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A Decade of Transition

The MONEE Project
CEE/CIS/Baltics

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United Nations Children's Fund
Innocenti Research Centre
Florence, Italy

This Regional Monitoring Report is the eighth in a series produced by the MONEE project, which has formed part of the activities of the UNICEF Innocenti Research Centre since 1992. The project analyses social conditions and public policies affecting children and their families in Central and Eastern Europe and the Commonwealth of Independent States.

Earlier Regional Monitoring Reports are as follows:

1. *Public Policy and Social Conditions*, 1993
2. *Crisis in Mortality, Health and Nutrition*, 1994
3. *Poverty, Children and Policy: Responses for a Brighter Future*, 1995
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5. *Education for All?*, 1998
6. *Women in Transition*, 1999
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Russian as well as English versions of the Reports are available.

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THE UNICEF INNOCENTI RESEARCH CENTRE

The UNICEF Innocenti Research Centre in Florence, Italy, was established in 1988 to strengthen the research capability of the United Nations Children's Fund (UNICEF) and to support its advocacy for children worldwide. The Centre (formally known as the International Child Development Centre) helps to identify and research current and future areas of UNICEF's work. Its prime objectives are to improve international understanding of issues relating to children's rights and to help facilitate the full implementation of the United Nations Convention on the Rights of the Child in both industrialized and developing countries.

The Centre's publications are contributions to a global debate on child rights issues and include a wide range of opinions. For this reason, the Centre may produce publications that do not necessarily reflect UNICEF policies or approaches on some topics. The views expressed are those of the authors and are published by the Centre in order to stimulate further dialogue on child rights.

The Centre collaborates with its host institution in Florence, the Istituto degli Innocenti, in selected areas of work. Core funding for the Centre is provided by the Government of Italy, while financial support for specific projects is also provided by other governments, international institutions and private sources, including UNICEF National Committees.

All correspondence should be addressed to:

UNICEF Innocenti Research Centre
Economic and Social Policy Research Programme
Piazza SS. Annunziata, 12
50122 Florence, Italy
Tel.: (+39) 055 203 30
Fax: (+39) 055 244 817
E-mail (general information): ciusco@unicef.org
(publication orders): florence.orders@unicef.org

Website: <www.unicef-icdc.org>

Foreword

A Decade of Transition reviews the momentous changes in the 27 countries of Central and Eastern Europe and the Commonwealth of Independent States since 1989, focusing on the well-being of ordinary people and their children. It builds on years of authoritative research carried out by UNICEF's Innocenti Research Centre, to produce an end-of-decade report on the human face of the transition.

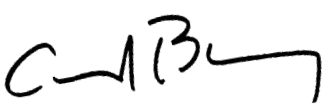
This Report, the eighth from the Centre, is published at a time when the world's commitment to children's survival and development is under close scrutiny. In 1990, world leaders met at the World Summit for Children to pledge their support to a series of goals to improve child well-being by the year 2000. This year, the UN Secretary-General's review of the progress made reveals a mixture of success and failure. Thanks to a decade of strenuous efforts, child mortality rates have fallen in many countries. However, millions of children continue to suffer from poverty, ill health and marginalization.

This global picture certainly reflects the situation in the transition countries, but no other region has experienced such a root and branch transformation of its social structure, its societies, infrastructure and borders. Eight countries splintered into 27. Every one of them experienced some kind of economic crisis. In many, tensions that had been simmering for years erupted into open conflict.

The human impact has been immense. Fundamental freedoms have been recognized in most countries – the right to vote, to express an opinion, to use one's own initiative and enterprise, to travel and so on. But many people have been stranded by a tide of progress that has swept past them.

It is clear that the original goals of the transition – to raise the standard of living for everyone and to develop humane and democratic societies – now need to be re-affirmed. The economic goals of the transition should be seen as tools to achieve these greater human goals. In reality, the ultimate success of the transition will depend on improvements in social conditions and the promotion of human rights, as well as on economic strength.

We hope that *A Decade of Transition* will be a useful tool for decision-makers, economists, child rights campaigners and for children and young people wishing to make a difference. As a record of the progress and setbacks of the 1990s and the lessons learned, this Report acts as a signpost for the way forward.



Carol Bellamy
Executive Director, UNICEF

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Kazakhstan	Erbolat Musabekov
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Poland	Maria Daszynska, Zofia Galazka, Bożena Balcerzak-Paradowska
Romania	Constantin Chirca, Filofteia Panduru
Russia	Irina Zbarskaya, Svetlana Nikitina
Slovakia	Eugen Placintár, Milan Olexa, Aleksandra Petrasova
Slovenia	Tomaz Banovec, Joza Klep
Tajikistan	Bakhtiya Mukhammadieva
Turkmenistan	Juma Durdy Bairamov, Ludmila Amanniyazova
Ukraine	Irina Kalachova, Natalia Vlasenko
Uzbekistan	Rayganat Makhmudova
FR Yugoslavia	Dragoljubka Puskovic, Dragana Filippi

Contents

4 Education: Access and Opportunities

Education is a fundamental human right. "Every child, youth and adult has 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".[1] Education is therefore important to the future material welfare of individuals – their ability to earn in the labour market and to live longer lives that are enriched in other ways. But it is also important for the social cohesion of societies, a vital aspect of the transition: the higher the average level and the wider the spread of education within a society, the more likely it is that groups of citizens will be willing to cooperate across boundaries that normally divide them.[2]

In reviewing the educational record of the transition economies during the 1990s, this chapter keeps all these aspects of the role of education in mind. It also recognizes the importance of education as a determinant of an economy's comparative advantage and international competitiveness. Chapter 1 comments on the World Economic Forum's rankings of several transition economies in its *Global Competitiveness Report* and the potential within the region for skill-based, high-technology economic growth. The development of education systems and hence of human resources with economic creativity is crucial to the realization of this potential. In some cases the primary emphasis in this development will need to be on preserving the best of what already exists, in others on reform, in yet others on building something completely new.

The chapter reviews the progress made so far and discusses the policy issues that arise. It begins in Section 4.1 by looking at the changes in the first decade of transition in access to education, measured mainly by enrolment rates at pre-school, compulsory and post-compulsory levels. Section 4.2 then examines the question of whether patterns of access have become more or less equitable, distinguishing between different levels of parental income, locations (urban and rural) and ethnic groups, and looks at changes in the provision for children with special needs. What, for example, have been the implications of the rises in income inequality and poverty described in Chapter 2? Changes in government and household expenditure on education are explored in Section 4.3, and the extent to which financing and governance of schools have been decentralized is assessed. Finally, an attempt is made in Section 4.4 to measure the changes in the outcomes of schooling, both in learning (drawing for example on large-scale cross-national survey data for 1995 and 1999) and in the labour market, and to identify the determinants of differences in such outcomes. Section 4.5 concludes. ■

4.1 Changes in Access to Education

Universal access to free basic education (primary and lower secondary schooling), together with the literacy that this should bring, is a key element of human rights recognized in the UN Convention on the Rights of the Child. Throughout the region this was largely attained by the early 1980s, often with high enrolment rates at other levels of schooling as well. After a decade during which armed conflict occurred in various countries and many of the region's economies suffered huge setbacks, are these achievements now under threat?

This section uses enrolment rates as a measure of access to education, distinguishing between levels (pre-school, compulsory and post-compulsory schooling) and, within post-compulsory, between general secondary schooling, vocational schooling and tertiary education. In the absence of recent census data for many countries, such rates (based on enrolment data from schools and population-by-age-group estimates from administrative sources) may be unreliable, and changes in them should be interpreted with caution.

It is important also to distinguish between enrolment and attendance. For instance, the 1999 round of the Third International Mathematics and Science Study (TIMSS) survey revealed that 19 percent of eighth-grade mathematics students in all the countries sampled are in schools judged by their principals to have a serious attendance problem in the form of absenteeism, late arrival and skipping classes.[3] As Table 4.1 shows, of the 11 transition countries in the sample, five were more affected by the problem than the international average – typically those where GDP had declined most – and six were equally or less affected. Within countries, the incidence of attendance problems tends to be disproportionately high among disadvantaged groups – ethnic minorities, low-income families

Table 4.1

Eighth grade students in schools with serious attendance problems, 1999 (percent)

South Africa (highest)	53
Moldova	35
Lithuania	32
Romania	31
Latvia	26
Netherlands	24
Russia	20
International average	*19*
FYR Macedonia	19
Bulgaria	17
Hungary	17
US	13
Slovakia	12
Czech Republic	8
Slovenia	4
Iran (lowest)	2

Source: Mullis, I. et al. (1999), *TIMSS 1999 International Mathematics Report: Findings from IEA's Repeat of the Third International Mathematics and Science Study at the Eighth Grade*, Chestnut Hill, MA: International Study Centre, Lynch School of Education, Boston College.

Note: International average for OECD countries, excluding Central Europe, is 16 percent. For the full list of countries in the sample, see Table 4.3.

and so on. These problems may also reflect other difficulties – inadequate transport, school closures due to lack of heating and, in some areas, armed conflict.

Pre-schools

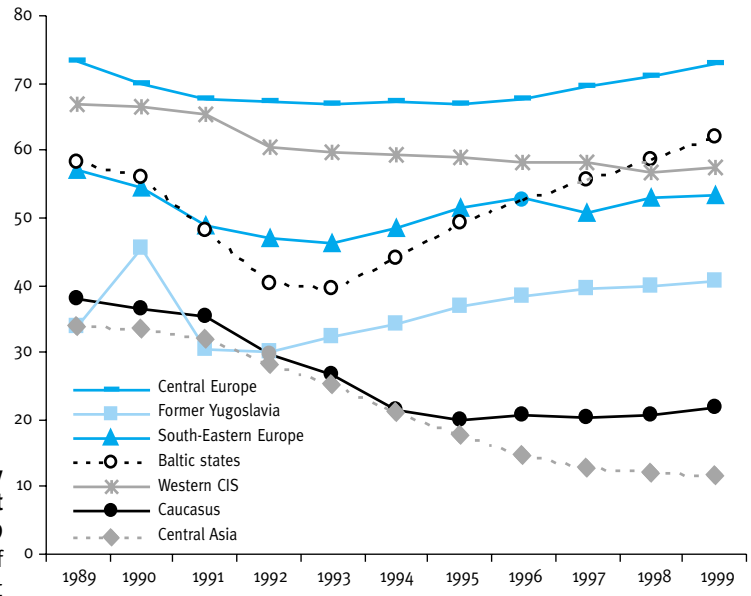
Networks of pre-schools were quite extensive in much of the region prior to transition. They were intended in part to provide childcare and thus to promote female employment, which was relatively high by OECD standards, but also to encourage the early development of children. They were important, for instance, in supporting nutrition and in providing preventive health care.

Figure 4.1 shows what happened to pre-primary enrolment rates in the various sub-regions over 1989-99. There are clear differences among sub-regions in starting points and trends. Central Europe, western CIS, the Baltic states and South-Eastern Europe had the highest enrolment rates at the beginning of the period, but, of these, only in the Baltic states were rates higher at the end of the period than at the beginning. The falls in enrolment in the Caucasus and Central Asia have been catastrophic; in Central and South-Eastern Europe and the Baltic states the pattern has been one of recovery after early reductions, while in the western CIS recovery has been delayed and relatively small, and in former Yugoslavia, where enrolment was lowest at the start of the decade, rates have fluctuated around an upward trend. The range of enrolment rates in 1999 was huge among sub-regions (from 14 percent in Central Asia to 73 percent in Central Europe) and even larger among countries (from 6 percent in Tajikistan to 87 percent in Hungary). There are also wide variations within sub-regions, with Poland, FYR Macedonia, Albania, Lithuania, Moldova, Azerbaijan and Tajikistan well below their sub-regional averages.

The trends in enrolment reflect in part a drop in supply, as measured by the number of institutions. For instance, 58,000 pre-school institutions closed between 1991 and 1999 in the CIS countries, a fall of 39 percent. This must be viewed against a background of declining fertility, described in Chapter 1, which has led to a big fall in most countries in the number of pre-school-age children. But the decline has not been fully commensurate. For example, the number of 3-6 year-olds in the CIS fell by 27 percent over 1991-99 (and by only 5 percent in Central Asia, compared to a 57-percent fall in the number of pre-schools). There have also been changes in ownership, as state enterprises and farms withdraw from the provision of pre-schools and local authorities assume a more important role in management, although often without sufficient resources for financing. Demand has fallen, as well as supply, as a result of higher fees, lower incomes and lower female employment.

