Acquire and evaluate information from diverse sources;
Work as a solo practitioner;	Work as a collaborator or member of a team;
Operate in routine, unchanging ways.	Operate in a flexible, self-correcting way.

Kerr argues that CAI, while not automatically causing a shift in learning strategies, will strongly support teachers to move towards shifting their teaching strategies. In addition, the study in the Russian Federation underpinned by this analysis argued that distance education using CAI would help narrow the gaps between urban and remote rural schools, and diminish the disadvantages faced by disabled children and those lacking a computer at home (which was 71 per cent in the Russian Federation in 2000, a higher proportion than in any other country in the PISA sample (for a description of PISA, see chapter 4)).

Such arguments are convincing but few rigorous evaluations of CAI have yet taken place. One such study took advantage of a programme that installed computers in a large number of elementary and middle schools in Israel, which enabled measurement of CAI's impact on pupil achievement. The results did not support the view that CAI improves learning, at least as measured by pupil test scores. The authors found a consistently negative and marginally significant relationship between the use of computers and grade 4 mathematics scores; for other subjects and grades, the results were not significant, though mostly negative.

Much more research of this kind is needed but these results suggest the danger of expecting too much from the introduction of CAI. Another important consideration for the region is cost. For instance in Albania in 2004, only 30 per cent of secondary schools had computer classrooms. These schools had on average 60 students per computer; 97 per cent of secondary schools had no Internet access; and only 15 per cent of subject teachers had elementary computer skills while 4 per cent had advanced skills.

In addition to the cost of upgrading facilities and enhancing teacher skills are the non-salary running costs (computer maintenance and regular upgrading, licensed software, paper, printing cartridges, Internet connections, etc.), which the Russian Federation project estimated as equivalent to 6 per cent or more of education budgets. Digitalizing the teaching profession and recruiting new categories of staff also have salary implications – current salaries are unlikely to attract or retain people who have acquired such marketable skills.

*Sources: Angrist and Lavy, 2002; Kerr, 2002; UNESCO Institute for Information Technologies in Education, 2005: Appendix 5; World Bank, 2004a.*

Focus-group discussions confirmed that interactive education has not penetrated many classrooms. Teachers mostly continue to use traditional teaching methods: lecturing the class. When this issue was raised, a senior official in the Ministry of Education in Azerbaijan explained that interactive teaching had started in only five pilot districts and most of the country had never experienced it.

Even teachers have widely mixed views about interactive teaching (box 2.6 above). While some openly oppose it, others argue that even though it is a good idea, only a small percentage of the teachers are able to implement it. Students' descriptions of what happens in class (box 2.8) are consistent with this viewpoint. In Albania, students described typical class sessions in grades 6 to 8 as follows: Teacher walks in, checks homework, tells students what pages to read and leaves. These students have never done a group project, performed research, made site visits or had a class discussion.

### **Box 2.8: Student descriptions of classroom procedure in Azerbaijan**

Q: In a typical class session what happens? Can you describe a regular class?

A: Everybody comes in, the teacher explains lessons, students listen and teacher gives homework at the end.

Q: Is that true? Is that what happens most of the time?

A: Yes, but we can also ask questions.

Q: Do you do any projects by yourself? For example, doing some research, learning about something, and then coming back to the class and reporting it?

A: No.

Q: Do you ever do group projects?

A: Yes, but not so often.

Q: Can you give an example?

A: The teacher divided us into two groups once and asked questions from each group to see which one would win.

The lessons learned from attempted reforms of teaching can be summarized as follows:

- > Governments should get serious about improving teacher pay and working conditions. Incentives should be provided for serving teachers to improve their professional skills and for young people to enter the profession (chapter 5 below).
- > Reform implementation thus far has relied heavily on in-service teacher training. However, pre-service training is essentially unchanged and unrelated to reforms elsewhere in the system. Although education faculties are legally autonomous and entitled to set their own courses of study, ministries of education, the main employers of newly qualified teachers, are equally entitled to insist that teachers can only teach in public schools if their training is based on national standards, curriculum objectives and student learning requirements. If it is made clear to universities that their graduates otherwise cannot be employed, reform of pre-service teacher training will soon follow.
- > Teachers should be given time and resources to absorb new requirements, and implement them beyond the level of shallow coping. They should also be much more involved in formulating these new requirements. When teachers feel their opinions are valued and when they have a chance to be innovative, and receive support from principals and inspectors, real change happens in classrooms.

- > Child-friendly, participatory teaching methods take more time than whole-class teaching; independent and project-based work needs time and materials as well as trained teachers to guide and assess the work. As long as class time, resources and training are at a premium, traditional whole-class teaching remains the only option for most teachers. In the right hands and with as much variation as possible, it is an effective method, particularly suited to learning basic literacy and numeracy skills, and ensuring that slower learners and those with special needs keep pace with the group. Older children, however, benefit from more self-directed learning and from a better fit with their own developing interests to avoid boredom – a key factor in non-attendance and dropout. Time and training are the main obstacles.

## Reform of Curricula

As schooling and curricula become more diverse, governments are cast in the role of regulators, license-providers and protectors of minimum standards – of safety, water, sanitation, timetables, teacher qualifications and certification of student achievement. In many countries, the search for curriculum standards has led to a fundamental review of what it means to be educated – or more precisely, what it means to be, say, an educated Romanian or Russian or Slovene. This raises many questions: Can the content of education be globally defined? Or should it reflect and to what extent the specific culture and society in which it takes place? As migration within and beyond the region increases, are there common expectations, and if so, who defines them? To what extent can common expectations be accessible to all learners? And what kind of accommodations should be made to ensure accessibility? At present, these expectations appear implicit in the norms set by international sample-based surveys, such as PISA and TIMSS, though not all learners can participate in these surveys as there are issues of access and accommodation for some pupils. Meanwhile, goals and benchmarks come from international agreements, such as EFA, or supra-national bodies, such as the European Union (chapter 1 above).

Systematic work in curriculum reform began only in the late 1990s, including a large-scale EU-funded project in Poland and Romania's new National Curriculum Framework. It was usually spurred by the search for educational standards that could maintain quality of provision during the rush to decentralize education systems. In the most successful cases, greater school-based autonomy is balanced by national standards for each subject. In these cases, schools may vary their curricula, choose their own teaching methods and introduce new courses, such as environmental and health education, ethics, civics and economics.

There is some semantic difficulty with the term 'curriculum'. In international usage, it refers to everything that goes on in schools: not only the content of lessons or textbooks but also the development of the students in the total context of their school experience. In the transition countries, the term 'curriculum' tends to refer to a curriculum plan (a framework list of subjects and choices, plus a timetable for each level of schooling), or to subject-related educational programs or educational field syllabuses that provide details of topics to be covered. The latter are usually developed by expert subject committees, often based in education institutes or universities, which may or may not include classroom teachers.

While this procedure is probably effective for simultaneous reform of an entire curriculum, it is less so when changes pertain to one subject or one school level while the rest remains unchanged. Rarely is there a mechanism to assure the overall coherence of the curriculum both horizontally and vertically. Expert committees tend to concentrate on their own area, plus perhaps one or two related subjects – for example, physics may look across to mathematics in terms of coverage and pedagogical approach. But the excessively subject-bound nature of the process and the lack of coordination inevitably result in a fragmented, overloaded plan, and at school level it is the timetable rather than educational goals or the design of the curriculum that dictates what teachers teach and students learn.

The greatest obstacle to curriculum reform is lack of time. In order to survive, many teachers have more than one job and cannot spend sufficient time with students. Many schools in the region work in shifts, often with reduced lesson-times (35 instead of 45 minutes). But timetables and curricula are not adapted to the time available, and they still demand coverage of all subjects and all chapters in the textbook. Lack of opportunity to learn is frustrating for both teachers and students, especially for slower learners. It is also a barrier to introducing methods such as active learning simply because student interaction demands time and resources. If shifts remain a practical necessity, the obvious remedy is to reduce the number of subjects taught. Instead, the common response is to reduce the hours per subject, leaving in some cases (such as foreign languages) only one or two 35-minute periods per week, which is clearly unsatisfactory.

In many transition countries, the curriculum remains centralized, fact-based, dense and detailed. The emphasis still is on memorization rather than the development of learner skills, such as evaluation of evidence, independent judgement, understanding of cause-and-effect relationships, presentation of coherent arguments and analytical thinking. However, the new focus on standards, especially assessment standards, is making a difference.

One common innovation to increase choice and local relevance is to devise a framework that divides the curriculum into a core that must be taught nationally and a set of options.<sup>37</sup> Ideally, these are agreed with community stakeholders and offer schools a chance to emphasize their strengths. Such 'core plus options' models are usually expressed in percentages (percentage of time on the timetable, not content). For example, 70 per cent of time is allotted to the national core and 30 per cent to locally developed curriculum options (as in Moldova, Romania and the Russian Federation, although percentages vary).

In practice, the model presents a number of problems. First, school directors and teachers find it hard to decide which part of the timetable and the textbook falls into the '70 per cent' and which not. Moreover, because time is tight and only the national core is subject to national examinations, teachers, often under pressure from parents, are obliged to spend 100 per cent of the time on the 70 per cent covered by the examinable core. Secondly, schools have little curriculum development expertise and, because the optional subjects often require non-standard learning materials, teachers find they have to make their own – not easy when they lack even such basic supplies as paper and photocopiers. Nevertheless, creative and innovative work does take place, the best of it with community involvement. Specific subjects, such as life skills (box 2.9), environmental education, based on local conditions, civics, moral education, art, drama and music, can flourish under the right leadership, often with important NGO support.

### Box 2.9: Teaching life skills

Life-skills-based education, part of UNICEF's goal of quality education, involves participatory and gender-sensitive teaching and learning, and stresses aspects that are not traditionally part of the academic curriculum. Life skills may include health education, environmental education, human and child rights awareness, conflict resolution, prevention of violence, peace building, sex education, HIV/AIDS prevention, and the dangers of alcohol and drugs.

But interpretation of the term differs, reflecting national cultures and political sensitivities. For example, peace education and violence prevention are prominent in several countries in South-Eastern Europe but less so in other parts of the region. Teaching about HIV/AIDS is important in the Russian Federation but highly controversial in Moldova. In Kyrgyzstan, an eight-question life skills test for grade 4 children asked about the spread of intestinal infections, about nutrition and about dangers to health, such as from smoking – but not from HIV/AIDS.



Life skills can also include basic livelihood skills, such as computer education, general literacy and money management, indispensable in today's labour market and in breaking the cycle of unemployment and poverty. In The former Yugoslav Republic of Macedonia, for example, UNICEF (with NGOs and the World Bank) supports 26 community youth centres that provide conflict resolution and peace education programmes, along with art and computer classes. More than 13,000 children attend these centres and the attendance criteria are specific: the ethnic mix must reflect the local population, at least 60 per cent of the children must be from low-income families, at least 50 per cent must be girls and provision must be made for children with special needs.<sup>38</sup> The centres are popular with youngsters and successful in breaking down ethnic segregation in the communities they serve.

The more controversial aspects of life skills education relate to health and sex education, and HIV/AIDS prevention. However, MDG 6 – to halt and begin to reverse the spread of the disease by 2015 – requires governments to step up their efforts not only in supplying antiretroviral drugs for those affected but in intensifying their prevention campaigns, especially among the young.<sup>39</sup>

Although the number of new HIV infections among children under 15 is still small in the region relative to other parts of the world, 1,800 new cases were recorded in 2004. In the Russian Federation, which, according to the United Nations Development Programme (UNDP), has one of the fastest growing epidemics in the world,<sup>40</sup> 70,000 youngsters under 19 are now living with HIV/AIDS. According to UNICEF, more than 21,000 babies in the Russian Federation have been born to HIV-positive mothers, accounting for more than 6 per cent of all those living with HIV in the country. Around 2,000 of these children have been abandoned in hospitals or orphanages.

*Source: UNICEF, 2006.*

Another trend at upper secondary level is for schools to specialize in a group of subjects, loosely described as 'scientific' (mathematics and natural sciences) or 'humanistic' (languages, economics and social sciences). Traditionally, the brightest students have been channelled into mathematics and natural sciences in the region, but due to the strong post-1990 demand for social science courses – especially business, law and economics as well as languages – many prestigious lycées and gymnasia now offer specialized curricula in those subjects. These programmes are often high quality but entrance is selective and in many cases fees are charged.

Attempts to change curricula in the region have taught several lessons:

- > Agreed standards are the foundation for curriculum reform. Without clear curriculum standards, no assessment or evaluation is possible. However, it is difficult to ensure that assessment systems are accessible to all learner groups and vigilance is required to make sure they include all learners.
- > Curriculum change is not merely an academic issue – it is a process of public learning and negotiation. The creation of learning communities and networks, and links with the labour market demand community involvement.
- > Working teachers should be members of expert curriculum committees to ensure a realistic view of student capacity and total workload. Isolated pressure groups and powerful individual stakeholders also need to participate in the process to widen the discussion and ensure all are heard.



- > To avoid overload and fragmentation, curriculum reform needs to include a mechanism to ensure horizontal coherence (across subjects at a particular grade level) as well as vertical coherence (by subject from grade to grade).
- > Flexibility, feedback and collaboration are essential, in particular at the stages of implementation, and monitoring and evaluation. The most successful curriculum change takes place where there are links between top-down government-led reform and grass-roots innovation.
- > Strong, practical help to schools and teachers must include timely information, in-service teacher training, provision of teacher guides and learning materials, and a supportive attitude from school inspectors.

## Reform of Books and Materials

Textbook choice has improved. In some countries, textbook publication has been completely liberalized with a flourishing private sector alongside state-owned publishing houses. In the former communist countries, learning materials are of far greater political, bureaucratic and public interest than in most other parts of the world due to a number of cultural, social, economic and political factors. History texts in particular are often furiously controversial.

The process of textbook reform has not been easy, however. Textbook production, quality, distribution, price, availability and match with the curriculum remain of concern. So do the balance between ministry-directed and free-market publishing, the emergence of sub-national and local textbook production outside the control of national ministries, and the static nature of 'approved' lists due to slow and opaque approval procedures.

First-stage reforms concentrated on dismantling state monopolies and promoting a free market. Second-stage reforms, wiser to local complexities, such as the need to provide short runs of books in minority languages, sought to maintain a balance. Even after 16 years, as countries enter their third and more confident stage of reform, the politics of control remains a key issue; so do the legitimacy and feasibility of charging for books, especially where parents expect the state to provide them free or highly subsidized. Methods for evaluating and approving textbooks also remain slow, closed to public scrutiny, and counter to the wishes of schools and the public for a more open system with greater choice. The physical quality of books is an issue as are distribution inefficiencies and corruption in book sales.

Textbooks are a key tool for introducing and reinforcing national core curricula, unified national standards and national assessment. As such, they are important in realizing policy reform. This is especially true in large countries, like the Russian Federation, where the protection of a 'common educational space' is a constitutional imperative as well as a political battle.

In the latter years of the Soviet Union, the central Ministry of Education provided books promptly, free and in large quantities using advance funding to local authorities. Now that changes in the supply structure and under-funding have led to real shortages, the failure to meet these old expectations is unpopular with the public and an important vote-loser for governments.

The public is indignant about missing books because in most schools textbooks are the main – and often the only – educational resource. Few teachers have access to official curriculum documents so by default the textbook is the curriculum in most classrooms. The textbook also is effectively the examination because most exams, in particular the ubiquitous 'tickets' (topics for oral examinations), are based directly on the book's content. Bookstores in larger cities sell a variety of books and materials, including workbooks, sourcebooks, study aids and even the true comrade of every Russian pupil, the infamous exam 'crib notes', or *shpargalki*. Yet only a small number of these materials will find their way into less affluent classrooms.



Another problem is the slowness and politicization of ministry procedures for approving books. In Moldova, for example, modern history textbooks for grades 8 and 9 (selected under a ministry-approved competitive bidding mechanism) were never published because a subsequent government disapproved of their content. Later, contravening rental scheme rules, there was an attempt to use rental fees collected to replace books for grades 4 to 7, to instead publish new grade 8 and 9 history textbooks based on a new concept of ‘integrated history’. These books were not produced either because of political disputes. Meanwhile, students and teachers make do with whatever their depleted school libraries can offer. The fact that such materials often date from Soviet times and are printed in Cyrillic, which students and many teachers can no longer read, seems to matter less than political argument.

However, the liberalization of textbook publishing is one of the success stories of post-communist reform. In the Russian Federation, books for schools still need federal approval, but once they receive the imprimatur and appear on the *komplekt* (approved list), they can be published and distributed by any publisher.

Until 1994, Romania’s state publishing house was the sole authorized provider of textbooks. However, especially after 1989, often there were not enough books. By 1991/92, only about 22 million new books were produced, falling far short of basic textbook requirements. Ineffective distribution worsened the shortages. Other problems included poor quality of both content and the physical product, paper shortages and limited choice, with only one approved book per subject per grade level. Teachers were often obliged to read from textbooks while pupils copied the text into their exercise books. There were few or no supplementary materials, wall charts, atlases or reference books. Private publishing and bookselling mushroomed after 1990: a 1993 estimate already gave a figure of more than 1,000 private publishers in the country. But few tried to enter the educational market because of the privileged position of the state publishing house. Since 1994, however, steady progress has been made. Under the World Bank-Government of Romania Education Reform Project, the state monopoly had ended and a strong private textbook publishing sector has emerged.

Similar moves are under way in other countries, often with the stimulus of national Open Society Foundation publishing programmes and internationally funded projects. Teachers in most countries now do have a choice of textbooks, and many appreciate the new freedom as it gives scope to their own professionalism and breaks the deadly cycle of single-textbook-based ‘truths’ being repeated on single-textbook-based exam questions.

A sometimes controversial issue is the introduction of textbook rental schemes, for example in Armenia, Georgia and Moldova.<sup>41</sup> Under this system, books belong to the school but are rented to students annually at a percentage of the total cost of the book. The funds generated accumulate in a revolving fund that pays to replace the textbook at the end of its three- to five-year life-span. Once the initial stock of books has been acquired, this system reduces the annual financial burden on parents while ensuring that money is available for replacements in due course. Typically, such schemes allow for free textbooks for students from poor families, although this provision, administered locally, does not always function because local authorities lack the necessary funds.<sup>42</sup>

Rental schemes work fairly well provided that (1) purchasing power resides at or close to the school level; (2) a sufficient, one-time or phased investment is made (by the ministry of education or external donors) to purchase the initial set of textbooks; (3) an efficient system exists for collecting and saving the rental fees at school level; (4) the books are of sufficient quality to last four to five years; (5) provision is made for inflation, lost and damaged books, and extra copies needed for rising school enrolments; and (6) publishers are willing to work closely with schools to market and distribute books.

Practical difficulties with rental schemes include (1) the limited capacity of publishers to produce large numbers of high-quality new books in a short time for start-up;<sup>43</sup> (2) non-collection of rental fees from some parents; (3) the administrative burden of keeping track of small amounts of money at school level; (4) the challenges of establishing a revolving account for the school that protects against inflation; and (5) the relative lack of flexibility in textbook use: once chosen and bought, the same book will need to be used for at least four or five years so changes in curriculum or teacher preference cannot be accommodated easily.<sup>44</sup> Nevertheless, parents, teachers and students generally like rental schemes. In addition, book quality and availability are better, and (perhaps surprisingly) students take better care of their books, knowing they will be used again by other students.

A more intractable issue is access to supplementary materials, especially where wider curriculum choice and changes in learning styles require students to have a range of sources. Some international agencies and NGOs, such as UNICEF and OSI, have invested heavily in providing supplementary books and teacher guides. These efforts have often stimulated development of a commercial market in such materials, but they remain difficult to find outside big cities and are often expensive. Furthermore, school libraries throughout the region are in serious need of modernization. The provision of books and reference materials in minority languages is a particular concern.

### Box 2.10: Textbooks in Azerbaijan

Under a 2005 textbook policy in Azerbaijan, the government is to provide funds for all textbooks in compulsory subjects for grades 1 to 11. All textbooks purchased by the Ministry of Education (through funds allocated to schools) are put out to competitive tender and commercial publishers now supply practically all books. Small-circulation books of little interest to commercial publishers, such as those in minority languages and for children with special needs, are the responsibility of the Ministry of Education.

In 2005/06, the Ministry of Education spent about \$5.5 million printing new textbooks, totalling around 5 million books (108 titles). From 2006/07, a textbook approval board will assess and approve books, aiming to improve the independence and transparency of textbook evaluation. Schools will purchase books and administer a revolving rental scheme, whereby books are re-used for a minimum of four years. Parents can purchase 'variational' (alternative) books and books for non-compulsory subjects.

The funds to be provided for the new textbook policy are part of the government's contribution to the World Bank Education Reform Project. However, concerns have been raised that (1) publishers will not be able to produce and distribute the large quantities of books required for the initial set-up of the scheme; (2) the poor quality of current textbooks will not allow them to be used for four or five years; (3) too little attention is being paid to the content of the books as the Ministry of Education pays only for printing, and no provision is made for teachers' guides and student workbooks; and (4) from 2007/08, a new curriculum will be introduced for which a new generation of textbooks is needed but schools will not yet have enough money accumulated to buy new books.

Textbooks cannot be sold legally without the Minister's permission. The new policy has largely ended the illegal sale of low-quality pirated versions of textbooks but supplementary books, such as teacher manuals, student workbooks and test collections, are still printed illegally and sold in kiosks throughout Baku (the capital). Book distribution systems in rural areas are poor or non-existent. Despite the new policy, official supply covers only about half the books students need. 'Unofficial' supply provides at least some supplementary materials to schools, but many are of poor quality and they are expensive. Additionally, it leaves copyright unprotected.



Since August 2001, a presidential decree has required printing the Azeri language in Latin script. This presents no great problem for students who have been taught in Latin script since independence but many Azerbaijani adults cannot read their own language in Latin script. This has implications for the media, politics and all forms of public information, including school communication to parents. There is also a severe shortage of teaching and learning materials in Latin-script Azeri, including dictionaries, children's encyclopaedias and atlases. Conversely, students can no longer read the old Cyrillic reference materials that are sometimes still in school libraries. Indeed, library provision in Azerbaijan's schools is poor: under-used, out-of-date and unattractive to students. However, the Ministry of Education recently used World Bank funds to provide a free set of encyclopaedias and reading books to all school libraries, but maps and atlases where they exist are still pre-1989.

*Source: Interviews in Azerbaijan, 2006.*

Several lessons have been learned in implementing reforms of books and materials:

- > The objective of reform is to get a choice of good-quality materials into the hands of all students at a reasonable price.
- > A family's financial situation should never leave a child without the books needed for school work. Central governments (or in decentralized systems, local authorities) should provide funding at least for books for primary grades and for children in poor families throughout the compulsory education cycle, for example through a special fund set up at each school.
- > An open system of national competitive bidding from state and private publishers on an equal footing is the best guarantee of quality and availability.
- > Close cooperation between curriculum developers and textbook authors is essential, but textbook approval panels should have no ties to curriculum groups, authors, publishers or printers. Independent textbook approval boards have been established in a number of transition countries with good success and a great deal of experience can now be drawn upon.
- > Purchasing power should lie with schools. Teachers should have the responsibility to select the books and materials that best suit their needs from a competitive list of approved materials maintained by the ministry of education.
- > In order for teachers to make informed choices, book fairs where publishers display samples of their books are helpful.
- > To set a rental scheme going, publishers must have the capacity to produce and distribute sufficient books. Two factors are key: (1) the resources to prepare all the books required – even if these are limited to 'core' subjects – and (2) the capacity to produce and deliver sufficient quantities of new titles to schools by the start of the school year. The first factor is crucial because additional, competent authors are not readily available. Printing may be aided by outside help, perhaps from foreign printers, and distribution can make use of special distributors, such as the army or drinks companies.
- > A rental scheme has to be developed progressively, for example by introducing only one grade in year one, possibly two in year two, and so on. This will make it easier to match new books to the development of new curricula, and provide time for additional teacher training and assessment changes.

## Reform of Learning and Assessment

The vocabulary of accountability includes generally familiar terms like democratic participation, transparency, choice and evidence of performance. It also includes less familiar terms like standards-based assessment, performance indicators and value-added modelling.

In education, public demands for reliable measurement (such as testing) and reliable information about results (such as statistics, comparisons and league tables) are not new, but they have become much more articulate and forceful. The value-added approach and in particular the contextual value-added approach offer a sophisticated response to these demands.<sup>45</sup> They provide statistically respectable ways to measure progress against reasonable projections of performance taking into account a range of factors that affect learning. They also fit well with public demands for openness in reporting results not only locally or nationally but internationally through large-scale comparative surveys of student achievement, such as PIRLS, PISA and TIMSS (table 2.1 and chapter 4 below).

In transition countries, attention to outcomes has become a more central part of the educational system due to growing concerns about declining quality of learning. The search for standards has resulted in changes in assumptions about the nature of what students should learn, how they should learn it and how they should be assessed. As in many other parts of the world, the culture of trust in professionalism has shifted to a culture of evidence, transparency and accountability. Public education now speaks a language of standards, targets and performance monitoring; traditional trust in the professional judgment of teachers no longer satisfies a more demanding public who see themselves as stakeholders rather than parents or employers.

Before 1990, assessing students and granting diplomas was left entirely in the hands of teachers and schools. The philosophy was that external checks on outcomes were not needed in a tightly controlled system of educational inputs and processes. Attempts in the early 1990s to introduce external tests and examinations ran counter to the public mood, which saw them as attempts to re-establish central control and undermine professional trust in teachers' judgement. Nevertheless, most governments now accept that simple trust is not enough and that in a decentralized system the need for standards, targets and monitoring of performance is actually greater if the educational rights of all children are to be protected.

Most countries now have mechanisms for assessing learner achievement that is external to the school. These mechanisms range from low-stakes periodic sample-based surveys (for example periodic tests of mother tongue and mathematics for a representative sample of grade 4 students)<sup>46</sup> to high-stakes formal examination systems covering all students at the end of a schooling cycle, often used for certification and/or selection.

The prime purpose of an examination system is to provide each candidate with a result that accurately reflects his or her level of achievement. Therefore, the use of the result – such as for university selection or employment – is aimed at the individual. By contrast, the prime purpose of a sample-based national assessment is to provide reliable data on the effectiveness of the system as a whole. But because the sampling is random and anonymous, national assessments cannot provide information about individual performance and are therefore not suitable for certification or selection. Examinations and national assessments are complementary activities, and a well developed learner assessment system will have both.

Table 2.1 summarizes the progress in assessment reform in the region through 2006. It shows that nearly all countries have now set up a specialist unit or service responsible for the technical (professional) side of examinations and assessment. In some cases, these units are part of the ministry of education; in others they are semi-independent, financed by the ministry budget but administratively separate; in still others they are affiliated with a university, or report directly to

parliament or the president. In terms of public perception of integrity, a degree of professional as well as administrative independence is advisable. The table also shows that nearly all countries participate in some form of international sample-based survey of learner achievement. More contentious in many countries is the standardization of university admission tests, especially where university faculties insist on setting their own entrance examinations.

**Table 2.1: Status of reforms of assessment and examination systems, 2006**

	Establishment of new assessment authority	Reform of Matura/Baccalaureate examination	Introduction of other school exams or assessments (e.g. basic school)	Standardization of university entrance examinations	Introduction of sample-based national assessment	Participation in international assessments (PIRLS, PISA, TIMSS)
Albania	4	4	1	3	4	4
Armenia	4	3	2	4	0	4
Azerbaijan	4	0	0	4	1	4
Bosnia and Herzegovina	4	1	1	1	4	0
Bulgaria	1	1	0	0	0	4
Croatia	4	2	0	0	4	4
Czech Republic	4	3	2	0	0	4
Estonia	4	4	4	4	4	4
Georgia	4	4	4	4	4	4
Hungary	4	4	0	4	4	4
Kazakhstan	4	1	1	4	1	0
Kyrgyzstan	4	1	1	4	1	4
Latvia	4	4	4	4	0	4
Lithuania	4	4	4	4	0	4
Moldova	2	2	1	3	4	4
Montenegro	3	2	1	1	3	4
Poland	4	4	4	3	NA	4
Romania	4	4	4	4	4	4
Russian Federation	4	4	2	3	1*	4
Serbia	4	1	4	0	4	4
Slovakia	4	4	0	1	0	4
Slovenia	4	4	4	4	4	4
Tajikistan	0	0	0	0	4	0
TFYR Macedonia	4	3	1	2	4	4
Turkey	4	0	0	4	0	4
Ukraine	4	4	2	4	2	4
Uzbekistan	4	0	0	4	0	0

Notes:

1. Key: 0: Not planned or started. 1: Early planning and discussion stage. 2: Development and experimentation (small-scale trials). 3: Piloting (larger-scale trials) and implementation. 4: Operational. NA: No data available.
2. \* Some regions (Samara, Vologda) are conducting some sample-based assessments at primary level, such as in mathematics and Russian language, but there are none at federal level.
3. Belarus and Turkmenistan are omitted due to lack of information.

Source: Ministries of education and research institutes, 2006.

However, there are problems implementing assessments in poorer countries, as emerged in focus-group discussions and interviews. Albania and Tajikistan, for example, have no standardized tests in basic education and student performance is solely determined by classroom teachers. Azerbaijan and Turkey are in the process of establishing nationwide testing systems, yet the value of these is under question. For example as of 2006, all grade 9 students in Azerbaijan must take a nationwide graduation exam, but each school administers its own and then the results are collected nationally. Students and parents do not seem to be concerned about this process; even the teachers admitted they will not let their students fail in a national exam, thereby dropping their school's rank against other schools.

As for repeating classes, some countries, including Turkey, have already eliminated it in basic education. Others have created alternatives, such as summer courses and additional exams, to ensure that all students pass to the next level. In all the countries visited, students stated that repeating classes due to poor performance is extremely rare. One reason for this is economic. Poor families cannot afford the cost of repetition so they use every pressure they can on schools, sometimes even offering financial compensation to ensure that their children do not repeat a grade.

The situation is similar for assessing teacher performance. All countries have inspectors but their numbers are small and it is not possible for them to conduct thorough assessments. This is mainly left to principals, who may or may not be totally objective. Some countries officially have teacher testing but it is rarely applied or meaningful. For example, Azerbaijan requires regular testing of teachers but it has not been undertaken since 1994.

Lessons learned from reforms of assessment can be summarized as follows:

- > Assessment is part of the wider accountability agenda in education. Effective accountability requires (1) the setting of agreed standards; (2) regulations governing the way progress against these standards is to be monitored, such as through testing or assessment; (3) transparent systems for gathering, processing and publishing accurate data; and (4) communication that is usable by and intelligible to non-expert audiences as well as educators and policy-makers as a trust-worthy basis for making important decisions.
- > Learner assessment of acceptable quality is not cheap. Governments must accept that part of their annual education budget has to be set aside to evaluate outcomes. In practice, the per-student cost of a good-quality examination is no more than the cost of a single textbook. Considering the investment governments make in education, this is hardly extravagant.
- > Assessing learning achievement is technically sophisticated and professionally demanding. Any unit or service responsible for assessment must have trained, professional staff, up-to-date technical resources and sufficient independence to 'speak truth to power' – provide objective information about system quality.
- > However, the growth of external selective examinations has increased the pressure on students. New standards, a packed curriculum and unfamiliar test formats mean that students have little time and energy for other activities, such as sports or music. Many students in upper secondary grades also attend private tutoring or examination preparatory courses, which can add another 10 hours to their already stressful weekly schedules. The implications for health and social relationships are obvious.

## Reform of Early Childhood Care and Education

Worldwide, early childhood care and education (ECCE) systems vary greatly in terms of age group served, inclusion of children with special needs, number of years covered, type of provision (state or private) and content. In most cases, participation is not obligatory and early childhood care (up to age three or four years) tends to come under ministries of health or social affairs. From the age of three or four, ministries of education often assume responsibility if not in providing or financing services then at least in determining standards and in some cases curriculum content. The most common period of coverage is three years (ages four to six). In half of the OECD countries, 70 per cent of children aged three to four are enrolled in preschool programmes.

Provision and financing approaches vary from fully state-funded nursery schools (as in France for children aged three to four up to school age); to part-time education-oriented preschool kindergartens provided free by the state but with no public care for younger children (as in England and Wales); to the 'Nordic' model, which provides full-time heavily subsidized care for children up to age six under the ministry of social affairs or education. Most countries in northern Europe guarantee day care for all children from the age of one year; parents may pay a fee, which is waived or reduced for low-income families or families with more than one child in day care.

During the Soviet era, most countries in the region provided comprehensive coverage for young children, including those with disabilities, although this was care-oriented (rather than education oriented) and expensive. Comprehensive services were available for children up to age six through crèches, nurseries and preschool institutions run by government or enterprises. Technically, these systems still exist in many places but due to decentralization in practice they vary between and within countries in services provided, participation and quality. Cost recovery, in the form of fees and charges, such as for food, has become a fact of life. In poorer countries, facilities are often closed during winter due to lack of heating or dangerous roads. Built for larger enrolments and expectations of full-day care for children under six, many of the remaining facilities now are too large, decaying, and not designed or equipped to accommodate modern approaches to early childhood education (box 2.11).

Increasingly, the year of preschool before the statutory entrance age for primary education is compulsory – as is now the case in Armenia, Serbia and several other countries in the region – thereby lowering the traditional primary-school-entrance age from seven to six. Where this 'zero' year is compulsory, the ministry of education sets content and standards. Lowering the age of primary school entrance is considered beneficial to children from minority or disadvantaged backgrounds where school readiness can be compromised by factors such as inadequate majority language development, social skills, or undiagnosed health or nutrition problems. Hungary for one requires a 'certificate of school readiness' before a child can enter first grade.



### Box 2.11: Early childhood care and education in Central Asia

Four countries in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) have made it a priority to improve ECCE, especially for the rural poor and children with special needs, but public expenditure on it is very low.

Demand for ECCE will increase, in particular as new legal mandates come into force. Where they exist, public preschool facilities are insufficient both in number and quality so the infrastructure for this increase will have to come through a mix of public and non-public services. Examples include non-commercial community-based kindergartens, home kindergartens (as in Uzbekistan), mini preschool centres (Kazakhstan), and private crèches, nurseries and preschools. However, at present there are not enough preschools to meet demand, nor do all families have access because of geographical spread and cost to households.

All four countries are updating ECCE content. State concepts, standards and methodological packages for preschool teachers and parents are under development. Examples include Uzbekistan's Child of the Third Millennium project and Kyrgyzstan's Concept of Preschool Education.

Qualifications of preschool teachers are generally good. The majority have either higher (university or teacher training degree) or secondary professional education. Only in Tajikistan is the proportion of teachers with no more than secondary general education rising (up to 18.4 per cent in 2003 from 12.7 per cent in 2001). This is most likely due to an outflow of qualified teachers, replaced by others with only secondary general education. The overwhelming majority of ECCE staff is female, teachers as well as nurses and assistants.

*Source: Tasbulatova, 2005.*

By far the most innovative and influential changes in teaching and learning have taken place in the field of ECCE. Many countries are struggling to increase the number of children who receive preschool services and are considering alternative models, such as community-based centres and concentrated school preparation courses in basic school classrooms. For instance, Armenia is experimenting with extended-hour kindergartens, short-term programmes and school preparation programmes located in empty primary school classrooms.

ECCE reform often reflects intensive involvement by international organizations and NGOs, such as UNICEF and OSI. Their programmes have profoundly affected the understanding of child development, teacher-children interactions and classroom organization. These initiatives have also supported changes in understanding about special needs. Most preschool education is not compulsory (except for the pre-primary year for children five-plus to six-plus) so government has much less involvement in curriculum and teaching methodology. Therefore, reform efforts by international organizations and NGOs have been more easily accepted and indeed welcomed, although in some cases there are state standards for teacher qualifications and curriculum.

Possibly the best known and most influential ECCE reform initiative is Step by Step, introduced in 1994 by OSI through its national foundations in nearly all countries in the region. OSI has made considerable investment in education, much of it on early childhood education through Step by Step, especially in some of the poorer countries in the region (table 2.2).

**Table 2.2: OSI education investment, selected countries, 1995-2005  
(Thousands of dollars)**

	1995	2000	2005	Total, 1995-2005*
Russian Federation	7,570	11,250	6,706	130,975
Albania	5,551	3,242	906	66,377
Kyrgyzstan	1,768	1,375	7,629	24,687
TFYR Macedonia	1,764	1,235	4,278	20,496
Moldova	900	1,006	1,164	11,827
Latvia	1,254	1,330	46	9,787
<b>Total</b>	<b>18,805</b>	<b>19,438</b>	<b>20,727</b>	<b>264,149</b>

\* Totals reflect the addition of amounts for intermediate years not shown.

Source: OSI, New York, 2006.



UNICEF/SWZK00043/PIROZZI

Step by Step was initially modelled on the United States Government's Head Start programme, which started in 1965 and is administered by the Department of Health and Human Services. Head Start is essentially a school readiness programme catering to children aged three to six from disadvantaged backgrounds. Since 1994, its Early Head Start programme has also served low-income families with infants and toddlers.

Following the Head Start philosophy, Step by Step introduced child-centred teaching methods, and encouraged community and family involvement in preschool and (later) the first grades of primary school. The aim was "to engender democratic principles and practices in young children and their families" by encouraging children to make choices, develop critical thinking skills and practice independent thinking.<sup>47</sup> Up until 2005, national Open Society Foundations trained more than 150,000 Step by Step teachers and specialists in 30 countries serving millions of children and their families. Special initiatives focused on encouraging school success for Roma children, parenting, inclusion of children with special needs in regular classrooms and anti-bias training.

At first, the high cost of fully equipped Step by Step classrooms (more than \$10,000 per classroom) caused some friction between teachers and parents who had access to them and those who did not. But when lower-cost local versions were introduced more widely and other teachers saw how the approach benefited children, objections disappeared. Ministries of education in a number of countries (including Albania and Moldova) formally approved Step by Step for use in state nursery and kindergarten education.

Other influential ECCE projects are supported by UNICEF, especially in The former Yugoslav Republic of Macedonia. The organization also supports Gardens of Mothers and Children in Tirana and northern Albania run by the Christian Children's Fund. UNICEF's work with young children in Albania is coordinated through its Early Childhood Development Task Force, which aims to put ECCE at the top of the government agenda.

Save the Children has launched a global campaign aimed at providing quality education for children disadvantaged by armed conflict. Although this campaign is mainly aimed at achieving the MDG of universal primary education by 2015, it also plans to work with younger children and their families to ensure school readiness.

Parents in focus-group discussions confirmed that they consider preschool education very important for their children's development and success in school. Traditionally, kindergartens provided children not only with education and school preparation but also with services such as health care, psychological support and nutritious food. For some families, this is still the case today. However, the quality of state-run kindergartens is deteriorating rapidly. Although they are almost free and charge only a small fee for food, many parents resented that they are physically inadequate, lack heating and serve poor quality food.

Lessons learned in reforming ECCE can be summarized as follows:

- > Investing in early childhood care and education pays dividends throughout a child's school career and later life. Follow-up studies on programmes such as Head Start and Step by Step consistently show that early, high-quality intervention improves a child's chances of adjusting socially, staying in school and achieving learning standards.
- > The quality of teaching and learning in ECCE programmes has improved considerably, mostly through donor-led initiatives. It is important to extend such child-centred approaches and teaching methods to the early grades of primary school so that children continue to learn and develop in active and supportive environments.
- > Making the final year of preschool education compulsory and free is an effective way to bring the entire age cohort into contact with the school system before entering first grade so that any special educational needs can be identified. Early action is essential to support those children who have severe and complex needs. Liaison among the early-education setting and the regular school, the parents and other agencies will enable the development of an appropriate teaching programme and the provision of additional support, if necessary.

## Reform of Education for Children with Special Needs

Countries and agencies differ in how they define children with special needs. To clarify the situation, OECD has developed a three-part, cross-national classification that assigns children to one of three categories: (A) disabilities, (B) difficulties, or (C) disadvantages (table 2.3). In this report, the term 'children with special needs' is used to cover all three categories, although the problems specific to each category will also be addressed.

**Table 2.3: Cross-national categories of children with special needs**

Category	Definition
A. Disabilities	Students with disabilities or impairments viewed in medical terms as organic disorders attributable to organic pathologies (e.g. in relation to sensory, motor or neurological defects). The educational need is considered to arise primarily from problems attributable to these difficulties.
B. Difficulties	Students with behavioural or emotional disorders, or specific difficulties in learning. The educational need is considered to arise primarily from problems in the interaction between the student and the educational context.
C. Disadvantages	Students with disadvantages arising primarily from socio-economic, cultural and/or linguistic factors. The educational need is to compensate for the disadvantages attributable to these factors.

Source: OECD, 2005: 14.

Until recently, there have been few alternatives to institutionalized care or education in special schools for disabled children in the region. Provision of education to children with special needs during the Soviet era was based on the principles of ‘defectology’, which considered the medical classification of impairments an important aspect of remediation and used specialist-trained ‘defectologists’ (traditionally located in specialist facilities) to provide intervention. However, this situation is being challenged by international policies that call upon states to adopt inclusive education strategies to meet the goals of EFA.<sup>48</sup> Inclusive education is based on the principle that local schools should accommodate all children, regardless of the type, degree or severity of disability or other social, emotional, cultural or linguistic condition. It takes the view that difficulties in achieving education for all result from the structures of schooling rather than the difficulties children experience in learning. The central task is not so much to remediate learning difficulties as to reform schools so they can accommodate a greater diversity of learners.

Fortunately, many of the reform initiatives discussed above facilitate the process of supporting schools to become more inclusive. Other initiatives, such as UNICEF’s work to establish special classes in regular schools in Bosnia and Herzegovina and similar pilot projects in many other countries in the region, support the view that children with disabilities, and particularly those with intellectual impairments, can learn alongside other children in regular schools.<sup>49</sup>

A report from Hungary discusses how reforms in Central and Eastern European countries are being influenced by developments elsewhere and by involvement in international organizations, such as the European Agency for Development in Special Needs Education.<sup>50</sup> The review of efforts to transform education in the Czech Republic, Hungary (box 2.12), Poland and Slovakia found that pilot projects, discussion groups and guidance on integrated education all play an important role in changing attitudes and developing local capacity. Legislative achievements protecting educational rights were seen as important but too few educators were aware of them. The legacy of ‘defectology’, expressed in the continuation of classification committees responsible for assessing and placing children with disabilities, can also serve as a barrier to inclusion.

### Box 2.12: Providing education for children with disabilities in Hungary

In Hungary, children with disabilities, including those in residential institutions, have three kinds of educational alternatives at their disposal:

1. **Special schools:** Although special institutions had been intended to be temporary until students develop the skills required in regular school, they have turned out to be dead-end. Tests to determine eligibility for transfer to regular schools are not in all cases employed and even if they were, diminished education standards – due to lack of qualified teachers, insufficient quantity and quality of equipment, and a curriculum incompatible with mainstream requirements – hinder such transfers. Graduates of special schools can only continue their education in special technical institutions, making transition to work difficult.
2. **Home schooling:** Private students, who can be nominated on the basis of parental choice or on the grounds of disability following classification committee decisions, are exempt from school attendance. While a network of travelling special education teachers is supposed to be in place to assist learning in the household, funding is scarce and the provision remains unavailable, especially in rural areas.
3. **Integration:** Disabled children may attend regular institutions if it is felt by classification committees, parents and school principals that their development would benefit. Integrated institutions must have special education teachers as well as a special curriculum and class schedule, special textbooks and equipment, and a barrier-free environment. Supplementary normative grants are provided to schools to meet these terms.

