Education *for* All?

The MONEE Project
CEE/CIS/Baltics
REGIONAL MONITORING REPORT – No. 5 – 1998

unicef
United Nations Children's Fund
International Child Development Centre
Florence - Italy

Education *for* All?

The MONEE Project
CEE/CIS/Baltics
REGIONAL MONITORING REPORT – No. 5 – 1998

unicef
United Nations Children's Fund
International Child Development Centre
Florence - Italy

The UNICEF International Child Development Centre (ICDC), often referred to as the *Innocenti Centre*, was established in 1988 with core funding from the Italian government to serve as a specialized research and training facility. The Centre undertakes and promotes policy analysis and applied research relating to the rights and welfare of children. It also provides training and capacity-building opportunities for UNICEF staff and for professionals in other institutions with which UNICEF cooperates. The Centre is housed within the *Spedale degli Innocenti*, a foundling hospital designed by Filippo Brunelleschi that has been serving abandoned and needy children since 1445.

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

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.
4. *Children at Risk in Central and Eastern Europe: Perils and Promises*, 1997.

Russian as well as English versions of the Reports are available. A summary of the fourth Report has been published in English, Russian, French, and Italian.

Besides benefiting from the core funding to UNICEF ICDC from the Italian government, the MONEE project receives financial contributions from the UNICEF Regional Office for CEE/CIS/Baltics and from the World Bank.

Readers wishing to cite this Report are asked to use the following reference:

UNICEF (1998), *Education For All?*. The MONEE project Regional Monitoring Report, No. 5. Florence: UNICEF International Child Development Centre.

Design
Bernard Chazine
Printed by
Arti Grafiche Ticci - Siena, Italy

ISBN: 88-85401-38-4
ISSN: 1020-6728

All correspondence should be addressed to:
UNICEF International Child Development Centre
Piazza Santissima Annunziata, 12
50122 Florence, Italy
Tel. (+39) 055.20.330
Fax. (+39) 055.20.33.220
E-mail: (for information) florence@unicef.org
(orders) florenceorders@unicef.org

Foreword

Children's right to learn and to develop their full potential is fundamental to their lives and to the well-being of society. Helping to realize this right is an important aim of UNICEF's work. The obstacles to be overcome include poverty, civil conflict, preventable disability, child labour and discrimination. These obstacles exist in many parts of the world. As the global advocate for children, UNICEF speaks out on these issues in rich and poor countries alike. This report on education in Central and Eastern Europe, the Commonwealth of Independent States, and the Baltic republics contributes to the work of UNICEF in promoting education as a fundamental right for children.

Educational policy has been the subject of intense debate in recent years throughout the world. In the case of the 27 countries covered by this report, educational policy faces twin challenges. First, is the challenge to protect the positive educational achievements of past decades and second, is the need to adopt new approaches during the transformation of the economies and societies in the region in education and other areas of public policy.

This report from UNICEF International Child Development Centre aims to promote action through analysis and discussion of critical issues on educational policy that are of concern to governments and other partners in the region. As in all other parts of the world, there is much that can be done to improve education for children. Educational reform is a central part of the transition process needed to improve the lives of children living in the region.

Carol Bellamy
Executive Director, UNICEF

Acknowledgments

This Report has been prepared by a team at UNICEF ICDC with contributions and assistance from a large number of other persons. The Florence team was composed of Aline Coudouel, Alessandra Cusan, Gáspár Fajth, Cinzia Iusco Bruschi, Jeni Klugman, John Micklewright, Albert Motivans, and Olga Remenets. John Micklewright edited the Report; responsibility for the views expressed rests with him.

Important contributions were made by Johanna Crighton (Box 2.7 and accompanying discussion), Judith Harwin (Box 1.4), Jim Himes (Box 3.2), Eddie McLoughney (Box 4.3 and accompanying discussion), Diana Saltarelli (parts of Section 3.4), Simon Strachan (part of Section 4.2), Roberto Laurenti (who provided the information for Box 4.10), and Arlinda Ymeraj (Box 1.1). The first part of Section 2.4 is based on a background paper written by Andy Newell and Barry Reilly. The first half of Section 3.3 summarizes a draft paper written by Mel Ainscow and Memmenasha Haile-Giorgis. The text of Section 4.3 is based on background papers written by Mike Barrow, Jeni Klugman and Kitty Stewart. Kitty Stewart also provided assistance with data for Chapter 1. Ana Lasaosa provided Figures 3.10 and 3.14. Jane Falkingham, Péter Galasi and Gyula Nagy supplied information for various parts of the Report. Dorotha Holzer-Zelazewska, Timothy Heleniak and Dena Ringold worked with the Florence team for several weeks in assembling the data and provided a vital input to the project's work.

Papers summarizing the situation regarding particular aspects of the educational system in their countries were written by the following (sometimes in conjunction with other persons): Libor Svoboda, Jana Hendrichová, Jessie Kaštánková, Radim Ryška, Cătălin Zamfir, Vladimir Grachev, Alexander Savelyev, Vahid Ahundov, Birutė Mockienė, Helena Woleková, Vladimer Papava, Elena Chikorani, Judit Lannert, László Limbacher, Snezana Adamcheska, Theodora Noncheva, Olga Gomeleva, Stanislawa Golinowska, Bożena Kołaczek, and Ella Libanova.

Drafts of the chapters were commented on by Mike Barrow, Nigel Cantwell, Fay Chung, Johanna Crighton, John Donohue, Rob Fuderich, Stephen Heyneman, Jim Himes, Michael Mertaugh, Andy Newell, Yuri Oksamitniy, Barry Reilly, and Simon Strachan. Douglas Windham and John Bennet contributed to a meeting to discuss the Report's material, as did others already named above. Johanna Crighton, Jeni Klugman and Jim Himes made very helpful and prompt additional comments in the final stages of editing. Robert Zimmermann copyedited the text with his customary enthusiasm and "pignoleria". Bernard Chazine and his staff are thanked for their work on the design and layout of the Report.

Work on the Report benefited from the encouragement and help of many UNICEF colleagues in other offices: Rudolf Hoffmann, Robert Fuderich, Yuri Oksamitniy, Abdelmajid Tibouti, Maggie Murray-Lee, Alexandre Zouev, Gareth Jones, Ekrem Birerdinc, Michael Alexanian, Maie Ayoub von Kohl, Elena Bogdanska, Stanislaw Czaplicki, Ute Deseniss-Gros, Bertrand Desmoulins, Johan Fagerskiold, Pierre Ferry, Hanno Gaertner, JoAnna van Gerpen, Gary Gleason, Stephen Johnson, Elmina Kazimzadeh, Roberto Laurenti, Serap Maktav, Nada Marasović, Svetlana Marojević, Tom McDermott, Gianni Murzi, Irena Nikolova, Jacqueline Peters, Gianfranco Rotigliano, Rudy Rodrigues, Alla Soloviova, Simon Strachan, Raissa Sulamaa, Boris Tolstopiatov, Stefan Toma, and Zaza Varsimashvili. Particular thanks go to John Donohue, Director of the CEE/CIS and Baltics Regional Office, in Geneva, for his support. Finally, thanks go to Paolo Basurto, Director of ICDC, Bernadette Abegglen-Verazzi, Andrea Brilli, Nigel Cantwell, Patrizia Faustini, Patricia Light, Jason Pearce, and other colleagues at ICDC.

Persons in several other institutions must also be thanked for their assistance: Ralph Harbison, Timothy Heleniak, Stephen Heyneman, Dorotha Holzer-Zelazewska, Alexandre Marc, Michael Mertaugh, Pip O'Keefe, and Dena Ringold from the World Bank (Dena Ringold is thanked especially for support in her liaison role); Francesca Pissarides, Martin Raiser and Nick Stern from the European Bank for Reconstruction and Development; Ian Whitman, Scott Edwards and Stojan Zavišić from OECD; Paul Rayment of the UN Economic Commission for Europe; Yuri Misnikov from UNDP, Minsk; and Erio Ziglio from the WHO Regional Office for Europe.

The Report could not have been produced without the participation of the central statistical offices in the countries of the region. (They bear no responsibility for the way data are used or presented in the Report.) Thanks are due for their many contributions (including written papers) to the following persons and to others working with them:

Albania	Milva Ekonomi
Armenia	Juliette Magloutchiants
Azerbaijan	Arif Velief, Yashar Pashayev, Meri Gardashjhanova
Belarus	Galina Gasyuk
Bosnia-Herzegovina	Hasan Zolić, Krešimir Krmpotić
Bulgaria	Kiril Gatev, Roumiana Gantcheva
Croatia	Ružica Adamović, Senka Bosner
Czech Republic	Jaroslav Novák
Estonia	Aavo Heinlo, Urve Kask
FR Yugoslavia	Dragiša Bjeloglav, Dragana Filippi
FYR Macedonia	Svetlana Antonovska, Donco Gerasimovski, Marina Mijovska
Georgia	Teimuraz Gogishvili
Hungary	Judit Lakatos
Kazakhstan	Zhaksybek Koulekeev, Erobolat Musabekov, Maira Omirkhanova
Kyrgyzstan	Zarylbek Kudabaev, Kuliypa Koichumanova
Latvia	Edmunds Vaskis, Maranda Behmane
Lithuania	Zita Sniukstiene
Moldova	Eugenia Mihailov, Jana Tafi
Poland	Alina Baran, Zofia Gałazka
Romania	Dorel Gheorghiu, Pavel Wagner
Russia	Vladimir Sokolin, Irina Zbarskaya
Slovakia	Janka Hostýnová, Alexandra Petrasova, Eugen Plačintar, Milan Olexa
Slovenia	Tomaz Banovec, Joza Klep, Tatjana Škrbec
Ukraine	A.G. Osaulenko, Viktor Holovko, Helen Paliy

Contents

Introduction and Overview

The purpose of the transition in the countries of Central and Eastern Europe and the former Soviet Union is twofold: to raise the living standards of the more than 400 million people in the region and to develop societies that are more humane and democratic than those that existed previously. The creation of free markets, the liberalization of the region's economies and the reduction in the role of the state are important aspects of the transition process. But it should be remembered that these are merely some of the instruments for reaching the real objectives, rather than the ultimate aims of what is taking place.

The real objectives are sometimes forgotten, or emphasis is placed on just one set of instruments for achieving them. Social aspects of the transition frequently receive insufficient attention, and the public policy required to advance social conditions and human rights is too often treated as if it were secondary to economic aspects of the transition. In reality, social conditions and human rights, and public policy relating to them, are central to the movement from one system of economic and social organization to another.

This year's Regional Monitoring Report focuses on education. This is a subject of huge importance not only to the nearly 115 million children in the region, but to all persons living in the 27 countries concerned. Education is vital for a nation's economic growth. For the individual, it has an enormous effect on the probability of avoiding poverty and of improving material living standards. But the importance of education goes far beyond these aspects. Education should enrich the lives of individuals in many ways. And schools and other institutions of education are vehicles for the creation and transmission of society's values and for the maintenance of social cohesion. This is clearly central to a transition process that aims to develop societies that are fundamentally different from those that went before. In many countries, transition involves the building of new nations – the 27 countries in the region today have been born out of only eight countries that existed at the end of the 1980s. Education has an essential part to play in this change.

Education has, therefore, huge value for the individual, whether in enhancing the "human capital" that he or she brings to the labour market, or in furthering personal development in ways unrelated to economic prospects. Its value for the individual is so high that access to good quality education is recognized as a human *right* in international instruments such as the UN Convention on the Rights of the Child. Many people are cynical about international law of this type. The Convention on the Rights of the Child, which came into effect in 1990, has been ratified by all but two of the world's sovereign states – an unparalleled degree of international acceptance. But its significance is questioned. Surely, it is asked, the Convention is of little practical relevance, since its provisions are not enforceable by individuals and many states are not serious about its implementation?

This view is mistaken. It underestimates the good intentions of governments. And it also fails to take in the true nature of the Convention. Enhanced by its near universal ratification, the Convention on the Rights of the Child provides a powerful vision of a society that nurtures individual development and respects human rights – a vision that forces attention away from a narrow approach to public policy on many issues. In the case of education, the various provisions of the Convention, both those relating to schooling specifically and those covering child development in general, serve as a striking reminder of what educational systems should be trying to achieve: development of all aspects of the individual and preparation for responsible life in a free society. The Convention also underlines the basis on which this should be done, notably an absence of discrimination linked to any individual or family characteristic and an environment of decision-making in which primary importance is placed on the best interests of the child.

The notion of good quality education as a human right implies that *every* child should have access to such schooling. The title of this Report is borrowed from the World Conference on Education for All, held in Jomtien, Thailand, in 1990, convened by UNDP, UNESCO, UNICEF, and the World Bank, and attended by participants from 155 countries. The Report asks whether "Education for All" *is* found in the countries of Central and Eastern Europe and the former Soviet Union? Do all children receive the type of education that is their right, and that is so important in the construction of the new societies and economies in which they live?

One's first thought might be that the communist regimes that used to exist in the region had a comparative advantage in achieving education for all. Surely communism provided support to individuals from "cradle to grave", and surely a high-quality education for all children was an important part of that support? Is not the main issue, therefore, one of preservation of previous achievements, rather than reform?

Was there education for all?

The communist regimes certainly attained levels of access to education that were far beyond those in many other countries at similar stages of economic development. Enrolment in basic schooling, from age 6 or 7 to age 14 or 15, was more or less universal. And there was broad equality between the genders in terms of access at different levels of education, unlike the case in many other countries. Standards of learning in maths and science have been high in much of the region. An international survey of learning achievement of 13 year olds held in 1995 ranked the Czech Republic 6th in maths out of 41 countries and 2nd in science, compared to ranks of 23rd and 18th for Germany and 28th and 17th for the USA. Several other former communist countries scored well, too (although others, such as Romania, did not).

A closer look at figures on enrolment and at the type and quality of education tells a rather different story. It is a common misconception, for example, that all children went to kindergartens before attending elementary school and therefore benefited from formal programmes of early childhood development. But only in a few Central European countries were enrolment rates really high. Rural children were much less likely to be enrolled in kindergartens than were children living in urban areas. Another misconception is that there was equal access to education beyond the compulsory level. Enrolments in the more academic stream of upper secondary schools, and in university and other tertiary education, showed many of the differences associated with social class background that are found in Western countries.