These falls in enrolment are an immediate blow to the health and nutrition of the children who no longer enjoy these facilities (and to the labour force participation of their mothers – less female employment can be expected to have been a result of lower pre-school enrolment, as well as a cause). Whether they are a threat to learning outcomes at later stages of education is less certain given the nature of the institutions, although the tradition in some countries has been that pre-schools do indeed provide formal preparation for schools. This of course raises the question of equity, of *which* children benefit from pre-schools: a subject dealt with in the *Regional Monitoring Report* on education.[4] (Another subject dealt with in that Report is the development in the region of alternatives to formal state-run pre-schools.)

Figure 4.1



Pre-primary enrolment rates, 1989-99 (percent of relevant population)

Note: Unweighted regional averages. Former Yugoslavia does not include data for Bosnia-Herzegovina. Western CIS does not include data for Moldova. Typical age group is 3-6 years (3-5 years in Czech Republic, Slovakia and Hungary). Net rates (gross rates in Slovenia, FYR Macedonia, Albania, Romania, Latvia, Lithuania, Belarus, Russia, Ukraine, Armenia and Tajikistan). 1989 for Tajikistan, 1991-92 for Slovakia, 1993 for Croatia, 1996 for Kazakhstan: IRC estimates.

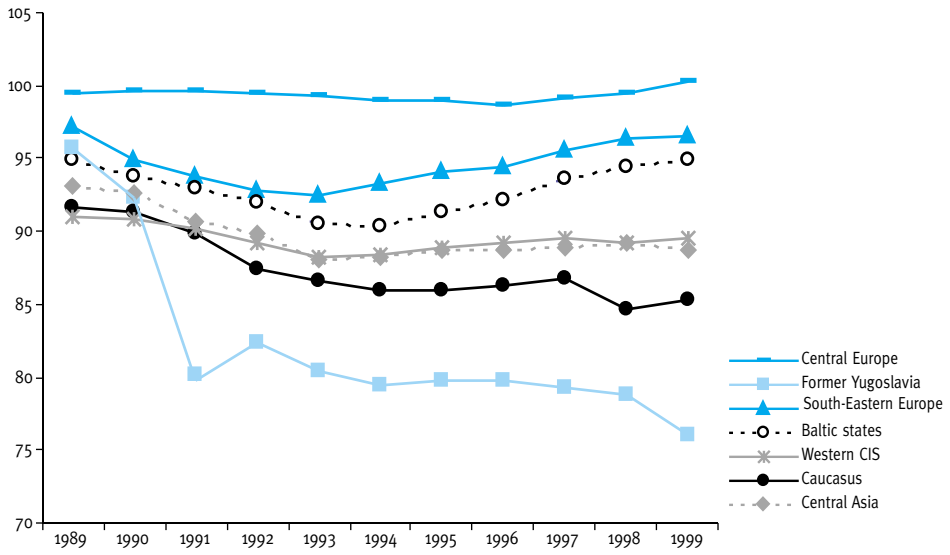
Source: Statistical Annex, Table 7.1.

Compulsory schooling

All the sub-regions on average and almost all the countries in the region started the 1990s with

basic education enrolment rates of well over 90 percent. Apart from Central Europe, as Figure 4.2 shows, the first few years of transition were apparently disastrous, with rates falling steeply almost everywhere. The second half of the decade was one of recovery in enrolment in the Baltic states, South-Eastern Europe and the western CIS, though not in Central Asia, the Caucasus and war-torn former Yugoslavia. Of seven sub-regions, only Central Europe ended the decade with higher basic education enrolment rates, on average, than 10 years earlier. In the majority of the sub-regions enrolment in what is supposed to be the compulsory phase of schooling was down to 90 percent or less. Several countries (for instance, Slovenia, Romania, Estonia, Belarus, Azerbaijan and Kyrgyzstan) did better than their sub-regional averages, but in some the collapse was spectacular. For instance, enrolment rates fell in Armenia by 14 percentage points and in Albania and Turkmenistan by 12 points. The difficulties in computing enrolment rates described at the beginning of this section may account for some of these movements, but it seems most unlikely that they provide a complete explanation.

Figure 4.2



Basic education enrolment rates, 1989-99 (percent of relevant population)

Note: Weighted regional average gross rates. Former Yugoslavia does not include data for Bosnia-Herzegovina. Poland: net rates. 1999 for Slovenia: IRC estimate. Age group is 7-14 years for Central Europe, former Yugoslavia and South-Eastern Europe (except for the Czech Republic, where it is 6-13 for 1989-95 and 6-14 for 1996-99, and 6-13 for Slovakia and Hungary). Age group is 7-15 for the Baltic states, western CIS, Caucasus and Central Asia.

Source: Statistical Annex, Table 7.2.

On the positive side, the gender equality in basic education enrolment that was achieved under communism is apparently being maintained. Girls' share of enrolment rose or remained unchanged over the decade in two sub-regions

Box 4.1

Dropout, repetition and graduation rates – and out-of-school youth

Children who quit compulsory basic education are often described as "dropouts". Annual dropout rates in the region in 1999 varied among countries. Slovenia (6.5 percent) and Bulgaria (3.1 percent) had the highest rates for basic education as a whole. At primary level, Russia (0.7 percent), Romania (0.8 percent) and Uzbekistan (1.2 percent) had some of the highest rates; at lower secondary level, Romania, Lithuania, Belarus and Uzbekistan all had rates higher than 1 percent. These annual rates are relatively low, but by the time an age-cohort finishes basic education they build up.

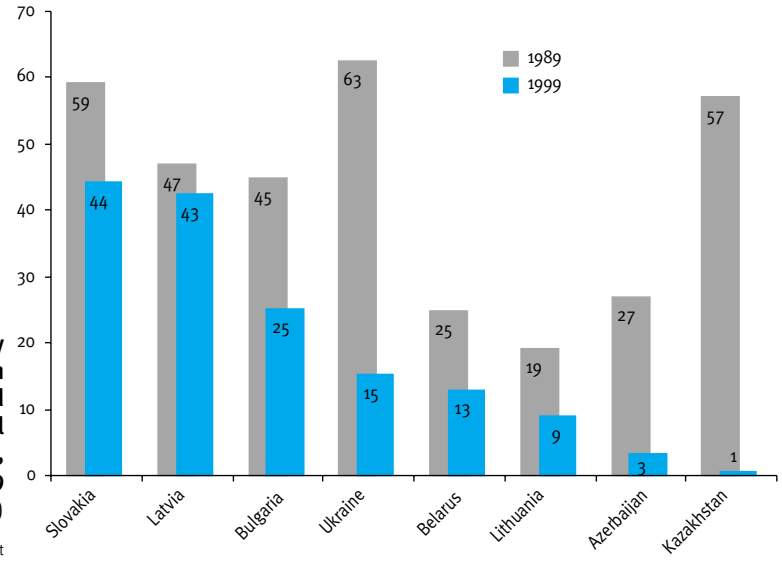
Children who do not do well in their studies are sometimes asked to repeat a year. In aggregate, this means that the average time for completion of basic education is longer than that officially designated. Repetition is a practice with varying incidence. In Romania, Bulgaria, Lithuania and FYR Macedonia it was particularly well established before the transition, with annual rates of 3 percent or more. It tended to fall during the 1990s, but was still quite high in 1999 in Romania (3.9 percent), Bulgaria (2.9 percent) and Slovakia and Hungary (2.2 percent).

As a result of dropout, repetition and late entry to school, basic school graduation rates (as a share of 15 year-olds) were below 80 percent in Albania and Romania in 1997, and Latvia was the only Baltic state where the rate was above 90 percent. In the CIS, on average, the graduation rate was 83 percent, compared with 96 percent in 1989.

Dropout from basic education and lack of progression to post-compulsory schooling have contributed to a huge rise in the number and proportion of 15-18 year-olds who are not in school: from almost six million, or a quarter of the total number in the age group, in 1989 to nine million, one-third of the age group, in 1999. This is a worrying trend. (The problem is much worse in the CIS than in Central Europe.) Research in established market economies has revealed a correlation between leaving school early and social exclusion, early pregnancy and behaviour risky to health. Ethnic minority children and other socially vulnerable groups are also over-represented among early school-leavers, reflecting growing inequality in access to education (see Section 4.2).

Sources: Regional Monitoring Report, No. 7; MONEE project database; MONEE project country reports.

Figure 4.3



Primary education pupils covered by after-school supervision, 1989 and 1999 (percent)

Source: MONEE project database.

Note: The earlier year is 1990 for Latvia.

and fell insignificantly (by 0.5 percentage points or less) in the other five. In all sub-regions girls still accounted for between 48.4 and 49.2 percent of enrolment at this level at the end of the decade. There are signs of erosion, however, which need to be carefully watched in two countries: Bulgaria, where the share fell by 1.1 percentage points to 47.6 percent, and Tajikistan, down by 1.8 points to 47.2 percent.

In countries affected by war, falls in enrolment are likely to have been due to reduced provision of schooling, but in other countries they may have been related to rising direct costs of education, such as charges for extras and textbooks, reduced subsidies to transport and lower family incomes (without a stout pair of shoes, getting to school in winter is a problem, especially in rural areas). Fewer school meals and extracurricular activities will not have helped either. Figure 4.3 shows, for instance, the extent to which some countries' primary schools have cut back on after-school supervision, particularly in Ukraine, Azerbaijan and Kazakhstan.

Pressure to find work and contribute to family income may also have been a significant factor. The headmaster of a rural school in Ukraine, interviewed for the MONEE project, said that most families "do not motivate their children to study and cannot support them if they do. Sometimes they even persuade their children to leave school and start earning money. . . . It is easier for children not to go to school; they do not see the point in studying: this is why they stop going to school. More than this, they can see that physical work is better paid than intellectual work and do not see the reason to torture themselves by studying."[5]

Of course, this is not a universal view, and many parents and young people in the transition countries value education highly. But whatever the reasons why it has occurred, the effective retreat from universal compulsory basic education in so many countries in the region is a very negative aspect of the transition so far.

Post-compulsory schooling

Like other industrialized nations, the communist countries offered two main types of educational opportunity after compulsory schooling: a vocational/technical track and a general secondary track, the latter providing the normal route to university.

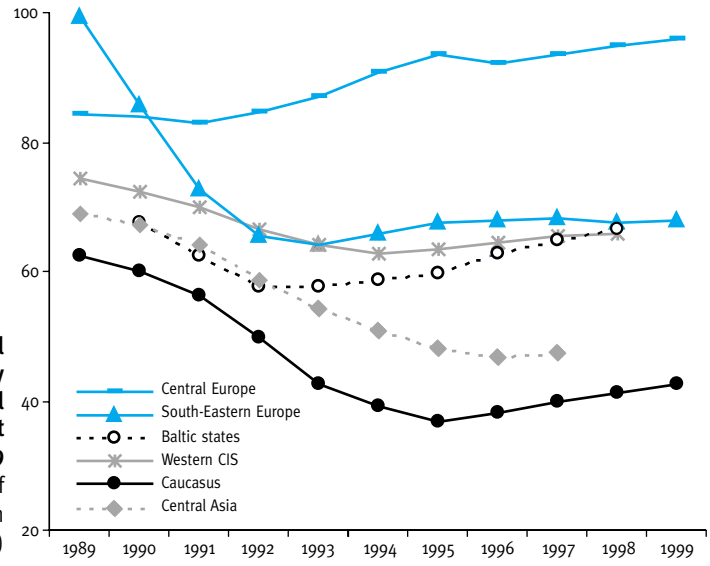
A common view of the inherited system is that there is "too much" specialized vocational and technical education and "not enough" more broadly based learning through general secondary schools to meet the needs of new market economies. However, the truth is more complicated.

The emphasis of centrally planned economies on industry at the expense of services did have major implications for the education system. Examples certainly exist of narrow vocational training for employment in industries for which demand has now collapsed. Some countries had extreme specialization in schooling, notably Romania.

But market economies need many of the skills provided by vocational and technical schooling, and it is easy to point to school systems in successful Western European economies, like Germany, where this form of education receives great emphasis. As much as the overall amount, it is the types and quality of vocational and technical schooling which matter.