In spite of these provisions, integration has made little progress since it had been introduced. The reasons include:

- > Parents and school principals may not be familiar with legislative requirements, especially in small villages.
- > The majority of institutions are reluctant due to lack of preparation to admit disabled pupils. While there are a number of guides and textbooks to assist integration efforts, less than half of teacher training institutions offer learner-centred methods, which have had little influence on the approaches of teachers. Existing in-service courses are not very popular as they tend to be time consuming and demand extensive travel. Regular schools are often afraid that their quality ratings would drop and the presence of disabled pupils would drive away other students.
- > Normative grants at basic level are not earmarked and may be used for any purpose.
- > Special curriculum, personnel and materials may only exist on paper.
- > Classification committees may not always be objective in their decisions, wishing, for instance, to assist special institutions struggling with declining pupil numbers.
- > Although public institutions had initially to be barrier-free by 2005, the deadline had to be postponed. Access remains restricted for disabled persons.

As a result, slightly more than two thirds of disabled children attend regular kindergartens and 18 percent are in regular primary schools, mostly in special class provisions. Given specialization requirements and complex organizational conditions, their participation at higher levels is minimal.

According to a survey of a representative sample of integrated institutions, most of the disabled children enrolled are those with mild intellectual disabilities and speech impediments. Initiators of integration are for the most part parents, acting in the perceived interest of the child. Curricular requirements are the same for all pupils.

*Sources: Lengyel and Mészáros, 2001, undated; OSI, 2005.*

A key strategy for reducing the number of children attending special schools is improving access to preschool education. Similarly, the success of deinstitutionalization depends on successfully implementing inclusive education. Ideally, it should be rolled out as part of the reform of general education, but priority should be given to kindergartens and schools in regions targeted for deinstitutionalization.

There is merit in funding pilot projects that are part of the larger implementation effort. Numerous NGO and other reports tell of impressive achievements in ‘model’ schools, for example under the OECD project on students at risk and those with disabilities in the region (chapter 3 below). However, these reports underline the fact that conditions for children with special needs are still far from ideal outside these model schools, as found during the field work for this study (chapter 3 below). Nonetheless, awareness of the issues is growing and teachers who work with children with special needs are doing the best they can with the available resources.

Other reforms, though, create pressures to exclude children who find learning difficult. While the need for standards is essential in a decentralized system, the attainments of those at the bottom of the league table are devalued when there is a drive for all pupils to achieve high standards, especially in systems that place a premium on achievement in comparison to others. Standards and choice can act as facilitators or barriers to educational opportunity for children with special needs. It can be argued that the drive for high standards is good for all children because schools are held accountable for the learning of all their pupils. But the pressure on schools to show results unintentionally provides an incentive to exclude children who will not perform well on assessment tasks.

Experience in countries outside the region shows that educational inclusion is difficult to achieve for disabled children because of the shame and stigma associated with disability, deterministic beliefs about ability as an unchanging entity and the idea that the presence of children who find learning difficult will impede the progress of other students. In addition are the resource limitations discussed above, which prevent teachers from implementing active learning and other child-friendly reforms as well as genuine disagreement about the need for and role of specialist knowledge in teaching children with learning difficulties.

However, a growing body of evidence suggests these problems can be overcome by introducing rights-based legislation, professional development, and training and public awareness campaigns, and by linking inclusive education to general education reform. But these efforts have to be coordinated. If it is accepted that inclusive education is a key strategy for achieving education for all, procedures must be formulated to help countries in the region determine national strategies for development.

Inclusive education, deinstitutionalization and early childhood education are priorities of UNICEF as well as many other international organizations working on children’s issues in the region. These priorities are not always seen as interrelated. Yet understanding and addressing the links between them is key. If institutions are closed, what form of community-based provision will replace them? If children with disabilities remain at home, where will they be educated? If institutions are closed, will the children who lived there be welcomed to take the school places now vacant as a result of demographic decline? These are important questions with implications for coordinating services and initiatives as well as for pre-service training to help teachers cope not only with new reforms but also with an increasingly diverse student population.

Lessons learned in reforming education for children with special needs can be summarized as follows.

- > Separate forms of education perpetuate the segregation of children with disabilities from regular schools and demand continues for specialized facilities in many countries.



- > International pressure and inclusive education projects are challenging this traditional model, but other reforms emphasizing competition between schools and academic high standards can work in the opposite direction, increasing incentives to exclude children who perform less well.
- > There is not much evidence of integration of children with disabilities in the focus-group countries. However, experience in other countries suggests that a combination of rights-based legislation, training, awareness campaigns, and linkages between inclusive education and general education reform can help overcome the problems associated with shame, stigma, prejudice and lack of recognition of the resources needed for effective inclusion.

## Reform of Vocational Education

The countries in the region inherited a system of narrowly specialized vocational education that has proved resistant to change. It was based on the assumption that everyone had to be trained for a specific occupation before starting work. Vocational schools existed to provide such training and they were tightly linked to state enterprises. In the Soviet Union, which was the source of the pervasive model:

*The typical vocational school was built in order to provide trained personnel for a given enterprise. Located near the enterprise, it depended on the enterprise for equipment, instructors for the practical activities, internships and jobs for the graduates. In line with this symbiotic relation, the factories subcontracted with the school for the manufacturing or assembly of parts they needed on their own production lines.<sup>51</sup>*

Early in the process of transition it became clear that this model would no longer work. The pattern of demand was changing from industry to services and in some countries agriculture, and from narrowly specific skills to broad and flexible skills requiring higher levels of general education. The enterprises were in crisis, unable either to pay for training or to recruit those who had been trained. Government funds were inadequate to finance this especially expensive form of secondary education (chapter 5 below). In the region's weaker economies, schools still use old curricula, and outdated materials and equipment. Even in the more advanced economies, school equipment is obsolete. On the eve of accession, the European Training Foundation described the quality and relevance of technical equipment in schools in the new EU countries as a major issue. Visits to schools and inspectors' reports confirmed that there were:

*...many workshops where students work on more than 50-year-old machines. There are many vocational schools involved in mechanical engineering with no computer numerically controlled lathes or milling machinery. Meanwhile, cooperation between schools and businesses is weak and does not allow students to compensate for the lack of learning opportunities on modern devices at school by developing skills in a real working environment.<sup>52</sup>*

The Foundation felt strongly that, contrary to what they saw in some countries, new curricula should not be implemented in any school without the guarantee that updated equipment will be available.

With students also showing increasing preference for general education (chapter 3 below), there is a clear need for convergence in content between general and vocational education in recognition of the fact that:

*Curriculum-based reform of secondary education in the 21<sup>st</sup> century is prioritizing skills and competencies that go beyond and cut across the traditional general-vocational divide. The frontier between general and vocational curricula is shifting and fading, and the heretofore hard-to-strike balance between vocational and general education is becoming increasingly irrelevant.<sup>53</sup>*



Such convergence needs to involve reform of secondary general education just as much as vocational education.<sup>54</sup> Teaching and learning strategies need to shift from those that generate the old skills (applying knowledge acquired by rote, using invariant sources of information, working as a solo practitioner and operating in routine, unchanging ways) to those that generate the new skills needed in global market places (box 2.7 above).

Several of the more advanced economies in the region are already travelling in this direction. For instance, Poland introduced three-year specialized secondary schools (profiled lycée) in September 2002. Their objective is to give students general vocational knowledge and skills for their future professional life through modular curricula taught through interdisciplinary blocks. Originally, these schools were intended to replace traditional vocational schools but those schools survived; the national system of vocational education is still provided according to the former sectoral classification of occupations.

Hungary has accomplished the most thoroughgoing reform of vocational education. It provides vocational education (post grade 10) in the form of 21 broad job families, rather than the separate occupational specializations previously offered, alongside a general education curriculum that facilitates access to higher education. It has made enough progress to begin classifying its vocational and secondary vocational schools as ‘general schools’ in its reports to Eurostat (the EU’s statistical office). All the new EU members are preparing plans for a more flexible vocational education system in line with the European Union’s Copenhagen Declaration, Lisbon Process and Maastricht Communiqué. The scope will allow for upward progression and will emphasize core competences.<sup>55</sup>

Almost all focus-group participants agreed that vocational education in their countries is not working. For example, Azerbaijan’s Ministry of Education accepts that its vocational schools are left over from the old system and education reform has done nothing about them. Ministry officials stated that the schools do not correspond to the needs of the labour market. Even in Turkey, where education reform is at an advanced stage, reform of vocational schools is on the agenda but no decisions have been made so far.

Parents in the focus groups showed little interest in vocational education, arguing that children who graduate from these schools cannot find jobs. Many said their children refused to attend vocational schools, especially where compulsory education is 11 years. From the perspective of children, interest in vocational education is also very low. Except in Azerbaijan where a few children see vocational schools as an option to build the skills they need to start their own private businesses, almost all children stated that they have no interest in vocational school. This is mainly because of the low status attributed to these schools.

### **Box 2.13: Parents’ views on vocational education in Azerbaijan**

Q: Are there any mothers here who are thinking of sending their children to the vocational school nearby?

A (Parent 1): No, not to the vocational school.

Q: Why not?

A (Parent 1): Because after graduating from the vocational school, children will not be able to find jobs. In comparison, children with university education will be given jobs, if there are any available.

A (Parent 2): We do not need to give specialized education to children to become welders or car mechanics. They can learn it by doing. We can send our children to work next to a skilled technician, and they can work and learn there. For these kinds of jobs, there is no need to get a certificate from the vocational school. It is a waste of money and time for us.

Lessons learned in reforming vocational education can be summarized as follows:

- > The old model of narrowly specialized vocational education aimed at producing ready-to-work recruits for industry no longer works and it would be neither feasible nor advisable to invest in re-equipping schools for this narrow purpose.
- > Parents and students in any case prefer general education over vocational education.
- > Reform needs to support convergence in content of general and vocational education aimed at generating new skills – a direction in which several of the region's more advanced economies are already travelling.

## Conclusions on Education Reform

How many of the Twelve Steps towards Education for All, identified in 1998, have penetrated the 2006 classroom? Do teachers now use methods that encourage student participation and individual development? Do they use whole-class teaching? Do they offer prompt support to slower learners rather than grouping (or tracking or streaming) and selection by ability? Are classroom assessments and exams fair, allowing each child to demonstrate what he or she can do rather than what they cannot? Is there more extra-curricular support, and more parental and community involvement? Does the need for children to work affect their attendance and achievement? Do low achievers, children of ethnic minorities and children with disabilities receive the inclusive support they need?

The picture is mixed. There is evidence of greater diversity in teaching, as exemplified by Active Learning and Step by Step, often stimulated by in-service training provided by NGOs. Understanding of child development has improved, resulting in fairer assessment of children learning at different speeds. In some countries, children with special needs are better integrated, regardless of whether these needs are due to family background, cultural or linguistic diversity, or individual physical or intellectual ability. But there is a worrying rise in tracking and streaming by ability, and in selective admission to prestigious schools, often at a very young age. Selection of some always means rejection of most, and especially where selection is based on factors other than academic merit – for example on the payment of fees or giving of bribes – it clearly works against children whose parents are not in a position to compete.

ECCE has experienced the most innovative and influential changes in teaching and learning, including child-centred teaching methods, and community and family involvement. This has potential lessons for other levels of the education system, particularly for developing practices that support inclusive education. Linking strategies that bolster education of children with special needs to the process of reforming general education reinforces education for all, but these links have to be more clearly articulated and better coordinated. Vocational education is still unreformed in many countries, but some of the new EU members are leading the way towards a promising concept of converged general and vocational education, which is less expensive as well as more relevant and of higher quality than the old model.

As for parental involvement and extra-curricular support, here too the evidence is mixed. In several countries, introducing school boards has improved links with the community (chapter 5 below), encouraging parents to contribute in practical ways, for example by making small repairs to schools or organizing fund-raising activities. But in poorer communities, many parents lack the time, interest and resources to participate in their children's schools or support extra-curricular activities, such as clubs and outings. Teachers often have more than one job or more than one shift so they have less time to work with parents and children after school hours. Extra-curricular activities remain scarce and under funded.



Far too many children are still excluded de facto from education by poverty, the need to work, disability and the lack of readiness, including language problems for ethnic minorities. Irregular attendance often leads to low achievement, grade repetition and dropout – or indeed ‘push-out’ by schools intent on maintaining their standing in national league tables of examination results.

In terms of rights-based education for all, the gap between promise and performance remains, with implementation of EFA now not expected until 2015, if then. Meanwhile, governments increasingly pass the funding burden to local communities and families. As a result, compulsory education is not free but is essentially a ‘traded service’, requiring families to pay not only for writing paper and pencils but for admission, exams, textbooks, heating and even for teaching – officially, or in the form of so-called ‘gratitude payments’ or paid tutoring. The poorest countries in particular exhibit a pattern of poverty-based exclusion from primary education, a pattern that is made to look respectable by policies of privatization, decentralization and parental choice.<sup>56</sup> Of course, the law cannot oblige parents or governments to ensure free and compulsory education for all children if it is beyond their means; this is why international human rights law mandates ‘progressive’ realization of the right to education. But ‘progressive’ must mean ‘as soon as possible’ and therefore the prima facie obligation on governments remains.<sup>57</sup>

The evidence, sadly, points the other way. Far from progressive realization, the right to free, compulsory primary education for all now seems in danger of getting lost in a more powerful vocabulary of

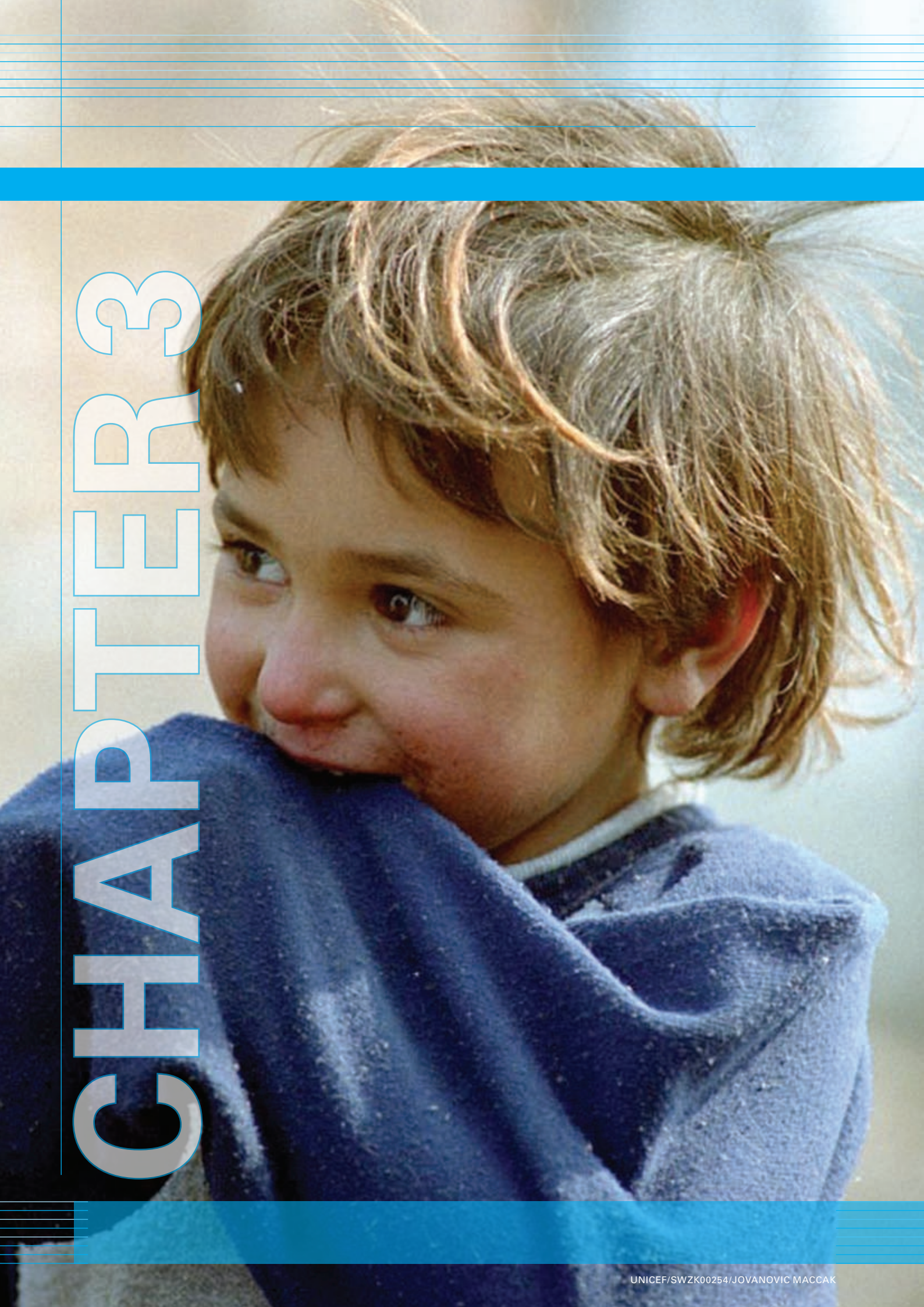
economic efficiency, user fees and global competition. For children, this means a split between rights-based and lottery-based education, or more precisely, a split between 'Education for All' and 'Education for Some More than Others'.

Subsequent chapters further explore these issues. How far are the attempts at reform, documented in this chapter, vitiated by lack of access for the least advantaged children (chapter 3)? What impact has reform had on learning outcomes and on disparities between children from different backgrounds and with different abilities (chapter 4)? What impact does education have on employability and earnings, and what are the implications for demand for schooling, especially from the most deprived (chapter 4)? And how does the pattern of government expenditure affect the equity of educational outcomes given the increased importance of parental contributions (chapter 5)? The full picture will be pulled together in the final chapter, to which a comprehensive discussion of policy options is postponed.





# CHAPTER 3



## CHAPTER 3: ACCESS AND EQUITY

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 3: ACCESS AND EQUITY

This chapter looks at changes in access to education around the region. It first aims to identify sub-regions and countries that lag in enrolment and attendance rates at preschool, basic, upper secondary (general and vocational) and higher levels. For basic education, progress is assessed in relation to MDG 2. Also reviewed is the extent to which private institutions have been established and have grown. Next, it explores various dimensions of equity in access: gender, family background, location, ethnicity and language as well as special needs. In the case of gender, progress is assessed towards MDG 3. The lessons of the chapter are summarized in the conclusions.

Enrolment rates are a measure of access to education, and this chapter analyses trends in preschool, basic, upper secondary and higher education. In the absence of recent census data for many countries, such rates (based on enrolment data from schools and estimates of population by age group from administrative sources) may be unreliable so changes in them should be interpreted with caution.

It is also important to distinguish between enrolment and attendance. For instance, the 2003 round of TIMSS found that 19 per cent of grade 8 mathematics students in all the countries sampled attended schools where principals indicated there were serious problems of absenteeism, late arrival and skipping classes. Table 3.1 shows the relatively serious school attendance problem in the region's countries (with countries from other regions included for comparison): 69 per cent of the countries in the region rank above the international average. Estonia had the highest percentage of all and only half of the eight countries with data for both years improved their score between 1999 and 2003. Non-attendance and a tendency in many countries to over-register enrolments as a way of preserving schools and teaching positions are grounds for scepticism about official enrolment rates.

**Table 3.1: Percentage of grade 8 mathematics students attending schools with serious attendance problems, 1999 and 2003**

	1999	2003
Estonia	NA	45
South Africa	53	44
Lithuania	32	43
Bulgaria	16	37
Latvia	NA	36
Serbia and Montenegro	NA	27
Moldova	35	26
TFYR Macedonia	19	22
Romania	30	22
Russian Federation	20	21
Netherlands	24	19
<b>International average</b>	<b>20</b>	<b>19</b>
Slovakia	12	16
Hungary	16	16
Slovenia	NA	15
Armenia	NA	15
United States	13	10
Republic of Korea	7	1

NA: No data available.

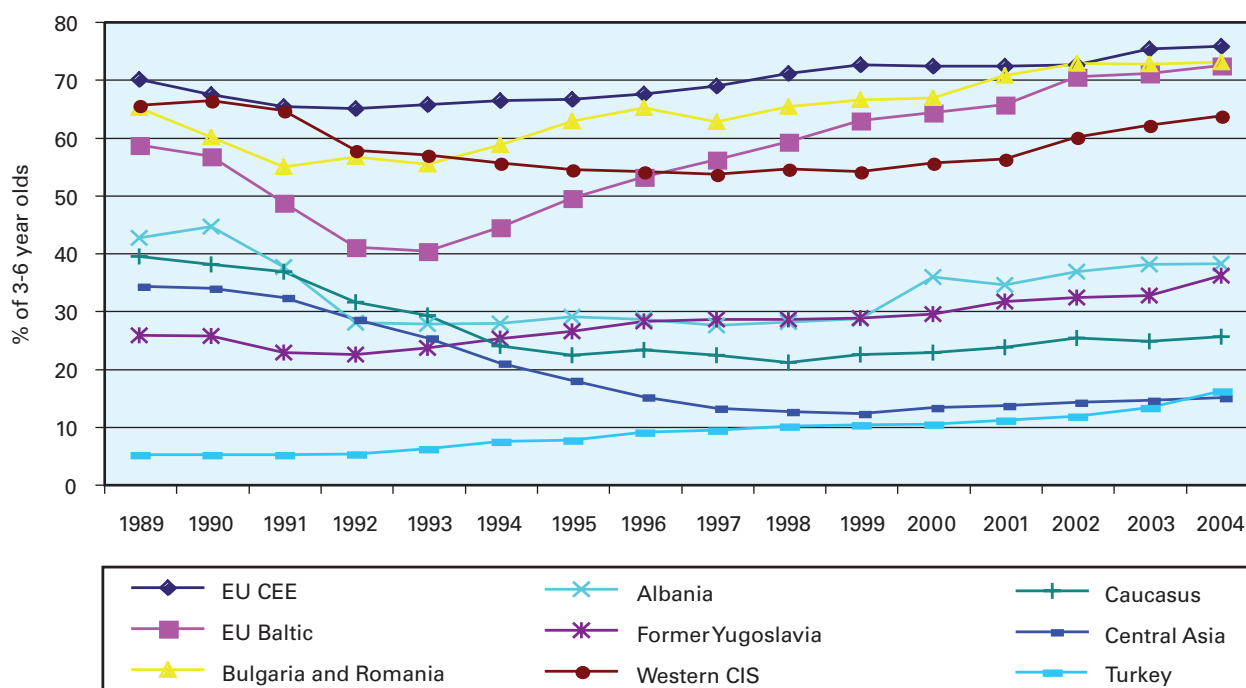
Source: Mullis et al., 2004.

## Preschool

As described in chapter 2, preschool networks were extensive in much of the region prior to the transition. They were intended in part to provide child care and thus promote female employment, which was relatively high by OECD standards, but also to encourage children’s early development. They were important, for instance, in supporting nutrition and providing preventive health care.

Figure 3.1 shows what happened to pre-primary enrolment rates in the sub-regions over the period from 1989 to 2004. There are clear differences in starting points and trends. The Baltic States, Bulgaria and Romania, and Central and Eastern Europe, with high initial enrolment rates, have after a fall recovered to higher than pre-transition levels; in most of these countries (except Lithuania and Poland) enrolment rates range from 72 to 88 per cent. Albania and the Western CIS have recovered less strongly from the fall with rates now below pre-transition levels, particularly in the Russian Federation and Ukraine. In the countries of the former Yugoslavia, rates have increased, although at a lower level, to 36 per cent on average. Preschool enrolment rates in the Caucasus and Central Asia, never as high as in the rest of the Soviet Union, collapsed during the 1990s. They have revived slightly since then but are still well below pre-transition levels. Turkey has steadily increased its enrolment rate to 16 per cent in 2004 – higher than the Central Asian average.

**Figure 3.1: Trends in pre-primary net enrolment rate, by sub-region, 1989-2004**



Notes:

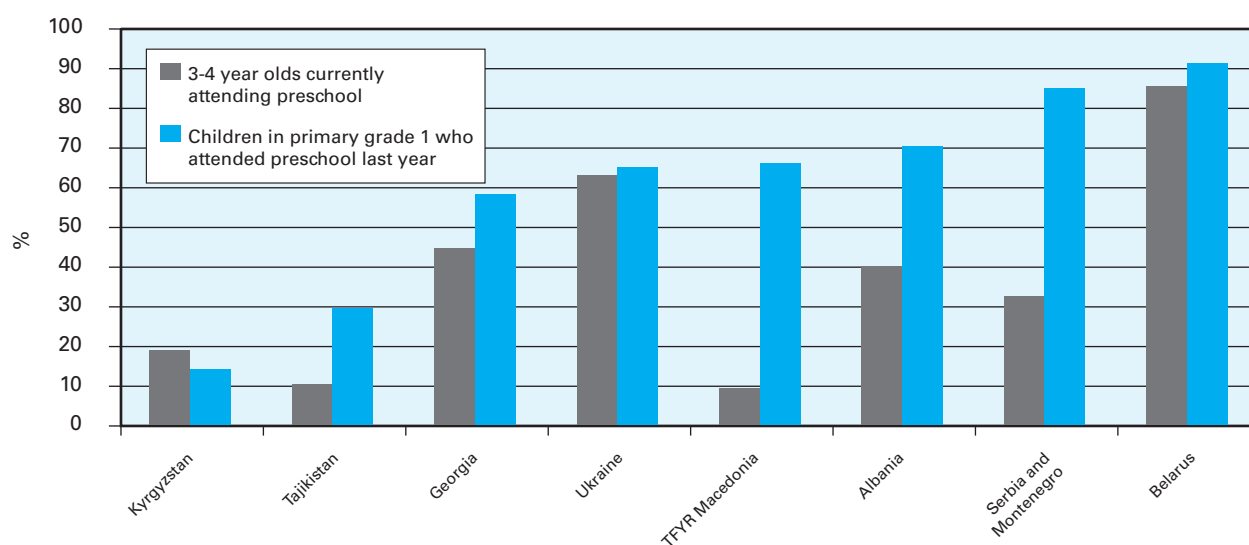
1. Unweighted sub-regional averages.
2. Bosnia and Herzegovina is not included due to lack of data.

Sources: UNICEF, TransMONEE database, 2006; Turkey: Ministry of National Education, 2006.

Data from UNICEF’s most recent Multiple Indicator Cluster Surveys (MICS), shown in figure 3.2, give more details of preschool attendance in eight countries. In all except Kyrgyzstan, attendance rates for three- to four-year-olds are lower than the implied rates for those in the pre-primary age group

(the percentage of children in grade 1 who attended preschool last year). They are considerably lower in Albania, Serbia and Montenegro, Tajikistan and The former Yugoslav Republic of Macedonia. The incidence of immediate pre-primary schooling is over 50 per cent in countries from all sub-regions except Central Asia. The low rates of attendance in Kyrgyzstan and Tajikistan are consistent with the enrolment rates shown in figure 3.1.

**Figure 3.2: Preschool attendance rates, actual and implied, selected countries, 2005**



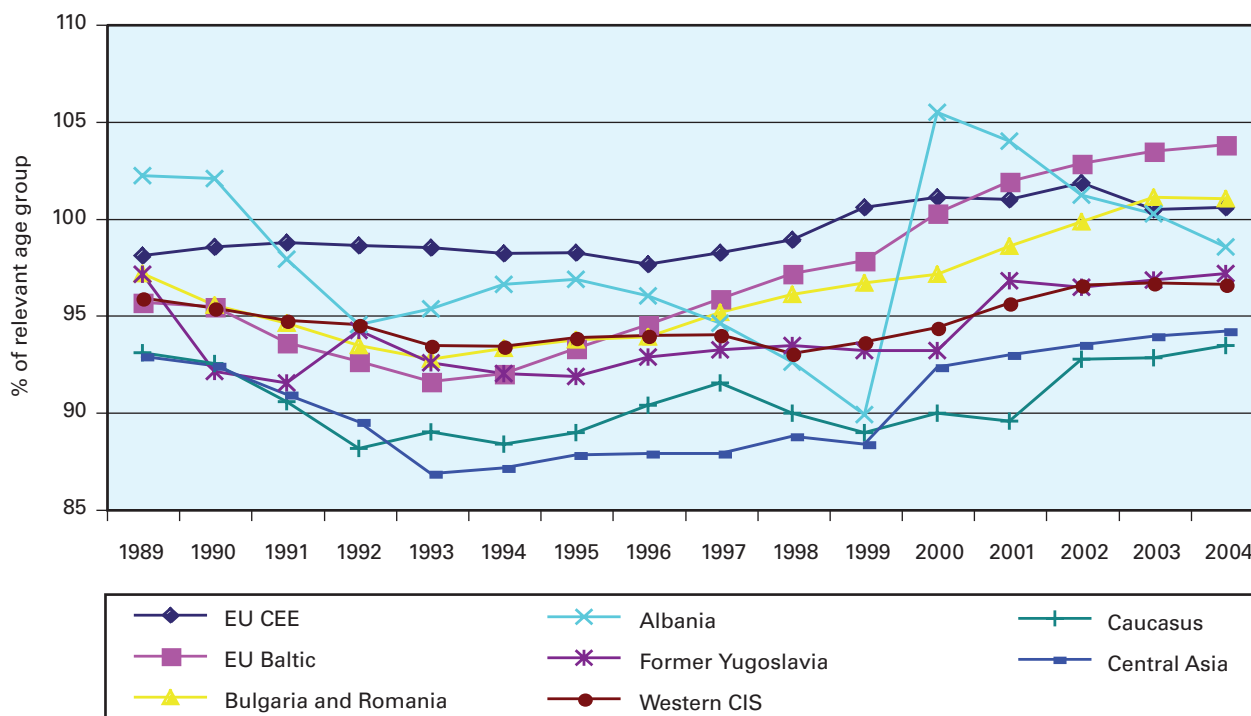
Source: UNICEF, MICS database, 2006.

Falls in preschool enrolment and attendance mean that fewer children have access to school meals, health checks and immunizations during their critical early years. Children's nutritional status relates not only to their physical health but to their cognitive development and thus to their longer-term learning achievement. As a result, failure to attend ECCE increases the risk of disability or identification of special needs during the school years. The relationship between poverty and disability is complex and reciprocal. Poverty increases the risk of disability and children with disabilities often live in the poorest families. From the viewpoint of child welfare, expanding access to early childhood care, especially for children from low-income households, is vital to improving their health, nutrition, and social and mental development. It is also crucial for early learning and reduced risk of identification of special needs.

## Basic Education

All the sub-regions on average have managed to revive their basic education enrolment rates after initial falls to around or above their 1989 levels (figure 3.3). Most of the EU member and candidate countries have gross enrolment rates over 100 per cent as does the Russian Federation. In the other sub-regions, all countries report rates of 94 per cent or more except Armenia (87 per cent), Bosnia and Herzegovina (85 per cent) and Turkmenistan (80 per cent).

**Figure 3.3: Trends in basic education gross enrolment rate, by sub-region, 1989-2004**



Notes:

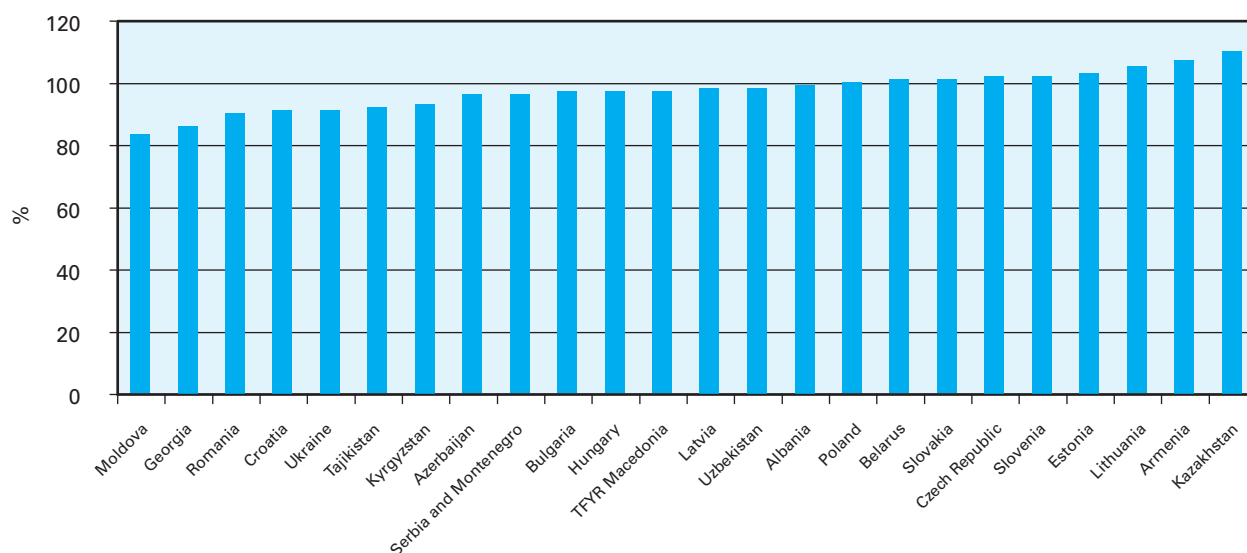
1. Unweighted sub-regional averages.
2. Bosnia and Herzegovina is not included due to lack of data.

Source: UNICEF, TransMONEE database, 2006.

Does this mean that countries in the region have no need to worry about achieving MDG 2? As figure 3.4 shows, more than 70 per cent of them are already at or near this target but several (Croatia, Georgia, Kyrgyzstan, Moldova, Romania, Tajikistan and Ukraine) still have some way to go with 93 per cent or less of the primary school intake making it into the final primary grade. Comparable statistics are not available for Turkey but its primary completion rate in 2003 was estimated at 95 per cent.<sup>58</sup> In Moldova, of the 71,000 children who entered grade 1 in 1994, fewer than 61,000 survived until grade 9 in 2002. Dropout rates were particularly high in grades 8 and 9, but also considerable in grades 2 and 7.<sup>59</sup>

The World Bank judged that 14 countries in the region (Albania, Armenia, Belarus, Bulgaria, Estonia, Hungary, Kazakhstan, Lithuania, Poland, Russian Federation, Slovenia, The former Yugoslav Republic of Macedonia, Ukraine and Uzbekistan) are 'likely' to achieve MDG 2; nine countries (Azerbaijan, Croatia, Czech Republic, Kyrgyzstan, Latvia, Romania, Serbia and Montenegro, Slovakia and Turkey) 'may' achieve it, three countries (Georgia, Moldova and Tajikistan) are 'unlikely' to achieve it and one (Bosnia and Herzegovina) does not have enough data to judge.<sup>60</sup> In all, nearly 2.4 million children of primary-school age were estimated to be out of school in the region in 2004. The majority were in Turkey (900,000), the Russian Federation (369,000) and Ukraine (317,000) – indicating the size of the task of achieving MDG 2.<sup>61</sup>

**Figure 3.4: MDG 2 - Intake into final primary grade as per cent of relevant age group, latest available year**



Note: Years vary between 2001 and 2004.

Source: IMF, 2006: Table A1.

For countries in the region that have already achieved MDG 2, a more relevant target is universalizing basic education, which includes lower secondary as well as primary: MDG 2+. The majority of countries had gross lower secondary enrolment rates of 95 per cent or more in 2004 but laggards include Croatia, at 94 per cent; The former Yugoslav Republic of Macedonia, 94 per cent; Tajikistan, 93 per cent; Ukraine, 93 per cent; Georgia, 92 per cent; Kyrgyzstan, 90 per cent; the Russian Federation, 89 per cent; Bulgaria, 88 per cent; Azerbaijan, 87 per cent; Turkey, 85 per cent; and Moldova, 79 per cent.<sup>62</sup>

Focus-group discussions and interviews confirmed that the so-called 'official' enrolment rates are an inaccurate guide to how much schooling children receive. Attendance and drop-out rates are more interesting but unfortunately are very hard to track down due to lack of reliable data. Schools keep attendance records in most of the countries but they are very unreliable. When reported to the ministry of education or state statistical departments in almost all cases they do not reflect the reality.

Another issue is double registration due to migration as it is rare for children to cancel their registration when the family moves. It is also very hard to track students if they have re-registered in a new school.

In reality, non-attendance takes different forms. The main categories of children who miss out on education are:

- > Children who never registered for school: Many of these children are not counted, due to lack of reliable census statistics and the practice of not registering births (which is very common among Roma populations and in Tajikistan and eastern Turkey).
- > Children who are registered but not attending: This group consists of children who have very spotty attendance in the classroom. The biggest sub-group is working children, including seasonal farm workers who disappear for extended periods (chapter 4 below). There is also a large group of children who show up once in a while. In many countries, children are officially allowed to miss about 30 days of school; this number can easily double if there is a 'valid'

excuse, such as the mother claiming the child is sick. Since these children are registered, they do not show up as dropouts in official records. Repeating a class or being expelled due to non-attendance is extremely rare; it is unheard of in some schools.

- > Children who officially drop out: This group does not seem to be very big and the reason for dropout is mostly child labour. Children officially drop out when their work is needed for the family's survival. They do not always work for income; in many cases, girls' contribution to child care and housework is equally valuable, and it can be as demanding as working full-time outside the home.
- > Children who drop out and want to return but are unable to: For various reasons, many children may drop out at one time or another during their school lives; the problems begin when they try to return. None of the educational systems in the countries visited had the flexibility to integrate these children back into school. From a child's perspective, a 9-year-old may resist sitting next to a 6- or 7-year-old in first or second grade, for fear of ridicule. Nor do schools and teachers want this group, arguing they are disruptive and require special attention.
- > Invisible or hidden dropouts: This is the hardest group to identify. These children attend school but for various reasons they are not interested in or capable of following the course of education. After a while, teachers give up and start ignoring them. Since students are not failed or truly tested in basic education, they somehow complete compulsory education without actually learning anything. The teachers are also reluctant to take action since having significant numbers of unsuccessful students reflects badly on them. As the author of a study in Albania put it, "The teacher ... tends to focus on the mainstream or 'average' student, ignoring the specific learning needs of the other students in the class. Among these are the weaker students. The latter fail to keep up with the teacher, lose interest in the lessons, and slide into a state of disengagement from learning that untrained or uncommitted teachers tolerate – and even encourage – as long as the student does not become troublesome or unruly. These pupils do not physically drop out of school, but are somewhat like 'phantoms in the classroom', present for the purposes of the roll call, but not visible for the purpose of learning and instruction."<sup>63</sup>

### Box 3.1: A teacher's perspective on dropout in Tajikistan

"Dropping out is the biggest problem. By the time children reach grade 3 or 4, they already start disappearing from a class. They are often orphans or from poor households. Boys work in a market and make about 10 Somoni (\$3.30) a day. Girls stay home to help with household chores. Dropouts are mostly boys. They stop schooling because parents tell them to do so but sometimes children themselves decide not to go to school. Many of those children do not have fathers at home (the fathers are working in the Russian Federation). Children are taken care of by their mothers, grandparents or siblings. Teachers monitor those children and contact their families when they stop coming to school. It is weak parental control that contributes to child dropout."

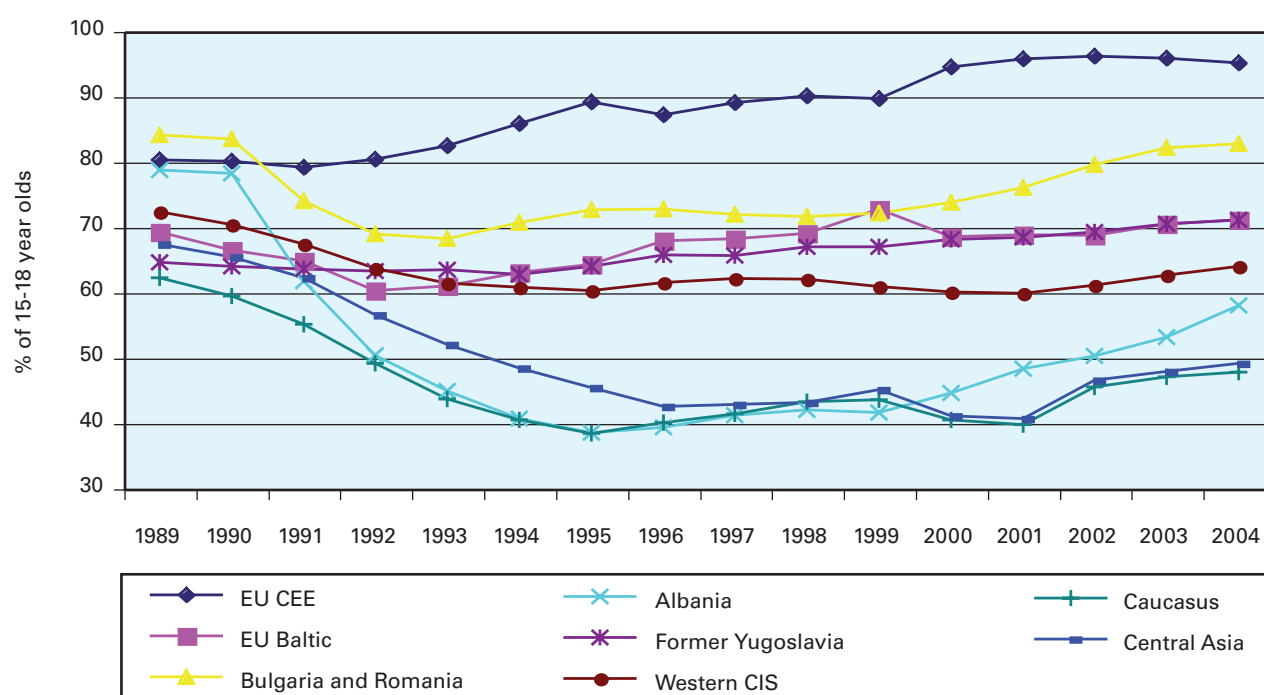
In the five focus-group countries, the demand for basic education is generally high. For most families, sending children to primary school is a given, although there are some exceptions (described below). Despite financial pressures, families are doing their best to register their children in first grade – and succeeding except in cases of such extreme poverty that the family's survival is in question. In later years, the issue gets more complicated with a pattern of dropping out mainly at grades 4 and 5. In countries where basic (and compulsory) education is 11 years, a significant number of children leave school at grade 8 or 9. For example, teachers in one school in Azerbaijan estimated that 20 per cent of the children leave school after grade 9.



## Upper Secondary Education

The split between the Caucasus and Central Asia on the one hand and the rest of the region on the other is pronounced in the case of upper secondary enrolment rates (figure 3.5). The EU member countries are the only sub-regions with higher enrolment rates in 2004 than 15 years earlier with particularly impressive expansion in Hungary and Slovenia. Variations can be wide, with Bulgaria's rate rising to 90 per cent in contrast to Romania's fall to 76 per cent. In spite of upturns in recent years, eight countries have upper secondary enrolment rates below 50 per cent: Armenia, 49 per cent; Georgia, 49 per cent; Azerbaijan, 46 per cent; Bosnia and Herzegovina, 46 per cent; Kyrgyzstan, 45 per cent; Moldova, 45 per cent; Tajikistan, 29 per cent; and Turkmenistan, 28 per cent. In all, almost 12 million children of secondary-school age (lower and upper) were estimated to be out of school in the region in 2004.<sup>64</sup>

**Figure 3.5: Trends in total upper secondary enrolment rate, by sub-region, 1989-2004**



### Notes:

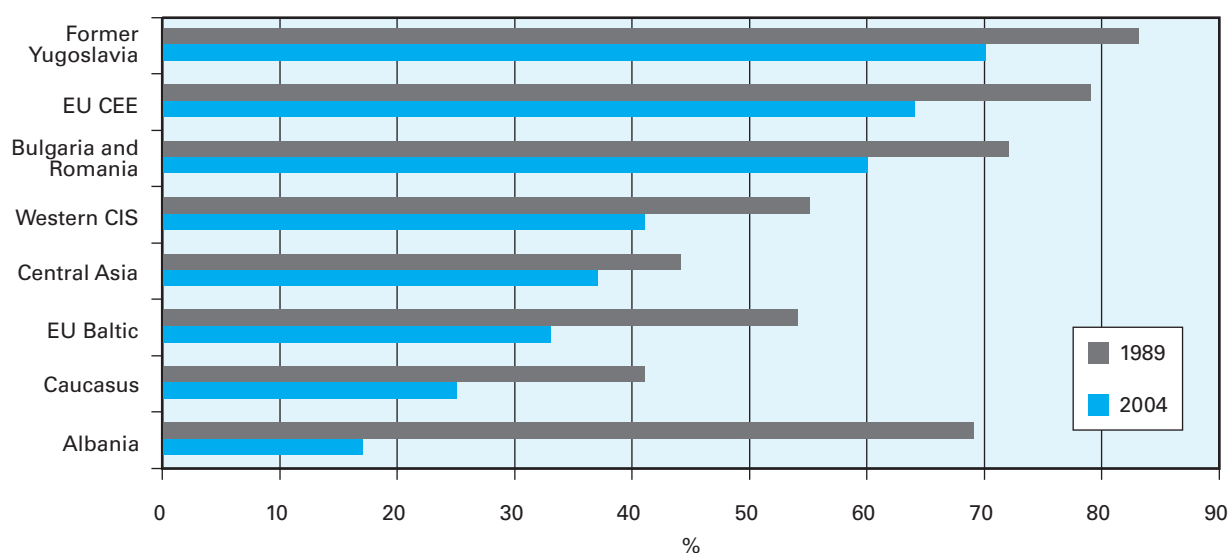
1. Unweighted sub-regional averages.
2. Bosnia and Herzegovina is not included due to lack of data.