The requirements of a centrally planned economy had a big impact on the structure of secondary schooling under communism. The situation varied across the region, but, for many young people, very narrowly defined vocational schools provided just the minimum training needed for employment by local state enterprises. This introduced an allocative element into the type of education obtained by children after the basic level, restricting educational opportunities for children in those areas where only certain types of schools were present.

The quality of education left much to be desired, even in the general academic stream of secondary schooling. There was great emphasis on learning facts, and much less on acquiring skills that allow knowledge to be applied in novel situations. This shortcoming is especially significant in the move away from a planned economy to a market economy that requires greater individual responsibility and flexibility. Teaching methods were generally rigid and authoritarian, with insufficient attention paid to the needs of individual children. Schools were far from having the "child-centred" focus envisaged in the Convention on the Rights of the Child.

In several senses, therefore, there was *not* "education for all" under communism, and much needed to be done at the start of the 1990s. The urgency for reform to the inherited systems, rather than their mere maintenance, is exemplified in the teaching of history and social sciences. Imagine a school system in which history books need revision overnight and where compulsory courses in the prevailing ideology of society are suddenly obsolete.

The economic background

Educational reform in the region has had to take place against a backdrop of great economic and social change. The first chapter of the Report lays out the economic background. It also updates analyses in earlier Reports of various important social trends in the region, including those in mortality and family structure. Finally, it provides an introduction to the countries of former Yugoslavia and of Central Asia, new to the MONEE project this year.

The economies of most countries are now growing, but there remain huge shortfalls in measured output from levels at the start of the transition. In half the countries in the region, real GDP in 1997 was still 40 percent or more below that in 1989. This shrinking in size of the national "cake" is the first aspect of economic change that is relevant to the discussion of education. It affects, for example, the ability of governments and households to finance school costs, and the labour market opportunities for graduates and school leavers.

The second aspect is the changes that have occurred in the distribution of income – the way the cake is divided up. Inequality has risen, with the result that an increasing number of households have fared worse than the average. The rise in inequality in several countries of the former Soviet Union, including Russia, has been particularly notable.

The third aspect is the changes in government revenue – the slice of the cake that is taken to finance the activities of the public sector, including the provision of education. In some cases this has shrunk enormously, far beyond what might be considered a normal state of affairs in a country moving away from state socialism, but still concerned to finance basic services. Georgia is an extreme example, with government revenue as a share of GDP down from 34 percent in 1991 to 5 percent in 1995. And the countries where national income has fallen particularly severely are often those where the slice taken by government in revenue has shrunk the most.

Educational reform is therefore happening in countries that are typically poorer and more unequal and where the ability of the state to finance its activities has often fallen even more than has national income.

Key trends in education

Unquestionably, some educational reforms have been positive. And many people involved in educational provision, in both the teaching profession and in government

and administration, have struggled hard to maintain or improve matters. But numerous changes in educational systems – some unintended – have added to the challenges inherited from the communist period. What are they, and what have been their consequences for educational access?

- The costs to families of educating children have gone up, often sharply. Fees charged for kindergartens have risen; fees have been introduced in some countries for upper secondary schools, and they are becoming more common for tertiary education. Reports abound in some parts of the region of parents paying teachers in state schools for extra lessons, of having to bribe to secure good exam marks, and of having to make contributions to get their children into good schools. Textbooks are now frequently charged for, and they have often become enormously expensive in relation to family incomes. Clothing and shoes – necessary to attend school – are no longer subsidized in the same way as before. Grants for students living away from home have fallen sharply. All these increases in costs come during a period when family incomes have fallen and inequality has risen.
- The quality of schooling has fallen. Huge reductions have taken place in many countries in real public expenditure on education – by almost three-quarters, for example, in Bulgaria. Teacher morale has often declined along with pay, with negative consequences for the quality of instruction. Buildings and equipment have suffered disproportionately from spending cuts, and there are schools in many countries that are in a dire state of disrepair. The heating of schools in winter has become a serious problem in a number of countries, for example, Kyrgyzstan, Moldova and FYR Macedonia.
- Enrolment and attendance have often dropped, especially in the less-developed parts of the region. This has been partly due to rising costs and falling quality, which have depressed demand. But the supply of school places has also declined. For example, over 30,000 pre-schools were closed in the countries of the Commonwealth of Independent States between 1991 and 1995. In some countries, near-universal enrolment in basic education appears to have been lost. In the Caucasus and Central Asia, there seem to have been major falls in enrolment at every level of schooling.
- Social support provided by schools is down. The provision of meals and the supervision of children after school have fallen. Health and dental checks are less common; for example, 670,000 basic grade children in Georgia received a health check-up in 1989, but only 250,000 in 1996.
- There is greater selectivity and competition in education, including the development of élite, better-funded upper secondary schools, as well as private schools. This may help more able children and those from better off families, but does little for others (and may take resources away from provision for them). Some secondary schools in Russia have special agreements with universities, giving their pupils preferential access, which disadvantages other children.
- War due to ethnic strife or other causes has severely disrupted the education of thousands of children in countries such as Bosnia-Herzegovina, Croatia, Georgia, Azerbaijan, and Tajikistan, and the effects are still being felt by refugees and internally displaced families. Ethnic tensions in other countries have threatened the education of many children. The withdrawal of autonomy in the province of Kosovo in FR Yugoslavia (Serbia-Montenegro) resulted in 300,000 children of ethnic Albanian origin being taken out of the state educational system.
- Many young people face unemployment on leaving school or on finishing tertiary level studies. This is a waste of educational investment and of personal achievement. However, those with better education are more likely to get jobs, and there is evidence that the positive effect of education on earnings has risen.

These developments imply a marked increase in educational disparities. The general level of education has often declined. But not all children have been affected in the same way. Those affected most include children of some ethnic minorities and children in families caught up in war. The children in poorer families unable to meet the rising costs of education have obviously suffered. The same is true of children in many rural areas where school quality has been hit by shrinking local resources. Disparities have increased in richer as well as in poorer countries. For example, learning achievement of children in Hungarian villages has fallen, while that of children in cities has improved.

Disparities between countries have also got worse; the educational systems in the Caucasus and Central Asia have suffered far more than have those in Central Europe. But throughout the region, in countries at all levels of national income, schooling in accordance with the vision of the Convention of the Rights of the Child is frequently absent.

Some commentators have pointed to the results of the 1995 survey of learning achievement in maths and science, referred to earlier, to suggest that concerns may be exaggerated. If Russia can outrank countries such as Canada, Sweden, Germany, and the USA, surely the situation cannot be too bad? This argument overlooks many other aspects of schooling, and it ignores the fact that the results largely reflect the *inherited* attainment of school systems. In some countries, schools are now "running on air", with the deteriorating buildings and demoralized teachers noted earlier. The future education of a child of the new rich in a large city seems well assured. Either the parents will find a way to send the child to an élite state school, or the family's income will be sufficient to allow the choice of private schooling to be made. But the out-

look is bleak indeed for a child in a poor rural town that has few resources, where the one school has a leaking roof, and where the next generation of teachers, to replace those close to retirement, is hard to attract.

Policy towards education for all

What policies are needed to improve this situation? The Report identifies a number of steps to be taken. These would both improve educational systems in general and, in particular, increase the opportunities and the quality of education for less-advantaged children.

These policies can be grouped into six broad areas:

- Financial resources and their distribution.
- Parental and community participation.
- Content and methods of teaching and learning.
- Combating marginalization of groups of children.
- Early childhood care and development.
- Control of methods and standards.

Financial resources and their distribution. Governments need to reconsider how much money is being put into public-sector education and how the money is being spent. They also need to assess whether low-income households are effectively excluded from much education and whether poorer areas have sufficient resources to fund local schools.

There is no magic figure for the share of GDP that should go to education. However, in a number of cases this has shrunk to very low levels, typically due to sharp falls in tax revenues, as in Georgia and Armenia. These two countries aside, one of the lowest shares is in Russia; it is a concern that this country, which has so many children, allots a relatively small slice of national income to education (below the average for OECD countries). In much of the region, more money needs to be devoted to buildings and equipment and to teacher pay, not least to reduce "moonlighting" by teachers. This may well mean cutting teacher numbers, but these have actually risen in a range of countries during the transition.

Poor families face huge problems of access, in the widest sense, to good quality education. Schemes to combat this are urgently needed, so as to address all the aspects of the costs of educating children listed earlier. At the same time, the arguments are relatively weak for continued direct public funding for the private schools that have developed during the transition and that are more likely to be used by richer families.

Where local governments have authority over educational provision – a growing phenomenon in the region – central government must institute adequate systems of financial transfers to redistribute funds from richer to poorer areas. Unless this is done, poorer areas with an inadequate local tax base cannot fulfil their responsibilities.

Parental and community participation. Parents and other persons in the local community are a key resource to be mobilized wherever possible. This is part of the move away from an excessive reliance on the state. Mobilization of the community is especially important in an environment of weak state funding and institutional inertia.

First, parents and others in the community may help raise funds for a variety of purposes, as happens in many other industrialized countries. Their role in the organization of after-school activities, and in the restoration of other aspects of schools' social support, may be vital in a situation where schools lack financial resources. Community mobilization can play a particularly important role in maintaining school quality in rural areas.

Second, the encouragement of parents is essential to the progress of children at school. And a positive approach to parental involvement in school life may help ensure continued enrolment and attendance of children from less-advantaged backgrounds. Parents and others in the community are a key element in the monitoring of school standards, whether through formal channels of local democracy and school accountability or through less formal means.

Content and methods of teaching and learning. Many countries still have to make substantial progress in these areas. (One country visited in 1997 by the MONEE project team produced an example of a history book in which the only changes evident from the old curriculum were the blanked out photos and names of former Soviet leaders.) Curriculum reform has an important role to play in promoting ethnic tolerance and civil values.

As far as methods of teaching and learning are concerned, some important changes have been made. But an approach emphasizing the acquisition of facts, labelled by some as "factology", still too often prevails in many countries. Changes in ways of teaching and learning must be carried forward into examination methods. A well-run national system of school examinations also helps ensure that selection is on the basis of merit rather than any other criterion. (The increasing degree of selectivity in many countries also needs review.) The inheritance from the communist period of examination methods was very weak. Slovenia is an example of a country that has made important reforms of exams, while Poland, Moldova and Romania are examples of countries that are still only at the beginning of the process.

Combating marginalization of groups of children. The access to education and the learning achievement of several specific groups of children are a cause for concern and are in need of action. Children from low-income families and poor and rural areas have already been referred to, as have children in refugee and internally displaced families. Children of ethnic minorities are another group for which efforts are required to ensure good access. The language of instruction is one relevant issue that is being addressed in many countries, including large ones like Russia and Ukraine and small ones like FYR Macedonia (although the adequate knowledge of the national language is also

important). Other issues include the involvement of ethnic minorities in the governance of the local school system. Efforts to improve schooling for children from Roma families are needed in many countries.

Children with a mental or physical disability are another group for whom access is often inadequate. The approach to disability in most of the region, "defectology", has been associated with the education of disabled children in special schools, separated from those for other children. This obviously does not encourage any social integration of the disabled child. And the conditions in large-scale residential institutions, in which children with special educational needs have often been placed, frequently threaten child welfare. Moves towards the integration of disabled children into normal schools – the trend in many countries outside the region – have occurred in some countries, for example, the Czech Republic, Slovakia, Slovenia, Latvia, and Lithuania. However, in others, such as Bulgaria and Moldova, there seems little progress. In general, nowhere near enough is known about the education of disabled children in the region.

The education of girls was well protected under communism, compared to the situation in many countries in other regions. It is vital that this continue and that girls enjoy equal rights with boys. Care is needed to ensure that societal change does not mean that girls become a marginalized group in the region's educational systems. This risk is more apparent in some countries than it is in others.

Early childhood care and development. Various aspects of the early development of the pre-school child should be encouraged. Socialization with other children and preparation for compulsory schooling are important. Children's health and nutrition should also be promoted. Both of these influence mental development and alertness and, hence, learning achievement. Micronutrient deficiencies are common in much of the region; for example, iodine deficiency disorders (IDDs) are prevalent in most countries. The principal method for the elimination of IDDs is the iodization of salt, a simple, low-cost technique that has fallen into disuse in many countries. The fact that countries in really difficult economic circumstances, such as Bulgaria and Armenia, can re-introduce iodization shows that progress is possible everywhere.

Public policy must avoid an exclusive focus on formal kindergartens, to which children from rural and low-income families often have lower access. It should include parental education, public health campaigns and the stimulation of local community action for self-help schemes. The mass media, especially television, can be employed to good effect. Examples of innovative schemes of early childhood development are found in Azerbaijan and in Croatia and Bosnia-Herzegovina, all countries with low enrolment in public-sector kindergartens.

Control of methods and standards. The transition process involves a reduction in the role of the central state in numerous areas of life. In the case of education, there are many positive aspects of the development of community schemes, decentralization of authority over education to local governments and the development of private schools. But there are pitfalls as well. For example, local resource bases may be insufficient for local governments to fund schools adequately, requiring a well-designed system of transfers from the centre, as noted earlier. Local government units may be too small to undertake the administration of schools effectively. The local governments in Hungary that have been given major responsibilities for educational provision are an example of this problem.

There is a need for central government to keep firm control over standards and some aspects of the conduct of education, in order to protect and further child rights. This is exemplified by the experience of a large federal country outside the region. The de-segregation of schools was an important advance for child rights in the USA in the 1950s and 60s. Some state level governments wished to retain separate schools for black children and white children – action at the federal level was needed to abolish this practice. Central government in all countries in Central and Eastern Europe and in the countries of the former Soviet Union will always have the responsibility for ensuring that key rights of children to education are respected, no matter what level of government or other institution provides that education.

The appropriate types of policy to improve educational access and quality in each of these six areas are open to debate. However, this should not remove attention from identifying the key problems and from recognizing the need for action. The goal of this Report is to highlight the serious challenges facing the education of children in the region. This is essential for the analysis and discussion necessary for constructive policy choices by governments and by the international community assisting them. Education has a vital role in fostering the development of *all* children, including the recognition of their rights and responsibilities as young citizens. In strengthening this role, reforms in education are an integral part of the transition to more humane societies enjoying a better quality of life.