How have enrolment patterns changed during

Figure 4.4



Total secondary school enrolment rates, 1989-99 (percent of population aged 15-18)

Source: Statistical Annex, Tables 7.3 and 7.4.

Note: Weighted regional average gross rates. Moldova: student data for 1992-98 and population data for 1998 exclude Transdniestr region. Age group is 14-17 years for the Czech Republic (for 1989-95) and for Slovakia and Hungary.

the transition so far? The record is mixed, with differences by level and type of education, sub-region and country.

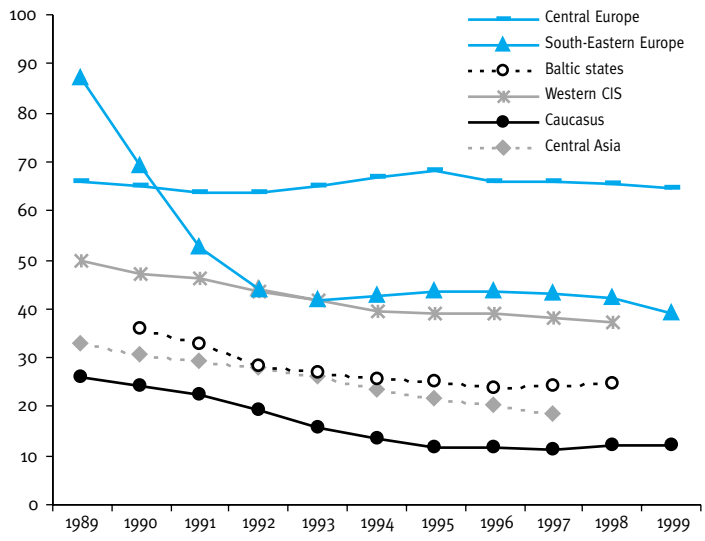
As Figure 4.4 shows, most parts of the region experienced a fall in the *total* upper secondary school enrolment rates of 15-18 year-olds in the early years of the transition (taking the two types of schooling together). The fall was particularly steep in South-Eastern Europe. Central Europe was the only sub-region to finish the 1990s with higher rates than 10 years earlier: in South-Eastern Europe, the Baltic states and the western CIS, enrolment rates had stabilized at over 60 percent by the middle of the decade, but in Central Asia and the Caucasus they have continued to fall. In 1998, less than half of the 15-18 year-olds in Central Asia were in school (46 percent), compared to more than two-thirds in 1989 (69 percent).

In most sub-regions, as a comparison of Figures 4.5 and 4.6 shows, there has been a shift from vocational/technical to general secondary schooling, reflecting closures of enterprise-based vocational schools and decisions by children to opt for general education or to drop out of the system altogether. In Central Europe enrolment rates in the vocational/technical track have remained remarkably high; in other sub-regions, and especially in South-Eastern Europe, they have fallen. The only country to show an increase in enrolment rates in these schools over the whole period is Hungary; countries where the fall has been particularly sharp include Albania, Romania, Ukraine, Armenia, Azerbaijan, Kazakhstan and Turkmenistan.

General secondary education has been an area of expansion in most of the region, as Figure 4.6 shows. In Central and South-Eastern Europe enrolment rates began to rise from the beginning of the 1990s; in other sub-regions recovery came after a few years of decline, but has not been strong enough in Central Asia and the Caucasus to take rates above the pre-transition levels. Romania, where secondary education under Ceaucescu was almost entirely vocational/technical, exhibited the largest increase in rates over the whole period, followed by Latvia and Poland. Within the western CIS, the most rapid expansion has been achieved by Ukraine and in Central Asia by Kazakhstan.

The relative decline in vocational education has pushed more boys (whose preserve it had been) towards general education, and the female share of secondary general enrolment has fallen in all sub-regions except the Caucasus and Central Asia (also the only sub-regions in which girls have increased their share of vocational education

Figure 4.5

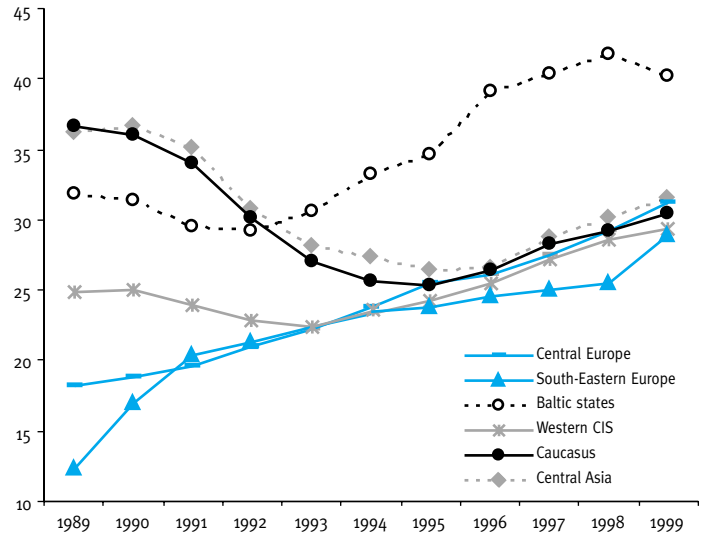


Vocational/ technical secondary school enrolment rates, 1989-99 (percent of population aged 15-18)

Note: Weighted regional average gross rates. Moldova: student data for 1992-98 and population data for 1998 exclude Transdniestr region. Age group is 14-17 years for the Czech Republic (for 1989-95) and for Slovakia and Hungary.

Source: Statistical Annex, Table 7.4.

Figure 4.6

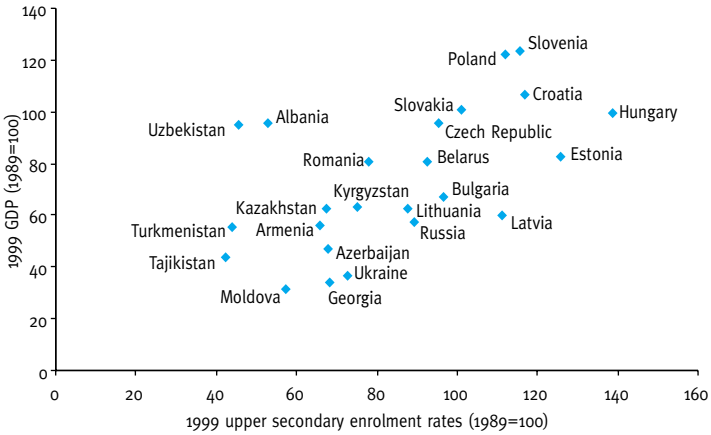


General secondary school enrolment rates, 1989-99 (percent of population aged 15-18)

Note: Weighted regional average gross rates. Moldova: student data for 1992-98 and population data for 1998 exclude Transdniestr region. Age group is 14-17 years for the Czech Republic (for 1989-95) and for Slovakia and Hungary.

Source: Statistical Annex, Table 7.3.

Figure 4.7

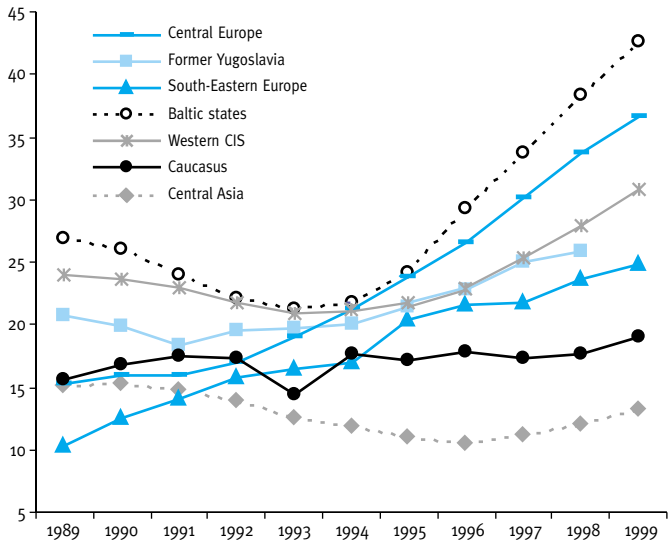


Changes in upper secondary enrolments and in GDP, 1989-99 (1989=100)

Note: The earlier year is 1990 for Romania and Estonia, 1991 for Croatia and 1993 for Slovenia. The later year is 1998 for Slovenia and Turkmenistan.

Source: Statistical Annex, Tables 7.3, 7.4 and 10.1.

Figure 4.8

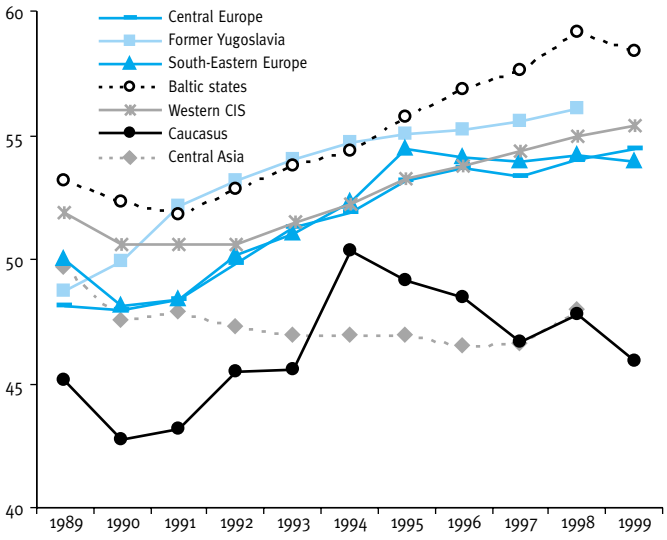


Tertiary education enrolment rates, 1989-99 (percent of population aged 19-24 years)

Source: Statistical Annex, Table 7.5.

Note: Weighted regional average gross rates. Former Yugoslavia does not include data for Bosnia-Herzegovina. Age group for the Czech Republic is 18-22 years for 1989-95 and 19-23 years for 1996-99, 18-22 years for Slovakia, 18-23 years for Hungary, and 19-23 years for Slovenia and FR Yugoslavia.

Figure 4.9



Female share in tertiary education enrolment, 1989-99 (percent)

Source: MONEE project database.

Note: Former Yugoslavia does not include data for Bosnia-Herzegovina; Central Asia does not include data for Uzbekistan. The number of women in tertiary education has been estimated for the following years and countries: 1989 for Latvia, 1989-90 for Moldova, 1995-97 for Hungary and 1999 for Albania.

enrolment). Nevertheless, girls' continued over-representation in the more rapidly growing general education has enabled them to increase their share of overall secondary enrolment in the Caucasus and Central Asia (markedly in the latter case, from a third to a half) and to hold on to it (at around a half) in other sub-regions.

Not surprisingly, falls in total upper secondary enrolment are larger where national income has dropped the most, and vice versa – see Figure 4.7. Sustained economic growth, as in the economies of Central Europe, allows more resources in real terms to go into education and fuels demand for qualified labour.

Tertiary education has boomed in several sub-regions, and, as Figure 4.8 shows, by the end of the decade average enrolment rates exceeded 30 percent in Central Europe, the Baltic states and the western CIS. In South-Eastern Europe rates rose from below 10 to more than 20 percent over the period, and in the Caucasus they increased steadily. Central Asia was the only sub-region to see a reduction in the coverage of tertiary education. Among countries, rates almost tripled in Poland and Romania, more than doubled in Hungary, Latvia and Kyrgyzstan and rose exceptionally quickly in Slovakia, Albania, Bulgaria and Estonia.

A striking trend throughout the region is towards the feminization of higher education. As Figure 4.9 shows, in Central Europe, former Yugoslavia, South-Eastern Europe, the Baltic states and the western CIS the female share towards the end of the decade was between 4 and 6 percentage points higher than at the beginning of the decade (averaging at a level of about 56 percent). In the other two sub-regions the trend was weaker, with Central Asia showing no gain overall; both here and in the Caucasus the female share was below 50 percent at the end of the decade.

■

4.2 Equity in Access to Education

How have patterns of educational access changed during the transition? The substantial shifts in enrolment at various levels of education are unlikely to have been random in their incidence among children from different sorts of families. Have family background and place of residence become even more important determinants of access to education than they were at the end of the 1980s? Multivariate analysis would be needed to answer this question accurately; in its absence, the fact that the various determinants (parental education, parental income, location, ethnicity) are probably correlated with each other should be borne in mind.