Source: UNICEF, TransMONEE database, 2006.

The whole region has experienced a shift in enrolment from vocational to general secondary education, as figure 3.6 shows, reflecting closure of enterprise-based vocational schools and decisions by children (or their parents) to opt for general education or to drop out altogether. The share of vocational/technical enrolment in total upper secondary enrolment has fallen particularly steeply in the Baltic States and the Caucasus. It is lowest in Albania, at 17 per cent of total enrolment; Azerbaijan, Belarus and Turkmenistan, 23 per cent; Armenia, 24 per cent; Lithuania, 26 per cent; Georgia and Tajikistan, 27 per cent; and Kyrgyzstan, 28 per cent. The relative demise of old-fashioned vocational schools, which aimed to provide an economy's enterprises with ready-to-work recruits with narrowly specialized

skills, is hardly to be regretted, for the reasons explored in chapter 2. But many countries have made little progress in deciding what to put in their place, in spite of the large EU investment in this type of education (chapters 1 and 2 above).

**Figure 3.6: Vocational/technical as per cent of total upper secondary enrolment, by sub-region, 1989 and 2004**



Notes:

1. Unweighted sub-regional averages.
2. Bosnia and Herzegovina is not included due to lack of data.

Source: UNICEF, TransMONEE database, 2006.

In the five focus-group countries, many poor parents regard investing in secondary education as a waste since there is assumed to be no possibility of continuing in higher education (chapter 4 below). Parents and children do not believe upper secondary education provides relevant skills or advantages in the job market; rather its only objective is to prepare students for higher education. They believe the employment chances of a person who has completed grade 9 are almost equal to those of one who has graduated from grade 11. Despite all this, some families that can afford it send their children to upper secondary school even if they have minimal hope for university. But many poor families decide that children should instead take any job they can find.

Accessibility is also a major issue for secondary education. Many poor neighbourhoods and small rural villages do not have secondary schools so families have to send their children to a different location, provide them with shelter and finance their expenses. In traditional families, this is not an option for girls. For example, parents in Albania said that many girls are being excluded from secondary education because of this. Sending children to the city centre or to a larger town also raises security concerns. Many parents are not willing to take the risk of letting their children live away from supervision. Children with relatives in these locations who can accommodate them during their secondary-school years sometimes fare better.

In Tajikistan, teachers estimated that 30 to 50 per cent of children do not continue after grade 9, depending on location. In rural areas, children start doing farm work after quitting school. In Tajikistan and Turkey, gender is also a determinant. In Tajikistan, for example, some families simply pull girls out of school after grade 9 even if they have the means to pay for further education.

### **Box 3.2: Violence in and around school: The views of parents, children and teachers**

Many parents in the focus-group discussions cited anecdotes of violence in the schools but there is little evidence that it keeps children out of school. In Moldova, parents mentioned violence as a reason for removing their children from school but upon investigation it became clear that this was an excuse. Some children complained about corporal punishment by teachers and many teachers conceded the use of mild forms of corporal punishment. Parents never raised this issue and they seem to have no objections to it. Unlike in some Western countries, physical bullying by peers did not appear to be a major problem.

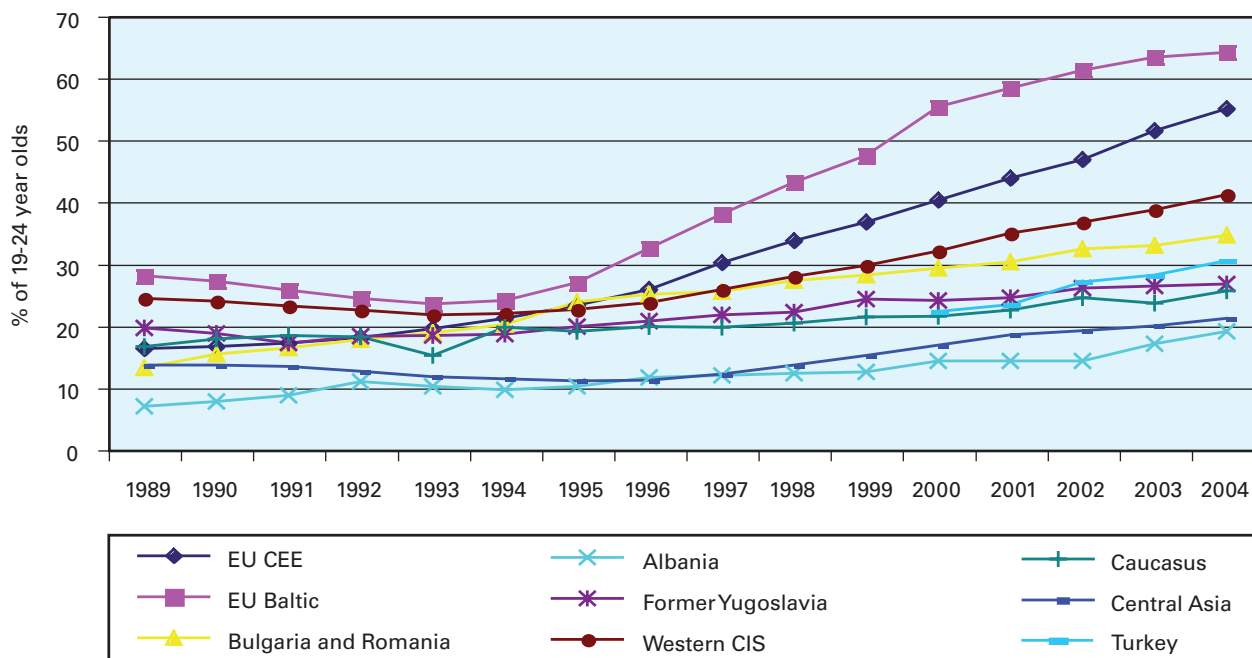
However, two forms of psychological abuse were an issue. One concerned financial contributions to the school. Children from poor families who had failed to pay the required fees were scolded and humiliated by teachers and the principal in front of their peers. This type of punishment was devastating for children and parents. During the focus groups in Moldova, some parents cried when discussing this issue. The second form of psychological abuse concerned clothing and mostly affected girls. Those girls whose parents were too poor to provide them with new and quality clothing were belittled by their peers for wearing the same clothes day after day. The resulting humiliation led many girls to stop attending school.

Some parents also reported violence against children with minor disabilities. It is not possible to judge whether this is common practice but it warrants investigation. Finally, violence in the community may block children's access to school in some extreme cases. Parents in eastern Turkey said an increase in community violence made them reluctant to send their girls to school because they felt they were not safe.

## **Higher Education**

One of the most striking developments in the region's education systems since 1989 and particularly since the mid-1990s has been the explosive expansion of higher education (figure 3.7). At the beginning of the transition, only one country, Belarus, had a higher education enrolment rate of more than 30 per cent. By 2004, all the region's EU members except the Czech Republic and Slovakia had rates above 55 per cent. Five countries (Belarus, Czech Republic, Kazakhstan, Russian Federation and Ukraine) had exceeded 40 per cent and seven (Bulgaria, Croatia, Georgia, Kyrgyzstan, Romania, Slovakia and Turkey) had rates higher than 30 per cent. The countries left far behind in this rush towards mass higher education are all apart from Albania (with a 19 per cent enrolment rate) from the Caucasus or Central Asia: Tajikistan, 14 per cent; Azerbaijan, 13 per cent; Uzbekistan, 8 per cent; and Turkmenistan, 3 per cent.

**Figure 3.7: Trends in higher education gross enrolment rate, by sub-region, 1989-2004**



Notes:

1. Unweighted sub-regional averages.
2. Missing data for Turkey: 1989-1999. Bosnia and Herzegovina is not included due to lack of data.

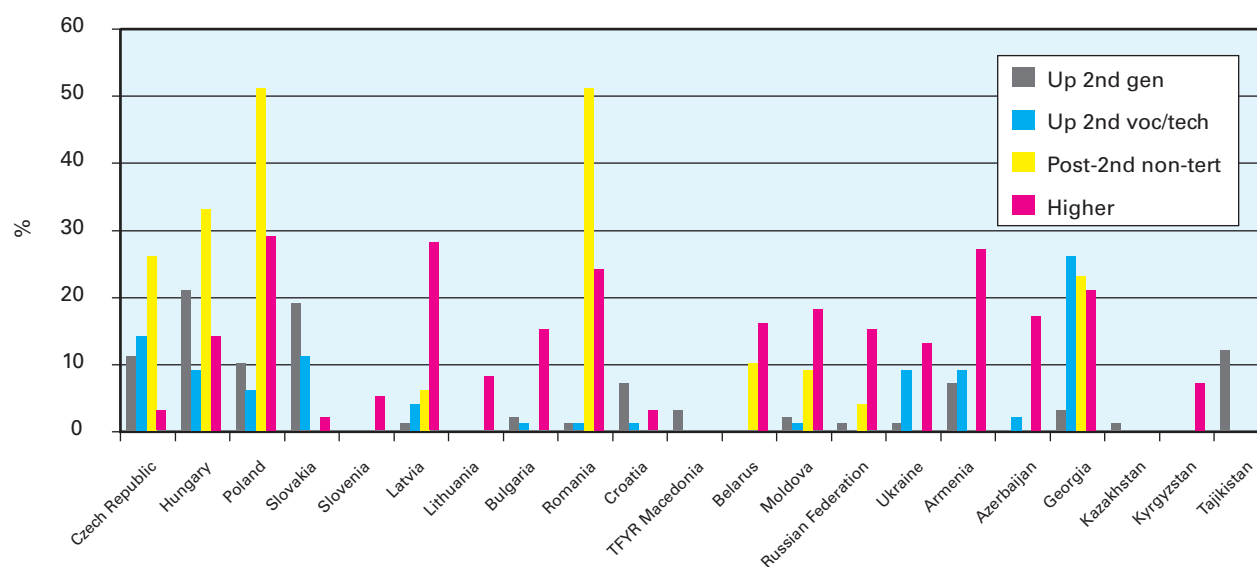
Sources: UNICEF, TransMONEE database, 2006; Turkey: Ministry of National Education, 2006.

**The Private Sector**

The fiscal stress of expanding higher education is relieved in some countries by the growth of private institutions. As figure 3.8 shows, private institutions account for more than a quarter of higher education enrolment in Armenia, Georgia, Latvia, Poland and Romania, and for 15 per cent or more in Azerbaijan, Belarus, Bulgaria, Moldova and the Russian Federation.<sup>65</sup>

Little privatization of education has taken place below upper secondary level. Among countries with data available, private preschools are only significant in Tajikistan, where they account for 31 per cent of enrolment; Kazakhstan, 11 per cent; and Croatia, 10 per cent. Private provision of basic education is negligible. As figure 3.8 shows, private upper secondary general schools are only important in the Czech Republic, Hungary, Poland, Slovakia and Tajikistan. Private secondary vocational schools have made some headway in the Czech Republic, Georgia and Slovakia. The largest role for private institutions is at the level of post-secondary non-tertiary schooling, particularly in Poland and Romania, where private schools account for more than half of such enrolment, but also in the Czech Republic, Georgia and Hungary.<sup>66</sup>

**Figure 3.8: Private institutions as per cent of total enrolment, secondary and post-secondary education, 2004**



*Note:* Missing data for Armenia: Post-secondary non-tertiary; Azerbaijan: Post-secondary non-tertiary; Belarus: Upper secondary vocational/technical; Bulgaria: Post-secondary non-tertiary; Croatia: Post-secondary non-tertiary; Kazakhstan: Post-secondary non-tertiary, Higher; Kyrgyzstan: Upper secondary general, Post-secondary non-tertiary; Lithuania: Post-secondary non-tertiary; Slovakia: Post-secondary non-tertiary; Slovenia: Upper secondary general, Upper secondary vocational/technical, Post-secondary non-tertiary; Tajikistan: Post-secondary non-tertiary, Higher; TFYR Macedonia: Post-secondary non-tertiary, Higher; Ukraine: Post-secondary non-tertiary.

*Source:* UNICEF, TransMONEE database, 2006.

Interviews and focus-group discussions confirmed that the number of private schools is growing in the countries visited, although it is still small. Few private schools exist in basic education but many private preschools are showing up in capital cities. These charge high fees and are only affordable for middle- and upper-middle-income groups. Given high hourly fees, some operate only part-time to make themselves more affordable.

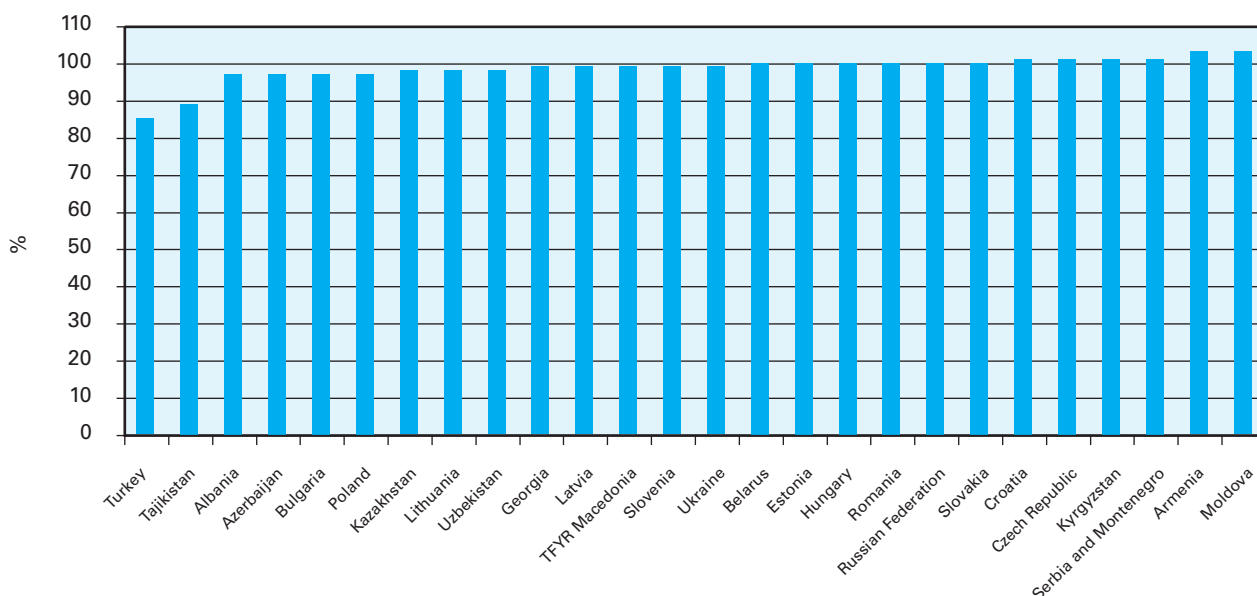
This trend is also apparent outside the focus-group countries. For example, one private preschool in Yerevan (Armenia) has programmes of one and two days per week, targeting five- and six-year-olds for school preparation. As the countries in the region improve economically, the trend towards private preschools will grow but they will not be accessible to economically disadvantaged families.

Another, more limited trend is privately funded specialized secondary schools. These are sometimes established by not-for-profit groups and are associated with a certain ideology or religious group. A good example is the Selale schools in Tajikistan: 9 institutions serving about 2,600 students. Many families see these schools as the best option because their quality of education and resources are far superior to those of government schools. Recently, they have begun accepting girls but the student body remains overwhelmingly male.

### Gender Equity

As incomes rise and inequality increases throughout the region, worries about equity in access to education are increasing. As figure 3.9 shows, most countries in the region are close to the MDG 3 target for primary and secondary education – only Tajikistan and (even more so) Turkey have a major task ahead in this respect.

**Figure 3.9: MDG 3 - Girls as per cent of boys in primary and secondary schools, latest available year**



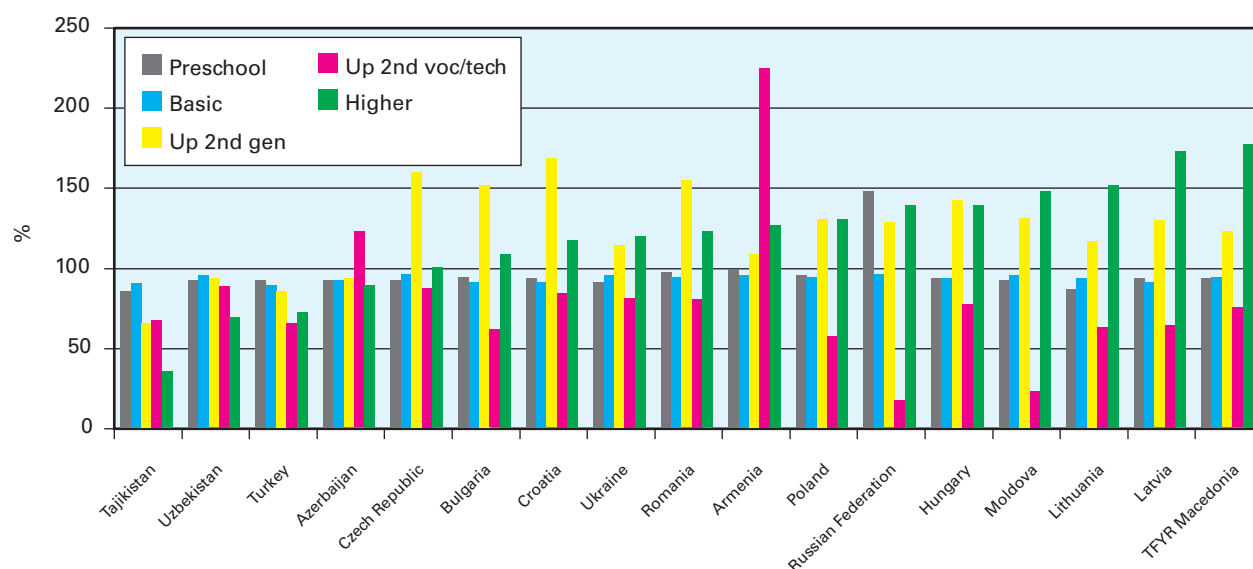
Note: Years vary between 2001 and 2004.

Source: IMF, 2006: Table A1.

Figure 3.10, based on different definitions of education levels and a different year, is not completely comparable with figure 3.9 but it gives a more detailed picture of the gender dimension of access. Except in the Russian Federation, the region’s preschools have fewer girls than boys. No country achieves equal representation of girls in basic education but at upper secondary general level girls outnumber boys in all countries except Azerbaijan, Tajikistan and Uzbekistan. In vocational/technical schools, the tables are turned with more boys than girls in all countries except Armenia and Azerbaijan (though this access does not necessarily provide an educational and labour market advantage to boys given the state of these schools in many countries). The most striking aspect of figure 3.10 is the feminization of higher education throughout the region with the same exceptions as in secondary general schools.

Figures 3.9 and 3.10 together suggest that to meet MDG 3 targets all countries need to pay attention to gender disparity in basic education and Tajikistan needs to increase female enrolment in upper secondary education. The World Bank judges that all countries in the region are ‘likely’ to achieve MDG 3 except The former Yugoslav Republic of Macedonia (which ‘may’ achieve it), and Tajikistan and Turkey (which are ‘unlikely’ to achieve it).<sup>67</sup> In addition, figure 3.10 suggests that Azerbaijan, Turkey, Uzbekistan and particularly Tajikistan need to increase the representation of women in higher education institutions.

**Figure 3.10: MDG 3 - Females as per cent of males in educational institutions, by level and type, 2004**



Sources: UNICEF, TransMONEE database, 2006; Turkey: Ministry of National Education, 2006.

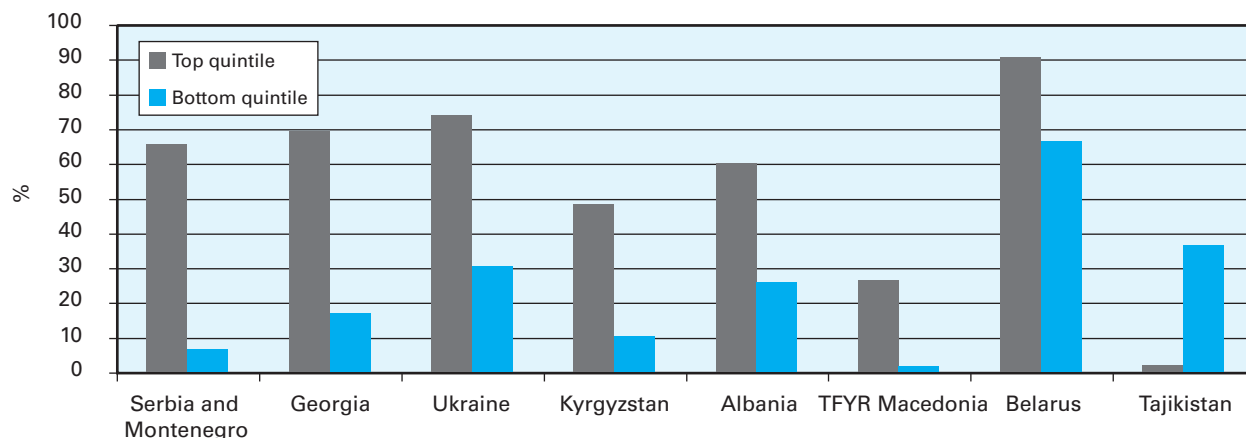
## Family Background

Parental education tends to be associated with children's access to education in all countries for which data are available. The importance of family income (which is also typically associated with parents' education) in determining enrolment and attendance has increased since the transition began. Various factors combine to make it difficult for children from poor families to stay in school, including fees for both private and public schooling, informal tuition charges and other contributions, and payments for textbooks and other school materials (chapter 4 below). At the same time, differences between the incomes of poor and rich households have increased substantially.

Equity problems begin at preschool level, where the percentage of three- to four-year-olds attending in 2005 was substantially greater for families in the richest consumption quintile than the poorest (figure 3.11). Of the eight countries shown, Tajikistan (where only a tiny proportion of children attend public preschools) is the only one where this tendency does not hold. In Moldova, also, the enrolment rate for the three- to six-year-old age group was 67 per cent for the richest quintile in 2003, compared with 30 per cent for the poorest quintile.<sup>68</sup> Since the children who stand to benefit most from preschooling are precisely those whose families have relatively low income and expenditure levels, this poses a challenge to policy makers.



**Figure 3.11: Attendance rate, 3-4 year olds, by household consumption level, selected countries, 2005**



Source: UNICEF, MICS database, 2006.

### Box 3.3: Inequities in school access in Turkey

Turkey's pre-primary enrolment rate of 16 per cent (figure 3.1 above) is low for its income level. In an effort to increase the rate, children from poor families are supposed to receive priority but the details of this policy have not yet been worked out. As for basic education, estimates suggest that around 10 per cent of Turkish 6- to 14-year-olds were not enrolled in 2005; 90 per cent of these children were aged 9 or older, refuting the hypothesis that they were simply late enrollers.

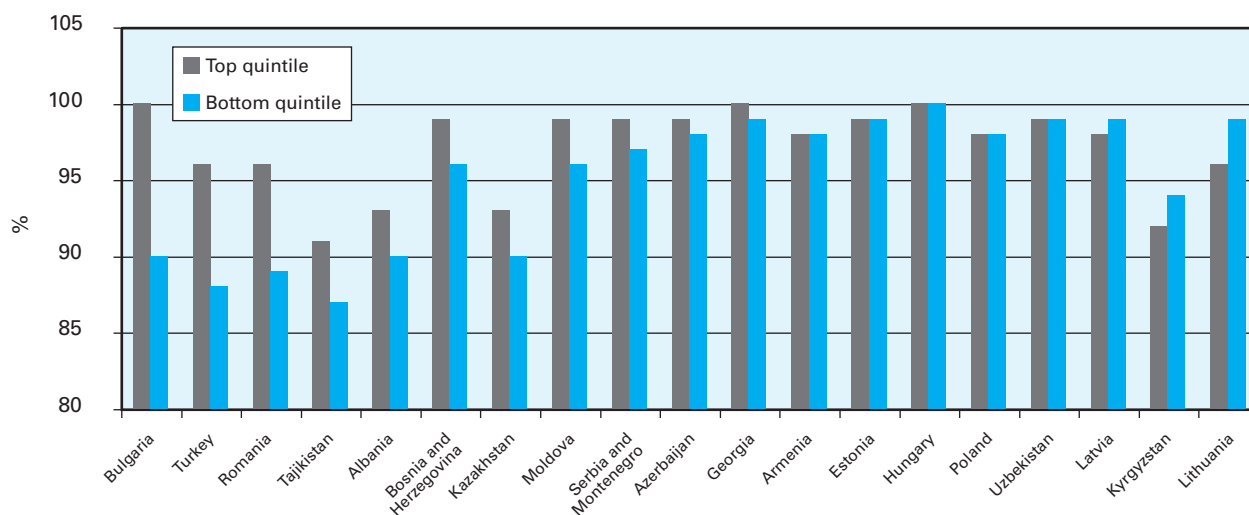
More than 70 per cent of the un-enrolled were girls, 67 per cent were in rural areas, more than 55 per cent had illiterate mothers and 53 per cent were classified as poor. It is estimated that if all children with parents who did not attend primary school were enrolled in school, the net enrolment rate would rise from 90 per cent to nearly 94 per cent.

At secondary level, Turkey's gender gap is the biggest in the region: 1 in 3 girls of secondary-school age does not attend school, compared with 1 in 10 boys. In response, the Ministry of National Education, with support from UNICEF and other donors (including the EU Support to Basic Education Programme and the World Bank Social Risk Mitigation Project), has launched the Girls' Education Campaign, focusing on the 10 provinces with the poorest enrolment levels and highest dropout rates among girls. As a result, it is estimated that an additional 62,000 girls and 35,000 boys were enrolled in primary schools in 2005. Another instrument to increase girls' enrolment in and completion of basic education is targeted, conditional cash transfers to girls of secondary-school age and strengthened incentives for them to graduate.

Sources: UNICEF, 2006a; World Bank, 2005a.

Access to basic education seems to depend less on family background. Using data from recent household surveys, figure 3.12 shows that enrolment rates for this age group do not differ much between households in the top and bottom consumption (and presumably income) quintiles. In a few cases towards the left side of the chart (Albania, Romania, Tajikistan and particularly Bulgaria and Turkey), the more prosperous families have an advantage but in others (Kyrgyzstan, Latvia and Lithuania) children of poorer families have slightly higher enrolment rates. Bulgarian and Turkish policy makers certainly need to pay attention to this inequity but in other countries it is less pressing.

**Figure 3.12: Enrolment rate, 7-14 year olds, by household consumption level, latest available year**

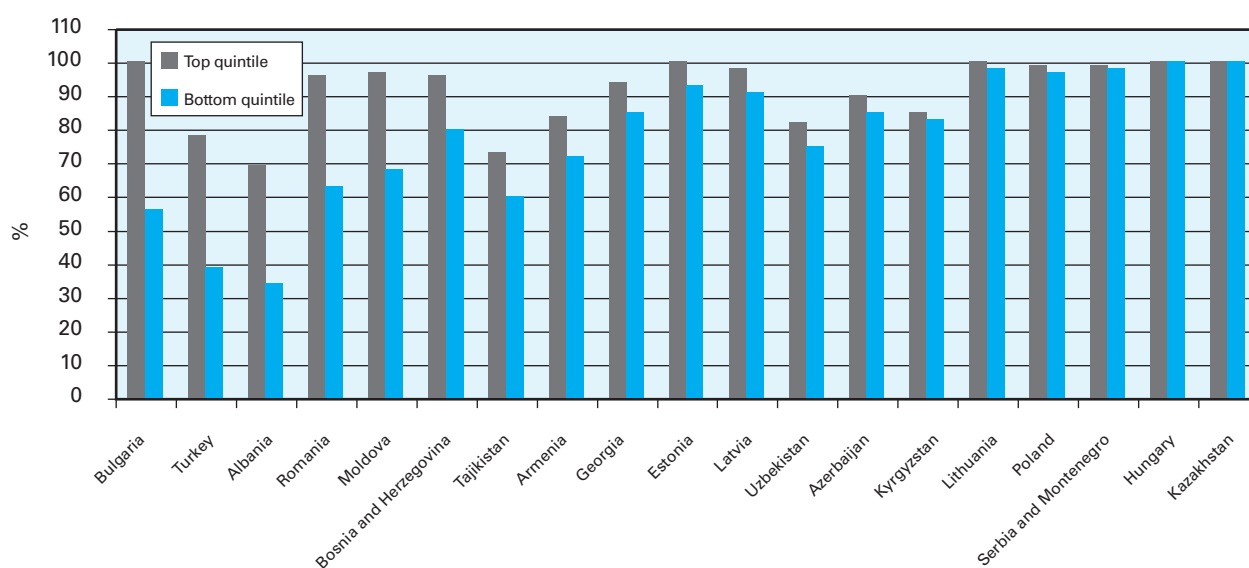


Note: Years vary between 2001 and 2003.

Source: World Bank, 2005: Annex B, Table 8.

Inequity is much more striking in the case of the upper-secondary-school age group. Of the countries in figure 3.13, only Hungary, Kazakhstan and Serbia and Montenegro manage to achieve roughly similar enrolment rates for the more and the less prosperous at this level. Huge gaps in rates occur between rich and poor in Bulgaria, at 44 percentage points; Turkey, 39; Albania, 35; Romania, 33; and Moldova, 29. The gaps are also significant in Bosnia and Herzegovina, at 16 percentage points; Tajikistan, 13; and Armenia, 12. Moreover, the disadvantaged are over-represented in vocational schools, which in many countries are still unreformed and out of date with low status, limited chances of moving up the education system and at graduation mediocre employment prospects. In other words, inequity in secondary education enrolment is understated by the rates shown in figure 3.13.

**Figure 3.13: Enrolment rate, 15-17 year olds, by household consumption level, latest available year**



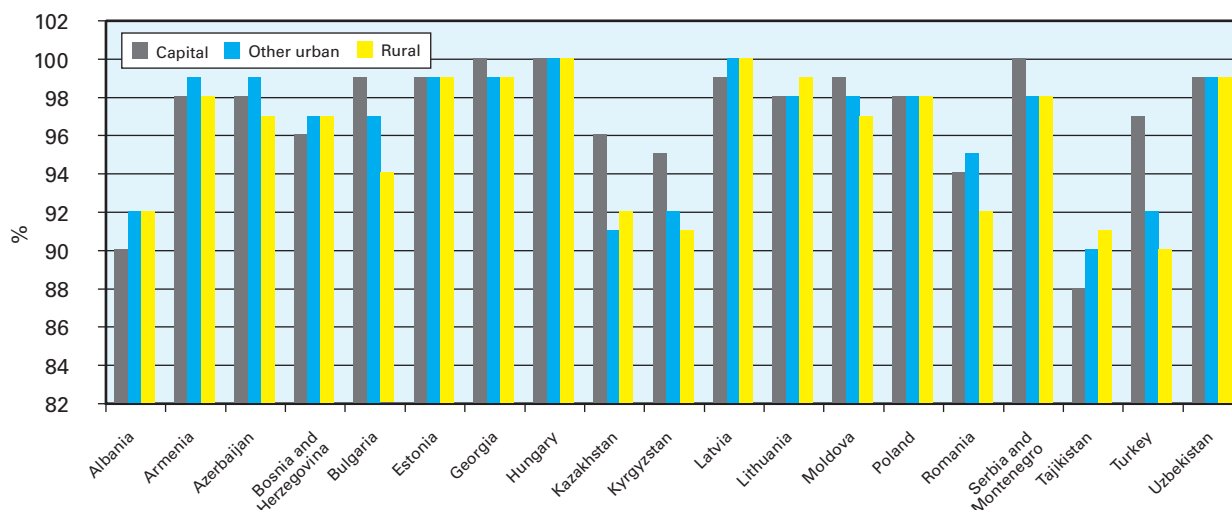
Note: Years vary between 2001 and 2003.

Source: World Bank, 2005: Annex B, Table 8.

### Urban versus Rural Location

Access to schooling also often differs by location: between urban and rural locations, but also between capital cities and other urban areas. As figure 3.14 shows, there is not much difference in the basic-education age group except in Bulgaria, Kazakhstan, Kyrgyzstan and particularly Turkey, where capital-city dwellers have a significant access advantage. But in Albania and Tajikistan, enrolment rates are actually higher in smaller towns and rural areas.

**Figure 3.14: Enrolment rate, 7-14 year olds, by location, latest available year**

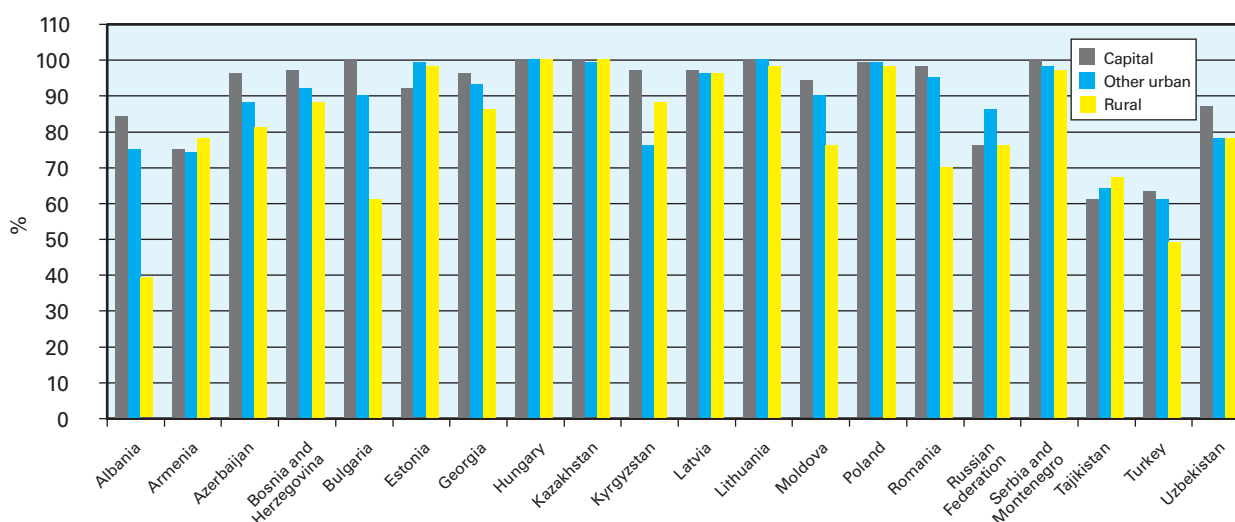


Note: Years vary between 2001 and 2003.

Source: World Bank, 2005: Annex B, Table 8.

For the upper-secondary-school age group, there are large urban-rural differences in enrolment rates in Albania, with a gap of 45 percentage points between rural areas and the capital city, followed by Bulgaria, 39; Romania, 28; Azerbaijan, 15; Turkey, 14; and Georgia, 10 (figure 3.15). In Armenia, Estonia and Tajikistan, on the other hand, secondary school enrolment rates are slightly higher in rural areas than in the capital city.

**Figure 3.15: Enrolment rate, 15-17 year olds, by location, latest available year**



Note: Years vary between 2001 and 2003.

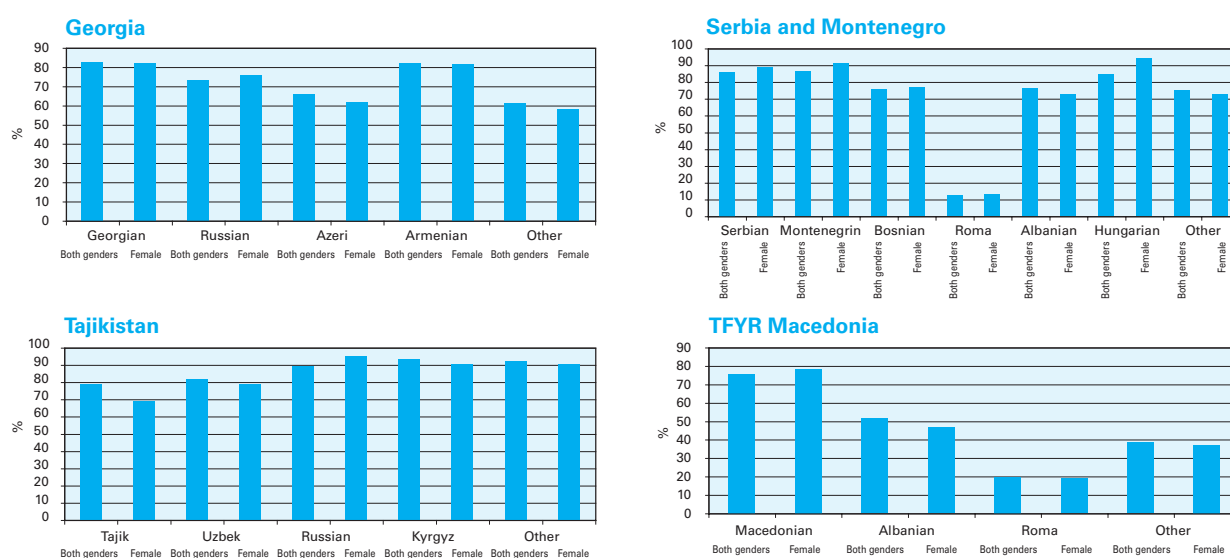
Source: World Bank, 2005: Annex B, Table 8.

## Ethnicity

Ethnicity poses an important challenge to the region's education policy makers. None of the countries in the region is ethnically, linguistically or religiously homogeneous. Diversity often has a religious dimension with Muslim, Roman Catholic, Orthodox and other Christian communities, sometimes ethnically defined, spread across many countries. The division of the region has given a boost to ethnic and religious tensions, with former minorities becoming governing majorities in many new states and the antagonisms suppressed under authoritarian regimes re-emerging. War and the ethnic cleansing often associated with it have redistributed populations within countries and sub-regions with implications for the pattern of access to education.

In many countries, minority ethnic groups are at an educational disadvantage. For example, secondary school students from minority ethnic groups have lower net attendance rates than majority students in several countries: Azeris in Georgia; Bosnians and Albanians in Serbia and Montenegro; and Albanians in The former Yugoslav Republic of Macedonia (figure 3.16). On the other hand, net attendance rates for Tajiks in Tajikistan are lower than for other groups.

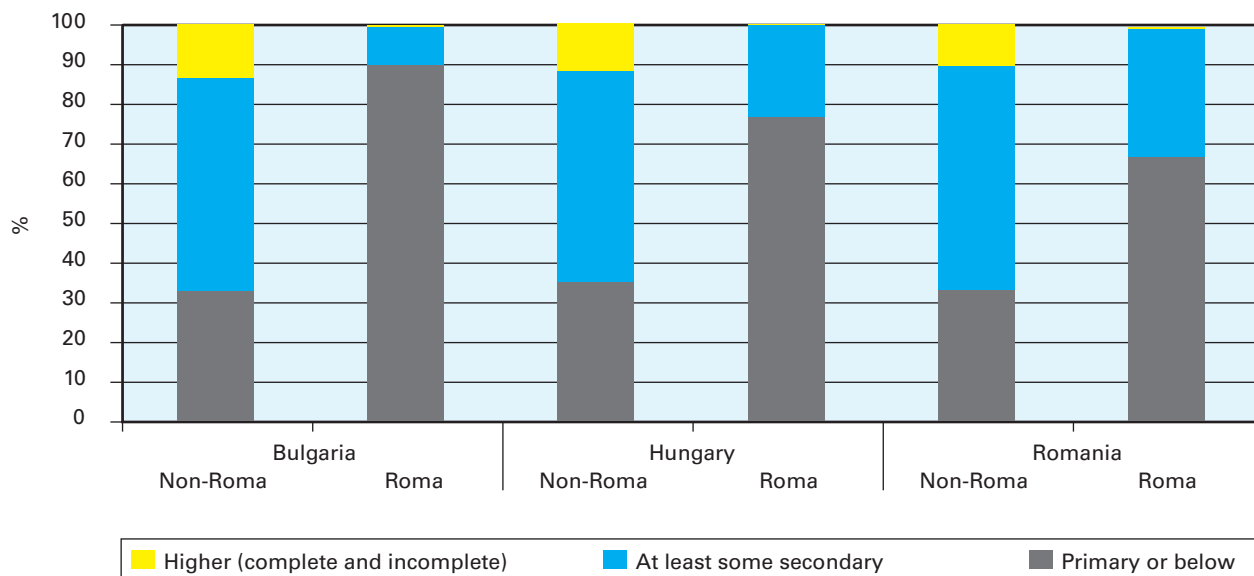
**Figure 3.16: Net attendance rate of children of secondary-school age by ethnicity/language and gender, selected countries, 2005**



Source: UNICEF, MICS database, 2006.

The group with the most spectacular disadvantage in access to education in many countries in the region is the Roma. As figure 3.16 shows, in both Serbia and Montenegro and The former Yugoslav Republic of Macedonia, attendance rates for Roma children of secondary-school age are a fraction of the rates for majority-group children. The most recent censuses in three of the countries with the largest Roma communities (Bulgaria, Hungary and Romania) show the tiny proportions with any schooling beyond primary, compared with the non-Roma population (figure 3.17). Roma children are also disproportionately represented in residential care facilities and special schools, whether because of discrimination or as a consequence of benefits the family may receive due to their attendance. Difficult economic circumstances at home and the resulting need for children to contribute to the family budget, cultural differences, including language, and the quality of schooling provided are the main barriers to Roma children starting school and the causes of early dropout. The situation is especially urgent considering the high growth rate among the Roma school-age population and the resulting increase in their share of the total population in Central and Eastern Europe and South-Eastern Europe, where they are concentrated.

**Figure 3.17: Educational attainment by ethnicity, Bulgaria, Hungary and Romania, 2000**



Source: Ringold et al., 2005: Table 2.5.

To improve the prospects of ethnic-minority children, policies should concentrate on breaking the vicious cycle of early dropout, and the resulting confinement to unskilled activities, unemployment and low incomes in adulthood, which further reinforces the cycle in the next generation. There are no simple solutions but a major recent study, *Roma in an Expanding Europe*, identifies several education policy initiatives to improve their situation, most of which are equally applicable to other categories of disadvantaged children:<sup>69</sup>

- > Coordination of social assistance and education policies to reduce the cost of education for poor families, including school feeding programmes, linkages between child allowances and school attendance, and scholarships for low-income students;
- > Preschool programmes to prepare children for the classroom and surmount language barriers;
- > Special NGO programmes, like the Open Society Institute’s Step by Step programme, which provide training and support to teachers, and involve parents in the classroom;
- > Mentoring programmes, extra-curricular activities and multicultural curricula;
- > Improvement in the quality of schooling offered to disadvantaged students, including (in the case of Roma children) an end to the practice of channelling them into special schools (box 3.4);
- > Abolition of separate Roma classrooms within schools and of separate Roma schools, and integration of Roma children into regular schools;
- > Training of teachers to cope with multicultural environments, including conflict resolution and classroom management, and employment of Roma teachers’ assistants, mediators and inspectors.