John Micklewright
Head of ICDC Research

1 Update on Welfare Changes

Transition in Central and Eastern Europe and the countries of the former Soviet Union has brought many changes to the lives of the people in the region. Some have undoubtedly been positive, such as the various benefits associated with moves to more democratic societies and the increased availability of goods and services. But there have also been numerous adverse changes affecting many aspects of living standards for almost all sections of the population. Some changes have not been surprising and have been part of the process of the transformation from one type of economic and political system to another. Others, however, have been unexpected, and, even where the direction of change was foreseen, the extent and speed have sometimes been a surprise. And while re-structuring of the region's economies will bring long-run benefits in terms of economic growth and a consequent rise in average living standards, some of the changes in the period of transition so far suggest that the benefits of that growth may not be shared by all.

Previous Regional Monitoring Reports from the MONEE project have documented many of these changes in detail, highlighting their impact for children and their families. The list of topics covered in previous Reports includes poverty, mortality, health, education, tax and transfer systems, family formation, and children in public care. Chapter 1 in this Report updates the analysis of the changes in a selection of these areas. In doing so it tries to bring out the diversity of experience across the vast region made up by the 27 countries of Central and Eastern Europe and the former Soviet Union. This year's Report sees the inclusion in the MONEE project of all of the countries of former Yugoslavia and all five Central Asian countries. (Kazakhstan is included in the Report's definition of "Central Asia" for convenience, although some sources do not treat it in this way.) These additional countries extend the range of economic, political and social circumstances in the countries covered by the project, enriching as a result the view of the problems in human welfare and child rights that need to be confronted in the building of new societies.

Selected economic changes are discussed in Section 1.1, these forming the background for the analysis of many topics affecting the welfare of children and their families and all other sections of the population – including education, the topic of the rest of the Report. Section 1.2 focuses on mortality, a direct measure of human welfare in its own right and a useful proxy for other changes in society. Various dimensions of social change are considered in Section 1.3, including changes in divorce, in single-parenthood and in the prevalence of children in public care. Finally, Section 1.4 concentrates on living standards in the countries from former Yugoslavia and Central Asia newly brought into the MONEE project.

■

1.1 The Economic Background

This section looks at three aspects of economic change in the region. First, the changes that have taken place in the output of the region's economies – the size of the "cake" that is produced. Second, changes in income distribution – the way the cake is divided up. And, third, changes in government revenue – the slice of the cake that is taken to finance the activity of the public sector, including the provision of education, as well as many other activities affecting child welfare. In each case the aim is to give the broad trends rather than a detailed treatment. The general picture is one of lower output and a more unequal distribution of what is produced. This is particularly true in the countries of the former Soviet Union, where in addition the share taken by government of the much reduced output has often fallen very sharply.

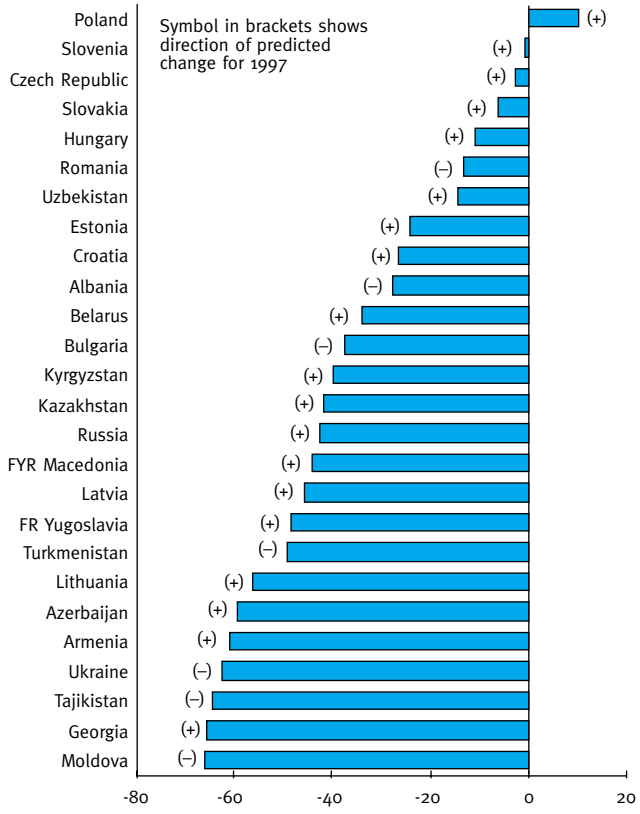
Changes in output

The cumulative changes in real GDP in the region between 1989 and 1997 are shown in Figure 1.1, where the countries are ranked by the size of the change in output that has occurred. It should be noted that the figures for 1997 are only estimates (made during the second half of the year by the European Bank for Reconstruction and Development); the direction of the changes is given in brackets for each country, and in three-quarters of the countries it is positive, reflecting the economic recovery under way in much of the region.

The diagram makes clear both the diversity of experience and the considerable shortfall from the 1989 level that is still to be made up in many cases. Poland is the only

country in which the recorded output exceeds that in 1989 (this happening for the first time in 1996). Slovenia nearly makes it, with GDP in 1997 only 1 percent beneath that in 1989, but in only two other countries, the Czech Republic and Slovakia, is output within 10 percent of the 1989 level. In 13 of the 26 countries (there is no continuous GDP series available for Bosnia-Herzegovina) output is still 40 percent or more down from the 1989 figure.

Figure 1.1



Cumulative change in real GDP, 1989-97
(1989=100)
Source: Statistical Annex, Table 10.1.

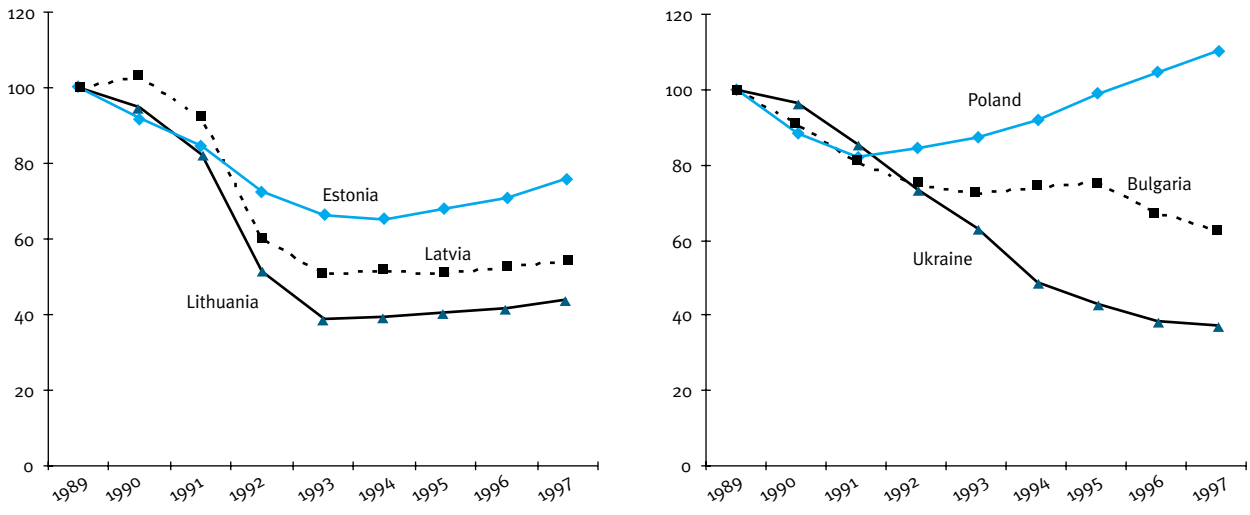
The ordering of the countries by GDP change corresponds with a rough geographic split. The top five countries are in Central Europe, and all but two of the lower 13 countries are from the former Soviet Union, where the fall has in general been greater and the recovery slower. The exceptions are FYR Macedonia and FR Yugoslavia, which are discussed further in Section 1.4. Nevertheless, it is important to note that there is usually considerable diversity even within groups of neighbouring countries that are often discussed together. An example is provided by the three Baltic countries in the left hand panel of Figure 1.2, which shows the path of GDP during the whole period. GDP in 1997 was 76 percent of that in 1989 in Estonia, but only 54 percent in Latvia and 44 percent in Lithuania.

One feature that is shared by the three Baltic countries is the way in which GDP has moved. First, there were sharp falls, and then output levelled out and started to recover slowly, beginning to pick up more speed towards the end of the period. This pattern of change has occurred in a large number of countries, albeit with variations in the size of the fall and the speed of the recovery – as in the Baltics. Russia, for example, may at last be following this pattern, with GDP in 1997 estimated to have risen for the first time (by 1 percent). Economic turnaround in Russia is of immense importance for living standards, in view of both the number of people within the country – some 38 million children (one-third of the region's total) – and the impact of the Russian economy on the rest of the region.

However, this stylized pattern of change does not apply everywhere, as emphasized in the right hand panel of Figure 1.2. This contrasts Poland, the classic case of a drop in GDP followed by a steady rise, with Ukraine and Bulgaria. GDP in Ukraine, the second largest country in the region, continues to fall, with output now over 60 percent beneath that in 1989. A light on the horizon is the fact that the decline estimated for 1997 – 3 percent – is substantially less than that in each of the previous six years, when it was always in double figures. Moldova, Tajikistan and Turkmenistan are the other countries where the decrease in GDP has so far been continuous.

The case of Bulgaria is an example where economic recovery set in, but then faltered badly. GDP fell by over 10 percent in 1996, wiping out the modest gains of the previous two years, and is estimated to have fallen again by

Figure 1.2



Different patterns of GDP change
(1989=100)
Source: Statistical Annex, Table 10.1.

over 5 percent in 1997. Romania and Albania also follow this pattern, which thus is common to the three countries classified as "South-East Europe" in the Regional Monitoring Reports. In Albania, there was very strong growth in the mid-1990s, and GDP in 1996 was at 85 percent of the 1989 level. The fall was caused by the chaos after the collapse of pyramid savings schemes in early 1997, although the consequences of this for human welfare have gone far beyond the reduction in output (see Box 1.1).

Rising inequality

A notable feature of transition in the region has been a rise in the inequality of incomes. This means that data on changing average living standards (for which GDP per capita may be considered a rough proxy) overstate the change for some persons and understate it for others.

Measuring movements in inequality in the region is not straightforward. The starting point at the end of the

Box 1.1

Albania in 1997: a lurch backwards

The collapse of pyramid savings schemes in January 1997 triggered chaos in Albania. Estimates of the European Bank for Reconstruction and Development (EBRD) used in this Report put the decline of output in 1997 at 15 percent (although prospects are believed to be better for 1998). But it is far from only the economy that has suffered. Many of the hundreds of thousands of weapons and millions of bullets that were taken from arms depots in early 1997 are still in circulation. During Autumn 1997 in Tirana, the calmest city, 16 children were reportedly killed by mines, bombs and bullets, and 32 others were injured. There has been huge destruction of the infrastructure for children, including schools and health centres.

What has happened in Albania? This small country of only three million people has particular interest for those concerned with child welfare. As many as 40 percent of the population are aged under 18, a figure exceeded in Central and Eastern Europe and the former Soviet Union only in the Central Asian republics. It is also one of the poorest countries in the region. GDP per capita at purchasing power exchange rates was estimated by the EBRD to be only US$1,300 in 1995 – lower than in any other country for which estimates were made, except Tajikistan.

Following student riots in 1991 and an exodus of an estimated 200,000 people, mostly to Italy and Greece, Albania attempted an abrupt transition from a closed Stalinist state to a democratic market economy. Close ties were re-established with Italy, and relations were normalized with other countries. Recovery was strong from the economic collapse that followed the fall of communism. GDP in 1992 was 60 percent of its 1989 value, but an annual growth rate of 8-10 percent was achieved in 1993-96. The government budget deficit was moderated, and inflation was restricted to just 8 percent in 1995 and 13 percent in 1996. Privatization put agriculture and small industry almost entirely in private hands, and the private sector in 1996 produced some 85 percent of GDP. Foreign direct investment occurred, especially in light industry and the food sector. (Italian investments are estimated to have made up about 60 percent.) A social safety net for the unemployed and the poor was established, and some social services for children in need were developed. Changes began to be made in tertiary level education, and some vocational training schemes for the unemployed and the young were arranged.

However, not all developments were positive. War in former Yugoslavia and tension between ethnic Albanians in the Kosovo region and the rest of FR Yugoslavia created isolation for Albania on its northern border. Privatization of middle and larger firms was hard to realize, and it was not until 1995 that industrial output began to grow, having fallen by nearly 80 percent in the previous five years. Agriculture absorbed about 60 percent of the labour force, but new smallholders struggled to realize their property rights following claims for restitution of pre-communist rights by former land-owning families who had become influential again in rural communities. Tax revenues continued to be weak. Stabilization efforts resulted in large real wage losses for public sector employees, especially teachers, doctors and administrators.

The economic recovery was driven by domestic demand for services, construction and agricultural products. (Agriculture's share of GDP rose from 37 percent in 1990 to 56 percent in 1995.) Sources of finance included remittances from Albanians abroad (estimated at US$300 million to US$1,200 million per year) and illegal trade with sanction-hit FR Yugoslavia. Private savings schemes acted as intermediaries between recipients of remittances and entrepreneurs needing credit. About 70 percent of Albanians are estimated to have put money into these "pyramid" schemes, which in 1996 began to offer astounding interest payments funded by using new deposits.

If the collapse of the pyramid schemes had only shattered the illusion of "easy riches", then the experience of Albania in 1997 could be seen in a positive light. But the collapse has had huge consequences for many investors and for the country as a whole. Some investors had sold their homes to participate in the schemes, and they became homeless; some had sold their land and livestock, and they lost assets vital to their livelihood. The loss of the savings accumulated through remittances represents a huge waste of the efforts and sacrifices of many families. (Of course, not all Albanians lost out; the collapse of schemes redistributed wealth for the benefit of a few.) And the destruction of infrastructure and lives is the most frightening measure of what went wrong.

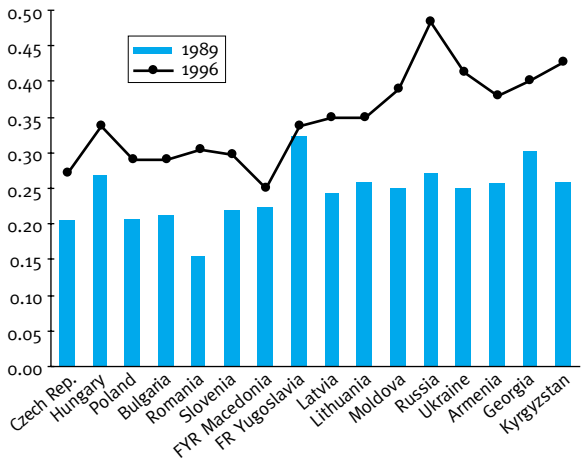
1980s is not fully clear due to weaknesses in data sources and the problems of interpreting the data that are available. There have since been improvements in data collection in a number of countries, but it is often difficult to get consistent information spanning the transition period. Some of the problems are discussed in Box 1.2.