Family background

Parental education tends to be associated with children's access to education in all countries for which data are available. And the importance of family income (with which parents' education is of course likely to be associated) in determining enrolment and attendance increased during the 1990s. As discussed in more detail in the section on household expenditure below, various factors combine to make it difficult for children from poorer families to stay in the school system: fees for both private and public schooling, informal tuition charges, various "entrance fees", payments for textbooks and other school materials, allowances

for young people studying away from home, and so on. At the same time, as Chapter 2 shows, the differences between the incomes of poor and rich households have increased.

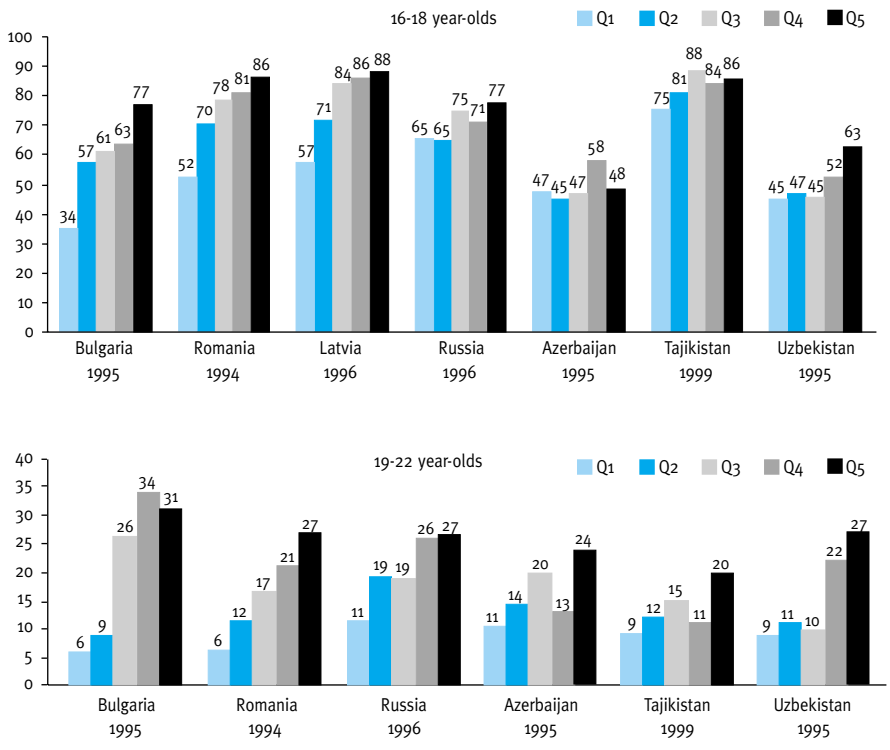
The problem begins at pre-school level, where the proportion of children from low-income households enrolled is typically much lower than in the case of middle- or high-income households (in Russia in 1996, for instance, by as much as one-half).[6] In the age ranges of compulsory schooling there is not much systematic evidence of differences in enrolment rates among categories of households. But among older children the differential impact of these costs on the enrolment rates of households begins to make itself felt.

Poverty may be combined with other problems at home. For instance, a social worker in a city near Moscow, interviewed for the MONEE project, said that the typical family of an early school-leaver "would have a low income, would not consist of both parents, or both parents would drink". A vocational-school principal in the same city agreed, as did a social worker in Kiev, suggesting that these problems are not confined to Russia:

"These families have common characteristics. In most cases parents drink. Another type of problem within such families is low income, where parents have to hold down two or three jobs and still can't earn an adequate living. In many cases their children have to start work, too."[7]

Figure 4.10 shows enrolment rates for 16-18 and 19-22 year-olds in each one-fifth, or quintile, of the income distribution, as revealed by household survey data in the mid-1990s. As can be seen, enrolment rates in secondary schools in Romania, Latvia and, particularly, Bulgaria are much higher for 16-18 year-olds from households in the top quintile than for those from households in the bottom quintile. The differential is smaller in Russia and Uzbekistan and negligible in Azerbaijan. At tertiary level the differentials between rich and poor 19-22 year-olds are even larger, again largest in Bulgaria, and smaller in Russia and Azerbaijan than elsewhere.

Not only enrolment, but also attendance rates tend to vary with household income. In Moldova, official reports consider the difficult financial situation of families as the main cause of absenteeism among children aged 7-16, apparently accounting for about one-half of the cases. In Tajikistan, 44 percent of children aged 7-15 in the poorest quintile of households missed school for two weeks or more during 1999, compared with 31 percent in the top quintile.[8]



Note: Households are ranked by income per capita (expenditure per capita in Romania); "Q1" is the lowest (poorest) one-fifth of the distribution and "Q5" the highest (the richest). In Romania, the two age groups are 15-18 and 19-25; in Tajikistan they are 13-16 and 17-25.

Figure 4.10

Enrolment rates, by household per capita income (percent)

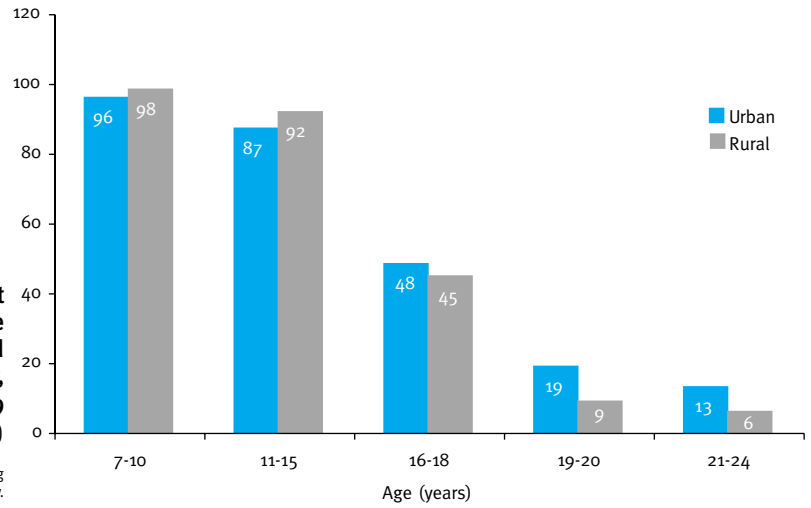
Sources: Bulgaria, Romania, Azerbaijan and Tajikistan: living standards surveys; Russia: Russia Longitudinal Monitoring Survey; Uzbekistan: EUI/Essex Survey.

Urban/rural location

There is considerable evidence that access to education and the quality of schooling are notably worse in rural areas.[9] For instance, figures from Romania and Russia for the mid-1990s show little or no difference between locations in compulsory schooling enrolment rates, but large differences at pre-school, secondary and tertiary levels. In Tajikistan in 1999, as Figure 4.11 shows, enrolment rates for children aged between 7 and 15 were higher in rural than in urban areas, but for older age groups the rates were higher in towns.

There is also evidence from 1995-97 of higher repetition rates at both primary and general secondary levels in rural areas (in Romania), higher dropout rates from compulsory education (in Moldova), higher absenteeism (in Azerbaijan) and less availability in primary and secondary schools of textbooks, school canteens and school buses (in Georgia). In Poland in 1998/99 the proportion of parents whose children attended extracurricular classes ranged from 28 percent in rural areas to 62 percent in towns with a population of more than 100,000.[10] The comment below of a rural parent in Russia's Yaroslavl region would find echoes in other countries, as would the account of a rural headmistress in the Bryansk region in Box 4.3, although the pictures of rural education and of rural/urban differences

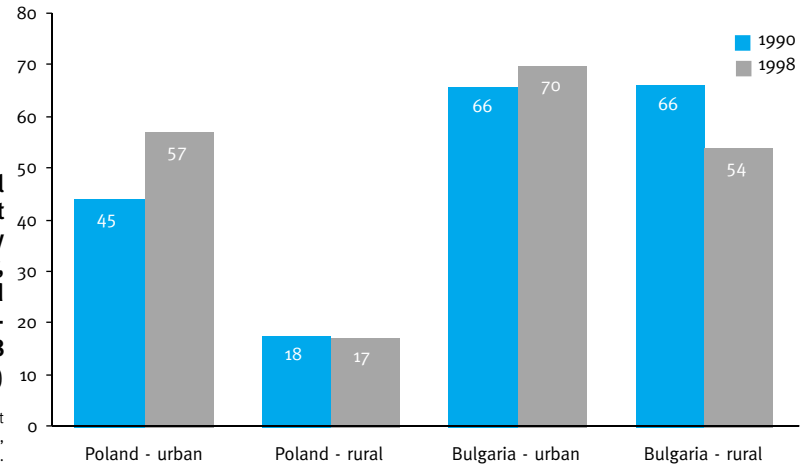
Figure 4.11



Enrolment rates, by age group and locality, Tajikistan, 1999 (percent)

Source: Tajikistan Living Standards Survey.

Figure 4.12



Pre-school enrolment rates, by locality, Bulgaria and Poland, 1990-98 (percent)

Source: MONEE project country reports, Bulgaria and Poland.

that are portrayed are not necessarily representative, even in Russia:

"In some subjects [teachers] don't know anything at all. . . . And there is the money problem, of course. They don't have a single computer. They don't even know what it means. There are no sewing machines or sports equipment. The gym hall doesn't work. It's much better in the city, of course. It's more interesting for the child – there are more people, they are more developed, quite a different atmosphere. Also, there are teachers you can choose from."[11]

Differences in enrolment rates between urban and rural areas may have increased during the 1990s. For example, in the case of pre-school, as Figure 4.12 shows, the rate rose in urban areas in Bulgaria, but fell in rural areas during the 1990s, while in Poland, although the rural rate did not change much, the gap increased significantly. From Hungary there is striking evidence of changes in learning achievement among locations during the transition: the average score for eighth-grade children in mathematics was 9 percent higher in Budapest than in rural areas in 1990, but by 1995 the difference had risen to 14 percent.

These figures suggest that the relative disadvantage of rural areas in levels and standards of provision, family incomes, travel costs and job opportunities for the educated, already large, increased further during the 1990s.

Ethnicity

Ethnicity poses an important challenge to those responsible for education in the region. Most obviously, they need to ensure equitable access to education for ethnic minorities. Also important – and recognized in the UN Convention on the Rights of the Child – is the role of education in encouraging ethnic harmony and thus improving social cohesion. The extent of the challenge is clear not only from the recent and current experience of ethnic strife in several countries, but also from the fact that 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, from nine countries in 1989 to 27 today, 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. Education and language are often at the centre of ethnic problems, as in Kosovo, where the Albanian community withdrew from the official system of education after the federal authorities seized control of the school administration and curriculum in 1989 (although teaching remained in the Albanian language), and in republics of the former Soviet Union where Russian minorities are under pressure to learn the national languages. Children with special needs also have a right to education that cannot always be readily met (see Box 4.2).

In many countries minority ethnic groups are at an educational disadvantage: the proportion of them with more than primary education tends to be much smaller than that for the majority group. This is particularly so in the case of the Roma. For instance, Figure 4.13 shows the situation in Bulgaria and Romania in 1997. In Bulgaria 16 percent of Roma had not completed basic education, compared with 3 percent of the population as a whole; in Romania the proportions were 42 percent and 12 percent, respectively. Difficult economic circumstances at home, cultural differences, including language, and the quality of the schooling provided are the main barriers to starting school and the causes of early dropout. Policy should concentrate on breaking this vicious circle for ethnic-minority children of early dropout, the consequent confinement in

Box 4.2

Children with special needs

The UN Convention on the Rights of the Child calls for every mentally and physically disabled child to receive schooling "conducive to the child's achieving fullest possible integration and individual development". How far do the countries in the region succeed in meeting the special needs of such children?

In the past the approach of most of them was dominated by the Soviet science of "defectology", associated with an early medical diagnosis of disability and with the education of disabled children in special schools separated from other children. The transition so far has often had mixed results. In some countries attitudes have become more open and flexible, which favours the integration of disabled children into normal schools, but education systems have typically become more competitive, which works in the opposite direction. Recession and reduced government budgets have hindered investment in the special facilities needed for integrated teaching, squeezed the resources available for the diagnosis and treatment of disability and threatened the quality of the teaching and care received by those children who remain in separate schools.