### Box 3.4: Roma families challenge segregation in special schools

In 1999, 18 Czech children and their parents brought a case against the Czech Government in connection with children based on minimal testing being placed in schools for the mentally disabled. Although the parents had agreed to put their children in the special schools, none of them had understood at the time the consequences of this: that the children would be unlikely to have any opportunities for higher education or employment. In 2000, after exhausting all legal options in the Czech Republic, the case was brought on behalf of the applicants to the European Court of Human Rights by the European Roma Rights Centre and the Open Society Institute Justice Initiative. It was heard in 2001. In February 2006, the Court ruled six to one that, although the applicants' claims were based on a number of serious arguments, they had not proved that their rights to non-discrimination in education had been breached.

In October 2006, the Court gave leave to the International Step by Step Association, together with the European Early Childhood Education Research Association and the Roma Education Fund, to submit an expert paper (an *amicus curiae* or 'friend of the court' brief) detailing relevant international education research and practice. The case was re-heard in January 2007. If the plaintiffs win, the case could set a precedent that would make it difficult for governments to segregate Roma children into special schools based on flawed assessment processes.

*Source: International Step by Step Association, London, 2006.*

## Children with Special Needs

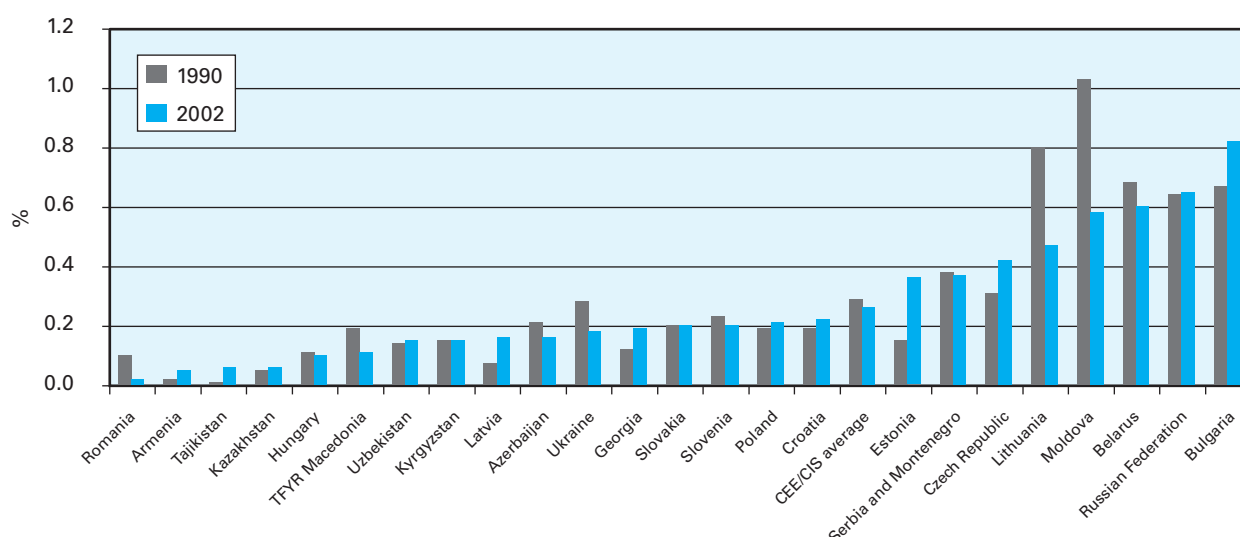
A group that suffers particular inequities in access to education in the region, as in other parts of the world, is children with special needs, broadly defined as children with disabilities and children who experience difficulties in learning (table 2.3 above). Problems of data collection and reliability are particularly acute in the region. For example, a recent study by UNICEF of children with disabilities reported that the number in institutions or receiving benefits in the region (excluding Turkey) tripled between 1990 and 2000, from 500,000 to 1.5 million children.<sup>70</sup> Given the overall population decrease during the same period, this increase is striking, although it is thought to be due to better identification rather than to an increase in incidence. The number still falls short of the expected disability rate of 2.5 per cent, according to the European Academy of Childhood Disabilities incidence benchmark. Only three countries (Hungary, Latvia and the Russian Federation) reached the benchmark, though many others approached it. Six countries (Armenia, Serbia and Montenegro, Slovakia, Tajikistan, The former Yugoslav Republic of Macedonia and Turkmenistan) reported rates of less than 1 per cent. If the benchmark were to be applied, 1 million children with disabilities remain uncounted in the region, reflecting incomplete registration of children with disabilities but also high infant mortality rates given that disabled newborns have lower survival rates than others.

Children with special needs and children in residential care are vulnerable in any society but they make up a very mixed group. It is possible that some of the 'children with disabilities in institutions' are counted as disabled because they reside in institutions. Historically, throughout the region children with disabilities and others considered to have special needs were placed in institutions. The term 'children with special needs' referred to all children in special schools and institutions, regardless of the reason for placement. Special education was what was provided in special schools and institutions. Thus despite an early Soviet policy of universal access to education for disabled children, this access was through a system of special schooling and education in residential care institutions. Separate forms of schooling are problematic in that they perpetuate the segregation of children with disabilities from regular schools, serving in a paradoxical way to both achieve and deny access to education.

Since the collapse of the Soviet Union, institutions remain a common form of provision for children with special needs as well as for new groups of children in need of special protection, including those who have been orphaned, internally displaced or traumatized by war, refugee children, Roma children and children living or working on the streets. Such children are often placed in institutions for lack of alternative provisions, because their families are unable to cope and because of the communist legacy of seeing institutions as a humane way to care for dependent children.

The number of children with disabilities in residential care across the region (except Turkey) fell between 1990 and 2002, from 451,000 to 317,000, or from 0.29 to 0.26 per cent of all children (figure 3.18). However, several countries (Belarus, Bulgaria, Moldova and the Russian Federation) still put more than 0.5 per cent of their children into such institutions. A large number of countries (Armenia, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Poland, Russian Federation, Tajikistan and Uzbekistan) increased the institutionalized proportion over the period.

**Figure 3.18: Number of children with disabilities in public institutional care as per cent of relevant population, 1990 and 2002**



**Notes:**

1. Figures given for 1990 are for 1995 for Kazakhstan, 1992 for Ukraine. Figures given for 2002 are for 2001 for Bulgaria, 2000 for Serbia and Montenegro.
2. 'Children with disabilities in public institutional care' refers to children in institutions for the physically or mentally disabled.

Source: UNICEF, 2005a: 16.

A recent OECD study reported that Bosnia and Herzegovina, Bulgaria, Croatia, Moldova, Montenegro, Romania, Serbia and The former Yugoslav Republic of Macedonia consider the education of children with special needs to be part of the national system of education.<sup>71</sup> They have all ratified the Convention on the Rights of the Child and have adopted international policies that call for inclusive education as a strategy to achieve education for all. However, these reforms exist more firmly in policy than in practice. In addition, long-standing policies conflict with the implementation of inclusive education, such as the legally mandated classification commissions that identify children with disabilities in order to determine their care, including education (as already noted in chapter 2 above). Responsibility for children with disabilities is often shared among ministries (health, education, social welfare, for example) with all of the interagency coordination problems that come with shared responsibility.



As a result, despite the existence of legal and policy frameworks, evidence of their implementation is uneven at best. There was not much evidence of integration of children with special needs in the focus-group countries. Many parents interviewed did not even entertain the notion of sending such children to a regular school. They already struggle to send children without disabilities to school and for them keeping a child with disability at home, sometimes looked after by siblings, is considered the right approach. This is less likely to be true for middle- and upper-income families. However, the deep-seated stigma associated with disability cuts across socio-economic lines.

In a workshop in a small village in Moldova, children stated that the village had 157 children with mental and physical disabilities. This may be an exaggeration but they said that only two or three of them attend school. In a school in Albania with more than 2,000 students, there was no sign of a child with disability. Parents claimed this was because families of children with disabilities are ashamed to admit it. A similar pattern existed in Azerbaijan and Tajikistan. An official in Azerbaijan noted that attempts at inclusive education were at a very preliminary stage and most people were not even aware of the concept. Turkey also has a long way to go before starting to achieve integration on a large scale.

In sum, educational opportunities are limited for children with disabilities and other types of special needs, and for those in residential care. Many children with disabilities are not enrolled in school. Those in residential care may receive some form of special education but little is known about its quality or the curriculum on offer.

## Conclusions on Access and Equity

This review of access to education has revealed several causes for concern.

- > Preschool enrolment rates have recovered from their post-transition collapse in many countries but they remain low in Albania, the Caucasus, Central Asia and the countries of the former Yugoslavia. The pre-primary year should be included in mandatory (and free) education but expansion of enrolment at younger ages needs to focus on those from disadvantaged backgrounds who benefit from it most.
- > The majority of countries in the region are within sight of achieving MDG 2. But an estimated 2.4 million 'missing' children of primary-school age should be in school but are not. Seven countries need to make a special effort to raise their completion rates: Croatia, Georgia, Kyrgyzstan, Moldova, Romania, Tajikistan and Ukraine. And at least 11 countries appear unlikely to achieve what might be called MDG 2+: universalization of lower secondary and hence of basic education.
- > As MDG targets are even being redefined to include upper secondary education in some countries, eight have rates below 50 per cent: Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Moldova, Tajikistan and Turkmenistan. The number of 'missing' out-of-school children of lower- and upper- secondary-school age is even higher – almost 12 million. The push for higher secondary enrolment will also need to involve decisions about its composition as students show an increasing preference for general over vocational schools.
- > As far as higher education is concerned, many countries in the region would probably admit to over-expansion: particularly Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia, all with enrolment rates above 55 per cent, as well as Belarus, the Czech Republic, Kazakhstan, the Russian Federation and Ukraine, with rates above 40 per cent. At the other extreme are the countries left behind in the rush to mass higher education: Azerbaijan, Tajikistan, Turkmenistan and Uzbekistan. For fiscal reasons, expansion of higher education is being fuelled in many countries by tuition fees in public institutions and the growth of private institutions. Some countries are still suspicious of the private sector in education. It needs supervision and standard-setting, but otherwise deserves a level playing field.

- > As far as equity is concerned, the picture is mixed. Gender disparity (in the traditional sense of bias against females) is not a significant problem in most countries in the region where females tend to be over-represented in the upper levels of the education system. Tajikistan and Turkey are the countries furthest away from MDG 3, and Tajikistan has a particular disparity problem in upper secondary education. The only countries with more males than females in higher education institutions are Azerbaijan, Tajikistan, Turkey and Uzbekistan. Special policies to redress these imbalances are needed and have been adopted in several countries.
- > Families with higher income (as indicated by consumption expenditures) have disproportionate access to preschools, to judge from survey data from Albania, Belarus, Georgia, Kyrgyzstan, Serbia and Montenegro, The former Yugoslav Republic of Macedonia and Ukraine. Access to basic education seems to depend less on the family's household consumption level except in Bulgaria and Turkey. Inequity between income groups is much more striking for the upper-secondary-school age group, particularly in Albania, Bulgaria, Moldova, Romania and Turkey. Such inequity is even more extreme at higher education levels. A re-thinking of policy on the criteria for subsidies is indicated in chapter 5.
- > There is not much difference in access to basic education by location between urban and rural or between capital cities and other urban areas. However, for the upper-secondary-school age group, urban-rural differences in enrolment rates are large in several countries, particularly Albania, Bulgaria and Romania. As school networks are rationalized in the interest of greater efficiency, it will be important to ensure equitable access for children from small towns and rural areas (chapter 5 below).
- > Minority ethnic groups are at an educational disadvantage in many countries. The most spectacular example of such disadvantage is among the Roma in Bulgaria, Hungary, Romania, Serbia and Montenegro and The former Yugoslav Republic of Macedonia. There is general agreement on the policies needed to improve the situation, including preschool programmes, training and support for teachers, efforts to involve parents in the classroom, mentoring, extra-curricular activities, multicultural curricula, improvement in the quality of schooling, integration into regular schools and, crucially, measures to reduce the cost of education for poor families. These policies are equally applicable to other categories of disadvantaged children.
- > For children with special needs, educational opportunities outside institutions or special schools are limited. Although some of the educational reforms discussed in chapter 2 support access to education in regular schools, the preference for institutional care persists.
- > Overall, concern remains about equity in access, which is crucial to the reform process. The patterns of inequity vary between countries but all share a general problem: the difficulty faced by disadvantaged children (most of whom are also poor) in progressing through the education system. How this plays out in unequal learning and labour market outcomes will be explored in the next chapter. A re-thinking of the criteria for allocating expenditure is clearly needed and this will be addressed in more detail in chapter 5.





# CHAPTER 4



## CHAPTER 4: LEARNING AND LABOUR MARKET OUTCOMES

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 4: LEARNING AND LABOUR MARKET OUTCOMES

So far, this study has documented some progress in reforming teaching and assessment, along with expansion in enrolment at rates that vary between education levels and countries. It has also reported on growing inequality in access to preschool, secondary school and higher education. But what about the outcomes of education? What is happening to quality? What skills do children acquire in school? How easily are they able to find well-paid and/or satisfying jobs or set themselves up successfully in self-employment after they leave school? Is inequity in access to education compounded by inequity in outcomes from education? These are the questions addressed by this chapter, distinguishing between (a) learning outcomes, and (b) labour market outcomes.

The main interest in the section on labour market outcomes is in their impact on the demand for schooling. Do shortfalls in enrolment rates, particularly in basic education, reflect responses by household decision-makers to labour market signals as they see them or are other factors more important? The significance of the longer-term, dynamic impact of an increase in the quantity and quality of education on a country's economic prospects is also emphasized.

### (a) Learning Outcomes

The results of international comparative achievement tests depend not only on what happens in school but also on experiences outside the school and at home.<sup>72</sup> Quality of schooling goes beyond performance in academic subjects and cognitive skills, taking into account factors such as cross-curricular competencies, life skills, capacity for teamwork, oral communication, social skills and civic values. Yet standardized tests if interpreted cautiously can reveal useful information about the quality of education for many students.<sup>73</sup> This section accordingly uses the following sources to explore differences in average learning outcomes between countries, trends in those averages and in more detail differences within countries in the learning outcomes of various groups of students:

- > PIRLS, carried out for a nationally representative sample of grade 4 students (aged about 10 on average) in 35 countries worldwide in 2001;<sup>74</sup>
- > PISA, launched by OECD to assess student preparedness for adult life among a nationally representative sample of 15-year-olds near the end of compulsory schooling through measurement of skills in mathematics, science and reading. In 2000, it covered 32 countries emphasizing reading literacy; this was repeated in 2002 for 11 countries (PISA 2000 'plus'). In 2003, it surveyed students in 41 countries emphasizing mathematics literacy and a one off assessment of problem-solving skills;<sup>75</sup>
- > TIMSS, carried out for a nationally representative sample of grade 8 students (aged about 14 on average) in 24 countries in 1995, 39 countries in 1999 and 45 countries in 2003.<sup>76</sup>

In total, these surveys provided data for 17 countries, almost two thirds of the countries in the region: 12 countries for PISA 2003 (including those that participated in PISA 2000 in 2002) and for PIRLS 2001; 13 for TIMSS 2003 (15 if 1999 data for the Czech Republic and Turkey are included). No country from Central Asia took part in any of these cross-national surveys. Countries that participated for the first time in the latest rounds of cross-national surveys of educational achievement (in 2002 and 2003) are Albania, Armenia, Estonia and Serbia and Montenegro (Serbia).

Based on the main sources available, this section briefly explores (1) differences in learning outcomes between countries using the concept of absolute disadvantage; and (2) differences in learning outcomes within countries using the concept of relative disadvantage (box 4.1). This section seeks to answer the following questions: Is there a relationship or trade-off between absolute and relative



disadvantage? What is the pattern of within-country differences in each country? What influences learning outcomes? Is there a relationship between educational spending and student performance? Finally, what are the main determinants (such as gender and socio-economic background) of differences in learning outcomes?

### Box 4.1: The concepts of absolute and relative disadvantage

**Absolute disadvantage:** Signifies a low level of achievement relative to a common international benchmark. This is defined as the percentage of children beneath a given fixed score that represents the same threshold level of achievement in each country. (The percentage below a benchmark level is highly correlated with the mean and sometimes this is used instead when benchmark levels are not available.)

**Relative disadvantage:** Signifies a low level of achievement relative to a national benchmark and is a measure of inequality within a country. It is defined for each country as the difference between the values of the 50<sup>th</sup> percentile and the 5<sup>th</sup> percentile of the national distribution of achievement scores. The greater this difference, the further away from the national mean are a country's low achievers. (In some cases, reference to the whole distribution is made – overall rather than bottom-end inequality – as the difference between the 95<sup>th</sup> and 5<sup>th</sup> percentiles.)

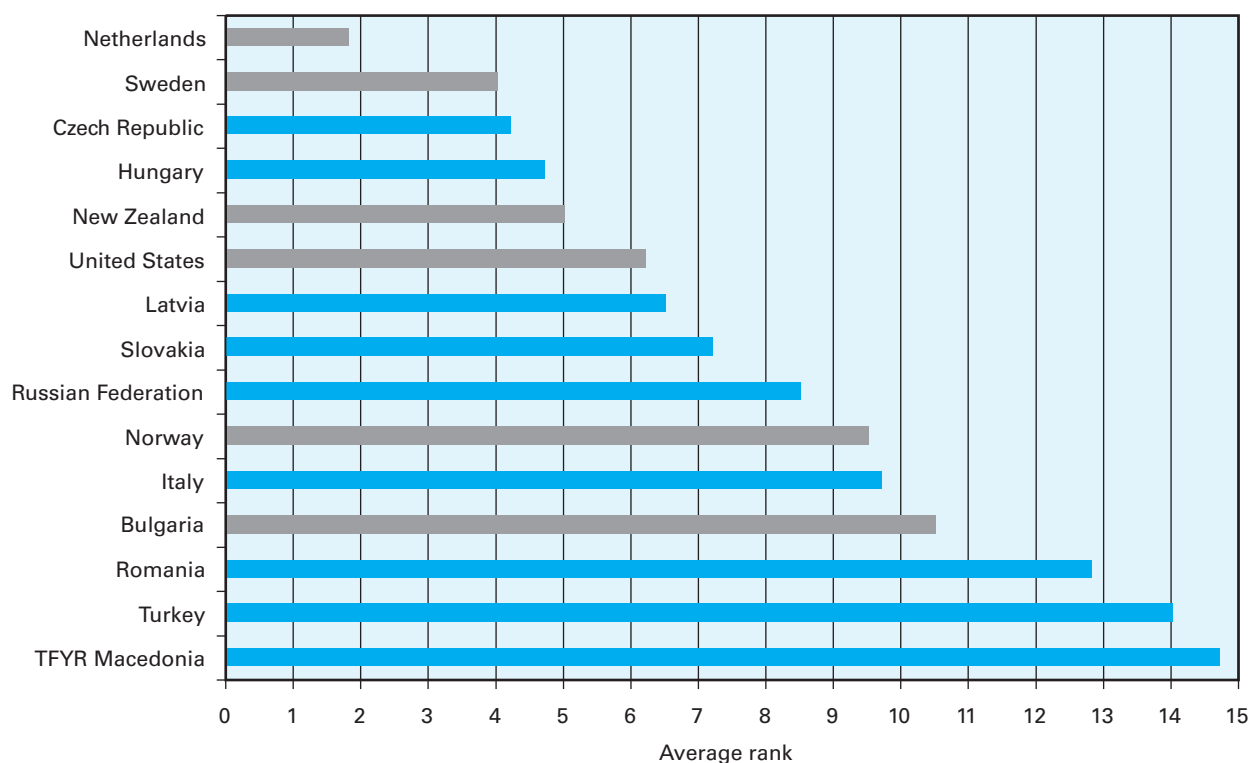
### Absolute Educational Disadvantage

One way of assessing a country's educational performance is through a measure of absolute disadvantage. Countries in which a large proportion of students fail to reach given levels of competence have cause for concern about future productivity and competitiveness.

Given the differences between the surveys, the most robust comparison between countries is one that combines the results of countries that participated in all three surveys. The decision to combine the survey results, rather than report the results of each survey separately, is taken in the interest of achieving a stable, reliable and comprehensive overview. The surveys aim to measure different things (subjects and types of achievement), using different methods of data collection and different methods of scaling the answers into a single score. They refer to different age groups or school grades (PIRLS and TIMSS tested the entire grade 4 or grade 8 irrespective of age while PISA tested all those aged 15 years 3 months to 16 years 2 months irrespective of grade). All suffer from sampling and non-sampling errors (for example non-response) in ways that may vary across surveys – the choice of survey has an impact on the results. Therefore, it is not possible to rely on a single test for an adequate picture of a country's educational achievement. Analysis of combined survey results has already been carried out successfully for OECD countries and it is useful for comparative purposes to extend this analysis to other countries in the region.<sup>77</sup>

Among the countries that participated in all three surveys were nine countries from the region. Taking the most recent data, an average rank was calculated on the six tests for mean achievement (two mathematics tests, two science tests, two reading tests), including the six OECD countries (other than those in the region) that participated in all the surveys in the most recent round.<sup>78</sup> As figure 4.1 shows, the region has a divide: The new EU Member States in the sample are in the top half of the table, and the Russian Federation also does better than Italy and Norway; four countries in the region bring up the rear.

**Figure 4.1: Absolute disadvantage: Average rank on mean achievement in six tests, various years (PIRLS, PISA, TIMSS)**



*Notes:*

1. PISA 2003: Reading, science, mathematics; TIMSS 2003 grade 8: Science, mathematics; PIRLS: Reading.
2. PISA for Bulgaria, Romania, The former Yugoslav Republic of Macedonia tested in 2002 (PISA 2000+).  
TIMSS is 1999 for the Czech Republic and Turkey.

*Sources: Calculations from Martin et al., 2000; Mullis et al., 2000, 2003, 2004, 2004a; OECD, 2004; OECD and UNESCO Institute for Statistics, 2003.*

In general, countries in the region do worse in PISA than in TIMSS, compared with OECD countries. One common explanation for this result is that PISA tries to assess the use and application of knowledge and skills in real-life situations, including the higher-order skills of synthesis and problem solving that are most relevant to the needs of the global economy. On the other hand, TIMSS is based more on measuring the mastery of an internationally agreed formal curriculum, and it is therefore closer to the focus on delivery and accumulation of facts that predominated in the region's countries at least until the transition. This confirms the widely recognized need for a move towards a more flexible approach to learning, though it should avoid jeopardizing the traditional strengths of the systems, which show up in the TIMSS results.

In sum, countries with the lowest absolute disadvantage in all the most recent surveys are the Baltic States, the Czech Republic and Hungary. Other Central and Eastern European countries, Bulgaria, Romania and the Russian Federation do moderately well. Albania, Serbia, The former Yugoslav Republic of Macedonia and Turkey fare poorly, as do Armenia and Moldova. Countries that have consistently reduced the absolute educational disadvantage in recent years are Latvia, Lithuania and Poland, and Estonia did very well in its first appearance on international achievement surveys. On the other hand, absolute disadvantage has consistently increased in Bulgaria and Slovakia.

## Relative Educational Disadvantage

Absolute performance levels mask significant variations in performance within countries that are generally much larger than differences between countries. In fact, overall in PISA as in TIMSS, only about one tenth of the variation in student performance in mathematics lies between countries while the rest occurs within countries.<sup>79</sup>

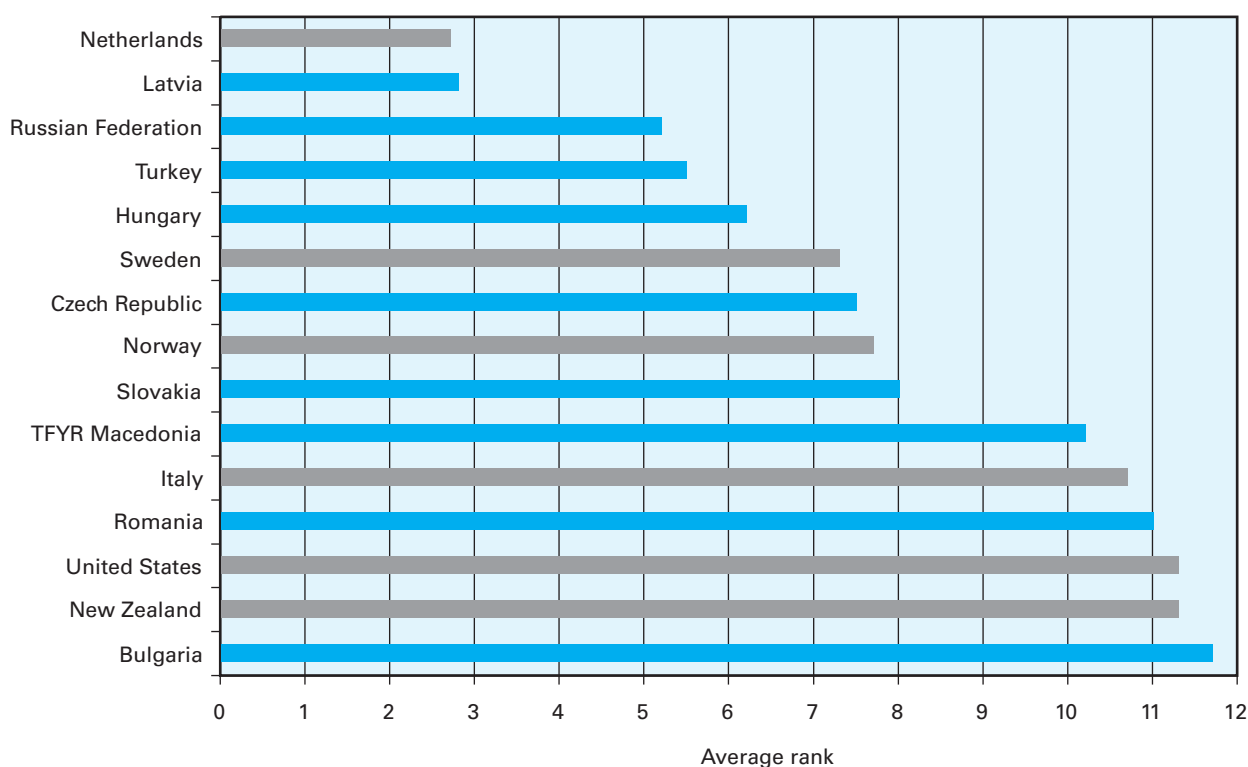


Relative educational disadvantage is an important indicator linked to the vision of education as a means for furthering equality of opportunity and social cohesion. Throughout the region, there is concern about growing inequality and the need for parents to pay for school materials and extra tutoring to make up for shortages in public spending (chapter 5 below).<sup>80</sup> In the assessment of relative disadvantage, countries are ranked according to the size of the gap between middle achievers (50<sup>th</sup> percentile) and low achievers (5<sup>th</sup> percentile). Thus countries are compared based on how far behind the weakest students are being allowed to fall.

Looking at percentile differences, a less robust pattern emerges across the different sources and tests, compared to mean outcomes. Differences between the surveys could be partly because measures of variance tend to be more sensitive to the choice of the scaling model, which may differ between surveys.<sup>81</sup>

In any case, the relative disadvantage ranking (figure 4.2) is somewhat different than the ranking for absolute disadvantage (figure 4.1 above). It is also more complex with less apparent dependence on geography and income levels. Latvia ranks highest among the countries in the region on this criterion. The Russian Federation, The former Yugoslav Republic of Macedonia and Turkey do better, and the Czech Republic worse on this indicator of within-country inequality. Hungary (towards the top), Slovakia (around the middle), and Bulgaria and Romania (towards the bottom) show little difference in their rankings on the two criteria.

**Figure 4.2: Relative disadvantage: Average rank on difference between 50th and 5th percentiles, in six tests, various years (PIRLS, PISA, TIMSS)**



*Notes:*

1. PISA 2003: Reading, science, mathematics; TIMSS 2003 grade 8: Science, mathematics; PIRLS: Reading.
2. PISA for Bulgaria, Romania, The former Yugoslav Republic of Macedonia tested in 2002 (PISA 2000+). TIMSS is 1999 for the Czech Republic and Turkey.

*Sources: Calculations from Martin et al., 2000; Mullis et al., 2000, 2003, 2004, 2004a; OECD, 2004; OECD and UNESCO Institute for Statistics, 2003.*

In PISA, Serbia, The former Yugoslav Republic of Macedonia (reading and science) and Turkey do surprisingly well, compared to TIMSS, in which they had among the largest disparities in achievement. In fact in PISA, Serbia and Turkey have the least within-country differences, significantly less than the other countries. But in the rest of the region, within-country differences are not statistically distinguishable from each other. Except for the Netherlands, OECD countries tend to have the largest within-country differences of all. In PIRLS, the distribution is wider across countries than in PISA, while in PISA the within-country differences are larger on average.

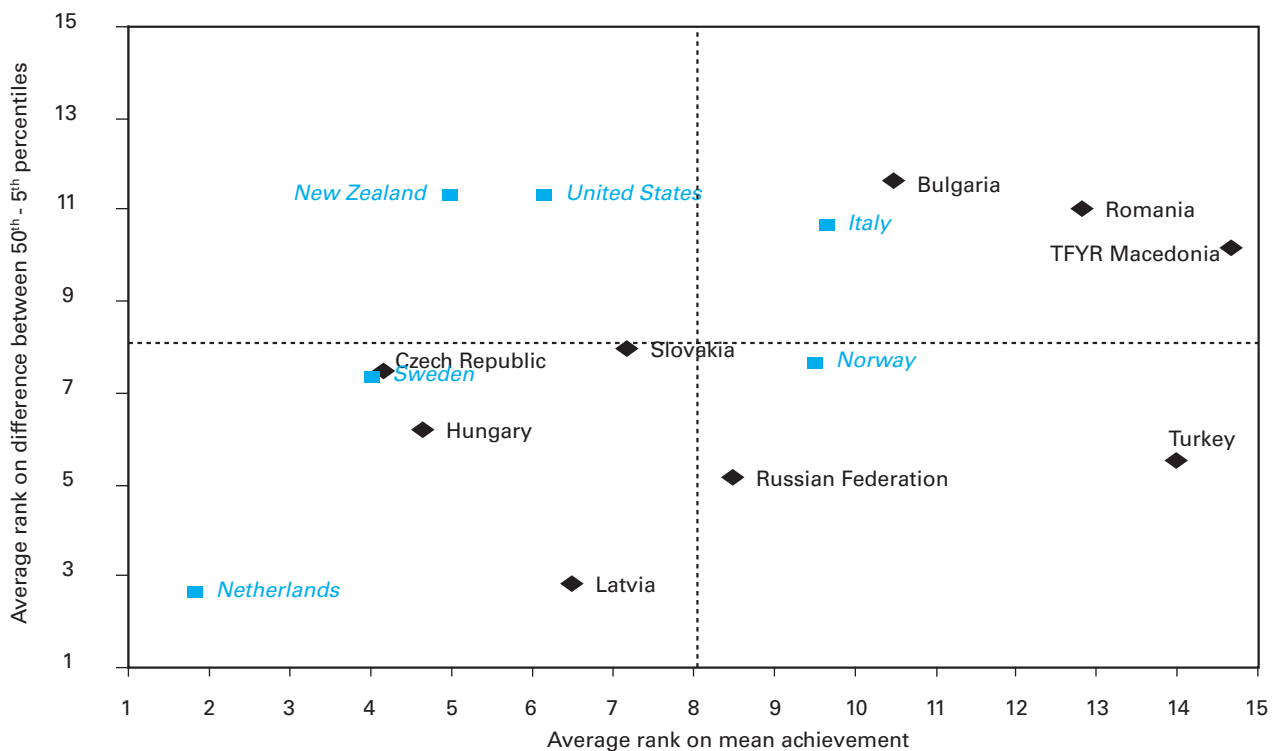
Within-country disparities were generally smaller in 2003 than in 1999 among the 10 countries with trend data in TIMSS except for Slovakia where within-country differences in mathematics were significantly higher in 2003, as measured by the difference between the 95<sup>th</sup> and 5<sup>th</sup> percentiles. In science, all countries have decreased their within-country disparities, significantly in most cases (as in Latvia, Lithuania, Moldova, Romania, Russian Federation, Slovenia). Five countries in the region participated in both the 2000 and 2003 rounds of PIRLS. Among these, Latvia showed a significant decrease in within-country differences for reading (as measured by the difference between the 95<sup>th</sup> and 5<sup>th</sup> percentiles) and the Czech Republic showed an increase in within-country differences for science. The PIRLS survey found no significant change in within-country differences in the two countries that participated

also in 1991 (Hungary and Slovenia). It should be noted that where inequality in access has increased, a decrease in inequality in outcomes is very possible since those not in school are not tested.

### Relationship between Absolute and Relative Disadvantage

The scatter of average rank on mean achievement versus on difference between 50<sup>th</sup> and 5<sup>th</sup> percentiles (figure 4.3) shows that in general there is no trade-off between (high levels of) absolute standards of educational achievement and (low) within-country disparities. In fact, often the best-achieving countries in absolute terms have the lowest levels of dispersion: Latvia, Hungary (and the Netherlands), in the bottom-left quadrant, do relatively well on both absolute and relative disadvantage measures, while Bulgaria, Romania and The former Yugoslav Republic of Macedonia, in the top-right quadrant, do poorly both in terms of average achievement and in terms of within-country differences. OECD countries do worse in terms of relative disadvantage than in terms of absolute disadvantage, compared to the countries in the region. Turkey is the only country that does well in terms of within-country differences and poorly in terms of absolute level of achievement.

**Figure 4.3: Absolute versus relative disadvantage: Average rank on mean achievement versus on difference between 50<sup>th</sup> and 5<sup>th</sup> percentiles in six tests, various years (PIRLS, PISA, TIMSS)**



**Notes:**

1. PISA 2003: Reading, science, mathematics; TIMSS 2003 grade 8: Science, mathematics; PIRLS: Reading.
2. PISA for Bulgaria, Romania, The former Yugoslav Republic of Macedonia tested in 2002 (PISA 2000+). TIMSS is 1999 for the Czech Republic and Turkey.

Sources: Calculations from Martin et al., 2000; Mullis et al., 2000, 2003, 2004, 2004a; OECD, 2004; OECD and UNESCO Institute for Statistics, 2003.

In sum, it is difficult to draw an overall picture of relative disadvantage, owing to some inconsistencies across surveys and a few significant differences within surveys. But the Baltic States and Slovenia seem to do best overall; the Czech Republic, Hungary, Poland, the Russian Federation, Serbia and Turkey do moderately well; while other South-Eastern European countries, Armenia, Moldova and Slovakia do worst. Looking at absolute as well as relative disadvantage, the Baltic States do well on both measures, while Albania, Armenia, Moldova and The former Yugoslav Republic of Macedonia do worst on both measures.

## Influences on Learning Outcomes

It is difficult to quantify the reforms reviewed in chapter 2 and their impact on learning outcomes, which depend on many factors, and there is still no conclusive and consistent evidence on what makes a measurable difference in schools and educational systems. It is difficult to control for all home background effects given that certain types of schools attract certain types of students with specific backgrounds. And it is impossible to assign students to schools randomly, to separate learning at home from that at school, or learning in the current school from learning in previous schools. Achievement data on the same students over time would be needed to test the effectiveness of educational provision. Also, some aspects that may be important, such as the number of 'good' teachers or various contextual factors, are not easily measurable, and surveys have to rely on self-reports and proxies that may be differently related to reality in different countries.

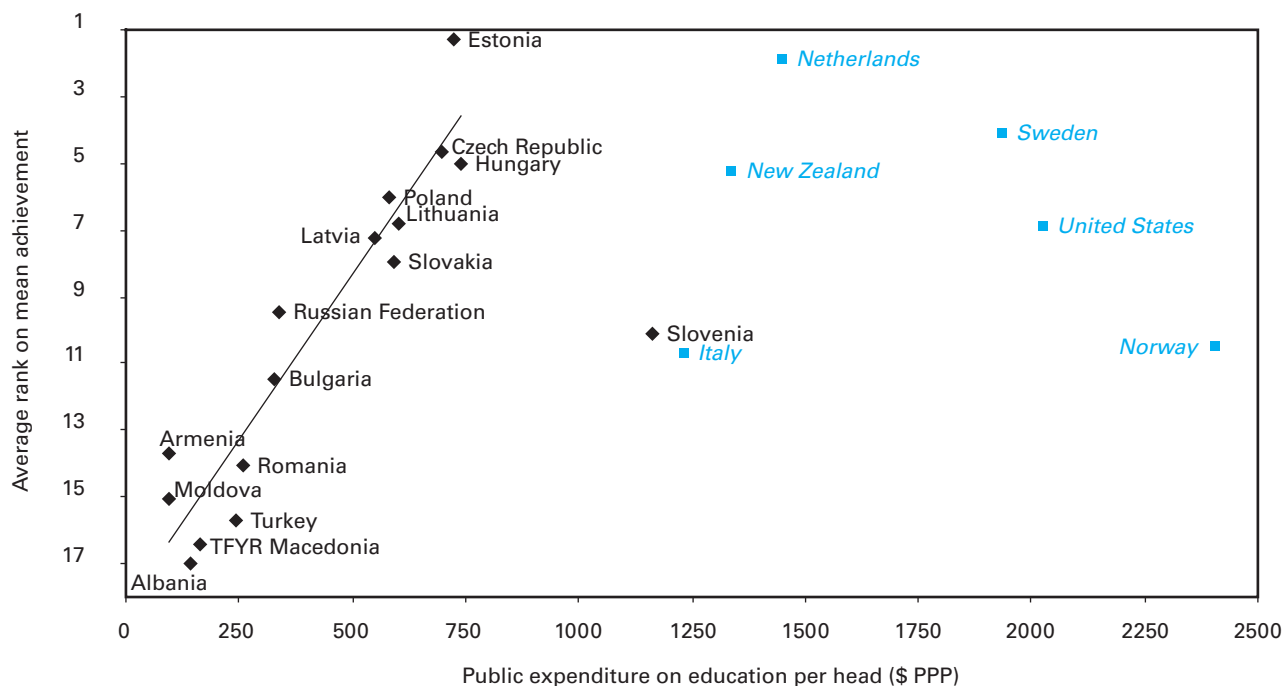
The PISA 2003 report includes an interesting model that attempts to isolate the net effect of school characteristics on student performance by adjusting for some demographic and socio-economic aspects of student background and school intake.<sup>82</sup> School factors, which it identifies as in general positively related to performance net of socio-economic intake are: a climate characterized by discipline, high student morale and commitment, good student-teacher relationships, no grouping by ability in the school, and adequate teacher supply and educational resources as perceived by school principals. Based on PISA indices, student perception of the disciplinary climate has a particularly strong influence in Serbia and Turkey, and is one of the strongest significant effects in all countries. Students' sense of belonging has a strong effect in Latvia, as do perceived school supply and quality of educational resources in the Russian Federation, and perceived teacher shortages in the Czech Republic.

Finally, students who report having attended pre-primary education for at least a year score better on average in PISA mathematics than those who do not in Poland, the Russian Federation and Turkey, even after controlling for socio-economic background and all the other variables mentioned above.<sup>83</sup>

## Public Expenditure on Education and Student Performance

Public expenditure on education per head is closely associated with mean achievement in the region (as measured by average rank on all available achievement surveys) but not so in the OECD comparison countries (figure 4.4). It seems that money matters below a certain threshold. Countries in South-Eastern Europe as well as Armenia and Moldova may be too poor to provide enough educational opportunities. But once resources are sufficient for the basics, the way resources are used starts to count more. In fact Slovenia, with per head expenditure close to some OECD countries, is the only country in the region far off the regression line linking expenditure and achievement.

**Figure 4.4: Public expenditure on education per head versus average rank on mean achievement in two to six tests, various years (PIRLS, PISA, TIMSS)**



*Notes:*

1. Data refer to 2002 or 2003 for TransMONEE countries, and 2004, or most recent year available, for non-CEE/CIS countries and Turkey.
2. Regression line ( $R^2=0.90$ ) includes countries below \$1,000 expenditure on education per head (all countries in the region except Slovenia).
3. No adjustment has been made for differing school-age populations in different countries.
4. Only PISA: Albania, Poland; only TIMSS: Armenia, Estonia; PIRLS and TIMSS: Lithuania, Moldova, Slovenia. All six tests for other countries (ranking in TIMSS, 21 countries, has been harmonized to ranking on 18 countries as in PIRLS and PISA).
5. Data are missing on GDP per head for Serbia, which has the lowest average rank on mean achievement (18).

*Sources: Calculations from OECD, 2006a; UNICEF, TransMONEE database, 2006.*

**Determinants of Differences in Learning Outcomes**

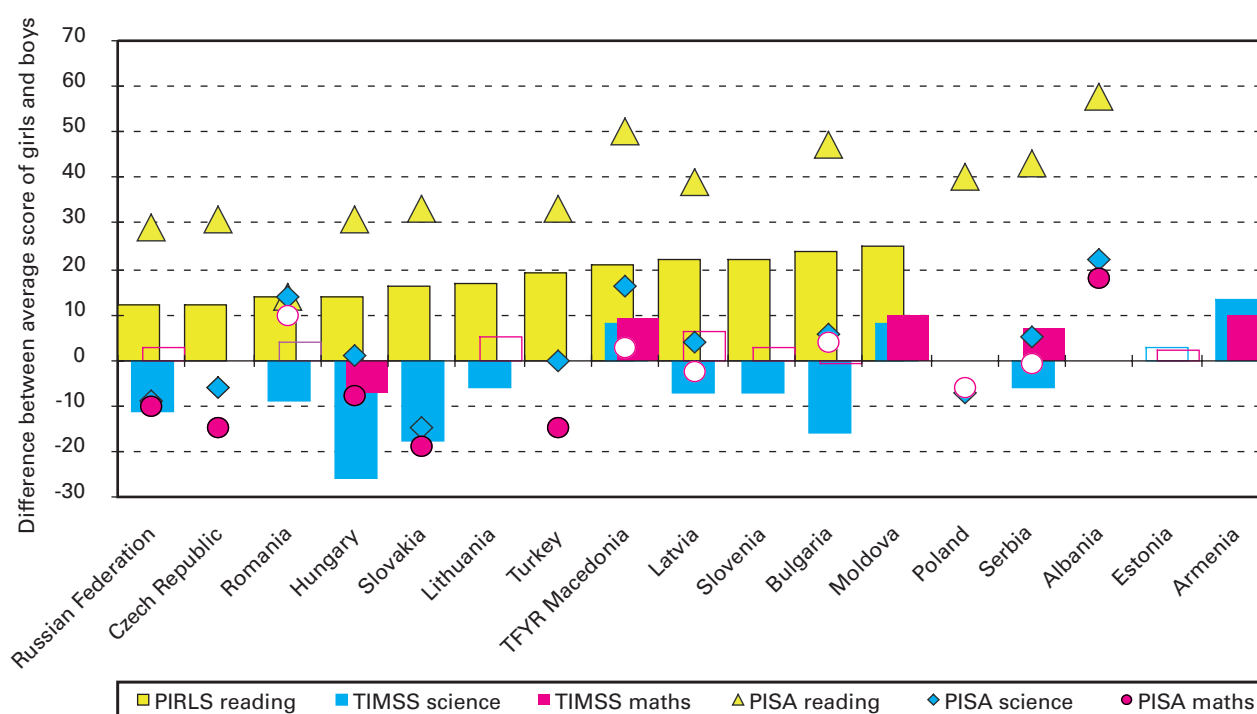
Despite the spectacular growth in income inequality in many countries and increased reliance on household financing to make up for shortages in public spending, there does not appear to be consistent growth in overall disparities in educational outcomes within countries. Nor does the extent of such disparities seem to relate to the level of income inequality in a country, as measured by the Gini coefficient. This raises the question as to what are the measurable sources of disparities in learning outcomes.