Data that are reasonably consistent over time on the inequality of earnings among employees are more widespread than data on all forms of income received by households. Figure 1.3 shows how measured earnings inequality has changed in the region in the 16 countries for which data are available – eight from Central and from South-East Europe and eight from the former USSR (including examples from the Baltics, the Slavic countries, the Caucasus, and Central Asia). The diagram shows the value of the Gini coefficient, a common measure of the extent of inequality, for two years – in most cases 1989 and 1996. (A higher Gini coefficient represents greater inequality.)

In every case there has been a rise in measured inequality, and in most cases this has been considerable. Larger increases have been registered in countries of the former USSR. On average the Gini coefficient rose by one-third in the countries in Central and South-East Europe and by one-half in the former Soviet countries. The biggest rises in the two groups have been in Romania, where the Gini coefficient doubled, and in Russia, where it rose by three-quarters. In the case of Romania, the level of earnings inequality pre-reform was very low by international standards. In Russia, however, inequality in 1989 was already well up in the range found in OECD countries. (This fact needs to be set against arguments that the overall degree of earnings dispersion has to rise on account of the transition to a market economy.) Figure 1.3 shows that a number of other former Soviet countries had a degree of earnings inequality pre-reform that was similar to that in Russia.

The movement away from central planning should lead to changes in the wage differentials among different occupations that had previously been distorted in favour

Figure 1.3



Earnings inequality in 16 countries in 1989 and 1996
(Gini coefficient)

Source: Statistical Annex, Table 10.11.

Note: The earlier year is 1988 for Hungary and 1990 for FYR Macedonia; the later year is 1993 for Georgia, 1994 for Hungary and 1995 for the Czech Republic, Poland, Moldova, and Armenia.

Box 1.2

Measuring inequality during transition

Transition towards a market economy and, in many cases, towards a more open society has important consequences for data on the distribution of income. It also affects the interpretation of these data. There are more small firms, which are often excluded from earnings surveys. There are more self-employed, a group whose income is hard to measure. Social security benefits have become more complex, including increased use of means-testing, and as a result are more difficult to survey. The introduction of personal income tax may provide a disincentive for the accurate reporting of incomes in household surveys. High inflation may render data on annual incomes meaningless and heightens the problem of wages paid in arrears (a common problem in many countries of the former Soviet Union). And a change in the relationship between the citizen and the state may of itself reduce the willingness to co-operate with enquiries by the state statistical office. The response to the Czech microcensus fell from 96 percent in 1988 to 84 percent in 1992. In Hungary, the response to the budget survey dropped from an average of 78 percent in the three surveys held in 1983-87 to 61 percent in the annual surveys during 1993-95, with a figure of only 33 percent in Budapest.

These changes result in a lower quality of data. On the other hand, price liberalization and the removal of subsidies mean that the data should more accurately represent the distribution of economic welfare now than previously, although this in turn reduces comparability with the pre-reform period. Statistical offices in a number of cases have extended the coverage of surveys to groups that were previously excluded. For example, the Polish statistical office extended the sample of its budget survey in 1992 to the households of the non-agricultural self-employed. (Farming households were already included.) While certainly a good thing in itself, the extension of coverage again lowers comparability with the pre-reform period.

The budget survey of the former Soviet Union was of particularly poor quality, and new surveys have been developed in several of the now independent republics, often with World Bank support. A good example is the Russian Longitudinal Monitoring Study, a survey of several thousand households held in seven waves between the second half of 1992 and late 1996. Others include the 1995 Azerbaijan Survey of Living Conditions and the 1996 Kazakhstan Living Standards Survey. These new surveys provide data on the inequality of income and consumption that are almost impossible to compare meaningfully with those from pre-reform sources.

of certain groups (viewed from the standpoint of a market system), for example, manual workers in heavy industry. A substantial part of the increase in earnings inequality in Russia, however, seems to have been due to a widening in *existing* wage differentials. For example, professionals and engineers in the public sector, traditionally underpaid by Western standards, appear to have lost ground during the transition rather than making it up.

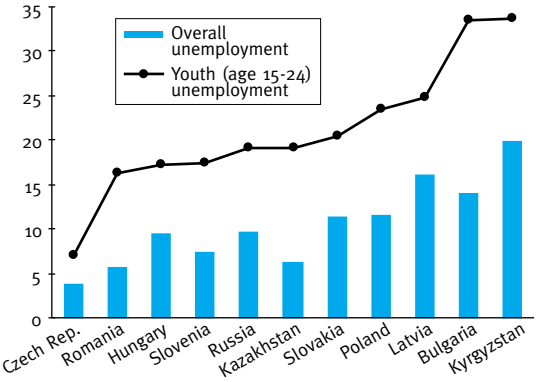
The emergence of open unemployment is another source of greater inequality in incomes from the labour market. Figure 1.4 shows unemployment rates for 11 countries according to household survey data in which the internationally accepted definition of unemployment based on search and availability for work is applied. (In most cases the data refer to 1997.) Measures based on administrative sources underrecord unemployment in those countries where there is little incentive to register as unemployed. This is a particular problem in many countries of the former Soviet Union due to weak systems of unemployment benefit. In the case of Russia, where measures on both bases are available, the figure from the labour force survey of nearly 10 percent was some three times higher than the administrative measure in 1996.

The overall unemployment rates vary from less than 4 percent in the Czech Republic to nearly 20 percent in Kyrgyzstan, with four other countries recording rates in double figures. The graph also shows the unemployment rate for young persons aged 15-24. In every case these are much larger than the overall rates, exceeding 15 percent in all but the Czech Republic and 20 percent in Slovakia, Poland, Latvia, Bulgaria, and Kyrgyzstan. In Bulgaria and Kyrgyzstan as many as one-third of young people are unemployed. The graph gives a depressing picture of the problems faced by many young people in the region in finding work.

Figures 1.3 and 1.4 apply to what is only one source of household incomes: employment. Moreover, the data refer only to individuals in the labour force. However, most available evidence indicates that the inequality of total household incomes from all sources has also risen, often quite considerably, although the problems described in Box 1.2 at times cloud the issue. Figure 1.5 shows the case of Poland, giving the Gini coefficients for both the annual per capita household income from all sources and the monthly earnings of employees. (The data for the latter warn against an exclusive focus on 1989 as the base year in any comparison across time.) The Gini coefficient for per capita incomes averaged over 1993-96 was nearly 30 percent higher than that for 1983-86. The value in 1996 of 0.33 is just above the average value for OECD countries in the mid-1980s. Evidence from new surveys noted in Box 1.2 indicates that inequality in several former Soviet republics, including Russia, is up to one and a half times greater than this – at levels typical of many South American countries.

Rises in income inequality mean that people at the bottom of the income distribution are getting a smaller share of the cake than before. This implies that poverty will be higher for any given fall in average incomes. Or, viewed another way, it means that average income has to go up just for the living standards of the people at the bottom to stay unchanged. This way of looking at the issue is particularly relevant to the Polish case, where the economy is now larger than it was pre-reform. The share of total income of the poorest 20 percent of the population in 1989 was 9.2 percent. By 1996 it had fallen to 7.6 percent. This implies that average income would have to be higher by one-fifth for the poorest 20 percent to have the same living standards now that they had in 1989, something that has clearly not happened. The poor in Poland are poorer than they were pre-reform.

Figure 1.4



Unemployment and youth unemployment rates in 11 countries, 1997
(percent of labour force)

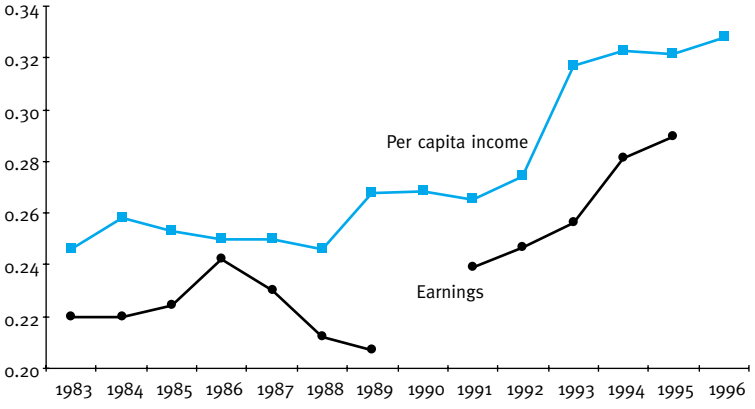
Sources: Labour Force Survey data in the OECD-CCET labour market database, except for Kazakhstan (World Bank, 1997a) and Kyrgyzstan (NSCKR and RTI, 1996).

Note: The definition of unemployment uses the ILO/OECD criteria of search and availability. Data refer to the second quarter of 1997 except for Bulgaria (first quarter 1997), Czech Republic (fourth quarter 1996), Russia (first quarter 1996), Kazakhstan (July 1996) and Kyrgyzstan (Spring 1996). The youth unemployment rate in Kazakhstan is an unweighted average of rates for 16-20 year olds (28.9 percent) and 21-25 year olds (9.4 percent).

Falls in government revenue

That government revenue should fall during transition away from a planned economy is hardly surprising. One way in which the goals of the transition process are to be reached is through the development of the private sector and a reduction in the role of the state. However, the extent of the drop in government revenue has been alarm-

Figure 1.5



Earnings and income inequality in Poland, 1983-96
(Gini coefficient)

Sources: Statistical Annex, Table 10.11; earnings data prior to 1988 and income data prior to 1989 from Atkinson and Micklewright (1992), Tables PE1 and PI1.

Note: The data for earnings refer to the monthly earnings of employees; the data for incomes refer to the annual per capita incomes of households (individual weights).

ing in a number of countries, especially among those from the former Soviet Union. This has not only hindered attempts to exert macro-economic control and reduce inflationary pressure in any upswing; it has also threatened the financing of a range of government expenditures, including many affecting children.

The old tax base of turnover and profit of state enterprises degenerated particularly sharply in the early part of the transition period. Existing administrative arrangements for the collection of taxes from enterprises often faltered. The emerging private sector, typically composed of small firms, has been hard to tax, and it has taken time to develop new taxes and collection methods suited to a market economy.

Figure 1.6 shows how revenue has changed as a share of GDP in most of the countries in the region, including all those from the former Soviet Union. The countries are ranked by the size of the revenue share in the mid-1990s (1995 in some cases and 1996 in others). In three Central European countries – Hungary, Poland and Slovenia – the revenue share is still over 40 percent, and the same is true in two slow economic reformers, Belarus and Ukraine, as well as a faster one, Estonia. The revenue levels here are high by international standards, and some commentators argue they are too high, representing an overly large role for the government in the economy, with the risk of a "crowding out" of the private sector.

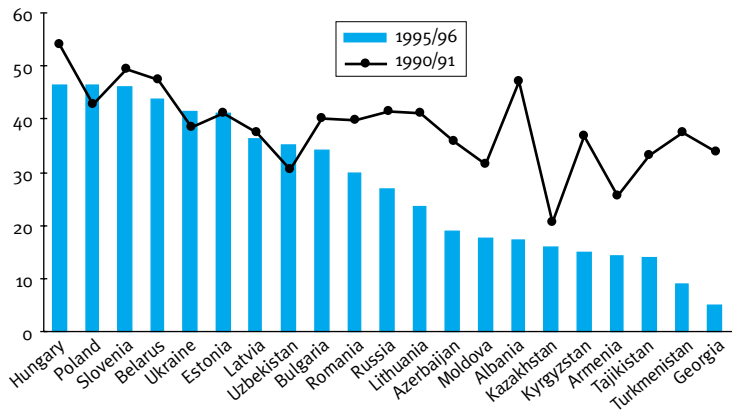
As is evident in the right hand half of the diagram, however, there are countries where revenue has sunk to what are very low levels for industrialized countries by any standards. The extreme case is Georgia, where government revenue was only 5 percent of GDP in 1995, down from 34 percent in 1991. Revenue was also less than 10 percent of GDP in Turkmenistan and under 20 percent in seven other countries – Albania, Moldova, three other Central Asian countries, and both other countries from the Caucasus. In these nine countries, revenue averaged one-third of GDP at the beginning of the transition (proxied by 1990 in the case of Albania and 1991 for the former Soviet countries).

The reasons vary for the greater than average falls in revenues. For example, there is the dislocation and general breakdown of all government activity, including tax collection, in countries affected by war. An important point to note is the fact that the drop in the proportion of GDP taken as government revenue has typically been largest in countries that have experienced the greatest falls in GDP itself. The populations of many countries in the right hand half of Figure 1.6 have suffered from large declines in national income *and*, on top of this, a big reduction in government effort to obtain resources to fund social services. It should not be a surprise that, later in the Report, in these countries public expenditure on education as a proportion of GDP is shown to have shrunk dramatically. Tax reform that increases the share of national output collected as tax revenue is a high priority for child welfare in these countries. ■

Figure 1.6

Government revenue as percent of GDP in 1990/91 and 1995/96

Sources: Countries of the former Soviet Union from Cheasty and Davis (1996), Table 2; other countries from Statistical Annex, Tables 10.7 and 10.8, approximating revenue as expenditure, plus balance.



Note: The data for countries of the former Soviet Union are for 1991 and 1995; for other countries the data are for 1990 and 1996, except Poland (1990 and 1995), Bulgaria (1992 and 1996) and Russia (1992 and 1995).