In general, the institutional approach to the provision of special education still seems to dominate, including in the region's largest countries (Russia, Poland, Romania); see also the discussion in Chapter 5, Section 5.2. In some countries there is evidence of moves to provide for such children within the mainstream, while in others there appears to have been little or no change, or even a worsening of previous arrangements. It is also clear that the proportion and type of children categorized as having special needs vary significantly from country to country, as they do in other parts of the world. These and other uncertainties surrounding much of the available data underline the need for more detailed investigations.

Sources: Regional Monitoring Report, No. 7; Ainscow, M. and M. Haile-Giorgis (1998), "The Education of Children with Special Needs: Barriers and Opportunities in Central and Eastern Europe", *Innocenti Occasional Papers*, No. EPS 67; MONEE project database.

adulthood to unskilled activities, unemployment and low incomes, further reinforcing the tendency to early dropout in the next generation.

As for the role of education in diminishing ethnic tensions, recent analysis by the UNICEF Innocenti Research Centre has shown that it has two faces, negative and positive.[12] The negative face reveals itself in the uneven distribution of education that creates or preserves privilege, its use as a weapon of cultural oppression and the production or doctoring of textbooks to promote intolerance. On the positive side, education of high quality can reduce conflict by widening access, promoting linguistic and ethnic tolerance and "disarming" history. However, the "add good education and stir" approach alone will not produce the fundamental changes that are necessary in societies affected by ethnic conflict. ■

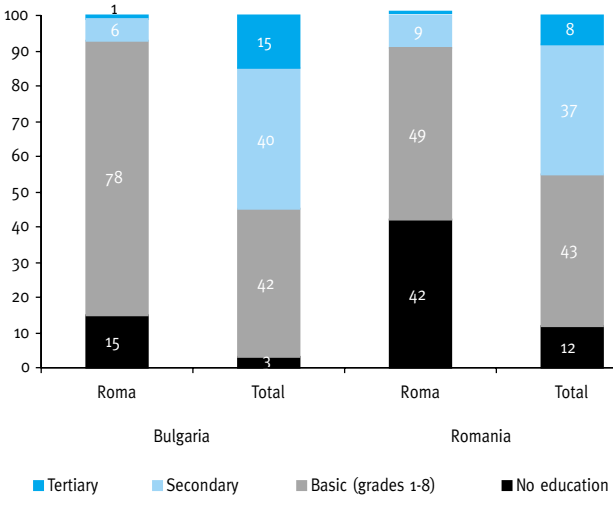


Figure 4.13

Highest level of education attained, Roma and total population, Bulgaria and Romania, 1997 (percent of population aged over 6)

Source: Annex Tables 6 and 7 in Ringold, D. (2000), *Roma and the Transition in Central and Eastern Europe: Trends and Challenges*, Washington, DC: World Bank.

4.3 Costs, Financing and Governance

This section looks at changes in expenditure on education in the region, at different components of expenditure and at how schooling is organized by government. Chapter 1 shows that there have been big declines in national income and in some cases in the share of public expenditure in that reduced income. What have been the implications for education? Have the effects on schools been disproportionate, or has education been relatively protected? What types of expenditures have been particularly affected?

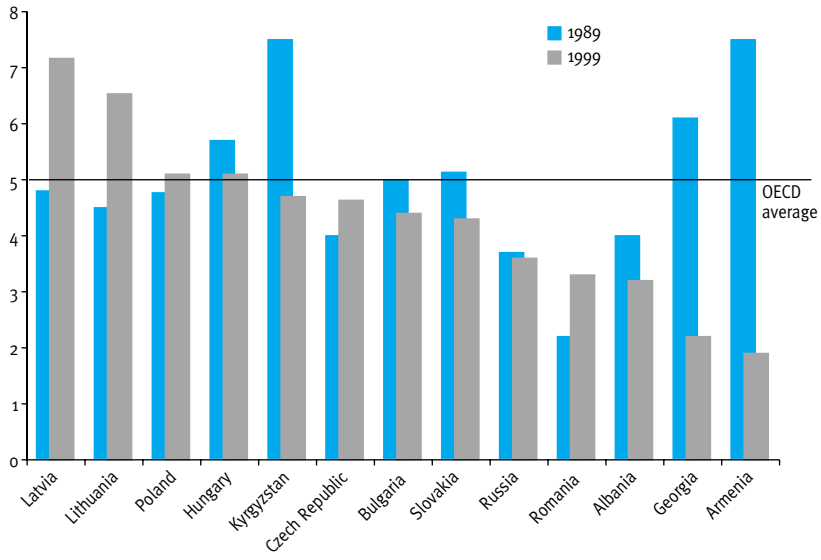
Public expenditure on education

Using as a yardstick the OECD average of around 5 percent for public expenditure on education as a share of GDP, one sees that a surprising number of transition economies managed to exceed this figure towards the end of the 1990s, including four of those in Figure 4.14 and six others for which data are available (see Statistical Annex, Table 7.6). Several countries (five of those in the graph) managed to increase this percentage during the first 10 years of transi-

tion. This must be saluted as a considerable achievement, reflecting an attempt to protect educational expenditure in economies that were collapsing.

Figure 4.14

Public expenditures on education as a percentage of GDP, 1989-99



Source: Statistical Annex, Table 7.6.

Note: The earlier year is 1990 for Slovakia, Poland, Bulgaria, Lithuania, Russia and Georgia and 1991 for Armenia. The later year is 1998 for Romania, Russia, Georgia and Kyrgyzstan.

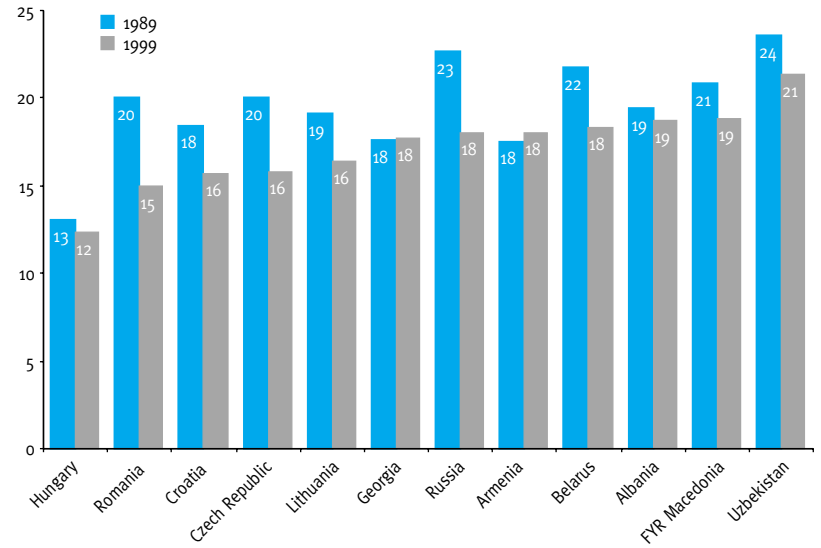
A rising share of GDP for education does not, however, necessarily mean an increase in real expenditure on education. Only in two of the seven countries for which relevant time-series data are available did real education spending rise between 1989 and 1999: the Czech Republic (by 7 percent in spite of a fall in real GDP) and Romania (by a remarkable 17 percent from a very low pre-transition level). In Hungary it fell by 12 percent, and in other countries from other sub-regions by even more: by 23 percent in Albania, 26 percent in Latvia (in spite of the big increase in share of GDP shown in Figure 4.14), 46 percent in Russia and 62 percent in Kyrgyzstan.

Outside Central Asia and the Caucasus, falling education budgets have usually been partly offset by reductions in the size of the school- and university-age population: the number of 3-24 year-olds fell by up to 15 percent between 1989 and 1999 (and by an average of 8 percent). In most countries of Central Asia and the Caucasus, however, the number of children and young people was growing, sometimes substantially (and by an average of 13 percent), thus increasing the impact of falls in spending.

Countries in the region, still influenced by pre-transition space and staffing "norms", have generally not yet adjusted effectively to reduced real funding. The liberalization of prices for heating and lighting in many countries has meant that the share of these items in budgets has typically risen quite sharply. The demographic opportunity to reduce other costs by releasing teachers has generally not been grasped: as Figure 4.15 shows, pupil/teacher ratios in basic education have tended to fall except in countries where the number of children has risen (for example, Armenia) or the collapse of the economy has been particularly harsh (for example, Georgia). Using the yardstick of an average pupil/teacher ratio in OECD countries of 10 to 1, the World Bank offers a crude estimate that up to a third of the teaching staff in the region (and even more non-teaching staff) could be released without affecting quality, provided that the process were adequately managed in order to retain the best teachers.[13] (Hiring good new teachers would also need to continue – it is not as if teacher-training can simply be suspended for several years in order to achieve the desired changes in staffing.)

Figure 4.15

Pupil/teacher ratio in basic education, 1989-99



Source: MONEE project database.

Note: Ratios for Lithuania, Belarus, Russia, Armenia, Georgia and Uzbekistan refer to primary education. The graph shows the total number of pupils divided by the total number of teachers.

Teacher salaries have tended to fall in real and relative terms – in 1997 the average wage in education ranged from 83 percent of the national average wage in Belarus to 44 percent in Armenia[14] – but, since the number of teachers has not been reduced, the share of staff costs in total costs has remained high. The strain has been taken off by delaying the payment of wages and by postponing much-needed repairs and the maintenance of buildings and equipment.

Badly paid and demoralized teachers have often had to find other sources of income. For instance, interviews in Georgia in late 1998 revealed that most teachers outside the capital had not been paid for several months, and strikes and demonstrations were common.[15] Teachers survived by giving private lessons, petty trading, farming, teaching in more than

Box 4.3

"This is how we live": as seen by a rural headmistress

The headmistress of a rural school in Bryansk region of the Russian Federation recently sent a heartfelt letter to the editor of a magazine for school principals, describing her daily life. She is 42 years old and has been headmistress for 13 years, spanning all the years since the break-up of the former Soviet Union. She is proud of her achievements, but is beginning to "lose her spirit, to give up".

She rises at 6 a.m. to feed the animals on her small farm, then rushes to a meeting of the local education committee, where she persuades the director to let her have 10 litres of petrol for the power saw to cut wood, to heat the school when winter comes. She manages to persuade five of her pupils' fathers to saw the wood, although they "are already thinking about where to find a hair of the dog [a drink]". During the morning she phones around for sponsors for redecoration of the school's interior and is partially successful – enough money at least to paint the floor, which is rotting. More paint and cement are needed to whitewash the façade of the building. She talks to the school librarian and subject teachers about the shortage of textbooks: they sell milk to buy bread and other food for the school, and calculate that a whole 50-litre churn would be required to finance the purchase of the fifth-grade literature textbooks that are needed. By noon the power saw has stopped, and the men ask for "something for a bottle": she manages to avoid this, but tells them that their children will receive the textbooks that remain in stock. The rest of the school day is spent in trying to raise morale in the teachers' room, discussing tomorrow's examination with the biology teacher and consulting her deputy.

Off home at 2 p.m. to milk the cow and then to prepare dinner for her husband and two children. The evening, until 10 p.m., is spent weeding the allotment of land, crucial to survival: last year the family's pig died, and they had to make do with potatoes. She dreads the onset of winter, when the school boiler has to be kept running. It is difficult to find anyone to work in the boiler house for 130 roubles a month. Sometimes, when the fuel is about to run out, she and the men cut down trees, and there have been times when she has had to stoke the boiler herself, running down, throwing in some coal, then back up to the lesson: "don't be surprised, children, if the headmistress's hands are black". When a delivery of seven tons of coal arrives, she and the children help the boiler man to move it into the safety of the shed, and she makes a couple of checks during the night to ensure that a bucketful is not swapped for "a bottle of something". Worries for tomorrow, as she writes her letter in the early hours of the morning, include replacing the worn-out sports equipment, buying chalk and light bulbs, finding a responsible boiler man and squeezing money out of the district to give to a teacher who has to go into hospital.

"The children must be taught," she ends, "and taught well, for they need to move on and build their lives. God forbid that their lives should be like the one that was built for us."

Source: Director Shkoly magazine, Moscow, July 2000.

one school, or taking other second jobs, for example, as an editor in a local television station, a sports correspondent in a local newspaper, a night worker in a bakery, or a repairer of home appliances. A smaller, full-time, better paid teaching force would have higher morale and would be more effective. At present, schooling in many countries relies heavily on the dedication of teachers like the Russian headmistress in Box 4.3.