## Gender

The MDGs emphasize reducing gender disparities in access to education with a concern for girls. But what about achievement? Figure 4.5 shows that girls had significantly higher average performance in reading in almost all countries participating in PISA. Albania and The former Yugoslav Republic of Macedonia, whose absolute disadvantage rates were among the highest, had 48 per cent more boys than girls below Level 2; Bulgaria, 37 per cent; and Serbia, 23 per cent.<sup>84</sup> In the other test of reading, PIRLS, where students are five years younger than in PISA, girls still had significantly higher average performance in all countries. The differences between girls and boys were less but scores in different surveys are not directly comparable. Moldova is the country where girls outperform boys in PIRLS to the greatest extent.

**Figure 4.5: Difference between average score of girls and boys in reading, science and mathematics, various years (PIRLS, PISA, TIMSS)** (Negative = girls below boys)



### Notes:

1. PISA for Albania, Bulgaria, Romania, The former Yugoslav Republic of Macedonia tested in 2002 (PISA 2000+). TIMSS is 1999 for the Czech Republic and Turkey.
2. White diamonds indicate differences are not statistically significant.

Sources: Calculations from Martin et al., 2000; Mullis et al., 2000, 2003, 2004, 2004a; OECD, 2004; OECD and UNESCO Institute for Statistics, 2003.

In mathematics, boys outperformed girls in the majority of countries participating in PISA but gender differences tended to be small; much smaller than in reading. The gap was biggest in Slovakia, and boys also did better than girls in the Czech Republic, Hungary, the Russian Federation and Turkey. In Turkey, 6 per cent more girls than boys performed below Level 2; this is the biggest difference.<sup>85</sup> Only in Albania, the country with the best relative performance by girls in reading, did girls also have a significant advantage over boys in mathematics. On the other hand, in TIMSS, girls did significantly better than boys in Armenia, Moldova, Serbia and The former Yugoslav Republic of Macedonia. In contrast, boys did better than girls only in Hungary.

In science (PISA), gender differences were even smaller than in mathematics – favouring girls over boys in some countries and boys over girls in others. Statistically significant differences in favour of boys were found in Poland, the Russian Federation (though girls outperformed boys in 2000) and Slovakia; in favour of girls in Albania, Romania and The former Yugoslav Republic of Macedonia. On the other hand, gender differences were larger in science than in mathematics in TIMSS. Boys outperformed girls in science in Hungary (the largest difference) as well as in Bulgaria, Latvia, Lithuania, the Russian Federation, Romania, Serbia, Slovakia and Slovenia. But in Armenia, Moldova and The former Yugoslav Republic of Macedonia, the gender difference favoured girls.

These differences between PISA and TIMSS scores in mathematics and science are difficult to explain. In the previous round of PISA, differences in results between it and TIMSS in science could be partly explained by PISA's greater emphasis on life sciences in which girls tend to do better, compared to TIMSS' greater emphasis on physics in which boys tend to do better. Also, PISA had a higher proportion of open-ended and contextualized items in which girls tend to do better, rather than multiple-choice items in which boys tend to do better.<sup>86</sup>

No significant gender differences appeared in average problem-solving performance in any of the eight countries in the region participating in PISA 2003 and in only a few of all participating countries does any difference exist. According to the PISA report, "the result may be viewed as an indication that in many countries there are no strong overall disadvantages for male students or female students as learners, but merely gender-specific strengths or preferences for certain subjects."<sup>87</sup>

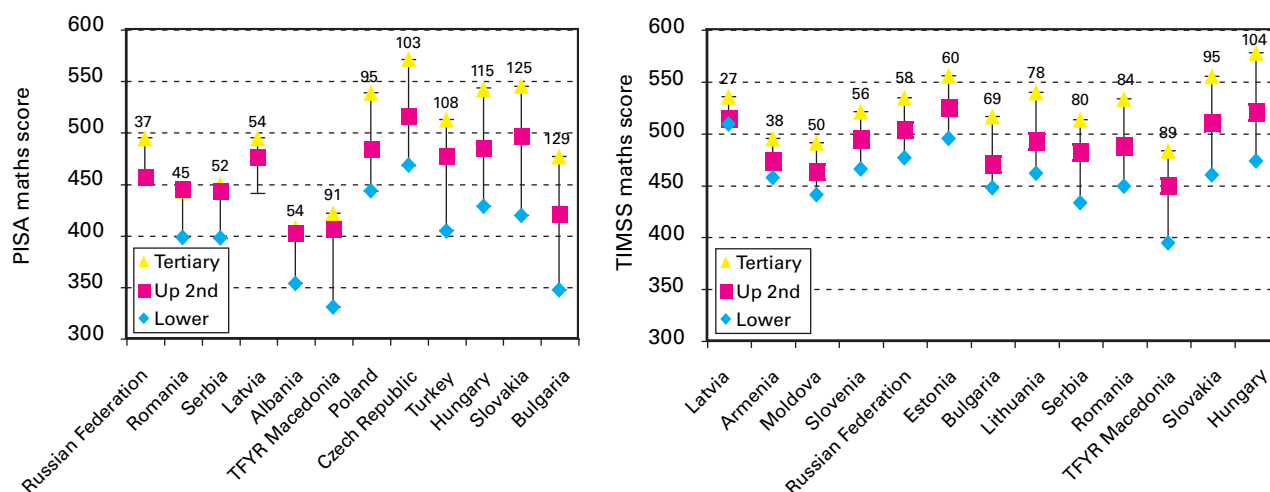
### ***Socio-economic background***

Family socio-economic background is one of the most important factors influencing performance in all countries. However, a disadvantaged background does not always result in poor performance and some countries manage more than others to mitigate rather than perpetuate inequalities.

PISA 2003 combined various economic, social and cultural aspects of home background (parents' occupational status and level of education, educational resources and number of books at home) into a single index that calculates the influence of these factors on variation in student mathematics performance.<sup>88</sup> This ranged from 10 per cent of variance explained in the Russian Federation and 11 per cent in Latvia, to 22 per cent in Slovakia and Turkey, and 27 per cent in Hungary. In between were Serbia, 14 per cent; Poland, 17 per cent (at the OECD average); and the Czech Republic, 20 per cent. Differences in performance according to parental occupational status are particularly large in Hungary and Slovakia: Students whose parents were in the lowest quarter of the distribution of parental occupations (for example small-scale farming, truck driving, serving in restaurants) were more than twice as likely to be among the bottom quarter of performers in mathematics.

Parental educational attainment, which is closely associated with income, is a simple indicator of socio-economic background. In PISA 2003, the relationship between mother's educational attainment and student performance in mathematics is particularly strong in Hungary, Slovakia and Turkey (countries with the highest proportion of variance explained by the index of economic, social and cultural status) but also in Bulgaria (2002), as shown in figure 4.6. TIMSS confirms Hungary's and Slovakia's positions as countries with the greatest difference in achievement between students whose parents have a university qualification and those whose parents have only a lower secondary education. Armenia, Latvia and Moldova are those with the least differences by mother's educational attainment in TIMSS; Romania and the Russian Federation in PISA.

**Figure 4.6: Average mathematics score by mother's educational attainment, various years (PISA and TIMSS grade 8)**



**Notes:**

1. PISA for Albania, Bulgaria, Romania, The former Yugoslav Republic of Macedonia tested in 2002 (PISA 2000+).
2. Countries are ranked by difference between average score of students with mothers who completed tertiary education vs. mothers who at most completed lower secondary education. Value labels indicate this difference.
3. In PISA, the Russian Federation has too few observations to calculate a score for those with less than upper secondary education.

Sources: Calculations from Martin et al., 2000; Mullis et al., 2000, 2004, 2004a; OECD, 2004; OECD and UNESCO Institute for Statistics, 2003.

In all countries, student scores tend to vary directly with the number of books at home, another indicator of socio-economic background. Results are in fact similar to mother's education: In TIMSS mathematics, for example, the biggest differences between those with more than 100 books at home and those with at most 25 again occur in Hungary and Slovakia; the smallest in Armenia and Moldova.

### Countries not Participating in PIRLS, PISA or TIMSS

Comparable data will soon be available for many countries: Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan and Kyrgyzstan are participating in the 2006 and 2007 rounds of PIRLS, PISA and TIMSS. But as yet, no rigorous international assessment data are available for 11 countries in the region (Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and Uzbekistan). What other assessments are available and what do they show?

Several Central Asian countries participated in the Monitoring Learning Achievement (MLA) studies, sample-based surveys undertaken jointly by UNESCO and UNICEF, and the countries' national education ministries. Serious concerns have been raised about the quality and credibility of such surveys, and their methodology. Results, therefore, need to be interpreted with caution but they are all that are available now from Central Asia.

### ***Kazakhstan***

Two rounds of MLA surveys have taken place in Kazakhstan, assessing literacy, numeracy and life skills of grade 4 pupils, in 1999 and 2005. In numeracy, better results were found in arithmetic than in logic, geometry and problem solving. In literacy, major difficulties were found in abstract and critical thinking applied to real-life situations. The largest achievement gap was between urban and rural, and Russian and Kazakh language schools (with about even numbers of students in each group) with poorer results in rural and Kazakh schools. Rural and Kazakh schools also had teachers with lower qualifications (half as many with university education), a less friendly school environment and lower family income. No gender difference was found. Academic performance improved from 1999 to 2005 but the urban-rural and Russian-Kazakh differences increased.

According to the study report, outcomes improved when parents were involved in their children's education and the home had an appropriate learning environment, which depended on family income and parental education.<sup>89</sup> The level of teacher qualifications and their attendance at in-service training courses strongly influenced student outcomes, as did the use of informal and active teaching methods and a positive attitude among students. There was a correlation between teacher-student relationships and the language of instruction, and between teacher-student relationships and locality. Student performance was also related to school management with teacher and parent motivation being crucial. Test results were better in schools that had strategies to improve attendance, student and teacher assessments, teacher and parent access to information on school performance, and parental involvement in school affairs.

### ***Kyrgyzstan***

Within the MLA project, three surveys were made of learning achievement in Kyrgyzstan: in 2000/01 (beginning of grade 5 covering students who had completed primary education), 2002 (grade 8) and 2005 (grade 4).

The first study assessed literacy, numeracy and life skills (including health, environment and social skills). It found that "after graduating from primary school more than half of the children were not able to identify the main idea of a text or answer the simplest questions related to the content".<sup>90</sup> The most significant factor identified contributing to the poor performance was the lack of opportunity to learn, for example because of missed school days, teacher absences, scarcity of learning materials, too little time in class per subject or lack of time to do homework because of household circumstances. Other factors mentioned by teachers were an overloaded curriculum, which encourages superficial learning of unrelated facts, lack of methodological guides for teachers and the necessity for teachers to have additional jobs.

The second study (grade 8) tested mathematics and science with life skills, introducing a real-life component into the problem-solving questions. Extremely low levels of achievement were found with more than half the sample scoring below the acceptable level. The worst results were observed in basic arithmetic and ordinary fractions. In science, only a quarter of students received a passing mark.

The report of the last MLA survey, conducted in Kyrgyzstan in 2005, concluded that "in general terms the quality of primary education in Kyrgyzstan from 2001-2005 has declined, due mainly to falling standards in mathematics and grammar that lay the foundation for all subsequent education".<sup>91</sup> This was especially the case in rural schools. Pupils in schools taught in Russian performed better and the best results were in life skills.

Underachievement was attributed to teachers having to work double hours because of low salaries, and the lack of a safe environment and basic equipment in schools, such as toilets, heating, lighting and electricity. Regarding teaching methods, problems in reading comprehension were attributed to

teachers concentrating on technical issues, such as the number of words a student reads per minute, rather than on comprehension, highlighting of main ideas or reformulation. Problems in written expression were attributed to teachers doing most of the speaking in class and paying little attention to developing students' verbal abilities. According to teachers, the indifference of parents and the poor qualification of teachers have a considerable negative impact on pupils' results.

### **Tajikistan**

The majority of Tajikistan's grade 4 pupils did not meet required state performance standards, according to the national MLA results from 2002. The Ministry of Education attributed the poor outcomes to low preschool enrolment, lack of qualified teachers (due to low salaries, lack of prestige and poor working conditions), outdated curricula and teaching methods, and limited materials. The report noted the lack of a needed continuous monitoring system of learning outcomes.<sup>92</sup> A survey of students in grade 9 (the last year of compulsory school) was conducted in 2006. On average, the majority gave incorrect answers to questions on mathematics and natural sciences.

## **(b) Labour Market Outcomes and the Demand for Schooling**

The relationship between education and the labour market has several dimensions. This section, where the interest is mainly in the demand for schooling by young people and their parents, focuses on the signals the labour market generates for household decision-makers.

In Croatia, Georgia, Kyrgyzstan, Moldova, Romania, Tajikistan and Ukraine, more than 6 per cent of the primary-school intake does not make it to the final primary grade (figure 3.4 above). It is doubtful that these countries will achieve MDG 2, along with Azerbaijan, the Czech Republic, Latvia, Serbia and Montenegro, Slovakia and Turkey. This raises the question as to whether these shortfalls reflect family decisions not to send children to school and if so, whether these decisions are made in response to labour market signals such as unemployment rates and earnings. On the other hand, they could reflect supply constraints (not enough school places) or de facto exclusion from school of children who are disadvantaged in various ways. Focus-group discussions in five countries and labour market data are used to address these questions.

The longer-term impact of education on the economy and the lives of people of all ages and income levels should not be forgotten, however. Changes in the quantity and quality of education can transform the factor endowment of the economy, shifting its comparative advantage away from products and services based on natural resources and cheap, relatively unskilled labour towards skill-based products and services.<sup>93</sup> International evidence, including cross-country regressions and many country case studies, is consistent with this hypothesis, which implies an active role for education in changing economic prospects. As Ireland has shown in the past 15 years, a high-quality education system is one of the pre-conditions for transforming a weak economy with a history of labour export and helping it find a prosperous niche in the global economy. (Another pre-condition is an investment-friendly business environment.) The need to move to higher skill levels in order to maintain economic growth is particularly urgent in the context of shrinking local labour forces alongside growth in populations in other regions of the world which crowd out the niches in global markets for low skills.

Meanwhile, the economic benefits of education to those who acquire it are indisputable. "People with more education have higher wages. This is probably the second (after Engels' law) most well-established fact in economics."<sup>94</sup> People with more education also have higher labour force participation rates, longer job tenures, greater geographical mobility and lower unemployment rates. Thus better-educated workers tend to have better working lives. The social benefits resulting from a more educated population are also undisputed. The fact that labour markets value education creating an individual economic incentive to acquire it helps to complete a welcome virtuous circle between education and living standards.

In many parts of the world, this circle is not complete. On the supply side, the lack of adequate education provision can break it. The demand side can also break down if students or parents see no value in education. This seems to happen most commonly when sub-sections of the population perceive that they are excluded from the potential benefits of education. One of the most damaging potential medium-term impacts of the collapse of communism was the possibility that the severity of the economic dislocation would break this circle on both the supply and the demand sides. On the supply side, government fiscal problems caused by insufficient tax revenues reduced the funding available to education. A major consequence of this has been persistently low wages for teachers, poor recruitment into teaching and increasing reliance upon an aging group of dedicated professionals (chapter 5 below). On the demand side, severe economic dislocations can dissuade students and parents from making the necessary sacrifices.

The transition has shifted work from traditional, manual occupations and industries towards the service sector. Even though a large part of the service sector in many countries in the region is in the 'shadow economy' (box 4.2), the average level of education required in the sector is higher than in agriculture, mining or manufacturing. This is one source of the shifting demand for educated labour. At least in the more dynamic economies, the other source is a shift in industry away from production techniques emphasizing manual labour towards modern capital- and knowledge-intensive technologies to the benefit of productivity. As a result, the key shift in labour demand has been towards more highly educated workers both within and between sectors.

#### **Box 4.2: The shadow economy**

The economic activity a visitor sees on the streets of many towns in the region looks inconsistent with official figures on output, incomes and jobs. This is because a large proportion of workers (including many public-sector wage earners and others officially counted as unemployed) are working in a sector that generates a large proportion of income but goes unrecorded by official statistics – the shadow economy. It also evades taxes and regulatory requirements, and may involve illegal activities.

Using a complex, 'dynamic multiple-indicators multiple-causes' model combined with data on currency demand, Schneider has estimated the size of the shadow economy around the world. In the region's transition countries, on average, he found the shadow economy was equal to 40 per cent of GDP in 2002/03 (up from 38 per cent in 1999/2000). This compares with 16 per cent in the other OECD countries. The figure ranges from 20 per cent of GDP in the Czech Republic and Slovakia to 68 per cent in Georgia. Other countries where the shadow economy is equivalent to more than 45 per cent of GDP are Kazakhstan, at 45 per cent; Armenia, Moldova and the Russian Federation, 49 per cent; Belarus, 50 per cent; Ukraine, 55 per cent; and Azerbaijan, 61 per cent. In comparison, Turkey's shadow economy is estimated at 34 per cent of GDP.

Shadow economies on this scale obviously are a drain on tax revenue and hence on the quality of public goods and services, including education. They also make it more difficult for governments to achieve macro-economic stability and create many distortions in resource allocation. The existence of a large shadow economy also reflects and reinforces distrust in the ability of the political system to govern, and encourages respect for those who get away with evading taxes and laws. In addition, workers in shadow firms, many of them young, generally are not protected by labour regulations and may not be eligible for social safety net services.



On the other hand, the shadow economy helps maintain activity and employment that otherwise might be suppressed by rent-seeking and corruption. It may particularly benefit less qualified workers who would otherwise be unemployed. It may enhance growth in the formal sector and in tax receipts through the multiplier effect, and provide entrepreneurial experience for people who may later set up respectable small enterprises. Nevertheless, the consensus is that a full transition of these economies and labour markets must involve shrinking the size of their shadow economies, which hinder long-term growth and international competitiveness, as shown by regression analysis.

Sources: Eilat and Zinnes, 2002; Godfrey, 2003; Schneider, 2005.

This pattern of change is an accelerated version of the changes that started in Western economies in the 1960s and 1970s. The emerging related social problems are similar, though in places much more severe. The older industries tended to be geographically concentrated so their demise has left regional pockets of economic depression. Containing populations with a tradition of manual work and relatively low levels of schooling, these regions of high inactivity are particularly vulnerable. A larger-than-average fraction of the population with no family experience of higher education faces a local economy where work is scarce. Young people in such regions may not receive sufficient education to take their share of the work opportunities that arise.

## Educational Attainment

Table 4.1 shows the proportion of the labour force with no more than lower secondary education.

**Table 4.1: Per cent of the labour force with no more than lower secondary education, various years**

	1990s		Early 2000s	
	All ages	Aged 25-29	All ages	Aged 25-29
Turkey	NA	NA	69.5	55.9
Albania	NA	NA	62.2	56.1
Georgia	NA	NA	51.3	44.7
Romania	38.1	11.2	29.7	20.2
Croatia	24.7	NA	22.7	11.9
Bulgaria	33.1	20.8	20.9	18.1
United Kingdom*	NA	NA	19.6	14.6
Slovenia	23.9	17.7	17.6	7.6
Hungary	26.8	NA	15.4	11.5
Latvia	NA	NA	13.9	17.7
Poland	22.5	11.7	12.5	7.1
Estonia	15.7	5.6	10.8	9.6
Lithuania	20.2	5.6	10.7	14.9
Ukraine	NA	NA	8.7	NA
Slovakia	21.4	17.5	8.1	5.1
Czech Republic	11.5	5.5	7.8	6.2
Russian Federation	14.7	NA	7.4	7.4
Kazakhstan	NA	NA	6.0	NA

\*Shown for reference.

NA: No data available.

Note: Years vary between 1992 and 1998, and 2002 and 2004.

Source: Calculations from ILO, LABORSTA database, 2006.



The table shows that the labour force's average level of education has been rising over the last decade in every country for which data are available. Two main factors explain this rise. The first is the disproportionately high rates of retirement or withdrawal from the labour force by poorly educated workers. The second and probably more important reason is that young people are staying in school longer than previous cohorts, as shown by a comparison of the data for workers aged 25 to 29 with those for all workers: younger workers are less likely to have lower levels of education almost everywhere in the region. Educational attainment varies widely across the region. Most countries have a lower percentage of workers with no more than lower secondary education than the United Kingdom's 20 per cent but there are major exceptions, such as Albania, Georgia, Romania and Turkey; poorer, more agricultural countries tend to have less qualified workforces.

## Unemployment

Unemployment rates as a percentage of the labour force tend to be higher among the less educated at least in the region's more prosperous and less agricultural countries. Table 4.2 shows rates for the whole labour force and for workers with no more than lower secondary education. For 9 of the 14 countries, the unemployment rates of the less educated are higher than the overall rate. Of the others, Albania, Georgia, Romania and Turkey are more agricultural economies. Unemployment is not a well-defined state for many agricultural workers who often spend more time on their own land in the absence of work elsewhere. These are also countries without effective unemployment benefit systems and with low average incomes; most people with low levels of education in such economies cannot afford to be unemployed.

**Table 4.2: Unemployment rates, by education level, latest available year**

	All workers (Per cent)	Workers with no more than lower secondary education (Per cent)
Slovakia	18.1	53.6
Poland	19.0	27.2
Czech Republic	8.3	26.1
Bulgaria	12.0	21.7
Russian Federation	13.3	19.1
Croatia	14.3	13.8
Lithuania	7.8	13.4
Hungary	6.1	12.3
Albania	13.1	10.7
Kazakhstan	8.4	10.3
Slovenia	6.1	9.0
Turkey	10.3	8.6
Georgia	12.6	6.6
Romania	7.0	5.7

*Note:* Years vary between 2002 and 2004 except for the Russian Federation, which is 1998.

*Source:* Calculations from ILO, LABORSTA database, 2006.

Young people aged 15 to 24 face particular problems entering the labour market. Figure 1.5 showed the range of total and youth unemployment rates in the region in 2004. The youth unemployment rate in transition economies increased significantly in the past decade and is now the highest of any region in the world except Africa and the Middle East. In 2005, the International Labour Organization estimated that 5.9 million young people were unemployed in the region's non-EU countries.<sup>95</sup> The bias against youth in the region's labour markets decreased over the decade but, as in other industrialized countries, young people are still more than twice as likely to be unemployed as adults.

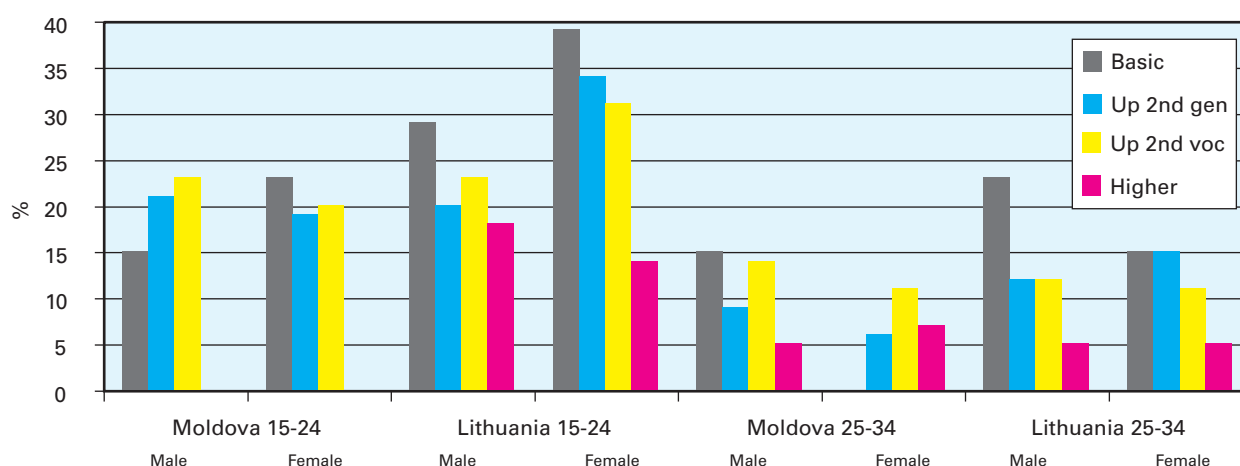
The unemployed are not the only young people facing labour market problems. Other categories of young people – inactive ‘discouraged workers’, unpaid family workers, distressed self-employed, badly paid wage earners, and so forth – are also at a disadvantage in the region’s labour markets. Both the youth labour force participation rate and the employment-to-population ratio in transition economies have fallen over the past decade, and both indicators are well below global averages. This is partly due to the increase in school enrolment rates (chapter 3 above) but it also reflects withdrawal from or failure to enter the labour force by an increasing proportion of school leavers. The problem of “large pools of jobless youth who are not looking for work... mainly but not exclusively in the southern part of the region” persists.<sup>96</sup>

What difference does education make to young men and women getting a job? Statistics on unemployment rates by age, gender and education yield insight into the process of transition from school to work and into the different experiences of different categories (as shown in figure 4.7 for two countries at different ends of the standard-of-living range: Moldova and Lithuania). For 15- to 24-year-olds, unemployment rates tend to be lower for those with more education for both genders in Lithuania, and for females but not for males in Moldova (where upper secondary school graduates, scarcer in the labour market than in Lithuania, may take more time on a job search).

In both countries, unemployment rates for 25- to 34-year-olds are considerably lower than for the younger age groups and tend to vary inversely with education levels. For the first-job-seeking age group, unemployment rates are higher for females than for males for those with no more than basic education in both countries, and for upper secondary school leavers in Lithuania. For the older group, females tend to do better than males except for higher education graduates in Moldova and secondary general school leavers in Lithuania.



**Figure 4.7: Unemployment rate, by age group, gender and education, Moldova and Lithuania, latest available year**



*Notes:*

1. Years are 2003 for Moldova and 2004 for Lithuania.
2. Missing data for Moldova: 15-24 Male and Female Higher education.

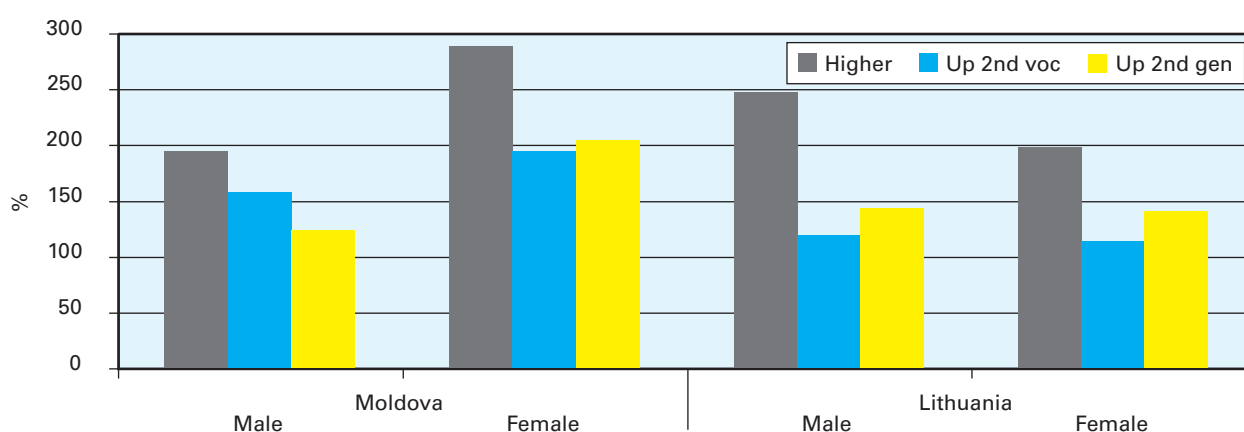
*Sources: World Bank, 2004, 2005b.*

Access to labour markets for disabled people is difficult to assess. For example, eligibility for disability benefits often presumes lack of employment. Employers often assume that disabled people cannot work or will not be good workers. In turn, data on labour market outcomes for disabled people (where such data exist) often show high levels of unemployment. The absence of reliable data suggests there are important issues of access to the labour market for disabled people.

### Earnings

How far do earnings structures in the region confirm the ‘well-established’ fact of higher wages for the better educated? The situation differs from country to country. Figure 4.8 shows the structure of average earnings of 25- to 34-year-olds in the same two countries, Moldova and Lithuania. Young workers of both genders benefit materially from staying in the education system beyond the basic level but to a varying extent. Higher education graduates (particularly females in Moldova and males in Lithuania) enjoy the biggest premium over those with basic education; the returns are relatively modest to upper secondary general education for males in Moldova and to upper secondary vocational education for both genders in Lithuania.

**Figure 4.8: Average earnings of 25-34 year olds, by gender and education, as per cent of average earnings of those with no more than basic education, Moldova and Lithuania, latest available year**

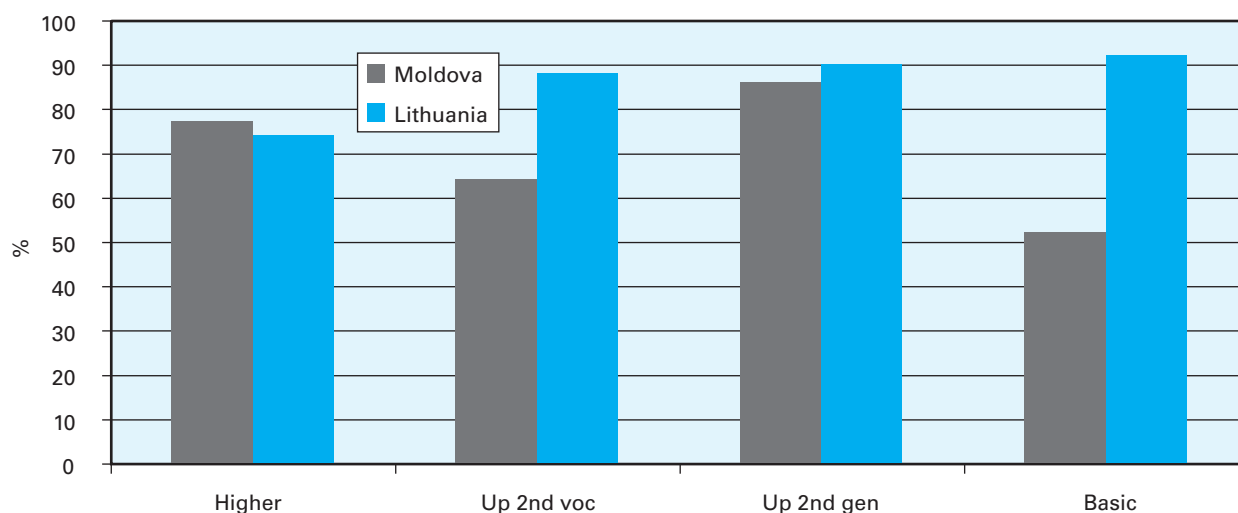


Note: Years are 2003 for Moldova and 2004 for Lithuania.

Sources: Moldova: World Bank, 2005b: Table 15; Lithuania: World Bank, 2004: Table 6.

The relatively high returns to education for young females in Moldova, shown in figure 4.8, reflect the very low earnings of less educated women compared with men (figure 4.9). The differential between the low earnings of young women and young men of the same age and education level in these two countries is probably typical of the region as a whole. But in Lithuania’s more prosperous economy, the differential between the genders is smaller than in Moldova at all educational levels except higher education. In poorer countries like Moldova, education is a particularly important route for women to escape from poverty and discrimination.

**Figure 4.9: Female as per cent of male average earnings, 25-34 year olds, by level and type of education, Moldova and Lithuania, latest available year**



Note: Years are 2003 for Moldova and 2004 for Lithuania.

Sources: Moldova: World Bank, 2005b: Table 15; Lithuania: World Bank, 2004: Table 6.

The high rate of emigration from the countries in the region (figure 1.10 above) has important implications for incentives to acquire more education. Few data are available on the earnings of migrant workers but a recent survey in Moldova (22 per cent of whose working-age population is abroad) reveals a pattern that may be repeated in other source countries (table 4.3). Migrant workers are more educated and younger than the national average. Although they tend to take work below their qualification level (in Moldova's case men in construction, women in domestic service), their average earnings vary directly with their education level. Earnings are also higher for legal than for illegal workers and higher in Western Europe than in the Russian Federation. Above all, earnings abroad are a huge multiple of what workers can earn at home: in Moldova's case, 12 times for university graduates, 14 times for secondary general school leavers, and 16 times for secondary vocational school and post-secondary college graduates. Rates of return that incorporated this phenomenon would be spectacular.

**Table 4.3: Labour market situation of Moldovans working abroad, 2003**

Average earnings by level of education and legality/illegality (Dollars per month)	Average earnings by country (Dollars per month)		Occupation by gender			
				Men	Women	
University	895	Russian Federation	425	Construction	53.9%	3.4%
Vocational school/college	793	Cyprus, Greece, Turkey	597	Domestic	2.3%	66.0%
Secondary school	618	Portugal, Spain	897	Trade	7.2%	15.1%
Legal	925	Italy	941	Factory work	12.3%	6.8%
Illegal	649	Israel	1,065	Technical/mechanical	11.1%	0.6%
		Benelux countries		Agriculture	6.2%	2.5%
		France, Germany	1,209	Other	7.2%	5.5%
				Total	100.0%	100.0%

Sources: Ghencea and Gudumac, 2004: Figures 11, 13, Tables 14, 16; World Bank, 2005b: Table 14.

## Rates of Return

Relatively few recent studies have been made of the rate of return to education in the transition countries.<sup>97</sup> Gorodnichenko and Sabirianova Peter calculated rates of return for the Russian Federation and Ukraine in 2002.<sup>98</sup> They found the rate of return in the Russian Federation was about 9 per cent, comparable to that found on earlier data by Newell and Reilly, but they saw a much lower rate of 4.5 per cent for Ukraine.<sup>99</sup> They suggested this was due to the relatively slow transition process in Ukraine. Pastore and Verashchagina conducted the first analysis of this kind for Belarus and found the wage returns to education increased between 1996 and 2001.<sup>100</sup> On the other hand, Newell and Socha found little evidence of change in the rate of return over the period 1994 to 2002 in Poland, though they did find differences in annual rates of return to different types of education.<sup>101</sup> Table 4.4 gives rates of return calculated from the spring 2002 Polish labour force survey. For both genders, more education meant higher wages and the annualized rate of return tended to increase with the level of education.

**Table 4.4: Annual rates of return to different levels of education, Poland, 2002**

Dependent variable: log hourly wages

	Per cent annual rate of return (standard error)	
	Women	Men
Lower vocational	3.0 (0.7)	6.0 (0.6)
Secondary vocational	8.8 (0.6)	10.5 (0.8)
Secondary general	6.6 (0.4)	7.3 (0.4)
Post-secondary	7.5 (0.4)	6.8 (0.7)
University	10.1 (0.2)	9.2 (0.3)

*Note:* Lower vocational education takes on average three years more than primary education to complete, vocational secondary education takes four more than primary, post-secondary five more than primary and university nine more years.

*Source:* Calculations from the Polish labour force survey, Spring 2002.

Table 4.4 shows a higher rate of return to secondary vocational than to secondary general schooling in Poland in 2002. The Polish labour force survey in 2004, however, found no advantage in average earnings for vocational over general school graduates: males earned a little more, females a little less than their general school counterparts.<sup>102</sup> Data from other countries on this issue also vary.

Turkey seems to be a special case, with a tendency for returns to vocational schooling to exceed not only those to general schooling but also to university (box 4.3). Papps and Burton estimated the private internal rate of return to three-year secondary vocational schooling at zero in Bosnia and Herzegovina in 2002, compared with 3 per cent to four-year secondary technical and 4 per cent to secondary general (gymnasias).<sup>103</sup> Figures 4.7 and 4.8 show that, in comparison with secondary general, vocational schooling delivers: In Moldova, higher unemployment rates for both genders in the 25- to 34-year-old age group and a bigger increase in average earnings over basic education for males but not for females; and in Lithuania, slightly lower unemployment rates but a smaller boost to average earnings for both genders.

In any case, it seems likely that the greater rewards available to higher education graduates exert a bigger influence on personal investment decisions at this level in many transition countries than do comparisons of the immediate labour-market outcomes of vocational and general education. With higher education enrolment rates in 18 countries in the region above 30 per cent and in some cases

much above, the 'backwash' effect is powerful on aspirations further down the system – to the detriment of vocational education enrolment rates (figures 3.7 and 3.6 above). Vocational school leavers today encounter fewer blockages to their upward progression in the education system than they used to but the easier route to higher education is still through general education, as parents and students know.

### Box 4.3: Private returns to education in Turkey

More education means higher wages in Turkey but with a different pattern from that in many transition countries. As shown by the following estimates of private returns for wage-earners to education by gender and age group in 1994 and 2002, returns to upper secondary education are still high, particularly vocational education, which yielded higher returns than university education for male wage-earners in 2002. As the education system has expanded over this time period, returns to upper secondary education have fallen (except in the case of general education for women) but returns to university education have increased. In general, the incentives to stay in school as long as possible are still strong for both genders.

	Primary (per cent)	Lower secondary (per cent)	Upper secondary general (per cent)	Upper secondary vocational (per cent)	University (per cent)
Men					
Under 25 1994	5.3	13.1	16.1	18.9	23.5
Under 25 2002	8.1	8.8	12.2	14.7	16.6
All ages 1994	3.2	5.1	16.0	24.3	16.9
All ages 2002	5.7	5.6	13.4	18.3	17.9
Women					
Under 25 1994	(1.1)	11.3	10.8	20.2	22.4
Under 25 2002	(2.7)	(1.0)	(25.0)	(32.5)	18.0
All ages 1994	6.7	10.8	14.9	23.3	19.5
All ages 2002	3.5	6.9	16.9	20.1	20.5

The author of the study on which this table is based commented that “the most critical issue to achieving a more equitable society in Turkey is narrowing the gender gap in both earnings and educational attainment. ... Although schooling is an important determinant of earnings, it does not seem to explain the earnings inequality between genders.”<sup>104</sup>

*Note:* Figures in brackets are not significant at the 5 per cent level. Rates of return on university education are computed for university education after upper secondary general school.

*Source:* Tansel, 2004: Tables A1-17, A1-18, A1-19, A1-20.

### Focus-group Opinions on Demand for Schooling

To judge from focus-group discussions, parents' views on education are closely related to their perceptions of the future for their children and society in general. Varying degrees of optimism and pessimism were observed in the five countries visited. Parents in Moldova seemed least optimistic for the near future, especially in rural areas. This is mainly associated with years of work migration, which damages the integrity of families and generates the belief that going abroad is the only realistic work option for young people. Poverty and hopelessness were also evident in other parts of the region. In Albania, for instance, one parent answered the question “How do you feel about the future

of your child's education?" with "Let them finish 8<sup>th</sup> grade and then stay home." In contrast, many children in Azerbaijan expressed optimism about their future.

Families' demand for schooling can be analysed within a benefit-cost framework. For schooling to be an apparently worthwhile investment, its benefits must exceed the costs, direct and indirect, material and non-material, as seen by family decision-makers.<sup>105</sup> The perceived benefits of education can be affected by its impact on the chances of getting a good job. The perceived costs include necessary payments, official or unofficial, as well as the opportunity cost to a family of losing an unpaid worker. However, such a calculation is not relevant to those who are excluded from the possibility of further schooling for reasons such as poverty, gender or ethnicity.

### ***Perceived benefits***

In all the focus-group meetings, little evidence emerged of parents or children viewing education as a financial investment. The first answers to the question, "What is the value of education?" or "Why do you go to school?" rarely included "To get a good job in the future", although upon persistent probes, people eventually established that link. There are a number of possible explanations for this reaction. One is that education is valued by itself, as a requirement for being a citizen. The other is that finding jobs, even with a university degree, is quite hard in the countries visited. People believe that finding a job depends on whom you know. Therefore, the link between education and jobs may not be quite evident to them.<sup>106</sup>

Parents and children in focus groups in all the countries consistently and strongly expressed the belief that completing basic education and even secondary education is not enough to find a job in the current labour market. This might seem to conflict with estimates of labour market outcomes and rates of return discussed above, but it is probably realistic for those at the lower end of the income distribution who cannot expect to keep their children in school long enough to reap these benefits. For almost all of the poor and rural populations in these countries, higher education was an unachievable dream, as both parents and children were aware. Exceptions in which extremely successful children manage to get scholarships are very rare. This is partly because these children also start the race from behind due to the inferior quality of most poor and rural schools. As a result, many parents are reluctant to invest in basic education and even more so in secondary education.

For example, many children in Tajikistan realize that, even with an upper secondary degree, they will not be able to find a job in their own country. Since university education is beyond their reach for economic reasons, they see their only option as going abroad for work, mainly to the Russian Federation. The job market there is such that they do odd jobs so they argue that a diploma is not necessary for them anyway. However, many children also believe it is not a good idea to cut education short. They see education as a prerequisite for individual success and for higher status and value in social life. Only in Azerbaijan did children raise the importance of education for society as well as the individual, emphasizing its role in strengthening society through many well-educated individuals.

In some rare cases, people mentioned the possibility of private entrepreneurship. For example, some parents in Azerbaijan said that families are trying to establish their own businesses since regular jobs are very hard to come by. However, families almost never mentioned this option, despite the fact that in reality many family members are already involved in some sort of private business, such as small trading, selling things on the street and in other sectors of the service industry (box 4.2 above). However, they never label these activities as 'jobs' and never see them as 'real options'. There may be a number of reasons for this. One is the impossibility of raising enough capital for business. Another and probably the more important is the established tradition of being part of the wage labour force and seeing it as the only option.



In many parts of the region, there is very little evidence of gender bias against girls. The percentage of girls who complete basic education is comparable to and sometimes higher than of boys (chapter 3 above). During focus-group discussions, it was argued that it is more important to educate girls than boys. For example, parents in Moldova said that educated girls find jobs more easily than educated boys so priority should be given to girls. A different argument raised in Azerbaijan was that girls should be educated instead of boys because that is the only way they can find a job. Alternatively, a school director in Tajikistan said that educating girls is more important because boys will go abroad for work.

However, in three countries visited – Azerbaijan, Tajikistan and Turkey – the dominant pattern was very different. In Azerbaijan, some girls are taken out of school at grade 4 or 5 because their parents consider that enough education for a girl. They also argue that the girls are going to get married and stay home so there is no point in educating them further and preparing them for a career. Similarly, when parents in Tajikistan need to choose between educating a girl or a boy, priority is clearly given to the boy. In Turkey, the gender gap between girls and boys in basic education is already well documented (chapter 3 above). Specifically in the rural areas of eastern Turkey and in migrant communities surrounding big cities, this is a major problem that has resisted many efforts to resolve it.

#### **Box 4.4: Why girls drop out: Opinions of Azerbaijani children**

Q: Do you have any friends or know anyone who has dropped out of school before grade 9?

A (Girl 1): Yes.

Q: Why?

A (Girl 1): Some parents do not allow their daughters to go to school after grade 4 or 5. They believe that if their girl can write her name it is more than enough.

A (Girl 2): There are cases that those girls are in the list of those classes, but they do not attend the school, because parents would not let them.

A (Boy 1): There are some children from poor families, they drop out of school.

A (Girl 3): The other reason is when 14- to 15-year-old girls are getting married. Then they drop out.

Q: Is that mostly parents' decision?

A (Girl 3): Yes, there are some cases when parents even force their girls to get married.

In addition to the reluctance of families to send girls to school, factors such as the value of girls' contributions to housework and the lack of gender-sensitive facilities in schools may be equally important.