1.2 The Changing Risk of Death

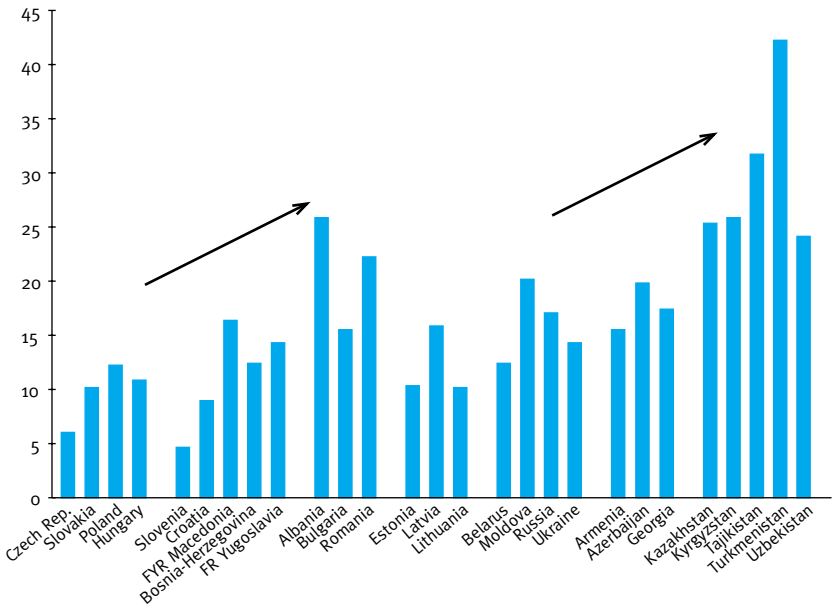
Previous Regional Monitoring Reports have analysed in depth the changes in mortality during transition. For example, attention has been drawn to the dramatic fall in life expectancy for men in Russia, from 64 years in 1989 to 58 years in 1994, a level below that in India. (The gap between male and female life expectancy is greater in Russia than in any other country in the world.) This year's Report focuses on the current level of infant mortality and on adult male mortality – a proxy for mortality among children's fathers. In addition, Box 1.3 charts the disturbing trends in deaths among teenagers in Russia from external causes, including suicide and murder.

Infant mortality across the region

Figure 1.7 shows infant mortality in 1996 in each country of the region (deaths below 1 year of age). The countries are ranked in rough geographic order by groups from west to east (or south) within Central and Eastern Europe and the former Soviet Union. (The order is the same as that for all the tables in the Statistical Annex.) Broadly speaking, as one moves east or south within the region one finds higher infant mortality rates, as emphasized by the arrows in the diagram. The average values within the three groups of Central and Eastern European countries are 10, 11 and 21 deaths per 1,000 live births, and within the countries of the former Soviet Union, 12, 16, 18, and 32 deaths. There is, however, substantial variation within most of the groups. The variation across the region as a whole is of course very marked. Rates in Slovenia and the Czech Republic are now at the same level as (or below) those in the richer members of the European Union.

Taking 1989 as a base, recorded infant mortality over the period has decreased in every country in the three

groups of Central and Eastern European countries in the left hand half of Figure 1.7, with one exception – Bulgaria. Some of these falls have been substantial and reflect an important improvement for child welfare during the transition. (The data for the full period for Albania in the Statistical Annex show a marked reduction in recorded infant mortality in 1996; without this fall Albania would be an exception like Bulgaria.) In Bulgaria, infant deaths have oscillated around 15 or 16 per 1,000 live births, but have never dropped below the 1989 figure of 14.4. The rate in 1996 rose to 15.6 from 14.8 in the previous year, coinciding with the plunge in GDP in 1996 of nearly 11 percent (see Figure 1.2). Romania is the only other country in the three groups where infant mortality rose in 1996 and is, like Bulgaria, a country where GDP is estimated to have fallen in 1997.



Note: Data for Croatia and Turkmenistan refer to 1995.

Figure 1.7

Infant mortality in 1996 (deaths per thousand live births)
Source: Statistical Annex, Table 3.1.

Changes in the figures in the four groups of countries that used to make up the Soviet Union are harder to interpret due to modifications in most countries in the definition of a "live birth". A few, noted in the Statistical Annex, still use the old Soviet definition, which tends to understate infant mortality by up to one-fifth. There is also anecdotal evidence in some countries of underreporting of infant deaths at the local level; the same is true for some other parts of the region. (The Bibliographical Notes report estimates of infant mortality for two Central Asian countries based on household survey data which provide an alternative source of information to the official figures.)

Infant mortality dropped sharply in Latvia in 1996, back to the 1993-94 level, but is still no lower than it was in 1991 when the World Health Organization (WHO) definition of a "live birth" was first used. By contrast, Lithuania, which also adopted the WHO measure in the same year, had an infant mortality rate in 1996 that was markedly lower than that in 1991. Lithuania and Estonia, like Latvia, recorded notable falls in infant mortality in 1996. Armenia and Georgia, however, which adopted the WHO concept in 1995 and 1994, respectively, both recorded rises in 1996. In the case of Georgia the figure jumped from 13.1 to 17.4, which is a most worrying development.

Mortality among men

Any increase in mortality among adult men is clearly a bad thing in its own right. An adult mortality rate standardized for age and gender can also be a very useful indicator of general movements in living standards. But, from the point of view of the child, an increase in adult male mortality may mean the loss of a parent, with a variety of consequences, including emotional pain, the deprival of parental influence and the loss of a breadwinner.

Figure 1.8 shows changes in mortality rates for men aged 40-49 in four countries from across the region. (Almost everyone has a father at this age at some time during their childhood.) The diagram shows the mortality rates themselves (deaths per 1,000 persons in the age group); despite what may be the first impression when one looks at the graph, the rates are not expressed in index form with a 1989 base. The four countries have been chosen precisely because their male mortality rates for this age range were at almost exactly the same level in 1989.

The divergence in the mortality rates over time is striking. In Slovakia mortality has fallen, dropping one-quarter by 1996. Ukraine experienced a large and steady increase until 1995, by which time the rate was two-thirds higher, before levelling off. (The "excess mortality" of Ukrainian men in this age group between 1990 and 1996 – the deaths that would not have occurred if the mortality rate had remained at the 1989 level – totalled some 60,000 deaths.) Estonia underwent a rise of over 80 percent in an

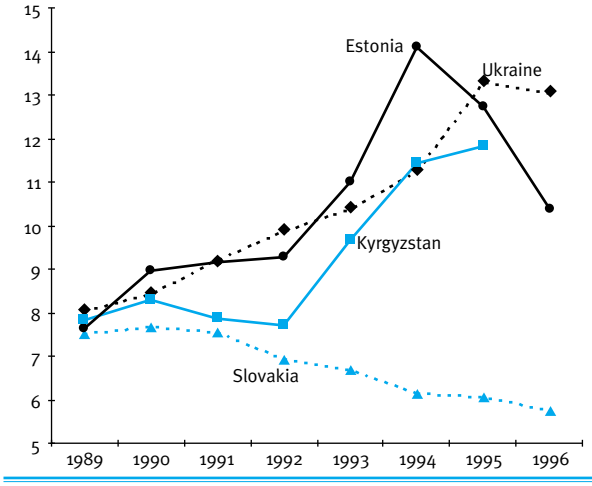


Figure 1.8

Mortality rates for men aged 40-49 (deaths per thousand persons)
Source: MONEE project database.

even shorter period, mortality peaking in 1994, before benefiting from a sharp decline in 1995-96. Finally, the rate in Kyrgyzstan hardly changed from 1989 to 1992 (and was still little higher than that in Slovakia in the latter year) before leaping in 1993-94, two of the years in which the economy suffered the most severe falls in GDP. The reduction in mortality in 1995 in Estonia and the slackening in the rate of increase in Kyrgyzstan in the same year coincided with the upturn in the economy in both countries.

The relationship between changes in output and mortality is brought out in Figure 1.10, which contains data for all 18 countries in the region for which the male mortality rate for 40-49 year olds is available. The graph plots the percentage change in the death rate between

Box 1.3

Teenage death in Russia

Russia has seen a pronounced rise in teenage mortality. Most deaths among 15-19 year olds are from "external causes" – accidents of all kinds, murder and suicide. Among boys aged 15-19 these causes accounted for 78 percent of all deaths in Russia in both 1989 and 1996. Among girls of the same age the share went up from 57 percent to 66 percent.

The top half of Figure 1.9 shows the mortality rate from external causes among this age group. Hungary is also included on the diagram for comparison. The bottom half shows mortality due to murder and suicide, which have grown in importance. Together, murder and suicide accounted for one in five of the deaths from all causes among Russian boys in 1989 and one in four in 1996. For girls, the share rose from one in seven to one in five.

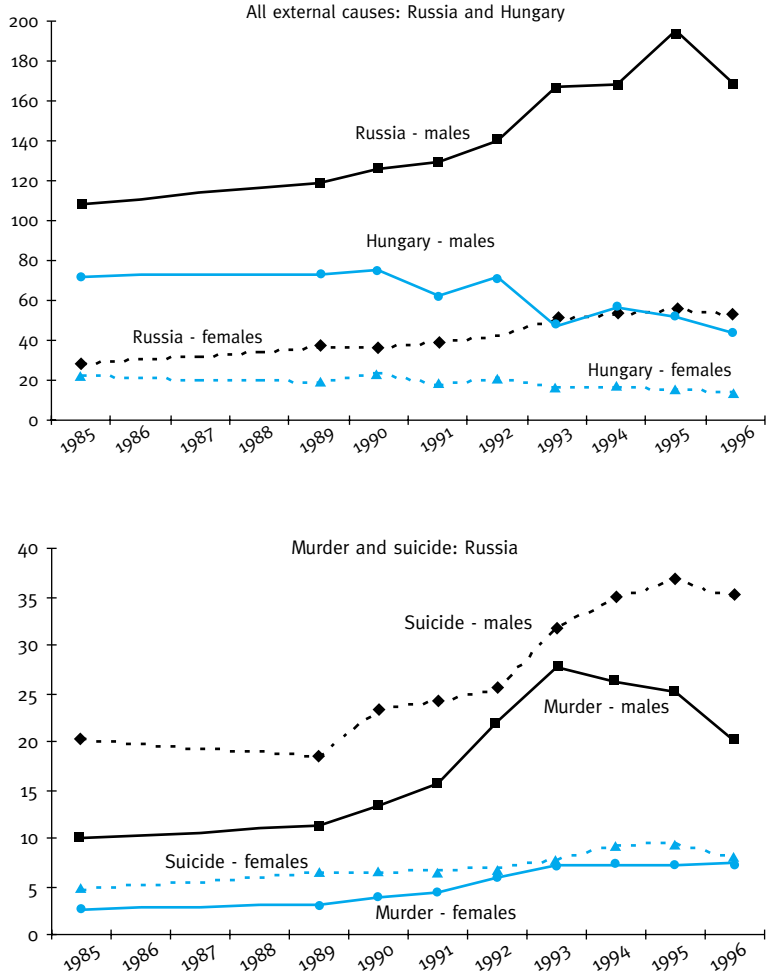
Mortality from external causes peaked in 1995, with rates more than 60 percent higher than the 1989 level for boys and 50 percent higher for girls – a jump in absolute numbers of deaths of 5,200 for boys and 1,400 for girls. (The pattern of a much greater probability of death from external causes among teenage boys is a common one in other countries.) By contrast, the death rates declined in Hungary. By the end of the period the rate for boys in Hungary had been overtaken by that for girls in Russia.

Both suicide and murder doubled for boys in this age group in Russia, with a total of 1,900 suicides and 1,100 murders in 1996 (the latter having peaked at nearly 1,500 in 1993). The rate of 35 suicides per 100,000 boys aged 15-19 in 1996 may be compared with the figure of 13 for Hungary (a high suicide-rate country in Europe), 17 in the USA in 1992, and only 5 in the UK in the early 1990s. The murder rate of 20 per 100,000 was above the corresponding rate for white males in the USA in 1992, although still well below that for black males (15 and 129, respectively). The suicide rate for girls aged 15-19 in Russia was double that in both Hungary and the USA.

The causes of the marked rise in deaths from external causes among Russian teenagers are unclear. It may be that the tragic rise in suicide has something to do with the hugely diminished prospects offered to the young because of the shrinking economy. A general escalation in lawlessness associated with problems in social cohesion could help explain the overall increase in deaths from accident and murder. One notable feature is the lower mortality rates for teenagers due to external causes in Moscow and St Petersburg (although the percentage rises in these cities have been similar to those in the country as a whole). It may be that mortality is reduced in these large cities by better emergency medical services and, in the case of suicide, by better economic circumstances and a more cheerful social environment.

One encouraging aspect of what is generally a depressing set of figures is the fall in the mortality rate in 1996, with 1,400 fewer deaths among 15-19 year olds from external causes relative to the previous year. And the murder rate for boys in 1996 was below the 1992 level.

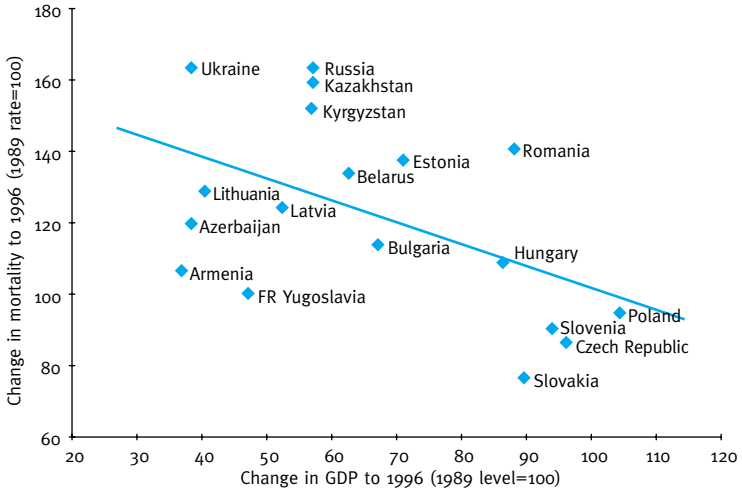
Figure 1.9



Mortality from external causes among 15-19 year olds in Russia (deaths per hundred thousand persons)
Source: MONEE project database.

1989 and 1996 against the percentage change in real GDP over the same period. Broadly speaking, mortality has increased the most where there have been the biggest falls in GDP, although there are some notable exceptions, such as Armenia and Azerbaijan. (Whether there are causal links between output changes and adult deaths is a different matter and has been investigated in earlier Regional Monitoring Reports.) Russia and Latvia are the countries where the mortality rate rose the most during the period, from under 9 deaths per 1,000 men in the age group in 1989 to over 17 in 1994, but in the latter case the rate has since dropped sharply back (to 11 deaths per 1,000 men in 1996). Romania is an interesting case: mortality among men of this age has gone up every year and was 40 percent higher in 1996 relative to 1989. By contrast, in FR Yugoslavia, where GDP collapsed, the rate was exactly the same in the two years. Had the mortality rates for men aged 40-49 in the 18 countries in the diagram stayed at their 1989 levels, there would have been a total of around 400,000 fewer deaths among men in this age group during 1990-96. ■

Figure 1.10



Changes in mortality rates for men aged 40-49 and in GDP, 1989-96

Note: The earlier year is 1990 for Kazakhstan; the later year is 1995 for FR Yugoslavia, Belarus, Kazakhstan, and Kyrgyzstan.