Household expenditures on education

Households in the region spend significant amounts on education. As might be expected, the expenditure varies directly with household income, and there is evidence that the spending gap has widened over time. For instance, households in the top 10 percent of the income distribution in Slovakia spent three times as much on education, on average, as those in the bottom 10 percent in 1989 and 16 times as much in 1995; in Bulgaria this multiple increased from seven in 1992 to nearly 20 in 1996.[16] The falls in enrolment rates reported earlier in this chapter are likely to be related to this shift in the incidence of cost.

There are various categories of household expenditure on education:

- Fees for private schools and universities and for public education outside the compulsory age range.
- Community contributions towards the financing of local schools.
- Payments for textbooks, school meals and extracurricular activities.
- Payments for complementary requisites such as clothing, shoes, transport and allowances for young people studying away from home.
- Payments to public sector teachers for extra teaching and bribes to obtain good examination results.

The first two categories of expenditure raise no formal problems in relation to the UN Convention on the Rights of the Child, which countenances fees for private institutions, state kindergartens, secondary schools and universities. However, their potential impact on equitable access is a source of worry; for instance, the fee for secondary school in Georgia, introduced in 1997 and waived for 30 percent of children on the basis of ability rather than financial need, must discourage enrolment by children from poorer families.

The third category of school-related expenses, heavily subsidized before the transition, also raises problems for low-income households. The cost of textbooks, in particular, is

much higher in relation to income than it is in Western countries; in Georgia the cost of a set of books for a grade-seven pupil was reported in 1998 to be double the average monthly wage.[17]

Complementary costs, the fourth category, have increased significantly with the liberalization of prices and removal of subsidies, and bus fares, improved clothing and shoes, particularly in winter, are necessary for school attendance, not an optional extra.

The final category – payments to teachers for various purposes – is the most disturbing. There are numerous reports from many countries in the former Soviet Union of state schools giving places to children whose parents make a substantial donation, of private tutoring of children by their own teachers and of payments to teachers for good examination marks. Focus groups of secondary school students and graduates interviewed for the MONEE project in 2000 in Russia, Ukraine and Uzbekistan all mentioned this problem.[18] "Illegal payments to support positive outcomes of school examinations, etc.," have also been reported in Slovakia[19] and in other countries in the region. Such practices are clearly in conflict not only with equity of access, but also with educational efficiency.

Table 4.2

Share of local governments in total government expenditures on education, late 1990s
(percent)

Czech Republic	18
Poland	57
Hungary	50
Croatia	17
Albania	80
Bulgaria	61
Romania	12
Estonia	55
Latvia	72
Lithuania	70
Belarus	82
Russia	86
Azerbaijan	84
Kazakhstan	78

Sources: MONEE project database; Cannin, M., P. Moock and T. Heleniak (1999), "Reforming Education in the Regions of Russia", *World Bank Technical Papers*, No. 457, Washington, DC: World Bank.

Note: Data refer to 1998 except for Hungary and Romania (1997), Croatia and Azerbaijan (1999) and Russia (1996).

Decentralization of financing and governance

Decentralization of education is an issue relevant to both efficiency and equity in education. Decentralization is often undertaken to try to improve efficiency, but may threaten equity if local authorities made responsible for providing education do not have – and are not given – sufficient resources to do the job. (The arguments are reviewed at length in *Regional Monitoring Report*, No. 5, Chapter 4.)

The extent to which decentralization of educational systems has occurred in the region varies widely. Table 4.2 shows one measure of this extent, the share of local governments in total government expenditure on education. In several Central and South-Eastern European countries, there have been substantial moves to decentralize, mainly affecting lower levels of education (pre-school and primary); at higher levels, it is more usually a case of "deconcentration" (delegation of authority to the regional or district offices of central government rather than to elected local governments). In the countries of the former Soviet Union the responsibility for management of basic education has in most cases been formally transferred to sub-national authorities, which account for between 55 percent (in Estonia) and 85 percent (in Russia) of total government expenditure on education.

In Russia, for example, a law passed in 1995 spelled out the major expenditure responsibilities for education at the different levels of government. The federal government retains responsibility for financing most tertiary institutions, while local governments are responsible for financing pre-schools and primary and secondary schools. In practice the rate of implementation of decentralization varies among regions, but between 1992 and 1996 the federal share of education spending fell from 34 to less than 15 percent, that of regional governments increased from 14 to 18 percent, while that of sub-regional local governments rose from 52 to 68 percent. Disparities among regions in basic education expenditure per pupil appear to have increased substantially over this period, mainly reflecting relative increases in teachers' salaries in more prosperous areas.[20]

The extent to which local governments have access to local sources and freedom to vary rates of taxation differs across the region, but in general local tax autonomy is not well developed: all but three countries (Bosnia-Herzegovina, Georgia and Russia) rely predominantly on centrally generated revenues to finance education.[21] In this situation, the use of a formula for such transfers based primarily on the number of pupils or of children in the relevant age group ("money follows the student") rather than one based on past expenditures or teacher numbers is an important aid to equity and efficiency. Several countries are moving their systems in this direction, including the Czech Republic, Hungary and Russia.

Parents in general and those with lower incomes or less education in particular have few ways of expressing "voice" in relation to schools and little tradition of using those ways that exist. School boards with parent members, where they occur, tend to be advisory rather than decision-making, and objective information about the relative quality of schools is lacking.[22] Private schools have emerged rapidly in many countries, particularly in Central Europe, mainly at the secondary and tertiary levels, often in response to the difficulties of the state sector and sometimes employing teachers from that sector as part-time or external staff. Controversially, several countries offer subsidies or tax relief to private education, to the benefit of the higher income families which have access to it.[23]

The ultimate form of decentralization for state schools is self-financing. Some of this is to be discouraged, such as the charging of illicit fees for what is supposed to be free education (discussed above). Other initiatives are often encouraged by government, including renting out rooms, charging for extracurricular activities, or sale of output; some schools in Poland raised up to a fifth of their budgets in this way in 1997.[24] This often has perverse consequences: vocational schools, for instance, come to see some employers as competitors rather than partners, become tied into low-technology, but "saleable" options (such as making furniture, clothing, hair-dressing, garment manufacture) and lose sight of their training rather than their production role.[25]

■

4.4 Outcomes

Education has two obvious types of outcome: learning outcomes, which can be measured by tests and examinations, and labour-market outcomes, measured by such indicators as employment/unemployment rates and earnings. This section looks at levels of and changes in both of these during the 1990s. It does not, however, consider the broader outcomes of the region's educational systems, mentioned at the start of the chapter, in terms of enriching individual lives in other ways or in promoting growth and social cohesion in nations.

Learning outcomes

There is no doubt about the high quality of various aspects of education in many countries under the planned system: in international tests conducted in 1991 of representative samples of children, those from the former Soviet Union, Hungary and Slovenia achieved scores in mathematics and science that compared favourably with the scores of their counterparts in Canada, France, Israel and the UK.[26] Similar tests were administered in a larger sample of coun-

Table 4.3

Achievements in mathematics and science, eighth-grade students, 1995 and 1999

Rank by 1999 results	Mathematics 1999 average achievement	% change from 1995	Rank by 1999 results	Science 1999 average achievement	% change from 1995
1. Singapore	604	-0.8	1. Taiwan	569	
2. Korea	587	+1.0	2. Singapore	568	-2.1
3. Taiwan	585		3. *Hungary*	*552*	*+2.8*
4. Hong Kong	582	-2.3	4. Japan	550	-0.7
5. Japan	579	-0·3	5. Korea	549	+0.5
6. Belgium (Flemish)	558	+1.5	6. Netherlands	545	+0.7
7. Netherlands	540	+2.1	7. Australia	540	+2.5
8. *Slovakia*	*534*	*+0.0*	8. *Czech Republic*	*539*	*-2.9*
9. *Hungary*	*532*	*+0.9*	9. England	538	+0.9
10. Canada	531	+1.9	10. Finland	535	
11. *Slovenia*	*530*	*-0.2*	11. *Slovakia*	*535*	*+0.6*
12. *Russia*	*526*	*+0.4*	12. Belgium (Flemish)	535	+0.4
13. Australia	525	+1.2	13. *Slovenia*	*533*	*-1.5*
14. Finland	520		14. Canada	533	+3.7
15. *Czech Republic*	*520*	*-4.8*	15. Hong Kong	530	+3.9
16. Malaysia	519		16. *Russia*	*529*	*+1.1*
17. *Bulgaria*	*511*	*-3.0*	17. *Bulgaria*	*518*	*-5.0*
18. *Latvia*	*505*	*+3.5*	18. US	515	+0.4
19. US	502	+2.0	19. New Zealand	510	-0.2
20. England	496	-0.4	20. *Latvia*	*503*	*+5.7*
21. New Zealand	491	-2.0	21. Italy	498	+0.2
International average	**487**	**+0.4**	22. Malaysia	492	
22. Italy	485	-1.2	23. *Lithuania*	*488*	*+5.2*
23. *Lithuania*	*482*	*+2.1*	**International average**	**488**	**+0.6**
24. Israel	482	-6.0	24. Israel	484	-4.9
25. Cyprus	476	+1.7	25. Thailand	482	-5.5
26. *Romania*	*472*	*-0.4*	26. *Romania*	*472*	*-0.2*
27. *Moldova*	*469*		27. Cyprus	460	-0.6
28. Thailand	467	-9.5	28. *Moldova*	*459*	
29. Tunisia	448		29. *FYR Macedonia*	*458*	
30. *FYR Macedonia*	*447*		30. Jordan	450	
31. Turkey	429		31. Iran	448	-3.2
32. Jordan	428		32. Indonesia	435	
33. Iran	422	+1.0	33. Turkey	433	
34. Indonesia	403		34. Tunisia	430	
35. Chile	392		35. Chile	420	
36. Philippines	345		36. Philippines	345	
37. Morocco	337		37. Morocco	323	
38. South Africa	275	-1.1	38. South Africa	243	-7.6

Source: See Table 4.1.

Note: Data for Latvia refer to Latvian-speaking schools only. International average achievement scores are based on data of all countries tested in 1999. International average percent changes are based on data of countries tested in both years. Percentage change differences are statistically significant for Canada, Czech Republic, Latvia and Cyprus in mathematics and for Hungary, Canada, Bulgaria, Latvia and Lithuania in science. Israel, Thailand and South Africa used unapproved sampling procedures at the classroom level in 1995. The averages across OECD countries (excluding the Central European members from these calculations) are 520 for mathematics and 523 for science.

tries in the 1995 and 1999 Third International Mathematics and Science Study (TIMSS), the results of which are shown in Table 4.3. The TIMSS data enable progress during the second half of the 1990s to be monitored, although not in the Caucasus and Central Asia, which tend to be left out of such international surveys: this is especially unfortunate given the marked changes in enrolment and funding in several countries in these subregions (but see Box 4.5 on Kazakhstan).

On the whole, these are encouraging results. Of the 11 transition countries from the region in the 1999 survey, seven scored above the average for all 38 participating countries for mathematics, and eight for science. Even those which are below average are not disastrously so – still in touch rather than adrift. Five transition countries were at or above the average for OECD members for both subjects: the Czech Republic, Hungary, Slovakia and Slovenia from Central Europe and – more surprising in view of some of the statistics and anecdotal information earlier in the chapter – Russia.

Many countries have in fact improved their relative position since 1995 (although only a few of the differences between the years are statistically significant), a result at variance with a picture of declining standards in the region. In mathematics, Latvia and Lithuania have made particular progress, and the changes in Hungary, Russia, Slovakia, Slovenia and Romania are around the international average; only Bulgaria and, especially, the Czech Republic (though still in the top half of the table) show significant deterioration over the period. In science, Latvia and Lithuania again stand out as improvers, while changes in Hungary, Russia, Slovakia and Romania are above or near the international average: the Czech Republic, Bulgaria and Slovenia lost some ground, but are still well placed in the table.