The technology gap between genders in the region is considerable. Internet cafes and electronic game saloons are opening everywhere but in many countries they are strictly for boys. Many families do not allow girls to go to these locations and in any case boys dominate the places and it is clear that girls are not welcome. Considering that most schools have only a few computers and no software, know-how or technical support, the result is a big disparity between genders in accessing electronic technology (chapter 5 below). This was strikingly clear during child workshops. Possible ways of dealing with this include girl-only sections in Internet cafes (some exist in Azerbaijan) and extra hours of access to school computer labs for girls.

***Perceived costs***

Focus-group discussions confirmed that basic education in the region is not free. On paper, schools are free and do not charge any fees officially. However, the many hidden costs present a major barrier and families, especially those with a number of school-aged children, need to make significant sacrifices to keep their children in school. Many parents complained about the huge amounts required at the beginning of each school year for such things as new clothes and shoes, bags, school supplies and textbooks. Parents in Albania estimated that about \$150 to \$200 is needed per child at the beginning of the school year. The main categories of costs are clothing and books, contributions to the school fund, school supplies and food.<sup>107</sup>

Most governments in the region provide little or no funding to schools for expenses other than teacher salaries. Funds for repairs, cleaning, light bulbs, chalk and similar items must be raised from local sources, which forces schools to ask parents for contributions to the school fund. While in some schools registration fees are paid directly to the principal, a more common approach is to establish a fund. These funds are managed by parent-teacher committees. Commonly, the richer, more active and influential parents appear on these committees. Parents from low-income groups in every country visited complained repeatedly about the pressure they experience when they fail to contribute equally to the school fund. The legality of this practice is under question and when parents were asked what happened when they did not contribute, they replied that their children were humiliated, sometimes by teachers in front of their peers (boxes 3.2 and 4.5). This is also validated by the accounts of the children themselves. Humiliation of students was less common in Turkey but parents there also raised this issue.

The biggest problem in managing these funds is the lack of transparency. Parents said that they do not know how the money is being spent and they wondered whether some of the funds might be used to compensate teacher salaries, even though this was not supposed to happen.

**Box 4.5: Parents’ views on school funds in Moldova**

Q: What is the money asked for? Repairs, class funds, teacher salaries? What is the total cost?

A (Parent 1): Salaries are separate.

A (Parent 2): They don’t report to us how they spend the money, no accountability.

A (Parent 1): Other payments are teachers’ and directors’ birthdays, holidays, New Year, Christmas. If you say it’s too much, the answer is “Go to another school.”

A (Parent 3): I am exempt from payment of funds in my lyceum, I pay only for repairs. No accountability for the money.

A (Parent 2): I don’t pay to the school fund.

A (Parent 4): They always find something and ask for money. For example, for food at school.

A (Parent 1): I pay 200 lei (\$15.40) for preschool, although they say it’s free. I need to pay for detergents, group funds, etc.

Q: What happens if you do not pay to the school fund?

A (Parent 1): If we don’t pay to the school fund, the parents raise this issue at parents’ meeting and say that this lyceum is not for the poor. Citizens are against poor people.

Q: How do they know if you don’t pay?

A (Parent 1): There is a parents’ committee that collects the money and communicates with teachers.



A (Parent 2): It is not clear how the money for the fund for school repairs is used. They ask for money again and again.

A (Parent 3): They tell us, “Don’t complain, if you don’t like it, go to another school.” Education is ‘free’ but we need to make a lot of payments.

A (Parent 1): Our children are persecuted by other children. The rich parents influence the teachers, our children are ill treated, nicknamed ‘poor souls’. There is big pressure on us in school and our children need to have a very strong character to survive. Many do not succeed, and hate and dislike the school, the students and the teachers.

For parents, affording textbooks is a big problem. Among the countries visited, only Turkey distributes all textbooks free of charge, although the Government is not committed to this policy on the long run. In other countries, textbooks are either sold or rented. Though the schools sell textbooks at reduced prices, they are still a major financial burden on families. Furthermore, sometimes books are very hard to find, as in Tajikistan.

The rental system works much better. For example in Azerbaijan, children can rent most books from the school for a small fee. They return the books at the end of the year for the next year’s students. Book life therefore ranges from three to four years and rental fees are reduced in the later years. If a book is lost or damaged, the family is asked to compensate for it. Parents mentioned that not all the required books are available for rental and they still have to buy some of them from shops.

Sometimes, school reform results in raising the cost of textbooks. For example, before in Albania, students received most textbooks free. As education is being reformed, all textbooks are being re-written and printed on high-quality paper, and the cost has skyrocketed. The government no longer can afford to provide free textbooks and the plan is to sell them at half price in the coming years.

The cost of school clothing is a major item for many families. This issue was repeatedly raised in Albania, Azerbaijan and Tajikistan. Initially, it was not clear how something like clothing could prevent children from attending school. Yet the focus-group discussions made clear how much peer pressure is exerted on children (box 3.2 above). Moldova and Turkey solved this problem by requiring standard uniforms, and many parents and children in countries without a uniform-requirement support the idea. However, system-wide implementation of standardized uniforms requires complex logistical arrangements. For example, in Tajikistan, a presidential decree demands all students to wear uniforms, but the decree is not followed and most schools are not strict about it.

The incidence of corruption, which adds to the cost of education, varies from country to country in the region. The most common complaint was about the private tutoring systems prevalent in most countries (chapter 5 below). In Turkey, the system is more official and organized in the form of private centres, called *dersane*. It is so widespread that no one even thinks a child could get into a good secondary school or university without attending these institutions. Teachers routinely pressure parents to hire them for private lessons. Parents say that if they do not oblige, teachers do not pay enough attention to their children, give poor grades and sometimes fail them. Only the best students are immune to these pressures.

### Box 4.6: Perceptions of corruption

*Parent, Moldova:* “The English teacher said, “If you want to know better, pay me and I’ll have additional lessons with you.” The teachers don’t like the poor.”

*Parent, Tajikistan:* “The teachers ask for extra fees for some school subjects. Teachers are offering some children private tutoring (10 somoni (\$3) per month for 3 hours per week; lessons are given in English, physics, etc.). At the school, the teachers pay more attention to those to whom they are giving extra lessons.”

*Teacher, Albania, when asked if new teachers are well trained:* “They lack teaching methodology. University standards have dropped and there are corrupt lecturers who take bribes in exchange for passing you.”

Some teachers acknowledge this phenomenon. The root cause lies in the very low teacher salaries throughout the region. Some say that teachers have no option but to give private lessons to survive. The system is well known by everyone, but ministries of education are usually reluctant to acknowledge and address it. In some cases, like Azerbaijan, Ministry officials are aware of the situation, but claim it is part of the education system and in many cases is good for students since it helps poorly performing children catch up with the others.

Another cost of sending children to school is the opportunity cost of the loss of their contribution to the family income either by unpaid work at home or by their earnings. Child labour is an important way for families to alleviate poverty. It takes different forms in rural areas and cities.

In rural areas, child labour in farm work is seasonal and harvesting on the family farm does not necessarily cause significant harm to the child’s education. However, the case is different when children work as paid farm labourers, for instance as cotton pickers in Central Asia. Children are also commonly employed in farm work in Moldova where they are paid the same daily wage as adults. This makes farm jobs quite attractive to them and their families.

### Box 4.7: A teacher in Azerbaijan talks about working students

Q: Do most of your students work?

A: I can tell you about my students who are studying at grades 7 and 8. Starting from this year they are obliged to work. A child goes to work after school and comes home after 11 pm.

Q: What percentage of children are working?

A: Approximately 30 per cent to 40 per cent. And at the root of all issues are economic problems.

Q: Are the students working illegally or are there legal jobs for them?

A: No, they are illegal workers.

Q: What kind of jobs do they do?

A: Conductor, carrying heavy loads, working as street vendors, selling pens, chewing gum, newspapers.

In urban areas, children work in service-related jobs in the private sector. They carry construction materials, wash cars or wait tables in restaurants, and sometimes girls work as hairdressers. Children almost always work with the consent of their parents. In Azerbaijan, they earn about \$1 to \$2 per day, and in Tajikistan about \$1 to \$3. The money almost always goes completely to the parents. More boys than girls have such wage-earning jobs, but in some countries it is not uncommon for the girls to be kept home to assist with housework and child care. For instance in Diyarbakir (Turkey), children as young as 12 years old were staying at home to assist their mothers with household chores, including cleaning, cooking, laundry and child care.

For some groups, such as the Roma, children's earning power is a matter of survival. Although children make very little money on the street, if five or six children are working from one family, it adds up to a considerable amount and in many cases is the family's only income. In many instances, the parents sounded very proud because their young children have steady jobs and are successful at them, even though this prevents them from attending school.



Not all forms of child labour result in school dropout. Many children work after school hours or on holidays. However, this may cause them to miss classes. Even if they attend classes, children who work after school typically stay out late, cutting into their time for homework and sleep, making them tired during the day.

In focus-group discussions, parents overwhelmingly referred to poverty as the main reason for children's failure to attend school or drop out. Some parents blamed poor nutrition for low performance or

irregular attendance. In Tajikistan, many children who have dropped out said their parents did not have the money to send them to school. In the focus group in Dushanbe (Tajikistan), of the 14 children who attended, 8 did not complete even grade 1. They said they learned how to read and write from their parents or brothers at home. In some cases, girls and younger children were taken out of school so that older children could continue their education. For example, a girl in Tajikistan said she could not continue school because her parents sent her three brothers to university.<sup>108</sup>

Dropping out of school is very common for children from poor families. There is not one clear time of dropout, although a pattern started to emerge during focus groups and interviews. Grades 4 and 5 seem to be a breaking point; dropping out during the first three grades is much less common. This was confirmed by parents in Azerbaijan and teachers in Tajikistan. In contrast, in the school visited in Albania, teachers claimed that most dropout takes place at grades 7 and 8, and about 10 per cent of children in the school fail to graduate. Some centres in Tajikistan were attempting to teach children basic skills several years after they had dropped out. However, the effectiveness of such programmes in integrating children back into school is very questionable.

Some countries try to compensate by providing aid to poor families to keep their children in school. Unfortunately, the amount of aid is usually so low as to be almost meaningless, for instance in Tajikistan. One exception is a relatively new state programme in Turkey that pays poor families \$10 per month for boys and about \$12 for girls if they ensure their children attend school regularly. The programme, Conditional Cash Transfer, is controversial, with strong supporters as well as opponents.

Also in Turkey, the government is working to design a system, called ‘Catchup’, to reintegrate children who previously dropped out into school. However, there are concerns that parents can abuse these efforts. If they think their children can ‘catch up’ later, they may choose not to send their children to school in the first place, instead making them work.

Inequity between income groups is even more extreme in higher education. For instance in Moldova, only 5 per cent of 19- to 25-year-olds in the bottom consumption quintile were enrolled in educational institutions in 2003, compared with 30 per cent of those in the top quintile.<sup>109</sup> In the transition focus-group countries, parents were well aware that higher education is beyond the reach of most children except those in higher income groups. Children try to be more optimistic but deep inside they also know the reality. In one focus group, for example, as a child who said she wanted to be a doctor was questioned further, the impossibility of achieving such a dream became increasingly clear. The real barrier is almost always poverty. The number of scholarships and other support for the top performers is not enough (chapter 5 below). Most poor families give up early on the idea of sending their children to university and do not even try.

### **Box 4.8: Children in Azerbaijan on the difficulty of getting into university**

Q: Do you think the school is preparing you well to get into the university?

A: No, with school preparation only we can never enter the university. We need to hire a private tutor for the preparation.

Q: Who are the tutors? Are they the same teachers who teach in the school?

A: Yes, the same teachers. But when we pay them for private lessons they teach us much better than they do during the class lessons. When we ask questions during the class lessons teachers say to us, “Come to my private lesson; I will explain it to you.”

In addition to poverty, the low quality of basic education for the poor prevents them from becoming academically competitive in the race for higher education. The booming business of private tutoring and university preparation courses in many countries of the region is putting higher education beyond the reach of millions of children from low-income families. Parents and children are convinced that success in school and access to higher education depend fully on the ability to afford these private education supplements.

### **Conclusions on Learning and Labour Market Outcomes**

As far as average learning outcomes are concerned, the analysis of international test results suggests there is a hierarchy of countries in the region. Countries that did best overall in the most recent surveys were the Baltic States, the Czech Republic and Hungary. These countries were at or above the OECD average in PIRLS and TIMSS. Poland also did relatively well, but only participated in PISA. Among the worst-performing countries were the poorer countries of South-Eastern Europe (including Albania and The former Yugoslav Republic of Macedonia) and Turkey. MLA studies also reveal severe quality problems in Kyrgyzstan and Tajikistan.

It appears that spending more public money produces better results – at least up to a point. One of the report’s most striking charts (figure 4.4 above) shows an almost perfect fit between a country’s average rank on mean achievement and on public educational expenditure per head. Only Slovenia joins various OECD countries in spending per head beyond the point where it affects the ranking by achievement.



Trends over time are mixed. Countries that have consistently improved their position in recent years are Latvia, Lithuania and Poland; Estonia also did very well in its first appearance on international achievement surveys. To judge from these results, educational reforms since transition seem to have been successful in these countries. On the other hand, absolute disadvantage has consistently increased in Bulgaria and Slovakia.

One of the more worrying findings is that the countries in the region do relatively better compared with OECD countries in PIRLS and TIMSS, which reward mastery of curriculum content, than in PISA, which focuses more on applying skills in real-life situations. PISA measures exactly the skills that determine competitiveness in the new global economy – the ability to:

- > Integrate formal and informal learning, declarative knowledge ('knowing that') and procedural knowledge ('knowing how');
- > Access, select and evaluate knowledge in an information-rich world;
- > Develop and apply diverse forms of intelligence;
- > Learn and work effectively in teams;
- > Create and transpose knowledge;
- > Cope with ambiguous situations, unpredictable problems and unforeseen circumstances;
- > Deal with multiple careers – learning how to 'redesign' oneself, locate oneself in a job market, and choose and fashion the relevant education and training.<sup>110</sup>

These skills are particularly and immediately relevant to the new EU member countries but it is arguable that Central Asia's education systems also need to move in this direction to the benefit of productivity, competitiveness and growth.<sup>111</sup> For this purpose, two recent reports recommend that both EU8 countries and Central Asian countries initiate or accelerate convergence between vocational and general education.<sup>112</sup>

As for differences within countries, the results of international tests confirm significant levels of inequality in learning outcomes as well as in access to education. Among the countries in the region, Albania, Armenia, Bulgaria, Moldova and The former Yugoslav Republic of Macedonia record particularly large disparities. It appears that quality does not have to be sacrificed to achieve greater equity in outcomes: often the most successful countries in terms of averages also have the smallest within-country disparities (such as Latvia) and the least successful have the largest disparities (such as The former Yugoslav Republic of Macedonia).

As in many other parts of the world, unequal outcomes tend to reflect unequal socio-economic backgrounds among families and unequal socio-economic intakes among schools, though some countries do better than others in moderating these relationships. Disparities in outcome by gender are not as simple as might be expected. Girls do significantly better on average than boys in reading with particularly large gaps in Albania, Bulgaria and The former Yugoslav Republic of Macedonia but the size of the difference varies between countries. The situation is mixed in mathematics and science where gender differences are smaller, not always significant and not consistent in which gender they favour.

On labour market outcomes and the demand for schooling, there is an apparent contradiction between available statistics and the focus-group discussions, but it is only apparent. Unemployment rates tend to be higher among the less educated at least in the region's more prosperous and less agricultural economies. Although youth unemployment rates have been rising and youth labour force participation rates and employment-to-population ratios falling, data from Moldova and Lithuania – two countries at different ends of the region's standard-of-living range – are broadly consistent with the hypothesis



that young people tend to find jobs as they grow older, their chances of doing so improve when they acquire more education, and the chances do not differ significantly between males and females. Data from the same countries on average earnings also suggest that young workers of both genders benefit materially from getting more than a basic education. Young women still earn less than comparable young men, especially if they have a relatively low level of education; in poorer countries like Moldova, education is a particularly important escape route from poverty for women.

These data alone would lead to an expectation of strong demand for schooling from children and parents. However, participants in the focus groups tended to be sceptical about the returns to education. Parents often expressed reluctance to invest in basic and secondary education because they could not hope their children would stay in school long enough to reap significant benefits. In Azerbaijan, Tajikistan and Turkey, this reluctance was particularly strong concerning girls. Demand is hindered by the poor quality of schooling available in rural and low-income areas, which often have unheated and dilapidated buildings, no safe water, unhygienic latrines, inadequate educational resources and demoralized and underpaid teachers. The hidden costs of education – such as clothing, books, contributions to school funds, school supplies and food – were identified as another deterrent. Corruption and the growth of private tutoring further increase costs, and families' need for children to work keeps many children out of school.

Aggregate statistics notwithstanding, this is the reality of the distorted benefits and costs of education as seen by the least advantaged in some of the region's poorest countries – to the detriment of demand for schooling. The forces generating inequality reinforce each other throughout the region. Families with higher incomes and levels of education are better able to ensure that their children progress through public or private education systems – by sending them to preschool (figure 3.11), gaining access to 'better' primary and secondary schools, contributing to their budgets and paying for private tutoring. Those who drop out early, the 'invisible' children of the poor, are destined for the margins of society and the economy: unemployment (table 4.2), inactivity, unpaid family labour or low-paid work, often in the shadow economy (box 4.2). Among children who keep going, students from privileged backgrounds tend to have an advantage in the tests that determine advancement (figure 4.6). When they reach the labour market, whether at home or abroad, their wages are higher if they have more education (figure 4.8). And so the cycle repeats itself.

Before all this can be pulled together into a comprehensive discussion of policy options (chapter 6 below), the crucial additional dimension of cost and financing of education has to be integrated into the analysis. This is the topic of the next chapter.



# CHAPTER 5



**CHAPTER 5: COSTS, FINANCING AND GOVERNANCE**

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 5: COSTS, FINANCING AND GOVERNANCE

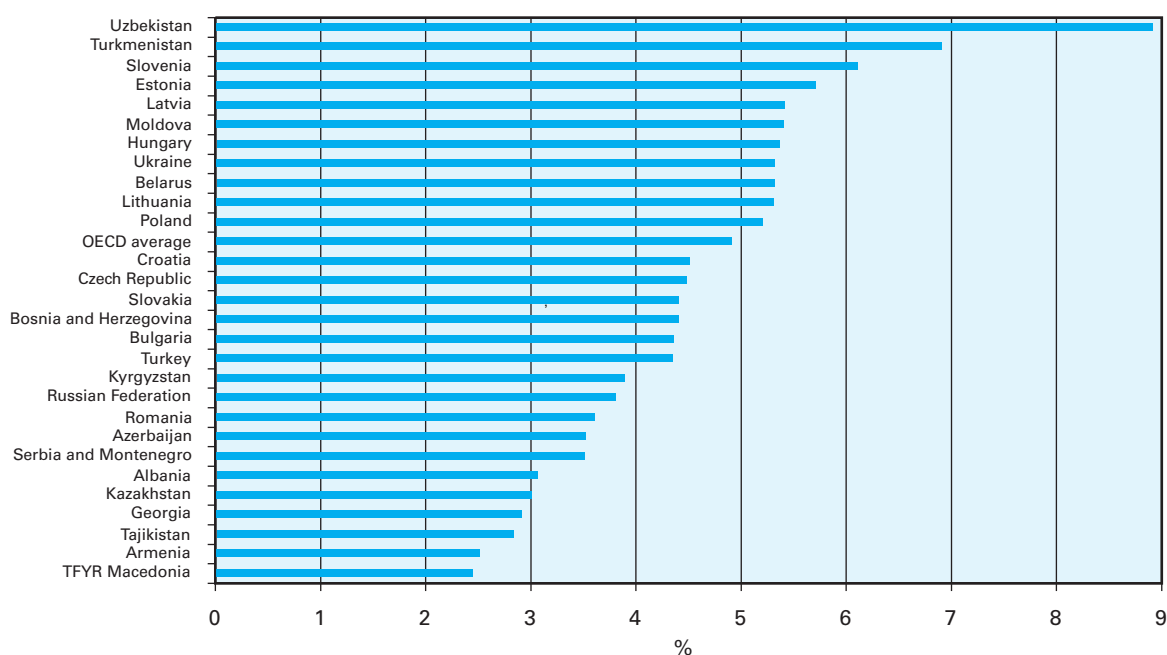
Education is a human right as emphasized throughout this report. But it also costs money. Consequently, governments in the region, particularly those in fiscal crisis (figure 1.2 above), are grappling with the task of redefining the ‘basic package’ of educational services that a state should be expected to provide free of charge to its residents. Several questions arise: Should all levels of education be free to everyone or only mandatory education? Should free mandatory education include free meals, textbooks, transport to school, extra-curricular and holiday activities, and so forth – for all children or only for some? Should some students or families receive stipends or financial assistance and if so, at what levels and based on what criteria? This chapter reviews some of the data needed to answer these and similar questions, and explores ways of improving the efficiency and equity with which resources are used in the education sector.

As far as equity is concerned, it is important to emphasize that achieving equal outcomes requires unequal provision of inputs. But the nature of this unequal provision needs to be exactly the opposite of the inequality that currently prevails: more resources should flow to the less advantaged regions, schools, families and children. As this chapter will make clear, not only do the more advantaged tend to enjoy more than their share of public resources but this inequity is reinforced by the system’s increasing reliance on private resources.

### Public Expenditure on Education

Although education’s share of GDP has tended to fall during the transition, a surprising number of governments in the region are spending more than the OECD average of 4.9 per cent on education (figure 5.1). Uzbekistan is an international outlier, having increased its expenditure on education to more than 9 per cent of GDP, almost as high as in pre-transition days. Moldova, another of the region’s poorest countries (figures 1.3 and 1.6 above), also exceeds the OECD average. At the other extreme, Armenia, Georgia, Tajikistan and The former Yugoslav Republic of Macedonia devote less than 3 per cent of GDP to education, among the lowest proportions in the world.

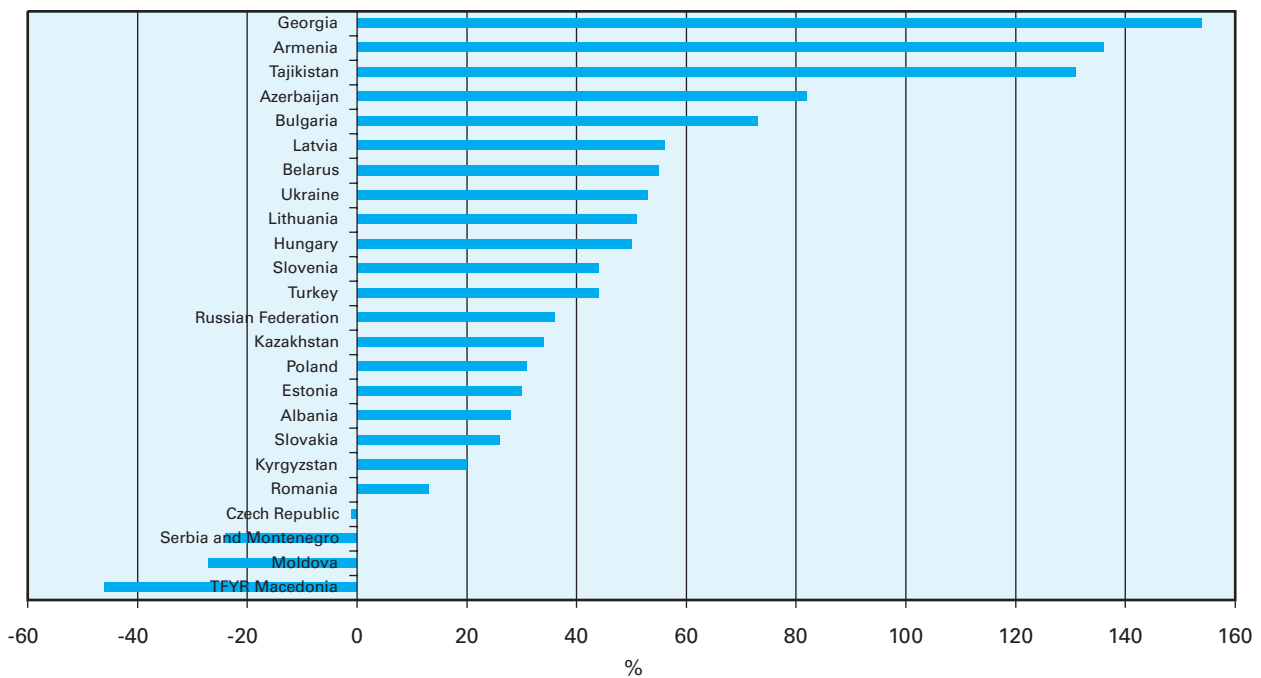
**Figure 5.1: Public expenditure on education as per cent of GDP, 2004**



Sources: OECD, 2006a; UNICEF, TransMONEE database, 2006.

Resources available to education depend on both its share of GDP and the level of GDP. Faster growth in recent years (figure 1.1 above) has meant that some countries towards the bottom of figure 5.1 (Armenia, Georgia and Tajikistan) have achieved the biggest increases in real public expenditure on education since 1996, as figure 5.2 shows. However, in several countries this figure has fallen – and almost all countries in the region still need to devote more resources to education to improve learning outcomes (figure 4.4 above). In the region’s poorer countries, “budget deprivation has clearly led to a situation in which many schools in poor areas – particularly in rural areas – lack the essential resources for effective teaching and learning”, according to a World Bank report.<sup>113</sup>

**Figure 5.2: Per cent change in real public expenditure on education, 1996-2004**



Sources: UNICEF, TransMONEE database, 2006; Turkey: Ministry of National Education, 2006.

Focus-group discussions reinforced the view that educational resources are inadequate. Rapidly deteriorating school buildings are already a big problem in many countries and are likely to become an even more serious problem in the coming years. In the absence of government resources for renovation and upkeep of school buildings, schools need to raise money for physical improvements themselves. Given the high cost of capital improvements, this is a very challenging task. Of the five countries visited, the problem was most serious in Albania, Azerbaijan and Tajikistan. Mothers complained that school buildings are too hot in summer and freezing in winter. In urban areas, crowding is a major issue. Mothers in Albania said that flu spreads very quickly in winter. Children criticized the lack of heating, broken doors and windows, lack of sport facilities and poor condition of school yards. In exercises conducted in Albania and Tajikistan in which children ranked their reasons for not liking school, deficiencies in the physical structure were consistently rated as number one.

Lack of desks and chairs is a major issue in Tajikistan’s schools. A senior official in the Ministry of Education raised this as the primary challenge facing education in the country today. Tajikistan imports all the desks and chairs at a cost of approximately \$30 for a desk and 2 chairs. As a result, on any given day many children are forced to stand during a typical class session because there are not enough desks and chairs. Despite the many deficiencies in infrastructure, urban schools are still



in much better condition than rural schools in all countries. Lack of adequate teaching resources is another problem. Schools do not have educational materials, globes, maps or laboratory equipment, a problem raised repeatedly by children.

Both parents and children consider computers a very important component of education. One parent stated that “These days you cannot find a job without computer literacy.” Despite all the efforts of governments and donors, availability of computers in classrooms is very spotty and problematic. In some countries, schools simply do not have any computers. Of the five countries visited (Albania, Azerbaijan, Moldova, Tajikistan and Turkey), Moldova was the exception: many schools have a few computers. Yet even there the computer-to-child ratios are low so children have only limited time in front of a computer. In other countries, computers are either missing or the few available ones are not usable due to technical problems, lack of teacher skills or protective school policies. It seems that the region is generally a long way from integrating computers into classrooms as an effective learning tool. Beyond lack of resources to buy and disseminate computers to the classrooms, major barriers include the effort to train teachers to accept computers and integrate them into the classroom as well as lack of technical support and appropriate software.

### Box 5.1: The impact of budget deprivation in Tajikistan

*Ministry of Education official:* “Our challenges in education are shortage of teachers, quality of school staff, introduction of uniforms, shortage of textbooks and furniture (chairs and desks). School furniture is mostly from the 1980s and has been largely depleted. Local construction companies are in charge of repair and maintenance. One desk and two chairs cost \$30.”

*Teacher:* “Teachers need to do three shifts a day in order to cope with the shortage of desks and chairs. One school can accommodate 700 children but in reality, 1,700 are crammed in there.”

*Children:* More than half of children said they have computers in their schools but they have never touched them because there is not sufficient electricity or teachers told them not to touch them.

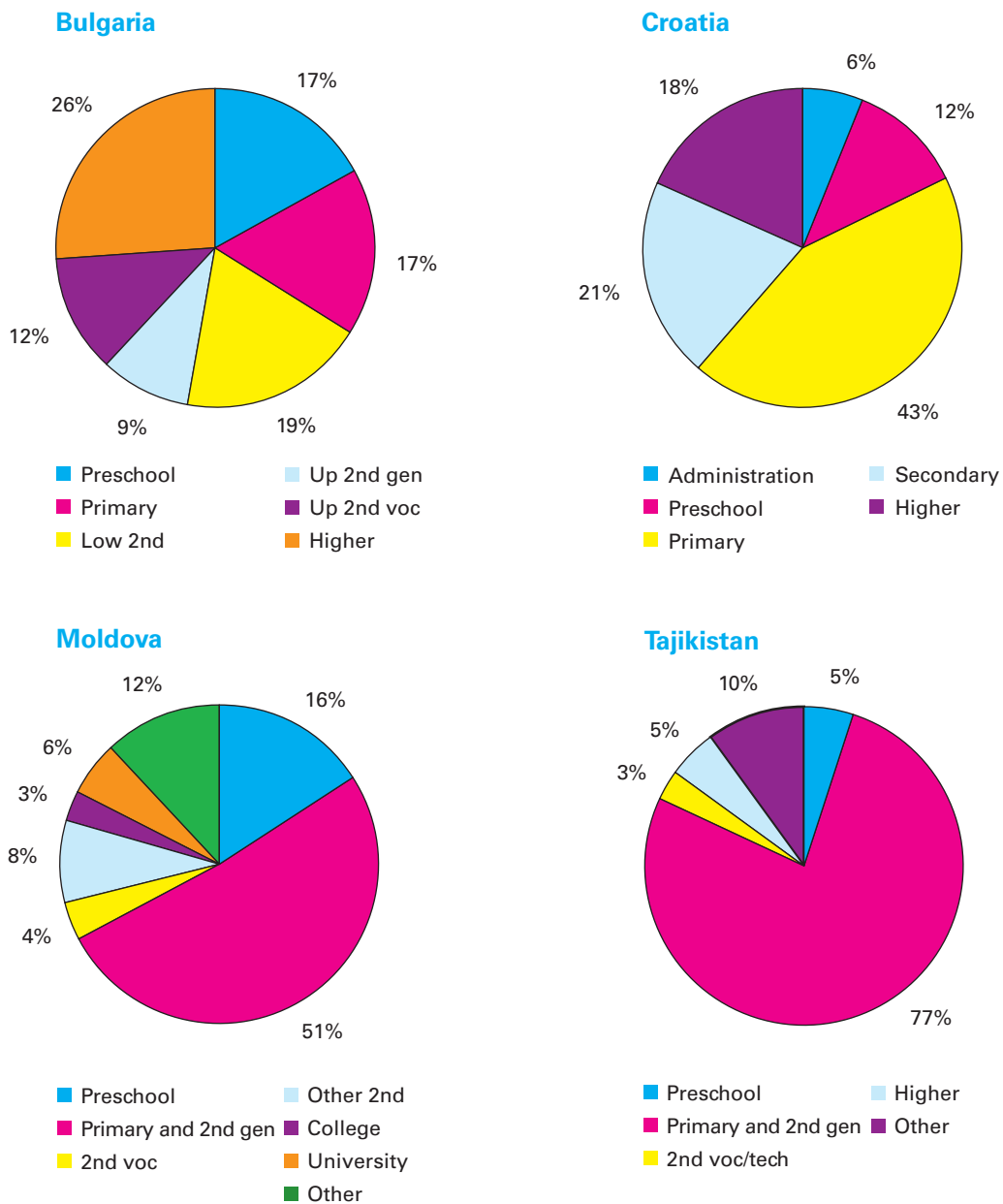
## Distribution of Public Education Expenditure

Figure 5.3 shows the pattern of public educational spending in four selected countries. As in other countries in the region, the bulk (ranging from 57 per cent in Bulgaria to 80 per cent in Tajikistan) goes to primary and secondary education, which are often lumped together for budget purposes. Secondary vocational education is relatively unimportant in the lower-income countries, accounting for only 3 per cent of the education budget in Moldova and Tajikistan. It consumes more in Bulgaria (12 per cent) and in some of the region’s more prosperous countries, accounting for 20 per cent of education expenditure in the Czech Republic, 16 per cent in Slovakia and 11 per cent in Poland.<sup>114</sup>

In comparison, primary, secondary and non-tertiary education consumed about 68 per cent of education budgets on average in OECD countries in 2003. The biggest contrasts between countries in the region and OECD countries in figure 5.3 are in public spending on preschools and on higher education. OECD governments spend relatively little on preschools: 8 per cent of education budgets on average in 2003, compared with 17 per cent in Bulgaria, 16 per cent in Moldova and 12 per cent in Croatia. But over 23 per cent of OECD education budgets went to tertiary education in 2003, compared with only 9 per cent in Moldova and 5 per cent in Tajikistan. On the other hand, Bulgaria, at 26 per cent of the education budget going to tertiary education, exceeds the OECD average, and Croatia, at 18 per cent, approaches it. In this respect,

they are comparable to the EU8 countries, which spend an average of 20 per cent of their education budgets on higher education.<sup>115</sup> The low percentage in Moldova reflects the processes of privatization and fee-paying in higher education, as in several other countries in the region (figure 3.8 above).

**Figure 5.3: Distribution of public expenditure on education, by level and type, selected countries, latest available year**



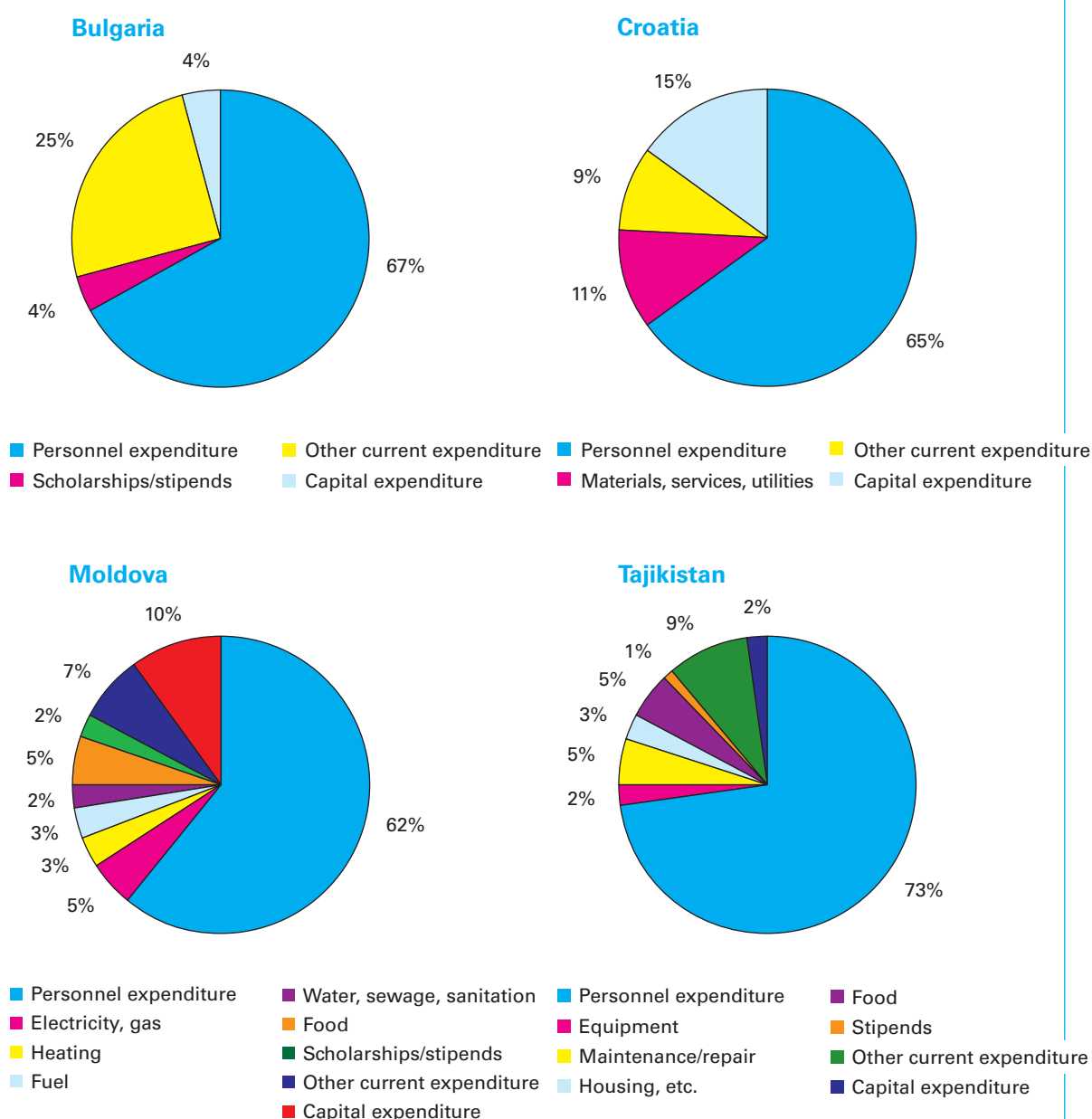
Note: Years vary between 2002 and 2004.

Sources: Bulgaria, Croatia and Moldova: Ministries of finance, 2006; Tajikistan: World Bank, 2005h.

As is usual in education systems, personnel expenditure is by far the largest category, accounting for 62 per cent to 73 per cent of the total education budget in the four countries in figure 5.4, and 69 per cent to 86 per cent of current expenditure. Capital expenditure is a significant proportion of the total in Croatia and Moldova, but not in Bulgaria (4 per cent) or Tajikistan (2 per cent). Personnel

expenditure tends to take a larger share of basic education budgets and salary bills for non-teachers are bigger than in OECD countries. Fuel and heating are important items at every level in all except the most southerly countries. Additional non-personnel expenditures that loom large at other levels include food (preschool and boarding schools) and stipends for students (vocational schools and higher education). In all except the most prosperous countries, expenditure relevant to improving quality of education tends to get squeezed. In Moldova, for instance, only 10 per cent of the 2004 total education budget went for teaching materials, books and magazines, maintenance, repairs and purchase of equipment, professional retraining, information technology and repairs to buildings.<sup>116</sup>

**Figure 5.4: Distribution of public expenditure on education, by economic classification, selected countries, latest available year**



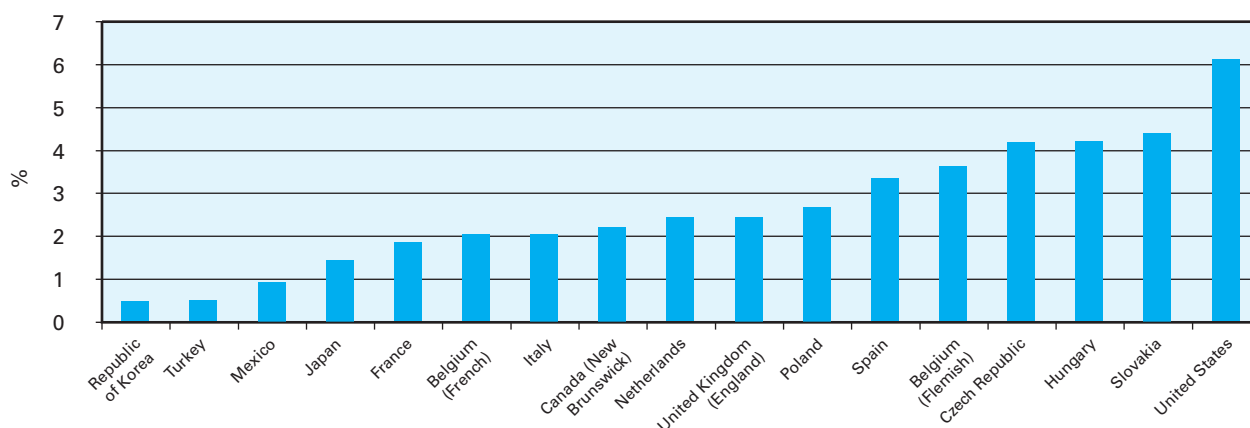
Note: Years vary between 2002 and 2005.

Sources: Armenia: Ministry of Finance, 2003; Bulgaria, Croatia and Moldova: Ministries of finance, 2006; Tajikistan: World Bank, 2005h.

### Public Expenditure on Children with Special Needs

Lumped together with other categories in figure 5.4 is public expenditure on the education of children with special needs. As shown in table 2.3, OECD has developed a tripartite classification of children with special needs that assigns all students to one of three categories. OECD uses these categories to present country data in a common format in an ongoing comparative study in its member countries.<sup>117</sup> The 2005 data on these categories are shown in figures 5.5 to 5.7. Five of the countries in the region are represented in figure 5.5. The Czech Republic, Hungary and Slovakia allocate resources to a fairly high proportion of primary school students on grounds of physical disability; Poland is just above the median and Turkey is near the bottom of the list. The range of country practices is wide, from the Republic of Korea on one end to the United States of America on the other.

**Figure 5.5: Number of students receiving additional resources in primary education in category A\* as per cent of all children in primary education, 2001**

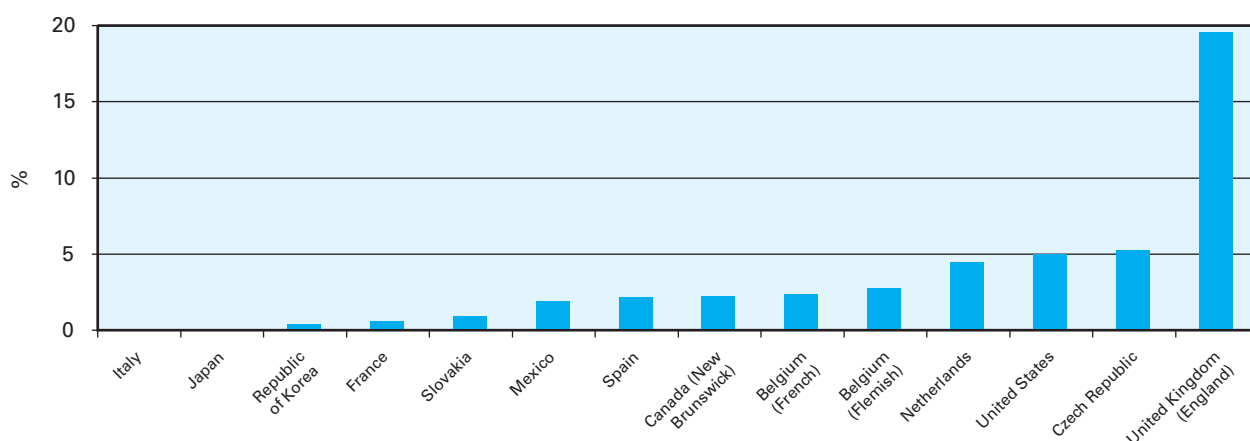


\* Disabilities having clear biological causes.

Source: OECD, 2005: 94.

The only countries from the region in figure 5.6 are the Czech Republic (giving resources to a relatively high proportion of primary school students on grounds of learning difficulties) and Slovakia (relatively low proportion). The range of country practices, from the United Kingdom (England) to Italy, is again wide.