Sources: MONEE project database; Statistical Annex, Table 10.1.

1.3 Changing Family Structure and Child Welfare

This section charts changes in divorce, in marriage and in births outside of marriage – important aspects of the evolving societies in the region. Divorce and out-of-wedlock births are two of the main reasons children are in single-parent families (the third is the death of a father or a mother). Children born outside of marriage have a higher probability of being taken into public care (the changes in institutionalization of children are also mapped out in the section), although the frequency with which this happens varies greatly from country to country and is very much a function of societal attitudes to illegitimacy.

Single-parenthood is often seen as a bad thing for various reasons. Evidence shows that single-parent households are typically poorer on average than other households. Divorce may lead to the loss of a child's contact with one parent. However, it is important to avoid a too rigid view of both these phenomena. Divorce may mean that children are no longer living in unhappy households and, in extreme cases, that they are no longer the observers or even the victims of domestic violence. Many children thrive who are born to single mothers. On balance, a rise in divorce or in single-parenthood might be considered a negative aspect of societal change, although it would be wrong to view either in the same light as higher poverty or mortality, which are clearly negative developments in every case.

The changes in family structure that have occurred in transition have direct implications for child welfare. It is important to bear in mind the overall context of lower incomes and reduced support from the state when considering the effects of these changes in the region. For example, the risk that a child may fall into poverty after the separation of his or her parents may be much less in a booming economy, where jobs are easier to find and the state can more readily finance programmes of family support.

Besides the direct impacts on welfare, the changes in family structure also give heightened importance to the design of various policies affecting children, including laws on custody and alimony payments (together with their enforcement), the design of social security benefits and the choice of appropriate systems of public care for children without parental support.

Divorce and marriage

The top part of Figure 1.11 shows the number of divorces across the region in 1989 and 1996 for every 100 marriages occurring in the same years. This "general" divorce rate may be contrasted with the "crude" divorce rate, which simply expresses the number of divorces in a year relative to the total population. The diagram covers all 27 countries in the region, which are ranked according to the values for the general divorce rate in 1996.

The number of divorces relative to the number of marriages clearly varies enormously across the region, and the variation is no doubt driven in large part by cultural differences. Comparing 1989 and 1996 one sees that the variation appears to have grown over time. Much the highest figure is found in Estonia, where in 1995 and 1996 there were as many divorces as there were marriages. Estonia already topped the list in 1989 with 47 divorces for every 100 marriages, but the rise to the 1996 figure is really dramatic. At the other end of the range, there were just 6 divorces for every 100 marriages in Bosnia-Herzegovina in 1989 and only 2 in 1996. The circumstances may be spe-

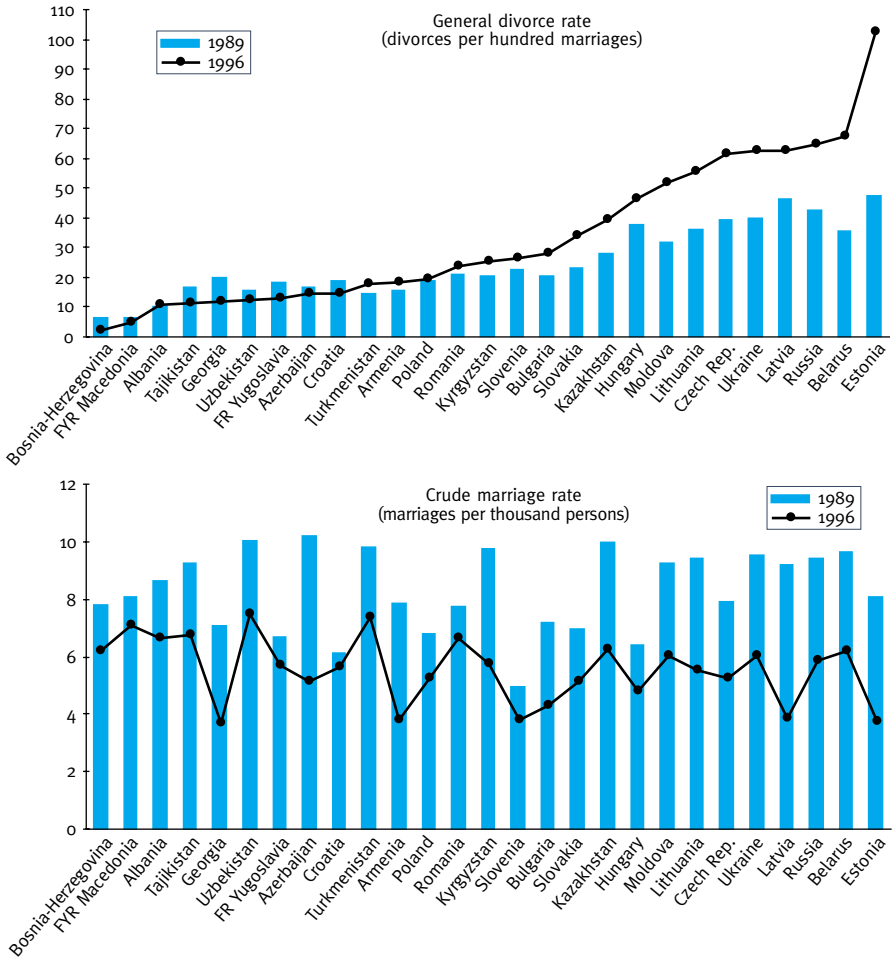
cial there (and it should be noted that the 1996 data exclude the Republika Srpska), but FYR Macedonia also had less than 6 divorces per 100 marriages in both years.

The ten countries with the highest general divorce rates in 1996 are from the former Soviet Union, with two exceptions – the Czech Republic and Hungary. All these countries in the "top ten" have experienced significant rises. For example, there were 28 divorces per 100 marriages in Kazakhstan in 1989 and 40 in 1996, while in Russia the figure went from 42 to 65 and in Belarus from 35 to 68. In only eight countries is the figure in 1996 below that in 1989.

Changes in the general divorce rate are driven by changes both in the number of divorces and in the number of marriages. The bottom half of Figure 1.11 sheds light on the latter, showing the crude marriage rate in all 27 countries in 1989 and 1996, the countries being ranked in the same order as in the top half of the diagram. The marriage rate has fallen in every country in the region. This may reflect a number of factors, including reduced expectations about incomes on the one hand and a desire for alternative living arrangements on the other. In general, the countries of the former Soviet Union started from a higher rate and have had larger falls. The marriage rate in 1996 had fallen by about one-half or more with respect to the 1989 level in Azerbaijan, Armenia, Georgia, Latvia, and Estonia and was at least one-third lower in nine other countries – the Czech Republic, Bulgaria, Russia, Ukraine, Belarus, Moldova, Lithuania, Kazakhstan, and Kyrgyzstan. These changes in the marriage rate go a long way towards explaining the ratio of divorces to marriages in the top part of the diagram. In fact, in 20 of the 27 countries, the crude divorce rate in 1996 was lower than that in 1989.

How have the numbers of children affected by divorce changed? This is given in Figure 1.12, which is restricted to the 20 countries for which data are available. (The countries are ranked as in Figure 1.11.) The diagram shows the number of dependent children in marriages that ended in 1989 and 1996 per 1,000 children aged under 18. (The numbers refer to children in new divorces in each of the two years and therefore give the "flow" of children affected by divorce and not the "stock".) Like the divorce rates, the numbers vary substantially across the region. (There are some differences among countries in the definition of an "affected child", but this is not sufficient to explain the variation.) In 12 countries the numbers have fallen. However, in five of the six countries where the number of children affected was already high in 1989 (over ten in every 1,000 children), the number in 1996 was even higher. For example, the figure in Belarus went up by 40 percent. This group of countries includes the two most populous in the region, Russia (where the figure peaked in 1994) and Ukraine. For Russia during the

Figure 1.11

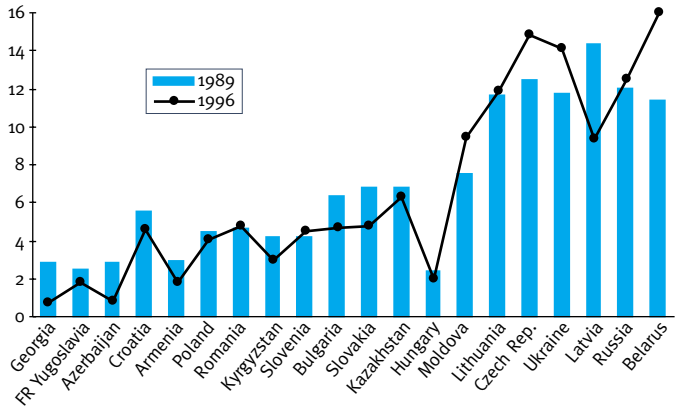


Divorce and marriage, 1989 and 1996

Source: Statistical Annex, Tables 5.1 and 5.4.

Note: The later year is 1993 for Albania, 1994 for Tajikistan and 1995 for FR Yugoslavia, Turkmenistan and Uzbekistan.

Figure 1.12



Number of children affected by divorce, 1989 and 1996 (per thousand children aged 0-17)

Source: Statistical Annex, Table 5.5.

Note: The later year is 1992 for Georgia, 1993 for Ukraine and 1995 for FR Yugoslavia, Moldova, Russia, Kazakhstan, and Kyrgyzstan.

period 1990-96 as a whole, 500,000 more children were affected by divorce than would have been the case had the level stayed at that in 1989.

Births outside marriage

If a child is born out of wedlock, this does not necessarily mean that the child will grow up in a single-parent family. This is true for two reasons. First, the parents may live together, but may have chosen not to get married. This has become common in parts of Western Europe. For example, the share of births out of wedlock in the UK more than doubled in the ten years to 1992, to nearly one-third of all births. (A similar change occurred in France.) But in over one-half of cases the birth was registered by *both* parents who were living at the same address. One feature of societal change during transition in Central and Eastern Europe and the former Soviet Union may be a more

Box 1.4

Children in public care: an update

The 1997 MONEE project Report found that around one million children in 18 countries from Central and Eastern Europe and the former Soviet Union were living in public care – about one in every hundred children – and that the number had grown during the transition.

The 1990s have seen big increases in pressures on parents, and the Report revealed that the capacity of child protection systems to cope with the ensuing higher demand has often deteriorated. In a few countries the system has virtually collapsed. In much of the region, there is little evidence of systematic reform of public care, despite the fact that this has been on the agenda from the start of the transition. An over-reliance on large-scale institutional care inherited from the communist era has continued, and the alternatives of foster care and adoption are underdeveloped. The child protection sector is seriously underfinanced, acting against any improvements in the quality of care. Systems of social services to support children in their own homes and communities and to *prevent* them from entering public care tend to be weak or absent.

This update focuses on children aged 0-3, the infants born during the transition. The rate of institutionalization of very young children is a sensitive indicator both of shifts in the use of the child protection system and of wider negative economic and social trends. Figure 1.13 shows how these rates have changed in countries where data are available. It compares the percentage changes in the proportion of infants in institutionalized care over two periods: 1989-95 and 1989-96, the latter updating the changes already evident from the 1997 Report.

The effect of one additional year is striking: 1996 saw further increases in the proportion of infants in institutionalized care in all ten countries where the rate had risen over 1989-95. In the worst case, Estonia, the rate of institutionalization had risen by 75 percent over 1989-95, but by 1996 had doubled relative to 1989. (Bulgaria remains the country with the highest proportion of children in infant homes, followed by Romania and Latvia.)

Despite the continuing drop in the birthrate in most countries in 1996, even the absolute number of infants in institutions rose during that year in Slovakia, Bulgaria, Romania, Estonia, Lithuania, Belarus, Moldova, Russia, Ukraine, Armenia, and Georgia. This is also true for Kazakhstan (new to the MONEE project since the 1997 Report), where the proportion of infants in institutions is not dissimilar to that in the western CIS and has jumped by 50 percent since 1989. Rates appear lower in the other Central Asian countries (with the exception of Uzbekistan) and resemble what has happened in the Caucasus. The numbers of infants in institutional care also appear to have been relatively low at the start of the 1990s in the countries of former Yugoslavia, the other region new to the MONEE project. But the data are inadequate to allow sensible interpretation of the trends. (War in former Yugoslavia led to many children losing parents.)

These data carry a bleak message: family vulnerability continues to grow in many countries, and the need for alternatives to institutionalized care is ever stronger. (The number of older children living in institutions has also remained high or has gone up in various countries, such as Russia, Slovakia, Romania, and the Baltic States.) Concerted action is needed now; without action, it is likely to be years before there is any improvement in the situation of children at risk of entering public care or children already there.