A more detailed investigation would require the differences in scores *within* each country to be considered. For example, Russian children may still do well on average when compared to their counterparts in other countries, but is it the case that learning achievement in Russia has become more unequal? Preliminary analysis of TIMSS data by the UNICEF Innocenti Research Centre finds some indication that this has been the situation.[27]

Test results suggest that students in the former planned economies (where the approach to education has been described as one of "factology") outscore those in other countries in awareness of facts, or solving a known class of problem; they are weaker in applying a given technique to a new problem and weakest of all, relative to their counterparts, in choosing which technique to use to solve a new problem.[28] For instance, in the 1994-98 International Adult Literacy Survey, which measured the capacity to expand and interpret the meaning of verbal and quantitative texts, of the four transition countries in the survey only the Czech Republic compared well with 16 rich industrialized countries from the OECD.[29] In the other three – Hungary, Poland and Slovenia – substantially higher percentages of 20-25 year-olds tested at low literacy levels relative to the same age groups outside the region. There is thus widespread recognition of the need for a more flexible approach to learning in the region, both for its own sake and as a means of fostering the economic creativity required for success in the global economy. However, the results of Table 4.3 are at least an encouraging sign of the maintenance of standards in key subjects, and care has to be taken not to "throw out the baby with the bath water", especially as so-called "progressive" approaches to learning are now being re-assessed in the West.[30]

Determinants of learning outcomes

Learning outcomes depend on many things, including parental participation and encouragement, curricula, teaching methods, textbooks, teacher training, and examinations. (The full list also includes health: see Box 4.4). How far does improvement on any of these fronts and hence in learning outcomes depend on financial inputs? A vigorous debate on this topic continues in the West, particularly in the US, but seems somewhat remote from conditions in much of this region. It is difficult to believe that injections of money will have no effect on learning in a school with a leaking roof, broken windows, insufficient heating and few textbooks and where teachers are obliged to take second jobs to supplement meagre salaries that are paid in arrears.

Parental involvement in schools

Table 4.4

Highest level of education of either parent and impact on mathematics achievement, 1999

	% of students with a parent who finished university	Impact on test score (over that of next category)	% of students with a parent who finished upper secondary school	Impact on test score over that of (next category)
Bulgaria	34	7.8	51	9.1
Czech Republic	22	5.3	46	4.8
Hungary	27	11.0	59	13.6
Latvia	29	5.7	42	11.6
Lithuania	29	9.9	54	9.2
FYR Macedonia	18	9.0	51	17.7
Moldova	28	4.7	49	2.4
Romania	20	6.6	49	5.4
Russia	33	5.6	47	7.0
Slovakia	22	9.3	64	8.4
Slovenia	19	8.5	65	6.7
International average	*20*	*6.7*	*41*	*7.0*

Source: IEA (2000), *Third International Mathematics and Science Study (TIMSS), 1998-99*, Chestnut Hill, MA: International Study Centre, Lynch School of Education, Boston College.

Box 4.4

The interaction between health and education

There is a two-way relationship between health and education. Healthier children are more able to learn, and more educated children should be better able to protect their present and future health.

There is clear consensus on three aspects of the link between nutrition and educational outcomes (see also Chapter 3). First, the initial two or three years of life are critical for the physical development of the brain, and this is threatened by various forms of malnutrition. Second, the lack of some micronutrients, particularly iron and iodine, has a seriously negative impact on mental ability and school performance. Third, a nutritional deficit reduces motivation and increases apathy.

Pupils in many countries suffer from a range of ailments connected with poverty. For instance, the Russian headmistress quoted in Box 4.3 reports that "all the children [in her rural school] are sick. . . . The main illnesses are of the thyroid, heart, kidneys, stomach and eyesight. I do not want to say that town children are healthier. No! But they just have more time for rest. Our children work with us in the home and on the allotment (nearly all of us have a hectare or more). We do not want these hectares, but this awful life has forced us to take them on. So the children start to work on the farm along with us from the age of 8 onwards, and we curse ourselves and the government for taking their childhood away from them. But there is no other way. If we have potatoes, we exchange them for vegetable oil, flour and sugar. There is no money at all."

As for health education, it appears that many teachers in the region see no role for themselves in imparting instruction about "life skills", which help young people to avoid violence, unwanted pregnancies and sexually transmitted diseases and to make reasoned decisions about drug and alcohol use. As in other parts of the world, educators appear particularly divided about issues relating to sexual and reproductive health. Kazakhstan is making an effort, with special courses on AIDS as part of a general health education programme, but *Regional Monitoring Report,* No. 7 finds that some other countries (for example, Latvia, Lithuania, Armenia and Georgia) were making little provision for sex education in schools. Elsewhere, sex education is offered in schools, but the Report finds that it is either optional, as in FR Yugoslavia, or fails to cover the topic adequately, as in Romania and Slovenia.

Young people became exposed to increased pressures and risks during the 1990s. This is reflected in higher unemployment and inactivity rates, poorer nutrition, increased rates of tobacco, alcohol and drug use, the emergence of sexually transmitted infections (particularly HIV/AIDS) as a serious problem, higher accident rates and incidence of violence and suicide, and greater conflict with the law. Schools obviously cannot solve all these problems, but should be playing a larger role in imparting the knowledge needed to deal with them.

Source: Regional Monitoring Report, Nos 5 and 7.

in the region tends to be low, in spite of the fact that the average parent in many transition countries is relatively well educated.[31] As Table 4.4 shows, the proportion of eighth-grade mathematics students with at least one parent who had completed upper secondary level schooling is higher than the international average in all 11 countries in the TIMSS 1999 sample. The same table shows that parents' education has a large impact on learning achievement, larger than the international average impact in the majority of transition countries represented. A similar relationship, between parental education and literacy skills, was found to be particularly strong in Poland, Hungary and Slovenia in the 1994-98 International Adult Literacy Survey, discussed above.[32]

Curricula around the region are being diversified, as new subjects and a more objective treatment of history are introduced, but reform has a long way to go in many countries. The extent, also, to which students in the transition countries feel that their teachers are interested in them and in their views seems to be somewhat lower than in Western countries. A cross-national survey carried out in 1993/94 and 1997/98 found that, in eight transition countries (Latvia, Lithuania, Estonia, Russia, Poland, the Czech Republic, Slovakia and Hungary), the average proportion of 15-year-old girls who thought teachers encourage them to express their views or are interested in them as persons was 39 and 34 percent, which is 8 and 6 percentage points less, respectively, than in the Western countries participating in the survey.[33] Shortages of textbooks are common, particularly in rural areas.

The constraints on learning achievement in the transition countries relative to those in other countries are also illustrated by the "digital divide". The 1999 TIMSS survey asked eighth graders whether their schools had access to the Internet. As Table 4.5 shows, only four transition countries out of 11 in the sample reported proportions higher than the international average, and only Slovenia

Table 4.5

Eighth-grade students whose schools have access to the Internet, 1999
(percent)

Finland	100
US	91
Slovenia	85
Lithuania	64
Latvia	48
Hungary	46
International average	*41*
Czech Republic	34
Bulgaria	18
Thailand	17
Slovakia	6
Russia	5
Romania	3
Moldova	2
FYR Macedonia	1
Morocco	0

Source: See Table 4.4.

Box 4.5

A survey of learning achievement in Kazakhstan

A survey covering 3,500 fourth-grade students and their parents, 180 primary school teachers and nearly 100 school directors was carried out in Kazakhstan in May-June 1999. It included tests of achievement in literacy, numeracy and life skills and questionnaires for all four types of respondent that were similar to those administered in 55 other developing or transition countries as part of the UNESCO/UNICEF Monitoring Learning Achievements project.

In relation to the UNESCO target of 80 percent for this age group in these countries, the results of the tests were quite good: 78 percent for literacy, 81 percent for numeracy and 75 percent for life skills. Grammar and spelling were the source of the most serious problems in the literacy tests, and measurement and geometry (rather than problem solving) in the numeracy tests.

Girls did better than boys in all subjects, urban did better than rural dwellers, and those taught in Russian did better than those taught in Kazakh. The differences between the language groups were particularly large (except in numeracy), drawing attention to the need to look again at the problems of learning in the national language. Language and location were the biggest influences, statistically, on the test results. Otherwise, the most important (negative) influence was size of family. The provision of educational materials (textbooks, notebooks, pens, pencils, paints, and so on) had a small positive effect on results, as did attitude to school, extent of contact of child with parents, relationship with the teacher and family's access to public utilities (hot and cold water, telephone, heating system).

In general, the survey is a useful reminder of the importance for achievement of factors located outside the school.

Source: Ministry of Education and Science of the Republic of Kazakhstan (1999), *Monitoring Learning Achievements: Primary School Survey, Kazakhstan, May-June 1999,* Almaty, Kazakhstan: Ministry of Education and Science.

exceeded the average for (non-Central and Eastern European) OECD members (69 percent). For several the figures were lower than in many developing countries. Internet access aside, the Russian rural headmistress quoted in Box 4.3 spoke for many in the region when she wrote: "when I read all these wonderful articles about computers and television, my heart aches – our children and, yes, it would be a sin to conceal it, even some of the teachers have never even seen a computer".

As for teachers, the qualifications of mathematics teachers at eighth grade in the 11 transition countries covered by the 1999 TIMSS compare favourably with those of teachers in other countries in the sample; the share of students taught by teachers having both teacher certification and mathematics as the major area of study was 99 percent in Hungary and FYR Macedonia (joint best among the 38 countries included in the survey) and well above the international average of 73 percent in all transition countries except Latvia (61 percent) and Moldova (34 percent). But there is some evidence of poor qualifications among the region's primary school teachers,[34] and in-service training has been hobbled by lack of resources. Reform would involve not only reducing the number of teachers, but also ensuring that they play a more flexible and innovative role in the classroom.[35]

The national examination system is a key determinant of what is taught. This needs to be transparent and fair, allowing children of similar levels of achievement to perform equally well and to be certified as having done so, regardless of family background. It should be free of manipulation by teachers either on behalf of their schools, or in favour of particular children.

The national examination systems of Central and Eastern Europe and the former Soviet Union do not in general live up to these standards. The main school-leaving examinations have tended to have almost no value, socially or in the labour market: universities have largely ignored them and have established their own examinations to select entrants, thereby placing a double-exam burden on students, without any benefit in terms of improved academic standards. Much reform of examinations is still needed.[36]

Labour market outcomes

In the planned economy, level of education made less difference to an individual's experience in the world of work than it does in a market economy. Unemployment was unknown, and many well-educated people earned only a little more (and sometimes less) than production workers, although they did enjoy better working conditions, an important "non-wage benefit" of a job. In the generally depressed labour markets of the 1990s, on the other hand, with rising unemployment rates and falling real wages, it paid more to stay in the education system as long as possible. The higher the level of education, the lower the probability of unemployment and the higher the likely level of earnings.

Table 4.6 shows how unemployment rates vary among 15-24 year-olds with differing education levels in eight countries in the region. As can be seen, although the strength of the education effect is not uniform, in all countries without exception the unemployment rate is lower for those with upper secondary schooling than for those without it and lowest of all for those with tertiary qualifications. Except in Poland, unemployment rates are lower for upper secondary school graduates with vocational qualifications than for their counterparts from general schools. Unemployment is, however, an inadequate measure of the

labour market problems of young people in transition economies: an unusually high proportion of 15-19 year-olds are neither in the labour force, nor in school (for instance, 9 percent in Russia and Hungary in 1998, compared with 5 percent in the US and the UK).[37]

Data on earnings support the view that more education is an increasingly good investment for the young job-seeker. In the early years of the transition the gap between the wages of secondary and primary graduates and that between tertiary and secondary graduates widened considerably in many countries (based on data from the Czech Republic, Poland, Hungary, Slovenia and Croatia).[38] The returns to higher education are comparable to those obtained in high-income market economies and have been tending to increase (based on evidence from Kazakhstan, Azerbaijan, Uzbekistan, Russia, Hungary, Poland, FR Yugoslavia, Czech Republic and Slovakia).[39] In the Czech Republic, Hungary and Poland, as Table 4.7 shows, the process of widening differentials continued into the middle of the decade and beyond, although for both sexes in Hungary and for females in Poland the premium for secondary schooling fell after 1992. The wage premium for general over vocational secondary schooling (which has increased for all categories except Polish females) should also be noted: a vocational qualification may make it easier to get a first job, but probably pays less in the longer run (see Box 4.6).