**Figure 5.6: Number of students receiving additional resources in primary education in category B\* as per cent of all children in primary education, 2001**



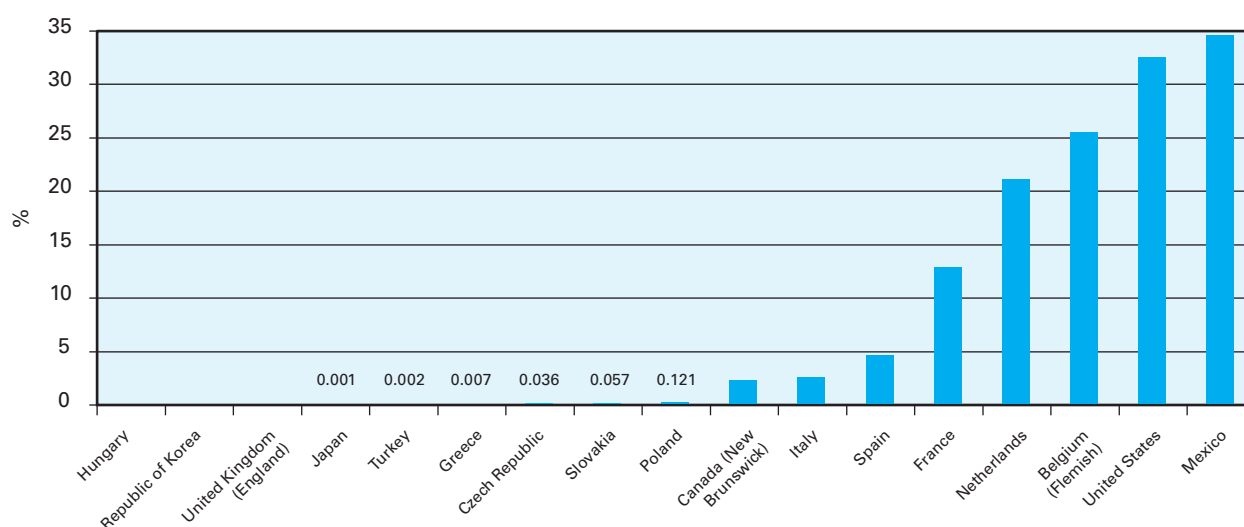
\* Learning difficulties of unknown causation.

Note: Italy and Japan have no national categories falling within category B.

Source: OECD, 2005: 103.

Most countries in figure 5.7, including all those in the region, make little use of the classification of socio-economic disadvantage as a criterion for allocating additional resources in primary education. In contrast, in Belgium (Flemish communities), France, Mexico, the Netherlands and the United States of America it is by far the most common criterion for such allocations.

**Figure 5.7: Number of students receiving additional resources in primary education in category C\* as per cent of all children in primary education, 2001**



\* Difficulties arising from disadvantage.

*Note:* The Republic of Korea and the United Kingdom (England) have no national categories falling within category C. In Greece, category 8, 'socio-economic/cultural educational difficulties', is not available in regular classes. In Hungary, category 9, 'disadvantaged students', is not applicable.

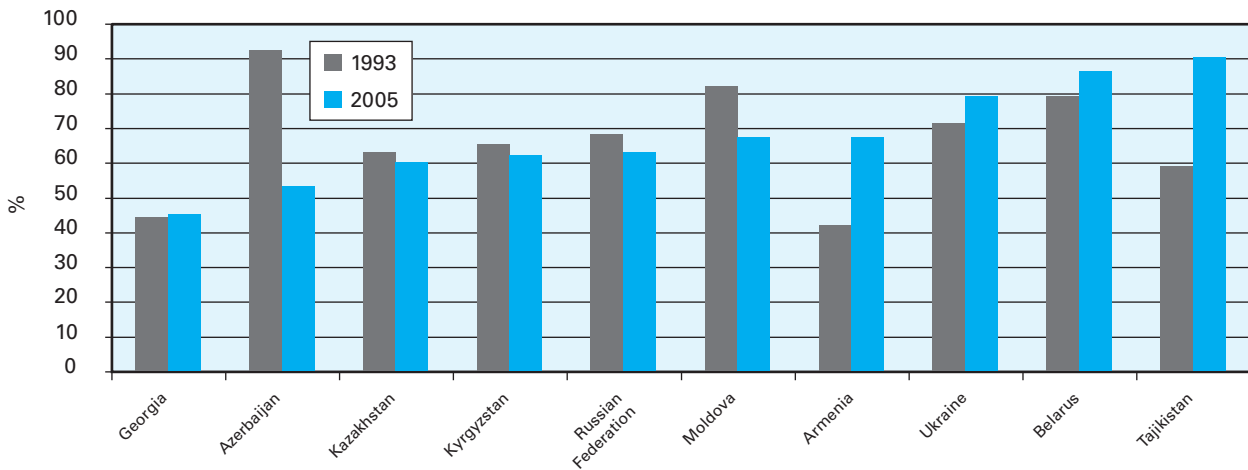
*Source:* OECD, 2005: 111.

Figures 5.5 to 5.7 clearly show the variation in classification systems between countries and document the variability in how countries target students for extra resources. However, these figures do not capture children who are out of school, many of whom are children with disabilities, difficulties and disadvantages.

## Teacher Salaries

Also relevant to improving the quality of education is the level of teacher salaries. As figure 5.8 indicates, in all the countries of the CIS for which data are available, the average wage in the education sector is below the national average – by more than 30 per cent in most cases. The relative position of education staff has improved over the period from 1993 to 2005 in only four countries: Armenia, Belarus, Tajikistan (where teachers enjoyed a big pay increase in 2005) and Ukraine.

**Figure 5.8: Average monthly wage in the education sector as per cent of national average wage, selected CIS countries, 1993 and 2005**

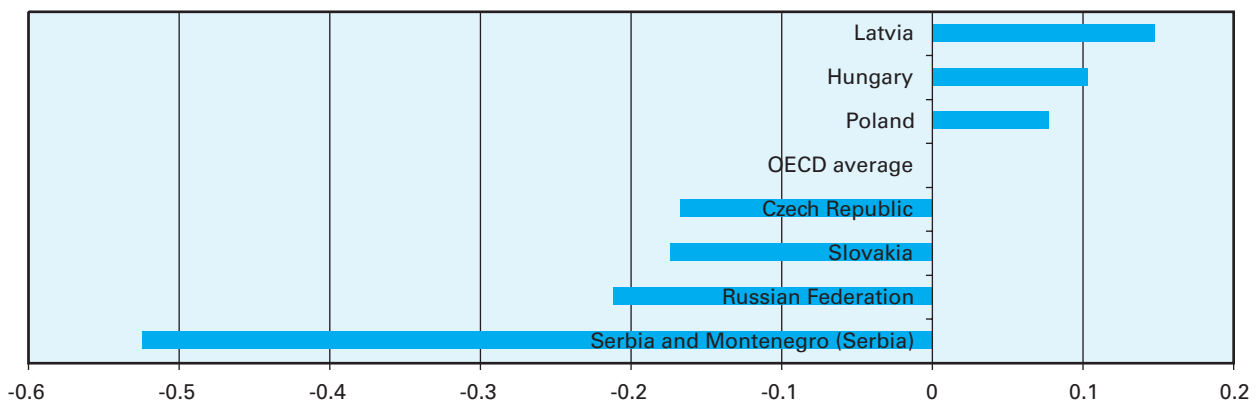


Note: Earlier year for Armenia is 1994, later year is 2004. For Tajikistan, earlier year is 1995.

Source: Interstate Statistical Committee of the Commonwealth of Independent States, *Official Statistics of the Countries of the Commonwealth of Independent States, 2006*.

In spite of recent improvement in Tajikistan, most teachers in Central Asia have to take on additional jobs to survive. Teacher morale is a serious problem in the sub-region, and corruption in education is growing, undermining public confidence in education programmes and qualifications. A recent World Bank study observed that “restoring teacher salaries and public confidence in education should be a central priority of education reform” in Central Asia.<sup>118</sup> Even in some more prosperous countries, teachers’ morale suffers from relatively low salaries. For instance, principals of schools in the PISA sample not only in the Russian Federation and Serbia but also in the Czech Republic and Slovakia reported levels of morale and commitment below the OECD average (figure 5.9). In Azerbaijan, increasing teacher salaries is by far the highest priority action for education reform among both teachers (83 per cent of whom support it) and principals (93 per cent).<sup>119</sup> The only exception to the generalization that teacher salaries are too low seems to be Bosnia and Herzegovina where they are judged to be ‘too high’, almost double GDP per head, compared with the OECD average multiple of 1.3.<sup>120</sup>

**Figure 5.9: Index of teachers’ morale and commitment, selected countries, 2003**

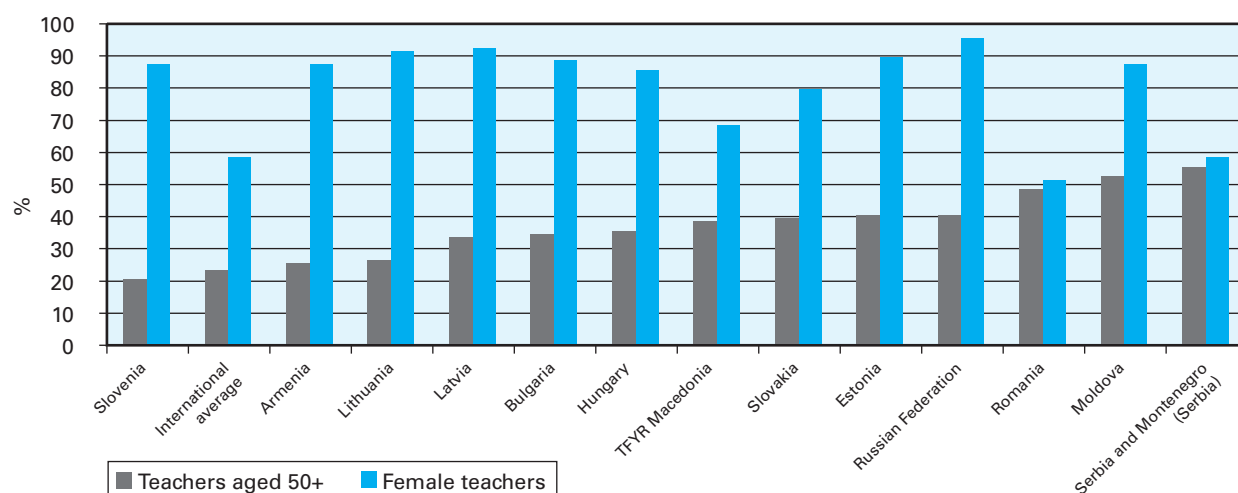


Note: Indices measure the extent to which principals’ responses differ from the OECD mean (standardized at zero with standard deviation = one).

Source: OECD, 2004: Figure 5.5.

Low salaries also give rise to difficulties in recruiting and retaining teachers. The average age of teachers is high. Among countries from the region in the TIMSS sample, only Slovenia is below the international average for grade 8 mathematics teachers aged 50 or older (figure 5.10). The incidence of female mathematics teachers is also higher than the international average in almost all cases. This reflects not only the history of the region's countries but also the realities of current labour markets. The harmful consequences of low teacher salaries include teacher solicitation of payments, teachers who take second jobs and the proliferation of paid tutoring.

**Figure 5.10: Per cent of 8th grade mathematics students with teachers aged 50+ and female teachers, 2003**



Source: Mullis et al., 2004: Exhibit 6.3.

## Private Tutoring

Private tutoring is tutoring in an academic subject that is provided for financial gain and is additional to the provision by mainstream schooling.<sup>121</sup> Thus it goes beyond teachers' occasional help with homework after school and beyond 'home schooling' provided by parents. The practice is common in most education systems but in the region it has become much more widespread since 1990. A recent study covering eight transition countries found that 69 per cent of students in the sample had received some type of private tutoring during the last grade of secondary school.<sup>122</sup> In some countries, 80 per cent of students had received tutoring (Azerbaijan and Georgia); in others, it was less than 60 per cent (Bosnia and Herzegovina, Croatia and Slovakia).

Two types of private tutoring are prevalent: private lessons and preparatory courses (such as for a school-leaving or university-entrance exam). They vary in terms of intensity (number of academic subjects, number of hours spent with a tutor) and duration (occasional, short-term or long-term). The greatest intensity is found during the final semester of secondary school, although in some countries (Azerbaijan, Georgia) intensive tutoring takes place throughout the school year. Mathematics, foreign languages and mother-tongue language are the most common subjects, not only for short-term exam preparation but throughout the year to compensate for shortcomings in mainstream provision.

The cost of private tutoring varies widely across the countries participating in the study. Azerbaijan and Georgia reported spending the highest amount in relation to their GDP per head on tutoring (table 5.1). Private lessons generally cost several times more than group tutoring or courses.



**Table 5.1: Yearly costs of private tutoring in one subject as per cent of GDP per head, 2004**

	Mean		Median	
	Equivalent of total costs in dollars	As a percentage of GDP per head (PPP dollars)	Equivalent of total costs in dollars	As a percentage of GDP per head (PPP dollars)
Poland	489.5	3.80	319.0	2.47
Ukraine	374.8	5.93	150.8	2.39
Georgia	235.0	7.89	196.0	6.58
Azerbaijan	220.7	5.29	180.0	4.31
Lithuania	201.1	1.54	154.3	1.19
Bosnia and Herzegovina	191.9	2.70	136.0	1.91
Croatia	191.1	1.57	105.6	0.87
Slovakia	175.1	1.21	122.0	0.84

Notes:

1. Private tutoring costs were converted from local currencies into dollars using the exchange rate at the time of data collection (January 2005).
2. Because of a large spread in the data and the presence of significant anomalous outliers, median calculations are used in addition to mean calculation to compare spending.

Source: *Silova, Budiene and Bray (eds), 2006: 79.*

Tutors are generally teachers who offer private lessons to individual students, although the exam preparatory ‘market’ also uses university professors and lecturers. University professors or lecturers make up 87 per cent of preparatory course tutors in Slovakia, 85 per cent in Ukraine and 75 per cent in Poland.

As education systems increasingly use high-stakes examinations for admission to prestigious schools and universities, private tutoring is seen as a way to gain a competitive edge in selective admissions. In fact the vast majority of students believe it has a decisive impact on their examination results. In countries where school grades are also taken into account in university entrance procedures (for example Bosnia and Herzegovina, Croatia, Poland and Slovakia), students use private tutoring to improve their school grades.

A second factor fuelling the demand for private tutoring is a perception among students and parents that the school system lacks quality or the curriculum does not cover what universities require. In some countries (Azerbaijan and Georgia), students in the final grade of secondary school often spend their time in private preparatory classes rather than in their own school; in other countries, where students are more satisfied with the quality of education (Croatia, Lithuania, Poland and Slovakia), private tutoring is used less for ‘compensatory’ reasons, although it is still widespread for exam preparation.

As already emphasized, low salaries have been partly responsible for the rise in private tutoring because teachers need additional sources of income. However, cases have been reported of teachers teaching their regular lessons poorly in order to create a demand for income-generating lessons after school. Unethical use of private tutoring involves teachers pressuring their own students to take paid supplementary lessons, often threatening them with lower grades if they refuse. In rural areas, the choice of tutoring providers is more limited so rural students are far more likely than urban ones to

be tutored by their own teachers. (Where university professors or lecturers set their own entrance examinations, tutoring by university-linked tutors is also in high demand.) In some countries, attempts to prevent teachers from tutoring their own students have led to the creation of elaborate referral schemes, whereby teachers from different schools agree to refer students to each other.

Private tutoring can have positive effects on mainstream learning provision by offering a more individual and intensive approach to student learning needs; it also offers teachers a way to supplement their low salaries and a way for students to be constructively occupied after school hours. However, it can also exacerbate social inequalities, distort curricula and invite corruption.

If, as in Azerbaijan, the main reason for private tutoring is preparation for high-stakes university entrance exams, students in their final school year focus strongly on what the university (not the national curriculum) demands, effectively abandoning their school studies for private classes in a limited range of subjects required for university admission. This is understandable: the gap between what the school provides and what the university demands can be substantial. In 2004 in Azerbaijan, only 19.5 per cent of applicants with 'excellent' school grades also scored top grades in the university admission tests; most applicants (97 per cent) with 'fair' or 'satisfactory' school grades failed to reach the cut-off level in the admission tests. On the other hand, the majority of students who had taken part in private preparatory courses offered by the examinations body passed the exams.

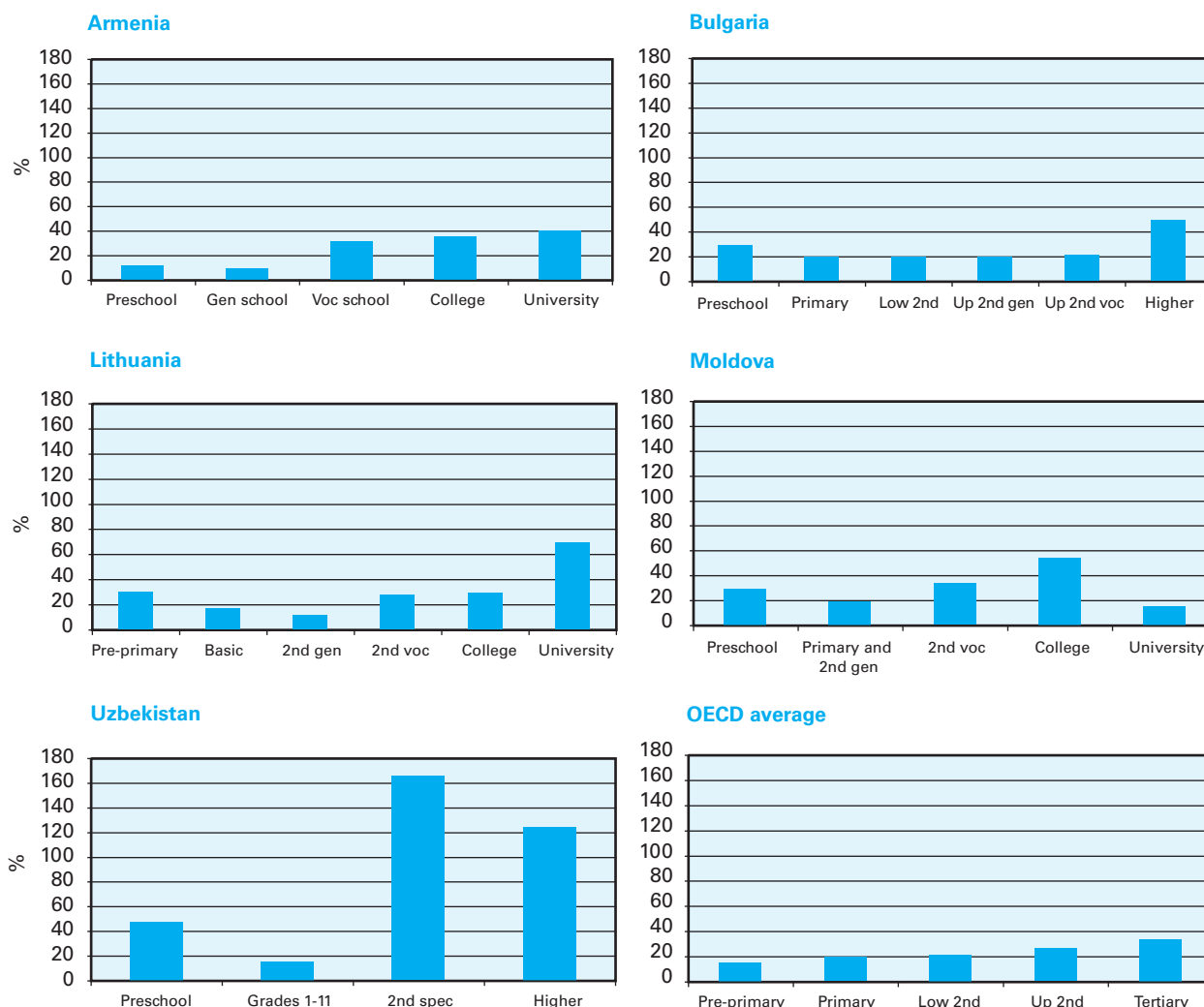
Long school hours in the final years of secondary school, plus an average of 10 to 16 hours of private tutoring per week, plus homework for both school and tutoring leave many students exhausted, with little time for sports or socializing with friends. Teachers also are tired and demoralized by what they see as an endless round of work and tutoring just to make ends meet.

Obviously, low-income families find it harder to pay the high cost of tutoring. When they do use private tutors, they spend less, opting for group lessons or courses rather than one-on-one tutoring. Thus not only have low-income students less access to private tutoring, they also have less access to high-quality tutoring. Those in rural or poor areas often have the additional disadvantage of lower quality schools making it doubly hard for them to compete. In an environment where many students think it is "impossible to get access without paying a bribe" and many admit to paying bribes themselves, private tutoring in effect "helps to institutionalize corruption at the secondary education level by masking bribery under the name of private tutoring".<sup>123</sup>

## Public Expenditure per Student

Public expenditure per student varies widely between levels and has varying patterns in different countries. Figure 5.11 calculates such unit costs as a percentage of GDP per head, and shows the results for five countries and for the OECD average on the same scale. All countries except Armenia spend a higher-than-OECD percentage on each preschool student – Uzbekistan spectacularly so. Expenditure per student at primary and secondary general levels appears to be below OECD norms in all five countries, but only moderately so in Bulgaria and Moldova. Vocational schools are not separately identified in all cases but their unit costs are higher than those of general education where statistics are available. The extraordinary figures for specialized secondary and higher education in Uzbekistan are due to huge investments in construction and reconstruction under the National Programme for Personnel Training. The figures for higher education also reflect differences in policy between different countries: Lithuania and Uzbekistan, with percentages well above OECD levels, are still subsidizing most institutions' expenditures at this level, in contrast to Armenia, Bulgaria and Moldova, which have introduced cost recovery on a larger scale.

**Figure 5.11: Public educational expenditure per student as per cent of GDP per head, by level, selected countries compared with the OECD average, latest available year**



**Notes:**

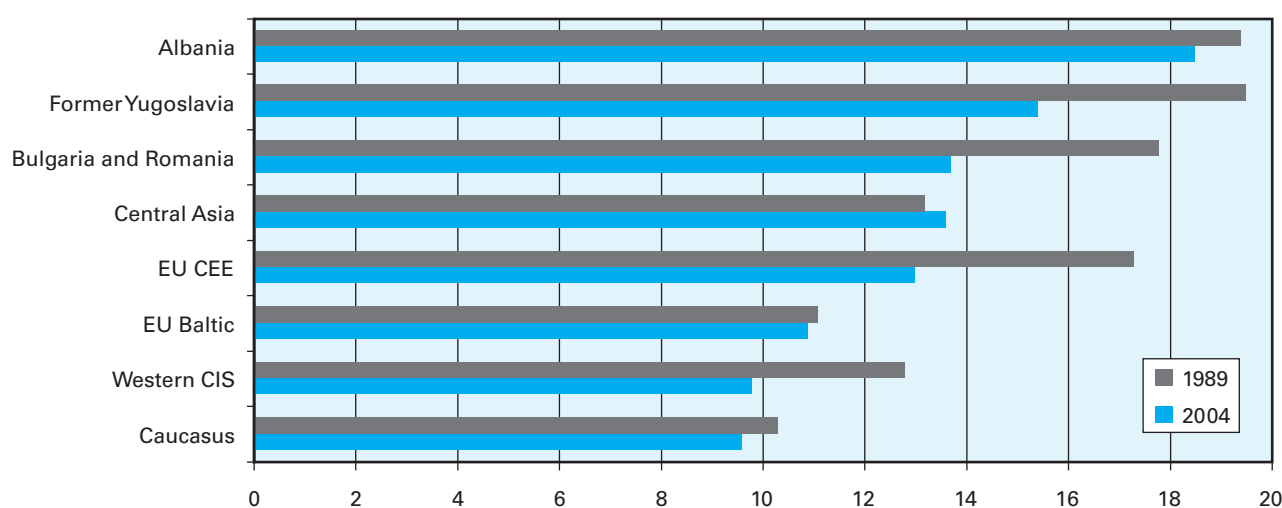
1. Years vary between 2002 and 2004.
2. In higher education, colleges and universities in the five countries covered, fee-paying students are excluded from the denominator.
3. OECD average is total expenditure per student as per cent of GDP per head adjusted by the proportion of expenditure from public sources.

Sources: Armenia: Ministry of Finance, 2003: Tables 4.13, 4.14; Bulgaria: Ministry of Finance, 2006; Lithuania: World Bank, 2004; Moldova: World Bank, 2006b: Figure 10; Uzbekistan: World Bank, 2005f: Table 3.3; OECD: OECD, 2006a: Tables B1.4, B3.2b.

## Student/Teacher Ratios

Given the budget deprivation previously described, it is important to search for ways of improving the efficiency and equity of resource use within the education system. Basic education, which has low unit costs but is a significant component of education budgets (figure 5.3 above), is one area in which efficiency can be improved, particularly given the fall in the number of school-age children in the region (figure 1.8 above). Figure 5.12 suggests that schools have not been taking advantage of the 'demographic dividend': student/teacher ratios actually fell between 1989 and 2004 in every sub-region except Central Asia. In countries other than Albania and those of the former Yugoslavia, ratios seem to be lower than comparable OECD averages. In Turkey, primary student/teacher ratios also fell over this period but at 26:1 were still much higher in 2004 than in any other country in the region. Even Turkey's upper secondary general ratios at 21:1 were higher than the basic education ratios in figure 5.12.

**Figure 5.12: Basic education student/teacher ratio, by sub-region, 1989 and 2004**



### Notes:

1. OECD average (2003) = primary 16.5:1, lower secondary 14.3:1.
2. Ukraine is not included due to lack of data.

Sources: OECD, 2005b; UNICEF, TransMONEE database, 2006.

Centrally established norms for class sizes and teaching time per teacher determine the number of authorized teaching positions (and hence student/teacher ratios – box 5.2) in many countries in the region. As the number of school-age children has fallen, classes have been getting smaller but the number of teachers has fallen more slowly, if at all. Norms for non-teaching staff are often laid down centrally and tend to be high. For instance in 2002, non-teaching staff represented 37 per cent of total staff in general schools in both Armenia and Moldova, compared with the OECD average of 27 per cent.<sup>124</sup> Wide variations also exist within countries in school and class sizes and in student/staff ratios with big contrasts between urban and rural areas.

In the focus-group countries (except Moldova), in contrast to many other countries in the region, class sizes did not tend to be smaller than optimum – quite the reverse. Based on reports from teachers and students, class size ranges from 21 to 40 in Azerbaijan, 30 to 35 in Tajikistan and 30 to 43 in Albania. In some schools, class sizes easily reach the 60 to 80 range. One class with 120 students was even witnessed in Turkey. Crowding is mainly an outcome of unexpected and extensive migration within the country. For example, when many rural families in Albania moved to the outskirts of the capital, the result was major crowding in

schools surrounding the city. Similarly, the most crowded schools in Turkey are those with huge migrant populations in poor neighbourhoods surrounding big cities, such as Istanbul and Diyarbakir. Classroom crowding is minimized as an issue in many locations by the two-shift system with one group of students attending morning classes and the other afternoon classes. Some countries, such as Tajikistan, even use three shifts in very crowded areas, which has a major negative impact on the quality of education.<sup>125</sup>

### Box 5.2: Relationship between class size and student/teacher ratio

Average class size (the number of students per class) reflects (a) the student/teacher ratio (the number of students per teacher, both ideally expressed as full-time equivalents); (b) the number of classes or students for which a teacher is responsible; (c) the instruction time of students, compared with the length of teacher working days; and (d) the proportion of their time teachers spend teaching.

Thus in a school with 48 full-time students and 8 full-time teachers, the student/teacher ratio is 6. If teachers spend 10 hours of their 35-hour working week teaching and if instruction time per student is 40 hours per week, then:

$$\begin{aligned} \text{Average class size} &= \text{student/teacher ratio} \times (\text{instruction time per student} \div \text{teaching time per teacher}) \\ &= 6 \times (40 \div 10) = 24. \end{aligned}$$

Alternatively:

$$\text{Student/teacher ratio} = \text{average class size} \div (\text{instruction time per student} \div \text{teaching time per teacher}).$$

Source: OECD, 2005b: Box D2.1.

## Decentralization and Sources of Finance

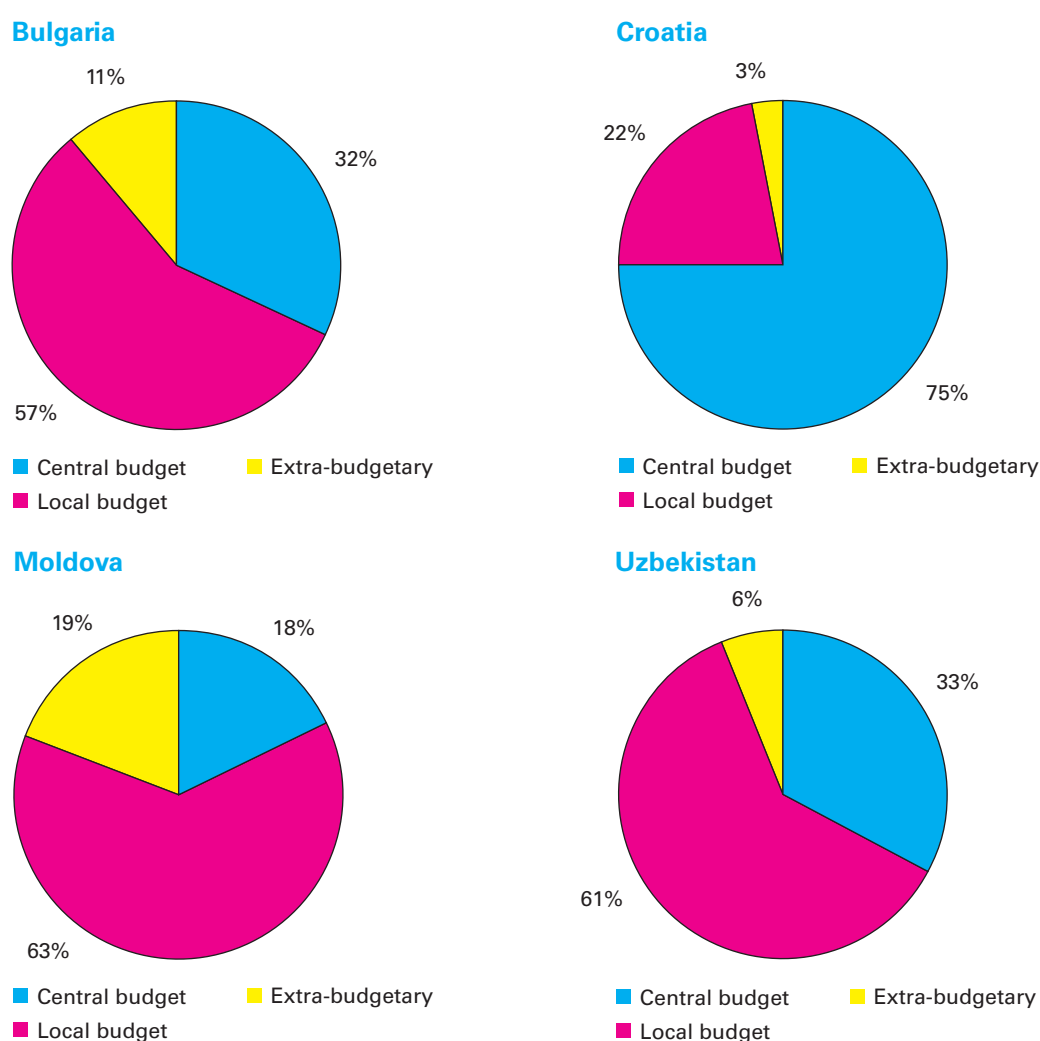
Decentralization of education systems has been proceeding as part of a general process of fiscal decentralization. This process has flaws. Three principles of sound and efficient fiscal decentralization have recently been identified: (1) clarity, transparency, stability and well-defined roles for central and sub-national governments; (2) a measure of autonomy for sub-national governments on the expenditure and revenue side; and (3) political accountability and administrative/technical capacity.<sup>126</sup> Many transition countries fall down on each of these principles. Most fail to achieve complete clarity of roles; expenditure autonomy at the sub-national level is limited and revenue autonomy is a distant dream (only in the Czech Republic and the Russian Federation, of the countries for which data are available, do such governments raise more than 40 per cent of their revenue); and while local elections are often held, they seldom are at the intermediate, regional level. Strengthening the budget process and institutions for fiscal management at the sub-national level remains a key challenge.

Some countries (such as Croatia in figure 5.13) still finance their public education systems predominantly from the central budget while others (such as Bulgaria, Moldova and Uzbekistan) have devolved a large part of such funding to local budgets, though mainly through transfers of revenue from the centre. The extent to which extra-budgetary funding is used also varies widely between countries, from 3 per cent in Croatia to 19 per cent in Moldova. Most of the extra-budgetary finance shown in figure 5.13 consists of fees paid by higher-education students; contributions from parents and communities to lower level institutions are largely unofficial and uncounted. Although commercialization and privatization of education are proceeding, pre-university institutions in the region are still financed overwhelmingly from public sources.

The Czech Republic, Hungary, Poland and Slovakia all exceed the OECD averages of 93 per cent public finance for primary, secondary and post-secondary non-tertiary education, and 82 per cent for pre-primary. In less prosperous countries also, households devote only small proportions of their budgets to education – for instance 1.1 per cent in Azerbaijan and 0.9 per cent in Moldova in 2003 – but with significant differences between richer and poorer and between urban and rural areas. In Azerbaijan's cities, families in the richest quintile spend more than 10 times as much as those in the poorest. Throughout the region, low expenditures on education by the poorest families reflect their tendency to drop out of the system at a relatively early stage.

The fairly limited extent of fiscal decentralization is not necessarily a bad thing from the point of view of promoting equity. As emphasized at the beginning of the chapter, in order to achieve remotely equal educational outcomes, schools in low-income areas, which tend to include a disproportionate number of disadvantaged families, would need to be provided with a much richer teaching and learning environment. Logically, this financing must be provided centrally because only central governments have the capacity to pool revenues to the extent necessary to achieve comparable educational outcomes across rich and poor areas.

**Figure 5.13: Sources of funds for public education, selected countries, latest available year**



Note: Years vary between 2003 and 2004.

Sources: Armenia: Ministry of Finance, 2003; Bulgaria, Croatia and Moldova: Ministries of finance, 2006; Uzbekistan: World Bank, 2005f.

### Box 5.3: Turkey's privatized education system

Turkey differs from other countries in the region and indeed from most other countries in the world in the extent to which it relies on private finance for its education system. While public expenditure on education amounts to only 4.3 per cent of GDP, total expenditure represents 7 per cent of GDP. Private sources account for 36 per cent of current educational spending, a figure only exceeded by the Republic of Korea (41 per cent), and much more than in France (6.2 per cent), the United Kingdom (13 per cent) and the United States of America (18 per cent).

Of these private expenditures, 35 per cent goes to universities (mainly private ones), 32 per cent to public primary and 15 per cent to public general secondary schools, 12 per cent to private examination preparation courses (aimed at university entrance), 3 per cent to public vocational/technical secondary schools and 1 per cent to pre-primary schools. The limited places in public universities are largely awarded to students who take the examination preparation courses – 61 per cent of families in the top income quartile report they pay for such courses, compared with 10 per cent of those in the bottom quartile.

*Source: World Bank, 2005a.*

### Medium-Term Expenditure Frameworks

Many countries in the region have national plans for education, often associated with poverty reduction strategies or with Education for All programmes.<sup>127</sup> These are increasingly linked to rolling Medium-Term Expenditure Frameworks, which include integrated macroeconomic and fiscal targets, and projections and budget estimates for individual spending agencies based on expected activities and outputs. They provide costed frameworks within which trade-offs between alternative targets can be analysed. MTEFs have been promoted widely in developing countries by the World Bank and other development agencies, but they are also used by a number of EU governments (for example the Netherlands and the United Kingdom). Within the region, they vary in quality.

In some cases, there are few signs of a rigorous review of ministry of education spending plans. In others, they are firmly based on demographic projections and analysis of inefficiency. For example, Armenia's 2003-2005 MTEF built in detailed, demographically based targets by level and type of education for class size, student/teacher ratio, student/non-teacher ratio and average salaries for different types of staff. Expenditures were projected by detailed category and the sources of finance (state budget, tuition fees and other services) were specified for each level and type of institution. As a result, increases in teacher wages, additional capital expenditure, provision of textbooks and equipment, and heating improvements were not just included in 'wish-lists' but were tested and found to be financially feasible.



### Box 5.4: The MTEF as a tool for policy makers: Moldova

The Medium-Term Expenditure Framework can be a useful tool for educational policy makers as demonstrated in a recent exercise in Moldova. The MTEF projected a 23 per cent increase in public expenditure on education between 2004 and 2007. The exercise assumed that (1) the population would fall over the period by 10 per cent in the preschool age group, 14 per cent in the general-school and 9 per cent in the secondary-vocational age groups, and would rise by only 9 per cent in the higher-education age group; (2) national targets for increases in preschool, primary and secondary enrolment rates would be hit; (3) student/teacher ratios would remain unchanged but student/non-teacher ratios would increase; and (4) the number of secondary schools would be reduced by mergers.

Based on these assumptions, the financial situation for 2004-2007 looked extremely tight. At pre-university levels in non-personnel current expenditure, a reduction in the proportion spent on heating, stipends and hostels would allow a real increase in quality-boosting expenditure per student on books and other teaching materials, teacher training, and so forth. But only preschools and secondary vocational schools could expect teacher salary increases above the rate of inflation (and still way below the 50 per cent increase in nominal average national salary projected by the MTEF). The budgetary position of higher education looked particularly tight, suggesting a need to increase non-budgetary funding at this level. The high costs of vocational schools also raised questions about their future role.

*Source: World Bank, 2005b.*

## Formula Funding and Autonomous Schools

One way of alleviating a crisis in public finance of education while potentially increasing quality is to make schools autonomous. This gives school directors flexibility in the planning and use of budgets and school bank accounts, provides a managerial role to school boards and councils (which include parents), and allows communities to be fully involved in school affairs. This is usually combined with a formula funding system, broadly based on the principle of 'money follows the student'.<sup>128</sup> The formula-funded autonomous-school model in its most extreme form amounts to the creation of a 'quasi-market' for schools in which parents have choice of school, subject to a place being available and the child meeting the admission criteria, and schools compete for students and hence for public funding. Examples of countries or sub-national regions that have adopted some aspects of the model are shown in table 5.2.

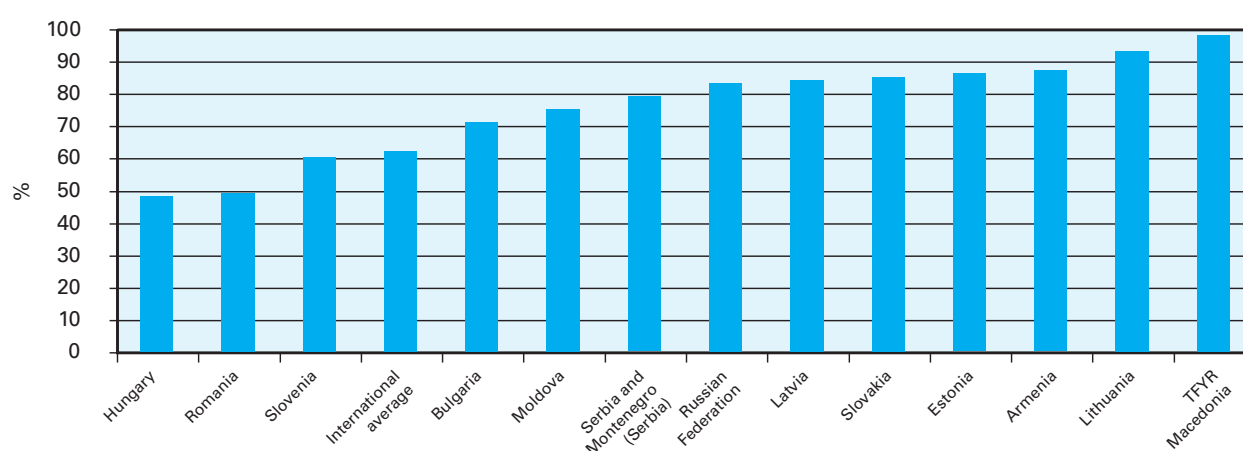
**Table 5.2: 'Money follows the student': Formula funding systems in selected countries**

Country	Coverage	Formula	Comments
Armenia	Current school expenses	Each school receives a standard amount plus an allocation depending on the number of students, modified by a coefficient reflecting location (highest for those in high mountainous areas, lowest for those in non-mountainous areas).	Implemented on a pilot basis in 300 general schools, granted a new autonomous legal status and receiving per-pupil funding on a lump-sum basis.
Czech Republic	Salaries of teaching and non-teaching staff	Fund for wages depends on the number of teaching and non-teaching staff deemed efficient given the number of students.	Directors (of basic state schools and kindergartens) can distribute wage fund as they choose, either employing the maximum number at a low average wage or reducing the number and increasing wages.
Georgia	Current school expenses	Allocation from the central budget depends on the number of students, modified by a coefficient based on location (highest for those in highlands, lowest for those in a city). Small schools can receive an extra amount per pupil from the central budget, and extra educational and teaching services and special educational curricula can be financed locally.	For primary, basic and general secondary schools. Each school has a local self-management body.
Lithuania	Teacher salaries and personnel costs, textbooks, teaching materials, in-service teacher training	Allocation ('student's basket') per year for each type of student (by level/location) depends on base teacher salary cost per student, modified by coefficients reflecting class size, number of lessons, norms for teaching input per class, in-service teacher training, replacement and social insurance costs, textbooks and teaching materials. Higher coefficients apply to special categories of students (migrants, ethnic minorities or those with special needs) and schools.	Applies to primary, basic and secondary schools, gymnasiums, general education schools for adults, adult education centres, vocational schools that include general education, special boarding schools, centres and classes, and (from 2006) preschools, whether public or private. Directors do not have complete flexibility in use of allocations.
Moldova	Current expenses except school meals and examinations	Amount transferred from state budget to local governments and thence to schools depends on number of students and level/type of school.	For preschools, general schools, extra-curricular institutions, orphanages, general and special-needs boarding gymnasias. Schools are not yet autonomous. Amount that director must spend on salaries is determined by the number of classes. Responsibility for managing funds lies with local authority.
Russian Federation (Chuvash Republic)	Expenditure for teaching and maintenance	Allocation for teaching depends on total number of students; number receiving special or remedial education; home education for children with health problems, enhanced education in special subjects or 'family education'; number of external students; size, type and location of school. Allocation for maintenance depends on number of students and size of school.	For primary schools, basic schools (including those for students with special needs) and secondary schools. School directors can use extra-budgetary funds as they want and have a lot of flexibility in use of budgetary funds.
Russian Federation (Samara Oblast)	Salaries, operational expenses, minor repairs and (for vocational schools) stipends for students	Allocation depends on number of pupils, location of school and number of complete classes (of 25 students in a town and 15 in a village).	For preschools and general and initial vocational schools. School directors draw up budgets, can redistribute expenditures between line items and can use non-budget funds for any purpose including bonuses to teachers.
Russian Federation (Yaroslavl Oblast)	Salaries and current expenses	Allocation depends on number of students, modified by coefficients for low-enrolment rural schools, provision of advanced educational programmes (in lycées, gymnasias), provision of preschool programmes, adult evening classes and remedial programmes for disabled students.	For general schools at all levels. All schools are legal entities, receiving regional funds in the form of block grants, for which school directors are responsible.

Sources: Armenia: Centre for Education Planning, 2003; Czech Republic, Russian Federation: World Bank, 2004b; Georgia: Ministry of Education and Science, 2006; Lithuania: World Bank, 2004; Moldova: World Bank, 2006.