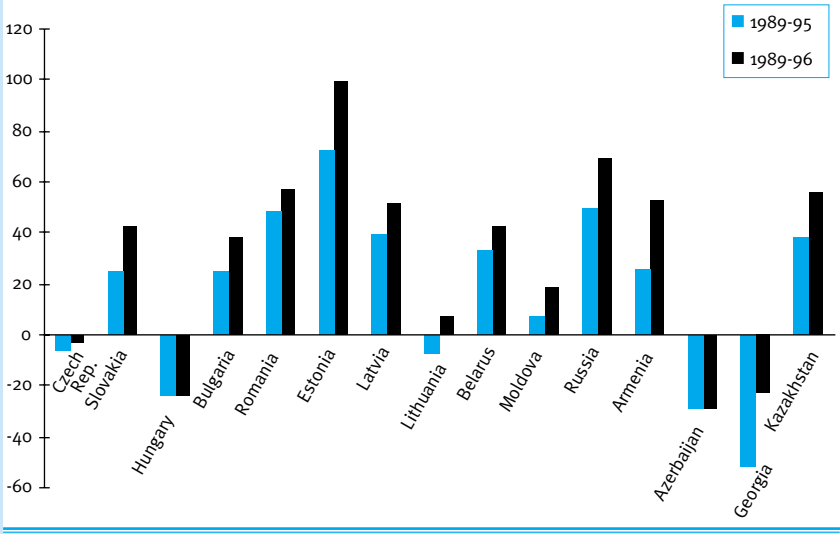
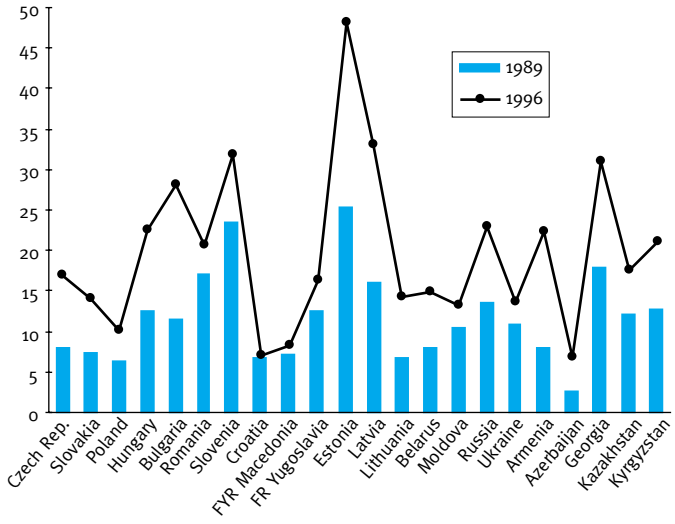


Figure 1.13

Changes in the proportion of children aged 0-3 in institutional care (percentage change)
Source: MONEE project database.

Figure 1.14



Share of total births that are outside marriage, 1989 and 1996

Source: Statistical Annex, Table 2.2.

permissive attitude to children born out of wedlock. Hence, care is needed when interpreting changes in the share of "non-marital" births in the region. (Unfortunately, the data available to the MONEE project give no breakdown of the type just mentioned for the UK.)

Second, the child may be taken into public care. This might take the form of a speedy adoption, with the child then thriving and living a normal life with the adoptive parents. But it may mean that the child is institutionalized and spends his or her childhood in a series of residential homes. In this case the prospects for the child are often grim; the 1997 MONEE project Report had a special focus on children in public care and underlined the depressing conditions in the often large-scale institutions in many countries in the region. The Report also emphasized the lack of well-designed policies to prevent children entering public care or to get them out of institutions through adoption or fostering. Box 1.4 provides an update of the Report's analysis of the growth in the number of children in infant homes in much of the region, showing that one year later the numbers are frequently higher still.

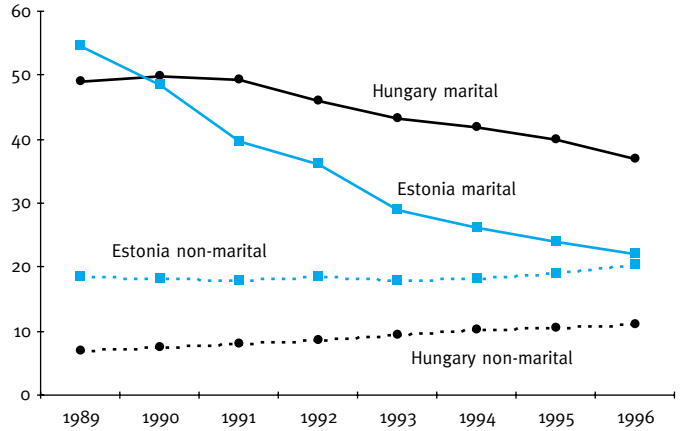
Figure 1.14 shows the change in the share of non-marital births in the 22 countries for which data are available, with the countries ordered geographically as in the Statistical Annex. It is striking that in every case the figure is higher in 1996 than in 1989 and in many cases much higher. In 15 countries the share in 1996 is one and a half times higher than that in 1989. In Russia, where there are of course far more total births each year than in any other country in the region, the share climbed from 14 percent to 23 percent; 30 percent or more of births were outside marriage in 1996 in Slovenia, Estonia, Latvia, and Georgia. On average, one in five births in the 22 countries are now outside marriage compared to the one in nine previously.

Does this rising share of non-marital births in total births mean that fertility among unmarried women has increased and, hence, that greater absolute numbers of children are being born out of marriage? Not necessarily. Fertility is sharply down in all countries in the region, and the growing share of non-marital births is consistent with falls in the numbers of births both inside and outside marriage, but with the latter falling at a slower rate. In fact, the number of births outside marriage has moved up in most of the countries in Figure 1.14, but the main factor driving the share of non-marital births in many countries has been a sharp fall in births within marriage associated with a decline in marriage itself and a drop in the number of children being born of married women (especially second and subsequent children).

Figure 1.15 illustrates two contrasting cases with data for Hungary and Estonia for the period 1989-96 that show the number of births inside and outside marriage per 1,000 women aged 15-44. (The denominator is the same in both cases since the data do not distinguish between the numbers of married and unmarried women in these age groups.) The marital birth rate falls by 60 percent in Estonia and 25 percent in Hungary (starting from a similar level), showing no signs of any recovery towards the end of the period. The surge in the share of non-marital births in Estonia is almost entirely due to the decline in marital births; non-marital births rise only slightly over the period. By contrast, non-marital births rise continuously in Hungary – by some 60 percent, and this in fact is the main cause of the greater share of such births shown in Figure 1.14.

Estonia, a front-runner in the region for membership of the European Union, stands out as an extreme case in much of this section. It is the country with the highest number of divorces per 100 marriages and also the country where this figure has increased the most. It has the biggest share of non-marital births, and this has also risen more in Estonia than it has in any other country. And the proportion of very young children in infant homes has grown more in Estonia than it has in all the other countries where data are available. ■

Figure 1.15



Marital and non-marital births in Estonia and Hungary (births per thousand women aged 15-44)

Source: MONEE project database.

Note: The total numbers of married and unmarried women in the 15-44 age range are unknown.

1.4 Transition in Central Asia and Former Yugoslavia

This final section provides a brief introduction to two very different groups of countries that are new to the MONEE project (with the exception of Slovenia, which has been included for a number of years). The five Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan formed a remote part of the Soviet Union until 1991, and there is still insufficient recognition of the character of this important area. (Kazakhstan is included in the Report in the definition of "Central Asia" for convenience when referring to this group of countries, though only the southern part of the country shares the geographic and demographic features of the other four countries.) Former Yugoslavia – Slovenia, Croatia, Bosnia-Herzegovina, FR Yugoslavia, and FYR Macedonia – is more well known than Central Asia by many people on account of the civil war that took place in parts of the former federation, but many features of the recent experience are insufficiently appreciated, although there is not enough space to do justice to them here.

Central Asia: rich in children

The five Central Asian countries contain over 23 million children – one-fifth of all the children in the 27 countries covered by the Report. Within Central Asia these children represent some 40 percent of the total population (ranging from 35 percent in Kazakhstan to 48 percent in Tajikistan), compared to figures of 25 percent or less in much of the rest of the region. A concern about human welfare and human rights in Central Asia is therefore a concern about child welfare and child rights in even larger measure than is the case elsewhere.

The Central Asian countries represent an intriguing mix of characteristics typical both of developing countries and of industrialized countries. Demographically, the countries are similar to developing countries. The young and rapidly growing populations in Central Asia contrast with the ageing populations found in many Central and Eastern European countries. (Amongst other things, the growing populations exert growing pressures on budgetary resources.) Kazakhstan lies somewhere between the two extremes due to its ethnic composition, with about 40 percent of the population of Slavic origin (mostly Russians). Almost universal literacy in Central Asia and a developed health structure are features more characteristic of industrialized countries and are very positive attributes of the Soviet inheritance.

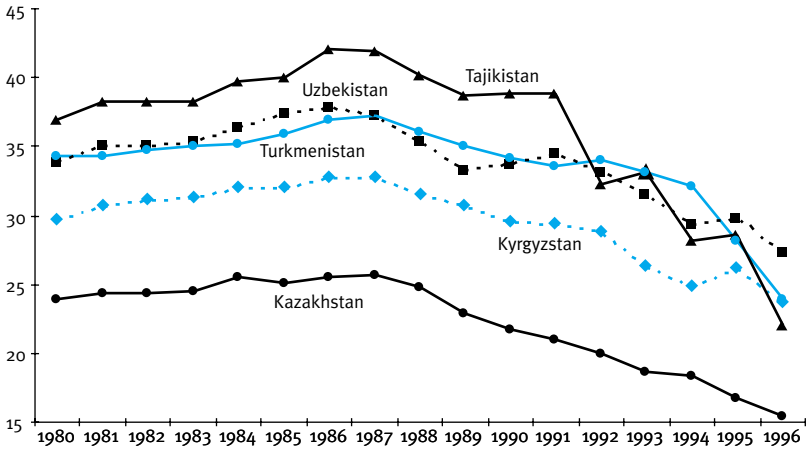
With the exception of Kazakhstan, crude birth rates in Central Asia in 1996 were at levels similar to those found in many developing countries, ranging from 24 births per 1,000 persons in Kyrgyzstan to 27 in Uzbekistan (Figure 1.16). (The rate was 15 in Kazakhstan, with that for Kazakhs significantly higher than that for Slavs.) Figure 1.16 shows that the birth rate has been falling in all five countries since 1987, with the declines similar (proportionately) to those in some other countries of the former Soviet Union. (The birth rate fell by between one-fifth in Uzbekistan and one-half in Tajikistan, compared to 40 percent or more in Armenia, Belarus and Russia.) But populations are still expanding quite rapidly. For example, the current growth rate in Uzbekistan implies that the population will double within 40 years.

The decrease in births in Central Asia is partly driven by the reduction in the number of marriages. As shown in Figure 1.11, the size of the falls in the marriage rate in Kazakhstan and in Kyrgyzstan was similar to that in many other countries of the region. Another feature in common with the rest of the region is that the share of births out of wedlock has increased significantly in these two countries, from 12 percent to 18 percent in Kazakhstan over 1989-96 and from 13 to 21 percent in Kyrgyzstan (see Figure 1.14).

Another key feature of recent demographic change in Central Asia has been the large population movements. According to estimates by the UN High Commissioner for Refugees, over four million people have moved within or from Central Asia since the late 1980s. Among these, 700,000 were displaced during the civil war in Tajikistan (most of whom have returned since); 250,000 have left ecological disaster areas (the Aral Sea and the nuclear test area of Semipalatinsk), and around two million have returned to their ethnic "homelands" (mainly Germans, Crimean Tatars, Russians, Ukrainians, and Belarusians), in addition to large movements within countries (for example, from south to north Kyrgyzstan).

The population of Central Asia is predominantly rural, from about one-half in Turkmenistan to three-quarters in Tajikistan, with the exception of Kazakhstan, where the urban population is larger. (Agriculture features

Figure 1.16

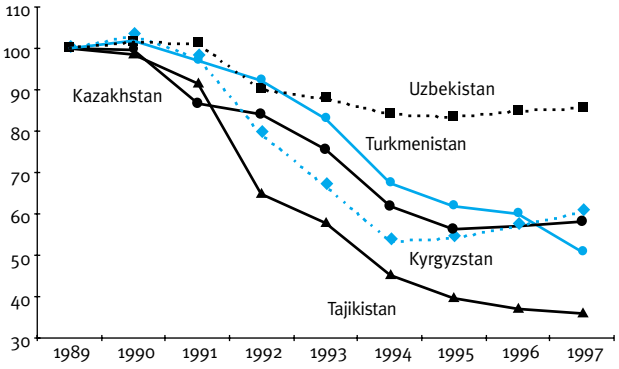


Crude birth rates in Central Asia, 1980-96 (births per thousand persons)
Sources: CIS Stat (1997a); Statistical Annex, Table 2.1.

strongly in the area's economies.) Rural areas have much lower living standards. For example, household surveys in 1995-96 show poverty rates in rural areas that are 1.3, 1.4 and 1.5 times those in urban areas in Kazakhstan, two regions of Uzbekistan, and Kyrgyzstan, respectively. The rural population is also growing more quickly. For example, the crude birth rate in Uzbekistan in 1994 was 33 births per 1,000 persons in rural areas and 23 in urban areas. This will increase the pressure in rural areas on the labour market, public spending, social protection, and infrastructure.

How has output changed during transition? Figure 1.17 shows some big contrasts. War-torn Tajikistan has suffered a collapse in the economy, with GDP in 1997 two-thirds below that in 1989. The only encouraging sign is that the fall appears to be bottoming out. Output in Uzbekistan, by contrast, fell by only 15 percent. The small drop has been attributed to the cautious approach followed by the

Figure 1.17



Cumulative change in real GDP in Central Asia, 1989-97
(1989=100)
Source: Statistical Annex, Table 10.1.

Uzbek government, and the future path will be affected by the pace of reform. Kazakhstan, Kyrgyzstan and Turkmenistan come in between the two extremes, with big declines of 40 to 50 percent over the period. But, while output is now growing in Kazakhstan and Kyrgyzstan (which are next to Russia in the ranking of GDP change given in Figure 1.1), countries where serious economic reform has taken place, it is still falling in Turkmenistan, a noted slow reformer. The break-up of the Soviet Union resulted in large shocks for Central Asian countries, with the termination of Union grants (which, according to some estimates, exceeded tax revenue in several of the countries in 1991) and a major dislocation in trade with the rest of the former Union and Central and Eastern Europe.

Sharp falls in output have been accompanied by reductions in employment and the emergence of unemployment. Survey-based estimates of unemployment indicate figures of between 21 and 28 percent in Tajikistan, just under 20 percent in Kyrgyzstan in 1996, around 9 percent in Uzbekistan in 1995, and 6 percent in Kazakhstan in 1996. (Figure 1.4 shows the notably higher unemployment rates among the young.) Labour force participation rates have also been falling in most countries, and official statistics indicate that the proportion of people of working age who are not gainfully employed went up by five to eight percentage points in all countries, except Kazakhstan, over 1992-96.

Adjustment in the labour market has also taken place on the side of wages. EBRD figures suggest that real wages in Tajikistan in 1996 amounted to less than 2 percent of the 1991 level. Figure 1.3 shows the rise in earnings inequality in Kyrgyzstan, and recent surveys indicate marked inequality in household incomes. Children appear to suffer poverty rates that are significantly higher than those among pensioners. Surveys indicate that the risk of poverty among children is 2.2 times higher than it is among pensioners in Kazakhstan and Uzbekistan (where pensions have received notable protection) and 1.3 times higher in Kyrgyzstan.