Significantly, in Hungary, as the returns to education have risen, those to labour market experience have fallen: the younger cohorts have a new type of knowledge which is of more value in the market economy. For instance, the biggest increase in returns to secondary schooling has been enjoyed by younger women with very little experience, reflecting a growing demand for female non-manual employees in the services, trade and financial sectors.[40]

Determinants of labour market outcomes

Education is not, of course, the only determinant of labour market outcomes. Participants in focus groups organized for the MONEE project in the Czech Republic, Russia, Ukraine and Uzbekistan emphasized the continued importance of information, family connections and money (to pay bribes).[41] As Chapter 1, Table 1.3 shows, "coming from a wealthy family" and "knowing the right people" are judged as much more important to getting ahead by survey respondents in Central and Eastern Europe than they are by those in Western countries. Ideally, the public employment service should be disseminating useful information to young job-seekers, but the extent to which it does so varies from country to country and, within countries, between rural and urban areas. The importance of connections and resources might be expected to diminish as educational and economic reforms proceed. Even now, there is widespread recognition among young people that a good education is typically a necessary condition for getting a good job.

As already discussed, the prospects of success in the labour market are improved if pupils leave school or university with the requisite skills, the nature of which is changing rapidly. For instance, a survey of employers in the Czech Republic in 1998 found that they were looking, in the case of university graduates, for people who were able

Table 4.6

Unemployment rates among youth aged 15-24, by education level, 1998
(percent)

		Tertiary		Upper secondary			Below upper secondary
	All	University	Non-university	All	General	Vocational	
Czech Republic	–	10.8	–	–	13.7	10.5	17.3
Poland	19.6	14.4	23.9	20.6	19.8	22.9	24.5
Hungary	4.1	5.8	3.7	9.8	11.6	8.9	18.3
Latvia	4.1	–	–	22.8	–	–	31.5
Russia	14.6	12.8	16.1	28.9	36.5	25.9	50.0
Azerbaijan	30.5	32.2	22.7	48.0	50.7	42.7	49.9
Kyrgyzstan	21.0	–	–	37.9	39.6	33.1	39.7
Tajikistan	19.5	–	–	31.5	32.1	28.3	39.6

Source: Regional Monitoring Report, No. 7.

Note: Year is 1995 for Azerbaijan and Kyrgyzstan, 1996 for Latvia and 1999 for Tajikistan.

Table 4.7

Wages, by level of education, percentage differences from primary (or less)

		Vocational secondary	General secondary	Higher
Czech Republic				
Male	1989	6.4 – 7.7	12.7 – 13.5	28.3
	1996	9.4 – 11.2	29.4 – 35.1	54.4
Female	1989	7.4 – 7.9	11.6 – 20.6	39.0
	1996	10.4 – 16.6	38.0 – 39.4	65.6
Hungary				
Male	1989	11.6	24.8	67.8
	1992	14.5	34.9	83.9
	1996	14.5	32.9	86.8
Female	1989	12.8	26.0	74.1
	1992	14.2	35.7	86.7
	1996	11.6	33.1	88.0
Poland				
Male	1989	10.3	5.7 – 19.7	43.0
	1995	11.5	20.0 – 26.6	60.6
Female	1989	9.4	24.9 – 26.7	42.5
	1995	3.6	11.3 – 16.4	48.4

Source: Table 1 in Kertesi, G. and J. Köllő (1999), "Economic Transformation and the Return to Human Capital: The Case of Hungary, 1986-1996", *Budapest Working Papers on the Labour Market*, No. BWP 1999/6, Budapest: Department of Human Resources, Budapest University of Economics.

Note: Estimated from Mincer-type earnings functions, isolating the impact of education from that of other factors.

to make decisions, to work within a team, to demonstrate initiative, to be self-starters and to learn. The most important skills, in their view, were proficiency in communication, computer literacy and command of languages.[42]

In the case of secondary school graduates (vocational and general), employers prized willingness to learn, capacity for teamwork, literacy, numeracy and ability to understand instructions more than they did advanced technical knowledge. The measures to improve learning outcomes discussed above are in line with these views, as are the increasing emphasis in most of the region on general rather than vocational/technical secondary schooling (as shown in Figures 4.5 and 4.6) and the current moves to reform vocational/technical curricula, shifting away from narrow specializations towards the more flexible skills that are required in a market economy. The aim is to achieve a better balance among general education subjects, instruction in theoretical foundations and practical skills training. Improving the "employability" of school-leavers and graduates is not, of course, merely a matter of reform at secondary level and above. Such reform has to be firmly based on the foundation of improvements in the quality of basic education.

In all this it should be remembered that, in transition and in market economies alike, more and better education not only improves the competitive position of an individual within a national labour market, but can also (as emphasized in the introduction to this chapter) change the basis on which an economy competes in global markets. The qualities that will be encouraged by educational reform are also those that will prevent a slide into or promote a leap out of "low-skill equilibrium", that is, the endless prospect of competitiveness based only on keeping labour cheap and exporting unprocessed raw materials.

Box 4.6

Vocational education and training are in crisis

A recent review of vocational education and training (VET) reform around the world, including case studies of Hungary, Poland, the Czech Republic, Russia and Kazakhstan, has underlined the context for such countries of transformational recession and fiscal crisis: government funds for VET have dwindled, teachers are poorly qualified and their salaries are low, and little or nothing is spent on materials and equipment. The crisis in many firms and enterprises, especially in the poorer countries in the region, means that employers cannot afford to train or to pay for training and are not expanding recruitment. And most parents cannot afford to pay much for training.

As part of the transition to markets, the structure of demand is changing (for example, from industry to services and tourism) as is that of occupations (from specific to broad occupations which are flexible over time, but which require higher levels of general education). Changing but still relatively narrow wage differentials at this level affect the incentives to acquire skills, and unrestructured enterprises are not interested in becoming involved in VET. Social partner organizations are weak or discredited. Institutions and procedures for managing a vocational education and training system in a market economy are missing or very new – for instance, decentralization, monitoring, subcontracting, competitive tendering, accreditation and quality control, and dissemination of pilot innovations. Quality controls have traditionally been over inputs (curricula) rather than outputs (final examinations/standards). And there are very few private training institutions.

The internal and external efficiency of government VET institutions in the whole region is in doubt because of this funding and demand crisis, the previous narrow and early-specialism approach and the stigma of taking "failures", and the lack of a link with the new type of labour market. In some countries there is a spontaneous, chaotic response to market forces, as government institutions starved of funds compete, with each other and with the few private institutions, for students who can pay.

Sources: Gill, I., F. Fluitman and A. Dar (2000), *Vocational Education and Training Reform: Matching Skills to Markets*, New York: Oxford University Press.

■

4.5 Conclusions

In general, the first decade of transition has not been good for the region's education systems. Central Europe and the Baltic states are the only sub-regions that have been able to maintain (almost) or increase enrolment rates at all levels, from pre-school to tertiary. At most levels, trends in the Western CIS are worrying, and those in the Caucasus and Central Asia extremely worrying. Falls in pre-school enrolment rates in the transition countries are a blow to the health and nutrition of young children (although recovery is under way in many countries). Even more alarming are the signs of backsliding from the principle of universal compulsory basic education in a number of countries and the growth of an "underclass" of teenagers who are neither in school, nor in the labour market.

At secondary level, the collapse of vocational/technical education has not been fully offset by the increase in general secondary enrolment rates, so that overall enrolment rates have tended to fall. Some comfort can be derived

from the boom in tertiary education in all sub-regions except Central Asia. It is encouraging also to see girls holding on to their share of enrolment in basic and secondary education and increasing their share in higher education.

Equity in access to education also seems to be diminishing. The link between parental education and access to education is strong and is probably getting stronger, as is that between family income and enrolment and attendance; the relative disadvantage of rural areas and, in many countries, of minority ethnic groups is also growing. The institutional approach to the education of disabled children still seems to dominate, and its quality is threatened by reduced budgets.

Underfunding is a crucial problem. The achievement of a large number of countries in protecting educational expenditure in economies that were collapsing must be saluted. But, while this meant that the share of such spending in GDP was maintained or even in some cases increased since real GDP was in most cases falling, the real value of educational expenditure also fell. Real spending per pupil has risen in some countries because of the drop in the number of school-age children, but the opportunity has not been taken to reduce the number of teachers and hence to allow a rise in the pupil/teacher ratio. Although teachers are badly paid, the share of staff costs in total costs has thus remained high, to the detriment of repairs and maintenance and the timely payment of wages.

Households are bearing an increasing proportion of the costs of schooling, direct and indirect, legal and illegal. As a result, both equity of access and educational efficiency tend to be threatened. The decentralization and deconcentration of financing and governance of educational institutions are proceeding at varying speeds throughout the region, with as yet unclear consequences for equity and efficiency.

One question raised by these discouraging trends in access and expenditure is whether they are a threat to the quality of education. The results of recent international tests of achievement in eighth-grade mathematics and science have been quite encouraging, but the need for a move towards a more flexible approach to learning is widely recognized. The reform of curricula and examinations, crucial for this purpose, still has a long way to go. Shortages of textbooks are still common, especially in the poorer countries. Teachers are often in need of re-orientation. In general few schools have computers, and even fewer Internet access, and the involvement of parents in schools is low. Schools are also paying inadequate attention to imparting the life skills needed for healthy survival in the dangerous new world outside the school. In general, it is difficult to dispute the view that the maintenance and improvement of the learning outcomes in the region require more money.

In the generally depressed labour markets of the transition decade it paid to have stayed in the education system as long as possible. The higher the level of education, in general, the lower the probability of unemployment and the higher the likely level of earnings. As for the types of skills needed for individuals to succeed, numeracy, literacy, willingness to learn, capacity for teamwork, ability to understand instructions and, at a higher level, proficiency in communication, computer literacy and command of languages (all in line with the educational reforms that are under consideration) are more highly prized by employers than are narrow technical specializations alone. They are also the types of skills that will help the economies of the region meet the challenges in and from international market places in the 21st century, to the benefit of future generations of children.

Finally, in a region that ranges from the Czech Republic to Tajikistan it is difficult to make universally applicable policy recommendations, although one common need is for resolute political leadership to prioritize education and carry through whatever policy changes are appropriate to a country's situation. However, a few pointers for policy certainly do emerge from this chapter's survey of the problems:

- The principle of universal, compulsory, high-quality basic education (with a graduation rate approaching 100 percent, implying a need to reduce late entry and repetition, as well as dropout) needs to be re-established and defended.
- The shift from vocational to general secondary education should be welcomed in the absence of the far-reaching reform of the content of vocational schooling.
- The balance between the genders in educational enrolment needs to be kept under review. At all levels the concern should be to ensure a commensurate share for females, but in higher education the appropriate question in some countries may soon be why so many males are staying away.
- Interventions to reduce the impact on access and achievement (in schools and labour markets) of factors other than right and merit (family income, family education/connections, locality, ethnicity, and so on) might include scholarships for students from disadvantaged groups, differential current and capital expenditure per pupil in disadvantaged schools, an end to subsidies for private schools, a drive against illegal payments of all kinds, and wider dissemination of good labour market information.
- A more determined effort to get away from the institutional approach to the education of disabled children is needed.
- The attempt to protect public expenditure on education should continue, but with emphasis not just on its share of GDP, but also on its value in real terms. More real money is needed to improve learning outcomes via the reform of curricula, teaching methods and examinations and the provision of textbooks and equipment.
- The educational budget could be used more efficiently by reducing the number of teachers, paying them more (and

on time) for full-time commitment and retraining them where necessary for a more flexible and innovative role.

- In the reform of education, care needs to be taken not to jeopardize the traditional strengths of the systems, as evidenced by the recent mathematics and science test results.
- The international assistance available for salt iodization should be accepted, to the benefit of educational achievement (see Chapter 3), and schools should play a larger role in imparting the life skills needed by young people to deal with the increased risks that they are facing.
- As management is increasingly decentralized, but funding largely still centralized, a transparent formula is needed for the allocation of funds, with departures from the principle of "money follows the student" allowed only on simple national criteria (for example, to combat specific inequities). Where funding is decentralized, central governments must ensure that adequate systems of transfers from the centre are in place to allow poorer local authorities to do their job.
- Schools' efforts to finance themselves should be encouraged, but practices with perverse consequences (such as the sale of output) should be avoided.
- The involvement of parents, employers, trade unionists and representatives of civil society in a managerial (not just advisory) role would help to ensure the relevance of schools to the needs of society and the economy.

■

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