Parent involvement seems to be relatively high at least in countries in the TIMSS sample, to judge by the data on school expectations that they should serve on school committees (for example to select school staff and review school finances), shown in figure 5.14. For all except Hungary, Romania and Slovenia, these percentages are higher than the international average and higher than in Italy, the Netherlands and Sweden. Central Asian countries may be lagging, however; the progress report on Tajikistan's poverty reduction strategy, for instance, notes that parent-teacher associations have expanded their role in school management but "their coverage is limited to a number of pilot projects supported by the World Bank, Asian Development Bank, Open Society Institute, UNICEF and Care International."<sup>129</sup>

**Figure 5.14: Per cent of 8th grade mathematics students whose schools reported that they expect parents to serve on school committees, 2003**



Source: Mullis et al., 2004.

International experience with the formula-funded-autonomous-school model (in Australia, Canada, England and Wales, New Zealand and the United States as well as the cases in table 5.2 above) highlights the danger of expecting a simple new financing system to solve all the problems facing an education sector.<sup>130</sup> For example, competition between autonomous schools will not on its own improve quality; it has to be supported by building national systems for curriculum, testing and publication of each school's examination results (showing value added not just final results) and of regular school inspector reports (chapter 2 above). And if such competition is not to worsen deterioration in equity of access and outcomes, it has to be modified by allocation formulae that favour recruiting and paying special attention to students with physical, intellectual or socio-economic difficulties. Otherwise, the system creates pressure to exclude students who find learning difficult. In Lithuania, for instance, the coefficient for a migrant or integrated special-needs student or one from an ethnic minority in grades 5 to 8 in a rural school with small class sizes is more than double the coefficient for a student without these characteristics in the same grades in an urban school. Adjustments to coefficients for these and otherwise disadvantaged students can be backed up, if necessary, by subsidies for school attendance in these cases and by interventions in poorer communities.

However, the hope is that a carefully designed, fully functioning, formula-funding system of this kind, which allocates lump sums to autonomous schools that as far as possible compete with each other for students, would have a positive effect on quality. The role of a ministry of education would be to provide a strong framework of quality control, accreditation, core curriculum content, and so on. Autonomous schools would have an incentive to become more efficient, moving towards optimal class sizes and student/teacher ratios, and be able to increase both teacher salaries and non-salary expenditure in the interest of improved quality.

## Redefining the Basic Package, Increasing Efficiency and Improving Equity

This chapter opened with a number of questions about the 'basic package' of educational services that a state should be expected to provide free of charge to its residents. Countries all over the world are facing these questions and answering them in different ways. They are particularly difficult for countries in the region, which in the past set ambitious standards for provision of free education (whatever is now felt about its quality) at all levels and in all geographical areas, with generous provision of extra services and allowances. In times of fiscal crisis, these standards are being eroded but often in a surreptitious rather than an open way. For instance, some countries retain free higher education as a right in their constitutions but actually charge fees to some categories of students in public institutions. Similarly, primary education is supposed to be free but actually payments are expected from parents. It would obviously be better for everyone if the package could be explicit and transparent, even if smaller than before.

Children's right to free, mandatory education (the length of which is gradually being extended) is unquestioned. However, finance ministries around the region are looking at the scope for economies at either end of the mandatory period. For example, one issue is how much the state should be expected to subsidize preschools, which take a large share of education budgets in several countries (figure 5.3). A distinction should be made here between different stages of preschooling. A report on Moldova a few years ago recommended full cost recovery for preschool children between the ages of one and five but a free pre-primary year for six-year-olds.<sup>131</sup> However, the equity implications of this recommendation have to be taken into account. Early childhood development is particularly important to the future academic achievement of children from disadvantaged families; continued subsidy for younger children from such families would be justified on these grounds. A free pre-primary year for all can be justified on the grounds that this is equivalent to redefining the period of free mandatory education.

At the other end of the mandatory education period, the financing of higher education is particularly anomalous. While the fiction of free higher education is often maintained, many countries operate a 'dual-track' system, providing fee-free education for regularly admitted state-supported students while adding a fee-paying track for those who fail to gain such admission.<sup>132</sup> Stipends or other types of financial aid (amounting to as much as a quarter of total public education expenditure in some countries) are largely confined to the state-supported students. Institutions have also imposed and increased user charges for formerly heavily subsidized board and residence facilities, which are borne by students or their parents. The dual-track system means that higher education institutions have two classes of students: those whose instructional expenses are nominal and those who pay fees equivalent to several thousand dollars.

The anomaly associated with the dual-track system is that it tends to penalize students from disadvantaged families. Those who obtain fee-free, state-subsidized places are disproportionately from privileged backgrounds (which have contributed to their academic success); poorer students who are less successful in examinations and cannot afford the alternative fee-paying track are excluded from higher education. The influence of social class on access to higher education may be even stronger in Central and Eastern Europe than in other industrialized countries. In Hungary and Poland, for instance, a 25- to 30-year-old in 1998 whose father had a professional occupation was 4 times as likely to have gained access to higher education as a comparable child of a manual worker. By comparison, in the United States of America the ratio between the chances of the two categories was only 2 and in Finland less than 1.5.<sup>133</sup>

An alternative, more equitable package for higher education financing is worth exploring along the following lines:

- > All students at public higher education institutions would pay fees at a level to be specified for each subject by the institutions.
- > In place of existing stipends and fee remissions, grants (to cover fees and living expenses fully or partially) would be made available by the state agency responsible for social assistance only to adequately qualified students from disadvantaged backgrounds. Higher education institutions would still be able to use their own money to give some merit-based scholarships but they would not get allocations for this purpose.
- > Higher education students would be eligible for loans to cover the cost of their studies, repayable over a long period on an income-contingent basis.

Implementation of such a package is perhaps the only way in which countries in the region can avoid an emerging contradiction between quantity and quality at this level. The trend towards mass higher education (figure 3.7 above) cannot be combined with the necessary improvement in quality unless the amount of money available to institutions increases. At the same time, government budgets are severely constrained and it is difficult to justify an increase in public allocations to higher education that yields high private rates of return to people who are disproportionately from privileged backgrounds. Implementation of this package would also allow a diversion of public expenditure to a much-needed improvement in access, equity and quality at lower levels of education.

At the same time, resources could be released for these purposes by increases in efficiency in primary and secondary education along the following lines:

- > As the school-age population continues to fall in many countries (figure 1.8 above), the need for rationalization of school networks becomes more urgent with the main focus on schools and classes that are below optimum size. Political realities have to be faced, however. It is highly unlikely given the importance of the village school to the community that any government would decide to close small schools in villages. A gentle bottom-up rather than top-down approach could be taken to this issue. The potential benefits to be gained from improving efficiency and school quality could be discussed with parents and communities.

A model that could be explored in such consultations is to retain preschools and primary schools (with multigrade teaching) in these villages, where possible sharing a building, and to optimize at the secondary level, including the secondary classes shifted from these small villages. School mapping is a useful aid to planning and to clarity in discussions of this kind. It can be assumed (particularly if school autonomy permits directors to hire and use teachers flexibly) that this would allow an increase in the number of student/full-time equivalent teacher ratios to around OECD levels (16.6 in primary and 13.6 in secondary schools). This would be offset by a need to provide transport for students in grades 5 and higher to the nearest school, involving the hire of vehicles with drivers rather than purchase, and by the cost of training teachers in multigrade teaching methods as well as other restructuring costs. Norms for non-teaching staff, which are often laid down centrally, could also be relaxed in autonomous schools. Various possibilities for at least containing heating costs in the face of rising international energy prices could be explored with help from international donors in the poorer countries.

- > There is a major question throughout the region about the viability of vocational schools in their traditional role of providing ready-to-work recruits with narrowly specialized skills for an economy's enterprises. They would need more money to achieve this objective and even as they are they are usually the most expensive (figure 5.11 above) and least efficient secondary educational institutions. As secondary students increasingly seek routes to higher

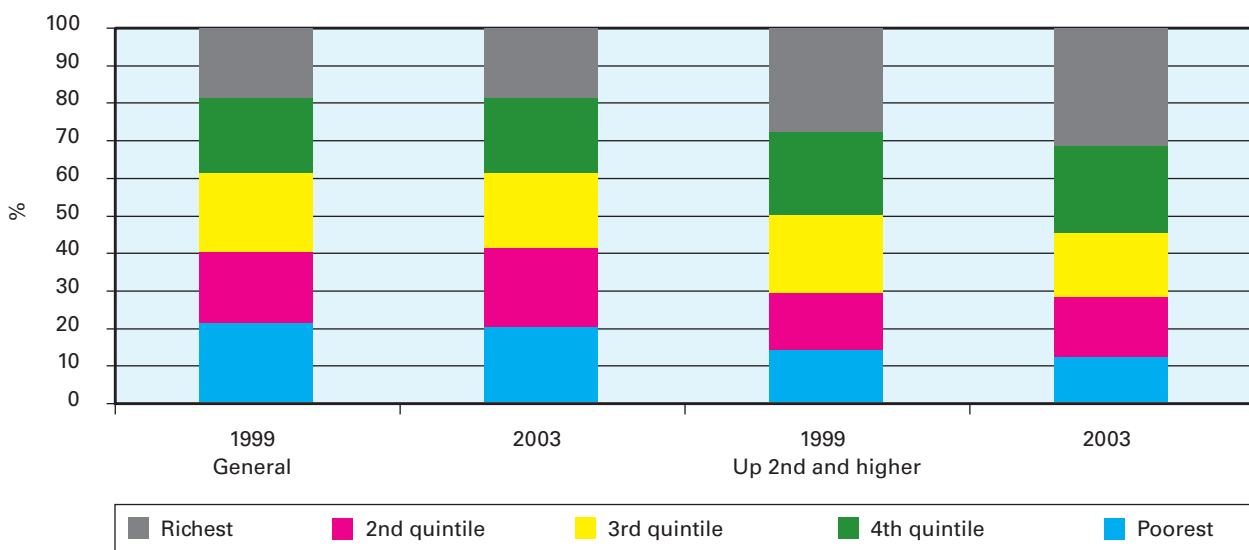
education (figure 3.7 above), enrolment in vocational schools is steadily falling (figure 3.6 above), equipment and curricula are outdated, and there is a shortage of competent technical teachers. Vocational-school leavers tend to do no better in the labour market and often worse than their general school counterparts (chapter 4 above). Re-equipment would be too costly. In the past, also, vocational schools were used as a repository for those who had performed less well on the assumption that such children had reached the limits of their academic absorptive capacity by their early teens. That assumption has been increasingly questioned; the benefits of avoiding premature allocation of students to separate academic and vocational schools are acknowledged, particularly since a sizeable proportion of those classified in this way are students from disadvantaged backgrounds with unrecognized potential. A more promising alternative model is training (wherever possible in-plant and on-the-job, and financed as far as possible by beneficiaries) after completion of a high-quality secondary education.<sup>134</sup>

- > General and special-needs boarding schools are another area that would benefit from a new model that on balance would save public expenditure. In general, as chapters 2 and 3 above emphasize, the educational, developmental and future-employability needs of many of the children in such schools are more likely to be fulfilled by their inclusion in regular schooling systems than by isolating them in separate institutions. Others could be more efficiently served by local day-placement facilities.

### Conclusion: Costs, Financing, Governance and Equity

It seems likely that the increase in inequality in the region (figure 1.4 above) is reinforced by public expenditure on education, which disproportionately benefits richer families who also benefit from their greater capacity to make private contributions to the public education system or to pay fees for private institutions. For instance, in the region’s poorest country (Tajikistan), while the distribution of public spending on general education remained equitable between 1999 and 2003, the benefit incidence of such spending on upper secondary and higher education became increasingly biased in favour of the richest expenditure quintile (figure 5.15). Such a trend reflects a growing contrast in attendance rates at upper secondary and higher education levels between richer and poorer students.

**Figure 5.15: Benefit incidence of public spending on general and upper secondary and higher education, by expenditure quintile, Tajikistan, 1999 and 2003**



Source: World Bank, 2005h: Table 15.

In most countries, public expenditure on preschooling is likely to have a similar benefit incidence since attendance rates for younger children tend to be substantially higher in richer than in poorer families (figure 3.11 above). Cost recovery at these levels along the lines suggested in this chapter, with subsidies targeted on the criterion of need rather than (as in the case of higher education) on academic merit or (as in the case of preschool) effectively on parents' income or education, would be to the benefit of equity. In both cases, however, redirection of subsidies would have to be accompanied by other measures to ensure that those in greatest need are in a position to take advantage of the places available.

More equitable access to preschooling would be reflected in better performance by less advantaged students in primary and secondary schools, and hence in their qualification for higher education. The measures discussed in this chapter to allocate public funding by transparent, performance-related formulae and to decentralize flexible management of such funds to autonomous schools in the interest of improvements in efficiency and quality would need as already emphasized to build in incentives for schools to recruit and nurture students with various kinds of disadvantage. Care would also need to be taken in programmes to rationalize school networks (i.e. to merge some secondary schools and to move some lower secondary classes from smaller to larger schools) as school-age populations fall, and to establish and maintain a safe and reliable school bus system.

In general, the 'demographic dividend' throughout most of the region provides an opportunity to reallocate resources towards improving access to and quality of education, but special efforts will be needed to ensure that such reallocation reduces rather than reinforces inequality and poverty.

It remains now to pull together the issues arising from each chapter into a comprehensive discussion of policy options to achieve Education for All in the region. This is the task of the next and final chapter.



# CHAPTER 6



## CHAPTER 6: CONCLUSIONS AND POLICY RECOMMENDATIONS

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**EDUCATION FOR SOME MORE THAN OTHERS?**

A REGIONAL STUDY ON EDUCATION IN CENTRAL AND EASTERN EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## CHAPTER 6: CONCLUSIONS AND POLICY RECOMMENDATIONS

### Conclusions

The range of economies and societies in the region is extraordinary: from the Russian Federation with almost 30 million children and the world's biggest land area to small countries, like Estonia, Latvia and Slovenia, with less than half a million children each. Most relevant from the point of view of education is the divide between the more and the less prosperous countries. At one end of the spectrum are the Central and Eastern European countries and the Baltic States that joined the European Union in May 2004 – the so-called EU8. At the other are the countries that are still beset by substantial economic problems in spite of the recovery shared by all in the past few years.

Five countries in particular recur towards the bottom of ranking lists based on economic indicators. Armenia, Georgia, Kyrgyzstan, Moldova and Tajikistan are among those with the lowest GDP levels per head (figure 1.3), the highest income poverty rates (figure 1.6) and the greatest fiscal difficulties. It is not surprising that three of these countries are the only ones in the region judged to be unlikely to achieve MDG 2 by 2015. Nor is it surprising that all five are among the eight countries in the region with upper secondary enrolment rates of less than 50 per cent and four of them are among the eight with preschool enrolment rates of less than 30 per cent (chapter 3). The countries with the highest poverty rates are also those with the highest proportion of people unable to afford the private costs of sending their children to school and keeping them there, which include the loss of their labour crucial to the survival of low-income families (figure 1.12).

Since almost all countries in the region are still at the stage where learning outcomes are closely associated with the level of public educational expenditure per head (figure 4.4), budget deprivation is undoubtedly affecting the average quality as well as quantity of schooling. Attempts at educational reform in the poorer countries (chapter 2) are hampered by the inadequacy of central funding with the burden being passed to local communities (chapter 5). Finance is not available for improving physical conditions in schools, reshaping pre-service teacher training or modernizing teaching equipment and materials. Above all, teachers are not paid a living wage, the profession is ageing and those remaining in it have to take on more than one job or find other ways of financing their livelihood. The consequent slow spread of active learning approaches in schools contributes to the relatively poor performance of the region's students in tests that measure the ability to use skills in real-life situations – an ability that will be crucial to longer-term economic prospects.

As far as inequities within countries are concerned, Armenia, Georgia and Moldova are the three (of those for which data are available) with the least equal distribution of income but this is a problem that affects the more prosperous economies as well as the less prosperous (figure 1.4). Since income inequality feeds educational inequality, this is also reflected in the pattern of enrolment rates by household consumption level. While Moldova and Tajikistan are in the top half of the ranking by the gap in enrolment rates in the basic-education age group between the richest and the poorest families, so are Bulgaria and Romania (figure 3.12). The same pattern holds for the secondary-school age group: Armenia, Georgia, Moldova and Tajikistan all have larger than median gaps, but so again do Bulgaria and Romania, and even Estonia and Latvia do not show up well on this measure (figure 3.13).

Within each country, 'Education for Some More than Others' usually prevails. Families with higher incomes tend to gain disproportionate access to preschooling (figure 3.11); ensure that their children's basic education is relatively well funded, by themselves if necessary; provide a home environment that reinforces their learning advantages and performance in examinations (figure 4.6); steer their children into secondary schools, typically the better ones, general rather than vocational, and private



if necessary (figure 3.13); and hire good private tutors (table 5.1). All of this supports their ultimate objective of the higher-education qualification that makes it easier to get a relatively well-paid job (figures 4.8 and 4.9).

At the other end of the spectrum, as the focus-group discussions confirmed, the poorer families do not expect their children to reap the benefits of education in terms of access, learning outcomes and jobs that are available to the better-off. They are also less able to afford the hidden private costs of schooling, including the loss of their children's labour (chapter 4). Income disadvantages are compounded by ethnicity, most spectacularly in the case of the Roma; disability and/or the need for special education with separate provision still favoured by many families and societies; gender in some countries, particularly Tajikistan and Turkey; and location with rural areas relatively neglected, especially at secondary level.

Unfortunately, public expenditure tends to reinforce educational inequality rather than offset it. Many countries spend a relatively large proportion of their education budget on preschooling with a high level of public expenditure per student but on the whole the beneficiaries of this expenditure are not those who need it most – children from disadvantaged backgrounds – but those who need it least. Similarly, at upper secondary and higher education levels, the benefit incidence of public expenditure tends to be biased in favour of the richest 20 per cent of the population (table 5.15). And while countries in the region for which data are available allocate additional resources to a relatively high proportion of primary-school children classified as disabled (figure 5.5), they make few additional allocations to children classified as socially disadvantaged (figure 5.7).

The fall in school-age population throughout the region (figure 1.8) draws attention to inefficiencies within education systems, a symptom of which is declining student/teacher and student/non-teacher ratios and class sizes below optimum levels. However, in some countries, particularly those in Central Asia and Turkey, such ratios and class sizes are still quite high, and wide variations exist within countries.

## Policy Recommendations

The details of policy will vary from country to country of course; there is no 'one-size-fits-all' prescription. In general, however, the Twelve Steps of the 1998 report (table 1.1) are still on the agenda. Chapters 1 to 5 reported mixed progress in their implementation so far. The picture can be summarized as follows:

1. In some countries, teaching methods have become more diverse using Active Learning and Step by Step methods, but focus-group discussions found that such interactive methods had not penetrated many classrooms in those countries.
2. There has been a worrying rise in tracking and streaming by ability, and selective admission to prestigious schools.
3. Most countries now have a mechanism for external assessment of learner achievement (table 2.1) but focus-group discussions raised doubts about the extent of effective implementation of new systems.
4. Extra-curricular activities remain scarce and under-resourced with parents lacking time, interest and resources to become involved, and teachers diverted to finding ways to supplement their salaries.
5. In several countries, the introduction of school boards has improved links with the community and parents do contribute in practical ways (figure 5.14), but in poorer communities such involvement is less extensive.

6. The aims of eliminating child labour and promoting education for all have yet to be fully integrated, although programmes of conditional cash transfer are promising.
7. Access to and quality of education for children from low-income families are damaged by the dis-equalizing forces at work in society and education systems described above.
8. Separate forms of education provision for children with disabilities remain the rule in the absence of adequate rights-based legislation, training, awareness campaigns and linking of inclusive education to general education reform.
9. Attention is being paid to the needs of ethnic minorities, particularly the Roma, but with little evidence of substantial impact, qualitative or quantitative.
10. Early childhood education has experienced the most innovative and influential changes in teaching and learning methods, but it is not reaching most of the children who really need it.
11. A working balance in school administration between the centre, the local authority and the school has not yet been found, and overloaded and fragmented curricula prevail in the absence of ongoing interaction between top-down government-led reform and grass-roots innovation.
12. Far from providing adequate transfers to local governments with weak resource bases, central governments in fiscally challenged countries are passing the funding burden to local communities.

The best starting point for a discussion of ways to create the conditions for effective implementation of the Twelve Steps, achievement of the Millennium Development Goals and other promising measures is consideration of the resources available. For this purpose, every country needs a Medium-Term Expenditure Framework for the education sector – a costed framework that permits analysis of trade-offs between alternative targets. In its absence, education planning is reduced to drawing up ‘wish lists’ in which everything is a priority.

The most important figure in an MTEF may be the total amount available for education from both public and private sources – the ‘envelope’ within which education planners must work. A case could be made, convincing even to hard-nosed economists, that countries with public education expenditure equivalent to less than 4 per cent of their GDP should probably be spending more. Education ministries in countries where this figure is 6 per cent or less should also resist pressure from finance ministries (on the grounds that school-age populations are falling) to reduce it (figure 5.1). Wherever possible, the ‘demographic dividend’ should be spent on increasing the quality and if necessary the quantity of education, without being diverted to other sectors.

Within an MTEF, the distinction becomes important between policy changes likely to cause an increase in public expenditure and those likely to reduce it. Table 6.1 shows how some of the needed changes are likely to be classified from this point of view. Extra public funding will be needed for many of the changes listed in the first column of the table. These include the following:

- > Increasing pre-primary, basic and secondary education enrolment rates while abolishing fees for mandatory education (redefined to include the pre-primary year) has obvious implications for public expenditure in countries like Kyrgyzstan and Tajikistan where 30 per cent or less of primary school entrants have had preschooling in the previous year (figure 3.2), countries behind schedule for achieving MDG 2 and countries with upper secondary enrolment rates of less than 50 per cent.
- > Most countries need to increase teacher pay but the amount that can be afforded will have to be assessed against competing demands.

- > Integration of special-needs children into regular schools will not work and may even reduce the quality of education they receive unless additional budget is made available to provide special equipment, teachers' assistants, and so forth.
- > More generally, the reforms of curricula, books and materials, learning and assessment, considered in chapter 2 and included in the Twelve Steps, need to be adequately funded and oriented towards children with all kinds of disadvantages (varying in relative importance from country to country but including family background, gender and ethnicity).
- > The use of conditional cash transfers to encourage parents of such children to send them to and keep them in school should be expanded.
- > A shift from reform of in-service training to reform of pre-service teacher training is needed – a measure that is crucial to changing approaches to teaching but has not yet been initiated in many countries, and one that will require changing attitudes in higher education institutions as well as spending money.
- > Renovation and upkeep of school buildings and facilities based on principles of universal access are desperately needed in less prosperous countries and localities, and cannot be left entirely to the community.
- > If school networks are to be rationalized in the interest of efficiency, transport between homes and schools will have to be ensured by hiring rather than buying buses wherever possible.

Fortunately, several of the measures that would help to promote equity and efficiency are also likely to reduce expenditures. These include the following:

- > If subsidies were targeted based on need to children aged one to five and to higher education students along the lines described in chapter 5, this would greatly improve the benefit incidence of public expenditure while freeing resources for many of the measures (listed in the first column of table 6.1) aimed at ensuring the neediest students can take advantage of the subsidized opportunities available to them.
- > Closing expensive, old-fashioned vocational schools in favour of offering a converged curriculum to all in a single type of upper secondary school would help increase the upward mobility of the less advantaged and improve outcomes at lower cost.
- > In some countries and localities where school-age population has dwindled, rationalizing school networks would allow increases in student/teacher and student/non-teacher ratios.<sup>135</sup>
- > Instituting textbook rental schemes for families that can afford them, if carefully developed along the lines described in chapter 2, would be cost effective.
- > Boarding institutions for special-needs children could be closed as more of them are absorbed into regular schools.
- > The role of the private sector and private funding in education systems should also be reassessed. Private institutions that operate without subsidies within national systems of standards and assessment can contribute to the diversity of educational provision while helping to release government resources for those who need them.
- > Educational institutions that raise money from the private sector, parents and the community can fund some of the measures listed in the first column – the role of government in this case being to ensure that less prosperous communities and schools are not allowed to fall behind.
- > Donors will likely be available to fund some of those measures, for instance the renovation of schools in the worst condition, particularly through insulation and improved heating systems which will also help to save money.



**Table 6.1: An MTEF approach to educational policy change**

Increasing public expenditure	Reducing public expenditure
<ul style="list-style-type: none"> <li>&gt; Expand pre-primary, basic and secondary enrolment (to achieve MDG 2);</li> <li>&gt; Increase teacher pay;</li> <li>&gt; Spend more on reform in schools but with bias towards disadvantaged children;</li> <li>&gt; Include as many children with special needs as possible in regular schools;</li> <li>&gt; Reform pre-service teacher training;</li> <li>&gt; Improve physical quality of schools;</li> <li>&gt; Make textbooks free for disadvantaged students;</li> <li>&gt; Abolish fees for mandatory education, including pre-primary year;</li> <li>&gt; Provide conditional cash transfers for school attendance for disadvantaged children (to achieve MDG 3);</li> <li>&gt; Provide transport between home and school where networks have been rationalized.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Change the criterion for subsidies to preschool and higher education from academic merit to need;</li> <li>&gt; Promote convergence of vocational and general education;</li> <li>&gt; Increase student/teacher and (even more so) student/non-teacher ratios;</li> <li>&gt; Organize textbook rental schemes for all except disadvantaged children;</li> <li>&gt; Reduce the number of special-needs children in institutions, closing as many as possible;</li> <li>&gt; Allow a level playing field for private educational institutions but subject them to government supervision of standards;</li> <li>&gt; Raise money from the private sector, the community, donors and others to help fund some of the measures listed in the first column.</li> </ul>

The measures listed in table 6.1 would need to be reinforced by other changes. Some countries need anti-discrimination legislation to prevent exclusion from school of children in certain categories (such as those without birth certificates, non-citizens, refugees, internally displaced persons) so they can enjoy the returns to education currently denied to them by discrimination. The payment of fair and living wages to teachers needs to be accompanied by an active campaign against corruption, including 'gratitude payments' to teachers, unnecessary private tuition and bribes for admission and examination passes. Where the formula-funded autonomous-school model discussed in chapter 5 is being adopted, in the interest of improvements in efficiency and quality, formulae need to reward schools for recruiting and looking after disadvantaged students. In many countries, the capacity to plan, manage, monitor and deliver educational services in support of reform urgently needs to be strengthened at central, sub-national, community and school levels.

Finally, to move from 'Education for Some More than Others' to 'Education for All' requires breaking several vicious circles. The most important is the one that involves lack of access to quality schooling at various levels for children in certain categories. There is a striking similarity in policy prescriptions that address the educational problems of girls in some countries, ethnic minorities in others, and the poor and children with special needs everywhere, very much in the spirit of the European Union's National Action Plans for Social Inclusion, discussed in chapter 1. For example, a recent list of interventions to break the circle that links child labour and absence from school included:<sup>136</sup>

- > Early childhood approaches that develop the rhythm of schooling;
- > Child-friendly schools as safe spaces accountable to the community, using child-centred methods where teachers exercise due care over pupils following a curriculum seen as relevant, and where parents and the community are welcome and involved;
- > Free school meals and regular health and nutrition checks;
- > Abolition of school fees;
- > Targeted and conditional cash grants.

These overlap substantially with policy initiatives recommended for the Roma (chapter 3) and with the Girls' Education Campaign in Turkey (box 3.3). They are examples of the kind of approach needed to reach excluded children of all kinds. What they and the other measures in table 6.1 have in common is recognition of the need to move from a distribution of public expenditure that reinforces inequality to one that counteracts it and of the role of central governments in ensuring this. Only if this happens can Education for All become a reality.

## ANNEX: METHODOLOGY FOR FOCUS GROUPS AND INTERVIEWS

During the summer of 2006, focus groups and in-depth interviews were conducted in five of the countries in the region: Albania, Azerbaijan, Moldova, Tajikistan and Turkey.

In each country, participants in focus groups were:

- > Low-income parents (urban and rural) – 10 to 15 persons per group;
- > Parents of children who are not attending school or have dropped out;
- > Two groups of students (one urban and one rural, grades 7 to 11) – 10 to 15 persons per group.

Respondents in interviews were:

- > Two basic school teachers;
- > A representative from the ministry of education who is familiar with primary-education-related issues and can be open and frank;
- > Other education stakeholders who can bring in alternative perspectives (for example NGO representatives);
- > UNICEF staff familiar with education.

In almost all cases, the focus groups were arranged by NGOs or schools partnering with UNICEF on education projects. The consultant, who undertook the field visits, was the main facilitator during the discussions. He was accompanied by a rapporteur whose responsibility was to take notes and translate them into English. In one case (Azerbaijan), the rapporteur tape-recorded the focus group and interviews. A translator was used during the focus groups and interviews in all countries except Turkey.

At the beginning of each focus group, the purpose of the study was clearly described to the participants and they were asked whether they would like to take part. Issues related to privacy and confidentiality were also discussed, and participants were assured their identities would not be revealed.

An important principle was to avoid having authority figures (people from the ministry of education, principals, teachers) attend the sessions. In most cases this was achieved but in a few instances their presence could not be avoided.

During the focus groups with children, various exercises were conducted to engage them. These were not standard and they changed from group to group. The exercises included:

- > Making lists of issues, likes, dislikes;
- > Sorting cards based on the importance or severity of issues;
- > Using coloured dots to vote on issues;
- > Making drawings and explaining them; for example, things children do on a typical school day when they are not at school. (This methodology was used in Tajikistan where almost all the children in the group were illiterate.)

A commonly used exercise was to ask children to list the prerequisites for a 'good' education. The children then created lists ranging from physical attributes (school buildings that are warm in the winter), to social (supportive friends, no violence), to resource-related (computers, books) to teaching characteristics (good, interested teachers and interesting subjects).

The exercises were not intended to be used as 'real' data but rather as a means to generate interest and rich discussion.

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## NOTES

### Chapter 1

- 1 UNICEF, 1998: vii.
- 2 UNICEF, 1998: 86.
- 3 For a more detailed discussion of methodology, see Annex: Methodology for Focus Groups and Interviews.
- 4 According to the European Academy of Childhood Disabilities, about 10 per cent of children have special educational needs, including 2 to 3 per cent disabled children and about 8 per cent other vulnerable learners (those with behavioural and learning difficulties).
- 5 See UNESCO, 2005, 2006.
- 6 National Action Plans for Social Inclusion are available on the EU NAPs/incl web site: [http://ec.europa.eu/employment\\_social/news/2001/jun/napsincl2001\\_en.html](http://ec.europa.eu/employment_social/news/2001/jun/napsincl2001_en.html) .
- 7 Bulgaria and Romania have since joined the EU.
- 8 See [http://ec.europa.eu/comm/world/enp/policy\\_en.htm](http://ec.europa.eu/comm/world/enp/policy_en.htm) .
- 9 Ronnås and Orlova, 2000.
- 10 Sub-regional categories are based on those used in UNICEF IRC regional monitoring reports since 2004.
- 11 IMF and World Bank, 2004.
- 12 Mitra and Yemtsov, 2006: Figure 2.
- 13 Mitra and Yemtsov, 2006.
- 14 Purchasing power parity rates allow a standard comparison of real price levels between countries, just as conventional price indexes allow comparison of real values over time. The PPP is a rate such that a representative basket of goods in country A costs the same as in country B if the currencies are exchanged at that rate.
- 15 If the higher cut-off point of PPP \$4.30 per day is used, several EU8 countries have poverty rates of more than 10 per cent, including Hungary (12 per cent), Latvia (17 per cent), Lithuania (24 per cent), Estonia (26 per cent) and Poland (27 per cent), while rates in Kyrgyzstan and Tajikistan rise to 96 per cent.
- 16 World Bank, 2005: 2.
- 17 UNICEF, 2005.
- 18 World Bank, 2006.
- 19 The steep fall in 0 to 17 population in Albania between 2000 and 2001 reflects the return of refugees to the UN Administered Province of Kosovo.
- 20 Doyle et al., 2006.
- 21 World Bank, 2005b: 14.
- 22 For information and policy discussion on trafficking of children in South-Eastern Europe, see UNICEF and Terre des Hommes, 2006.
- 23 See [www.ilo.org/public/english/standards/ipecc/protectcee/cloverview.htm](http://www.ilo.org/public/english/standards/ipecc/protectcee/cloverview.htm) .
- 24 ILO, 2006: 58.
- 25 Dakar Framework for Action, 2000: Article 3: [http://www.unesco.org/education/efa/ed\\_for\\_all/framework.shtml](http://www.unesco.org/education/efa/ed_for_all/framework.shtml) .

### Chapter 2

- 26 Phare has been the EU's main aid programme for Central and Eastern Europe now extended to the western part of South-Eastern Europe. Its two key priorities – capacity building and investment financing – have been focused on vocational education and training. Between 2000 and 2006, its average budget was €1.5 billion per year.
- 27 Webber, 2000: 111.
- 28 The Russian Federation's 1992 Law on Education: Article 2.

- 29 Tomaševski, 2006: 8.
- 30 See <http://www.un.org/Overview/rights.html> .
- 31 Tomaševski, 2005: 2.
- 32 See, for example, International Organization for Migration and 'Pulse' Educational Reforms Support Unit Tajikistan, 2004. Children harvest 40 per cent of the cotton in Tajikistan; on average children in cotton-growing areas work between 60 and 90 days per year. They are paid very little; the report concludes that schoolchildren's contribution to the family budget is not significant. See also International Crisis Group, 2005.
- 33 Holmes, 1991: 47.
- 34 Letter to teachers introducing the complex method, 1923. Quoted in Holmes, 1991: 32.
- 35 Uchitel'skaya Gazeta (Teachers' Gazette), 23 December 1997: 1.
- 36 Alexander, 1996.
- 37 The framework approach was pioneered in Romania in 1998 and is now used in other countries in the region. It is most suitable for lower and upper secondary classes where a range of subjects is taught. At primary level, more than 70 per cent of classroom time is spent on reading, writing and basic numeracy, although here too a mix of core and optional curricula can be useful.
- 38 Initial World Bank funding for these centres is now exhausted; their future depends on uptake by NGOs and local authorities.
- 39 In October 2005, UNICEF launched a worldwide campaign, 'Unite for Children – Unite Against AIDS', in support of MDG 6. See [www.unicef.org/uniteforchildren](http://www.unicef.org/uniteforchildren) .
- 40 UNDP, 2004.
- 41 Kyrgyzstan had a rental scheme until recently (2006) but is now reviewing the policy. Tajikistan is considering the introduction of a rental scheme but thus far faces practical as well as political problems.
- 42 The funds needed for the initial textbook stock are often provided by international donor agencies, for example the World Bank, but after the initial investment, rental schemes are expected to be fully self-supporting.
- 43 For example, a rough estimate in 2002 found that 12 million books were in use in Azerbaijan in grades 1 to 11, not including minority-language books. Introducing a rental scheme would therefore require substantial initial production as well as capital.
- 44 Teachers sometimes informally overcome this problem by swapping books with other teachers or even other schools. However, this complicates record-keeping because not all books cost the same.
- 45 Value-added measures indicate the advantage in terms of educational achievement that students have gained by virtue of having been educated at a particular school. (If the students have been disadvantaged because they attended a particular school, the value-added measure will be negative.) School league tables can then be constructed on the basis of value-added scores. However, this simple model is conceptually flawed because it assumes that the only factor influencing a student's outcome is achievement on entry. Contextual value-added measures are more accurate in that they move away from the single-factor model to one where the context in which a particular school operates is taken into account. This means looking at not only the prior achievement of students in a school but also student characteristics (such as socio-economic factors, gender, etc.) and school characteristics (such as size, urban-rural location, social environment, etc.).
- 46 These are often referred to as 'national assessments' to distinguish them from national examinations.
- 47 International Step by Step Association: [www.issa.nl/philosophy.html](http://www.issa.nl/philosophy.html) .
- 48 For example, the UNESCO Salamanca Statement: <http://www.unesco.org/education/pdf/>

SALAMA\_E.PDF .

- 49 Rouse et al., 2000.  
 50 Csányi, 2006.  
 51 Johanson, 2000: 117.  
 52 European Training Foundation, 2003: 86.  
 53 World Bank, 2005: xxi.  
 54 Mertaugh and Hanushek, 2005.  
 55 World Bank, forthcoming.  
 56 The euphemism 'user fees' is part of this vocabulary, even in public primary schools.  
 57 Unfortunately, the 'progressive' principle provides an excuse to postpone full implementation of the right to education. Human rights treaties since 1948 have consistently stated that free, compulsory primary education is a basic right not subject to considerations of time or place; the global Education for All strategy (including Education for All and now the Millennium Development Goals) is much less specific and aims for implementation 'by 2015'.

### Chapter 3

- 58 World Bank, 2005a.  
 59 World Bank, 2005b: Table 4.  
 60 World Bank, 2005d.  
 61 From UNESCO, 2006: Table 5, with the addition of rough estimates for Bosnia and Herzegovina, Serbia and Montenegro, Slovakia, Turkmenistan and Uzbekistan.  
 62 UNESCO, 2006: Table 8. No figures are available for Bosnia and Herzegovina, Serbia and Montenegro and Turkmenistan.  
 63 Sultana, 2006: 14.  
 64 From UNESCO, 2006: Table 8, with the addition of rough estimates for Bosnia and Herzegovina, Kyrgyzstan, Serbia and Montenegro, Turkmenistan and Uzbekistan.  
 65 These data are likely to be incomplete. Countries may report zero private institutions in the absence of survey information.  
 66 Post-secondary non-tertiary institutions offer post-secondary programmes that do not lead to a university degree or equivalent.  
 67 World Bank, 2005d.  
 68 World Bank, 2005b: Table 3.  
 69 Ringold et al., 2005: 193-197.  
 70 UNICEF, 2005a: 2.  
 71 OECD, 2006. The UN Administered Province of Kosovo was also part of the study.

### Chapter 4

- 72 Goldstein argues that without longitudinal performance data on the same sample of students, it is impossible to make inferences about the effects of educational systems per se that can be distinguished from the influences of social background, economic circumstances and cultural context. (Goldstein, 2004)  
 73 Many children with disabilities are unable to participate in large-scale comparative achievement tests.  
 74 Mullis et al., 2003.  
 75 OECD, 2002, 2004, 2004a, 2005a; OECD and UNESCO Institute for Statistics, 2003.  
 76 Martin, 2005; Martin et al., 2000; Mullis et al., 2000, 2004, 2004a.  
 77 UNICEF, 2002.



- 78 For brevity, in the rest of this section ‘OECD countries’ will refer to OECD countries other than those in the CEE/CIS region.
- 79 OECD, 2004: 60.
- 80 See also UNICEF, 2006.
- 81 Brown and Micklewright, 2004: 14-23.
- 82 OECD, 2004: 255-260.
- 83 OECD, 2004: 440.
- 84 PISA Level 2 for reading represents a baseline level of proficiency. It signifies that students are capable of basic reading tasks, such as locating straightforward information, making low level inferences of various types, deciding what a well-defined part of the text means and using some outside knowledge to understand it.
- 85 At Level 2 in mathematics, students can interpret and recognize situations in contexts that require no more than direct inference. They can extract relevant information from a single source and make use of a single representational mode. Students at this level can employ basic algorithms, formulae, procedures or conventions. They are capable of direct reasoning and of making literal interpretations of the results.
- 86 OECD and UNESCO Institute for Statistics, 2003: 148.
- 87 OECD, 2004a: 109.
- 88 OECD, 2005a: 397.
- 89 Sange Research Centre, 2005.
- 90 Centre for Public Opinion Studies and Forecasts, 2001: 24.
- 91 Centre of Public Opinion Study ‘El Pikir’, 2006: 10.
- 92 Ministry of Education, Republic of Tajikistan, 2005.
- 93 The factor endowment of an economy depends on the quantity and quality of its labour, land and capital. Improvement in the quality of labour shifts its comparative advantage in the way described above.
- 94 Pritchett, 2001: 368.
- 95 ILO, 2006a: Table 2.5.
- 96 UNICEF, 2000: 82.
- 97 In this section, ‘rate of return’ is defined as the percentage impact on wages or earnings of an extra year of education controlling for other characteristics of workers without regard to cost. ‘Internal rate of return’ takes cost into account and is defined as the discount rate at which the present value of the stream of benefits is equal to the present value of the stream of costs.
- 98 Gorodnichenko and Sabirianova Peter, 2005.
- 99 Newell and Reilly, 1999.
- 100 Pastore and Verashchagina, 2004.
- 101 Newell and Socha, 2005.
- 102 World Bank, forthcoming: Figure 12.
- 103 Papps and Burton, 2003: Table 3.
- 104 Tansel, 2004: 144.
- 105 It is not suggested that family decision-makers actually make these calculations, merely that they take these factors into account in reaching decisions.
- 106 In a Tajikistan survey of 1,503 parents from 5 regions, only 48 per cent of parents agreed with the statement, “Payment for education is a good investment of money.” The remaining 52 per cent disagreed with this statement. (Ministry of Education, Republic of Tajikistan, 2002)
- 107 The 2002 survey of parents in Tajikistan explored family education costs. The results indicated that textbooks were the biggest cost item (51.3 per cent), followed by uniforms and clothing (25.9 per cent), miscellaneous expenses (10.4 per cent), payments to school (10.3 per cent) and transportation (2.1 per cent). (Ministry of Education, Republic of Tajikistan, 2002)

- 108 Of the parents surveyed in 2002 in Tajikistan, 57 per cent said that education is more important for boys than for girls. (Ministry of Education, Republic of Tajikistan, 2002)
- 109 World Bank, 2005b: Table 3.
- 110 From a presentation by David Hargreaves to the OECD Centre for Educational Research and Innovation Board, 24 March 2000. Quoted in World Bank, 2005e: 17.
- 111 Mertaugh and Hanushek, 2005.
- 112 World Bank, 2005e, forthcoming.

## Chapter 5

- 113 World Bank, 2005e: 9.
- 114 World Bank, forthcoming: Table 4.
- 115 World Bank, 2006b: Table III.4.
- 116 World Bank, 2006a: Table 3.
- 117 This approach is one-dimensional in that it assumes a child is assigned to one category, even though he or she might meet the criteria for more than one (e.g. disabled and disadvantaged).
- 118 World Bank, 2005e: 8.
- 119 World Bank, 2005c: Table 5c.
- 120 World Bank, 2005g: Table 14.
- 121 Bray, 1999.
- 122 Silova, Budiene and Bray (eds), 2006. Countries covered are Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Lithuania, Poland, Slovakia and Ukraine.
- 123 Silova and Kazimzade, 2006: 133.
- 124 Ministry of Finance, Republic of Armenia, 2003; World Bank, 2005.
- 125 A survey of 67 schools in Tajikistan revealed that 82 per cent were operating in two shifts and 15 per cent in three shifts. Only 3 per cent of schools had a single shift. (Ministry of Education, Republic of Tajikistan, 2002)
- 126 Dabla-Norris, 2006.
- 127 Operative in Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Montenegro, Moldova, Serbia and Tajikistan.
- 128 The formula-funded autonomous-school model does not necessarily require fiscal decentralization. In principle, formulae can be used to allocate resources directly from central government to autonomous schools.
- 129 Government of the Republic of Tajikistan, 2005: 18.
- 130 See Davey, 2002; Fiszbein, 2001; Ross and Levačić, 1999; World Bank, 2004b for further discussion.
- 131 Tibi et al., 2002.
- 132 World Bank, 2006.
- 133 Matějů et al., 2004.
- 134 World Bank, forthcoming.

## Chapter 6

- 135 Reductions in personnel expenditure may be offset by compensation payments and retraining and relocation expenses for redundant teachers, but in many countries the increases in student/staff ratios could be achieved mainly through natural attrition.
- 136 ILO, 2006: Box 3.3.

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UNICEF Regional Office for CEE/CIS  
Palais des Nations  
CH 1211 Geneva 10  
Switzerland  
[www.unicef.org/ceecis](http://www.unicef.org/ceecis)

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