The Central Asian countries inherited extensive health service systems with high immunization coverage and good services for maternal health and prenatal care. However, substantial challenges in the preservation of this inheritance are now emerging in the face of rapid population growth and the substantial downturn in national income. Infant mortality is high, especially in Tajikistan and Turkmenistan, compared to much of the rest of the former Soviet Union and Central and Eastern Europe (see Figure 1.7). (Respiratory infections, diarrhoeal diseases and perinatal conditions account for 80 percent of deaths.) Recorded infant mortality has fallen since 1991 (see Table 3.5 in the Statistical Annex), although Tajikistan experienced a notable rise in 1992-93. The survey-based estimates of infant mortality in Kazakhstan and Uzbekistan described in the Bibliographical Notes are rather higher than the official figures.

Recorded mortality among adults, however, has increased substantially in the two countries for which data are available, Kyrgyzstan and Kazakhstan. Figure 1.8 shows the jump in deaths among men aged 40-49 in 1993-94 in Kyrgyzstan, and Figure 1.10 gives the rise in mortality among this group over 1989-95 as 50 percent in Kyrgyzstan and 60 percent in Kazakhstan – changes that rank only behind those in Ukraine and Russia. (Mortality rates for other age groups in these two countries are shown in the Statistical Annex.) Kazakhstan and Kyrgyzstan have clearly not avoided the mortality crisis during transition noted in earlier Regional Monitoring Reports of the MONEE project. The crude death rate for the population as a whole in Kazakhstan rose by one-third between 1990 and 1995 – more than in Ukraine or Belarus. Had mortality stayed at its 1990 level, there would have been about 150,000 fewer deaths in Kazakhstan over 1991-96. Mortality in Kyrgyzstan peaked in 1994 at one-fifth higher than in 1990. Only Turkmenistan and Uzbekistan have exhibited relatively little change in overall recorded deaths.

Due to the civil war in 1992-93, Tajikistan represents a special case in terms of mortality. The official crude death rate given in the Statistical Annex shows a sharp upward movement in 1993, implying an additional 15,000 deaths above the number that would have occurred had

mortality stayed at the 1991 level. However, estimates of the total number of deaths in the civil war range from 20,000 to 100,000, with the number of children orphaned well in excess of 40,000.

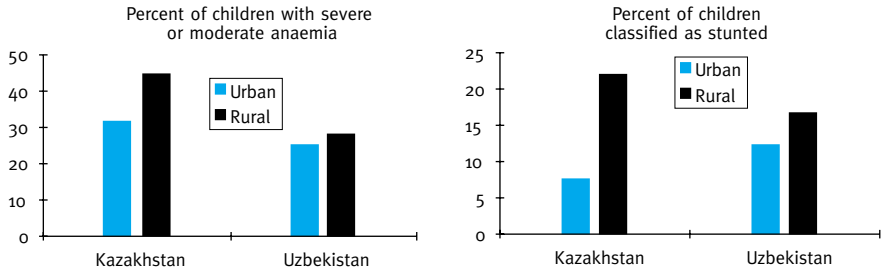
Vaccine-preventable diseases such as diphtheria, polio and measles were almost eradicated pre-reform. But these re-emerged in 1992, reflecting both the disruption in the immunization process following the break-up of the Soviet Union and the large population movements that have taken place. However, immunization rates are still significantly higher than those observed in developing countries, with surveys showing national immunization coverage in 1995 at over 80 percent in Turkmenistan (except for measles) and slightly lower in Kyrgyzstan for all but the BCG vaccination. Tajikistan experienced a particularly large outbreak of diphtheria in 1995 that led to the second highest incidence level in the world; around 4,400 cases of diphtheria were reported in 1995. (Kazakhstan had over 1,000 cases reported in the same year, and Uzbekistan over 500.) The Central Asian countries also have poor access to safe water and sanitation (under 10 percent of individuals had access to safe sanitation in rural areas in 1993) which contributes to the development of illnesses such as diarrhoea, hepatitis and typhoid.

Nutritional status is also a cause for concern. Recent surveys reveal high rates of anaemia among women and children, especially in rural areas. Figure 1.18 shows 31 percent of children under 3 years old with moderate or severe anaemia in urban areas in Kazakhstan in 1995 and 44 percent in rural areas. About 25 percent of children of the same age in Uzbekistan were similarly classified in 1996. The diagram also indicates that the prevalence of stunting (low height for age) among young children is substantially higher in rural areas, especially in Kazakhstan. The overall number of children with low height for age was around 15-16 percent in 1995 in both Kazakhstan and Uzbekistan, a level found in several of the more developed Latin American countries. (More recent evidence described in the Bibliographical Notes suggests a substantially higher level for Uzbekistan.)

Finally, parts of Central Asia suffer from several ecological problems that contribute to poorer health among the population. In particular, the shrinking of the Aral Sea and the increased salinization of the environment have important consequences for the health of the 1.3 million children under 14 – and that of their families – who live near the Aral Sea. The high incidence of respiratory infections, anaemia and iodine deficiency in Kzyl-Orda (Kazakhstan), Karakalpakstan (Uzbekistan) and Dashowuz (Turkmenistan) reflects deteriorating health conditions, lack of medication and immunization, and inadequate sanitation. As in much of the rest of Central and Eastern Europe and the former Soviet Union, a sustained increase in economic growth is far from being the only thing required to raise child welfare and promote child rights.

Former Yugoslavia: war and economic dislocation

The well-being of the more than six million children who lived in former Yugoslavia at the end of the 1980s reflected the economic, ethnic and cultural diversity of what are now the successor states – Slovenia, Croatia, Bosnia-Herzegovina, FR Yugoslavia, and FYR Macedonia. The impact of war and its aftermath had and still has severe and often tragic consequences for many children and their families in large parts of former Yugoslavia, and huge ethnic tension continues in much of the area.



Note: Children aged 6-35 months in Uzbekistan for data on stunting and 0-35 months for other data. Severe or moderate anaemia = haemoglobin level below 10 g/dl; stunting = height for age two standard deviations or more below median of reference population. Data for Kazakhstan refer to 1995, and data on anaemia prevalence for Uzbekistan to 1996; data on stunting for Uzbekistan refer to Fergana and Karakalpakstan in 1995.

Figure 1.18

Nutritional status among children aged under 3 in Kazakhstan and Uzbekistan

Sources: NINK and Macro International (1996); IOGU and Macro International (1997); Ismail and Micklewright (1997), Table 3.

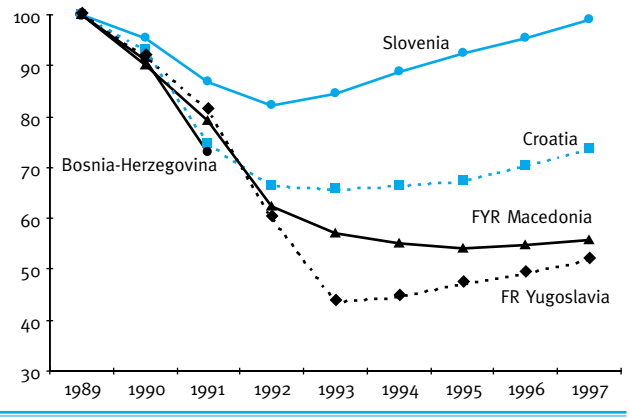
At the same time it should not be forgotten that the constituent parts of the former Socialist Federal Republic of Yugoslavia face many of the same problems of transition from a planned to a market economy as do other countries in the rest of Central and Eastern Europe, and, as elsewhere, these, too, entail substantial risks for children. The situation of former Yugoslavia is somewhat different due to the particular brand of the planned system that was followed in the communist period, which involved, for example, worker-managed firms. In addition, the break-up of the country has brought economic problems that resemble those associated with the break-up of the Soviet Union in that the different parts of former Yugoslavia tended to specialize in different sectors, for example, construction in FYR Macedonia. With trade among the successor states disrupted enormously by the war, this inheritance has produced further economic dislocation, affecting families both through unemployment and through reduced services on account of lower government revenues.

The ethnic tensions in former Yugoslavia that had been suppressed since the Second World War tore the country apart following the fall of communism (aided by economic conditions in the 1980s that fuelled rivalries). The break-up started when Slovenia and Croatia declared independence in June 1991. Slovenia successfully defended its sovereignty in a brief collision with the federal army, but war raged in Croatia and spread to Bosnia-Herzegovina, the scene of the worst conflict, in 1992. FYR

Macedonia achieved independence peacefully in the same year. The Dayton peace accord at the end of 1995 finally brought the fighting in Bosnia-Herzegovina to an end.

The contrasting circumstances of the different countries are striking. Slovenia, a small nation of two million people, was the most industrialized part of former Yugoslavia and had the highest overall living standards. Infant mortality in 1990 (8 deaths per 1,000 live births) was similar to that of neighbouring Italy and Austria. Despite its pioneering role in the break-up of the federation, civil war and social strife have spared this country

Figure 1.19



Cumulative change in real GDP in former Yugoslavia, 1989-97
(1989=100)
Source: Statistical Annex, Table 10.1.

because its population is fairly homogeneous ethnically and culturally. Slovenia stands behind only Poland in the rankings of GDP change since 1989 (see Figure 1.1). The path over the full period is shown in Figure 1.19. Output bottomed out as early as 1992 after a drop of less than one-fifth and has since grown by an average of nearly 4 percent per year. Application has been made for membership of the European Union, and Slovenia has been recommended by the European Commission to be in the first group of Central and Eastern European countries to join, together with the Czech Republic, Hungary, Poland, and Estonia.

All this is not to say that the situation regarding child welfare and child rights in Slovenia is without problems. To give just one example, Figure 1.4 shows that nearly one in five young people were unemployed in 1997; many young people in Slovenia struggle to enter the labour market, and the problems of teenage youth do not stop there. As in the other advanced transition countries (and in all industrialized countries) there is much that needs to be done to advance the well-being of children of all ages and their families.

In the pre-war period Croatia had an infant mortality rate between that of Austria and Hungary, mirroring its overall level of development (11 deaths per 1,000 live births in 1990). Large parts of the territory of this country were exposed to fighting and ethnic hostilities, and there were in- and out-migrations of huge numbers of people. About one million people are believed to have had to move out of their homes at some time during the war (the current total population of Croatia is estimated to be about 4.3 million people), and some 93,000 children were registered as refugees or as internally displaced in 1996. Hospitals, health centres, kindergartens, and schools were damaged or destroyed in the war zones. (About one-third of all kindergartens and schools were affected.) Over 300 children were killed in the fighting between 1991 and 1994; nearly 200 were very severely injured, and a further 1,300 were wounded. About 5,500 children are known to have lost one or both parents. The threat of death or disablement continues; there are estimated to be three to four million landmines in or on Croatian soil – about five for every child.

The war had a major impact on Croatia's economy. Besides the direct destruction, markets in other parts of former Yugoslavia were lost; the tourist industry collapsed, and foreign investment was deterred. With these problems coming on top of those linked with the move away from a planned system, it is perhaps surprising that measured output fell by only one-third in Croatia in the period to 1994 (see Figure 1.19). The economy has since been growing – quite strongly in 1996-97, but output is still one-quarter lower than it was in 1989.

Serbia and Montenegro, with an estimated population of 10.5 million, including 2.7 million children, now constitute the Federal Republic of Yugoslavia, referred to as FR Yugoslavia in this Report. (Montenegro is much the smaller partner, with a population of only about 600,000.) FR Yugoslavia largely escaped physical destruction of infrastructure and productive capacity, but has been affected by the hostilities elsewhere and by ethnic tensions in many ways. The European Community initiated economic sanctions in late 1991 which were extended and maintained by the UN until the Dayton peace accord in 1995 (with some restrictions still continuing). While the country avoided civil war within its territories, there has been persistent tension between central Serbian authorities and ethnic Albanians claiming autonomy in Kosovo. Ethnic Albanians are estimated to make up 17 percent of the population. Due to the war in the territories of its neighbours, about 700,000 refugees poured into FR Yugoslavia. Every third refugee card has been issued to a child, and an estimated 10 percent of refugee children are unaccompanied by a parent.

Not surprisingly, recorded output suffered an enormous reduction in FR Yugoslavia, and this has had huge consequences for the living standards of families with children and for the government's efforts to support them, as elsewhere in the region where output has collapsed. The fall of some 55 percent shown in Figure 1.19 for 1989-93 far exceeds that in any other Central and South-East European country outside former Yugoslavia and matches the collapse in several countries of the former Soviet Union. The hyperinflation of 1993 was braked, and growth was recorded for 1994-97, but the re-structuring of the economy has a long way to go. (The private sector is estimated to have accounted for not much more than one-third of output in 1995.)

A notable feature of living standards in FR

Yugoslavia is the marked variations across different areas of the country. Infant mortality in 1993 was 15 deaths per 1,000 live births in the Vojvodina region of Serbia, much the same as in neighbouring Hungary at the end of the 1980s, while in Kosovo-Metohija, the poorest region and populated largely by ethnic Albanians, it was 33 deaths per 1,000 live births – as in Albania itself in the same year. Montenegro and Central Serbia, which contains the federal capital, Belgrade, registered infant mortality rates of 15 and 17, similar to that in Bulgaria in 1993. Figure 1.20 shows the regional variation in child welfare indicated by data on stunting among children aged under 6 in a national survey conducted in October 1996. The figures range from 13 percent in Kosovo-Metohija to less than 2 percent in Belgrade. (The figures for Belgrade, Vojvodina and Central Serbia are in fact no higher than in the reference population of healthy US children that is used in international comparisons, which is encouraging.)

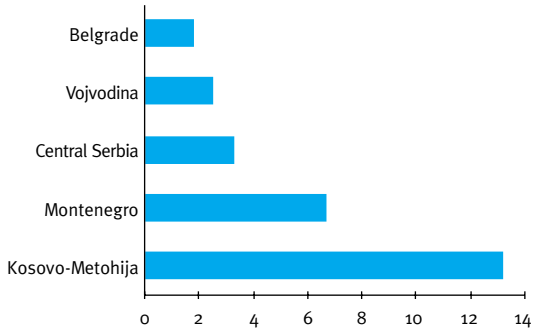
Bosnia-Herzegovina, a country devastated by fighting, had before the war the highest child population ratio in Central and Eastern Europe apart from Albania. Recent estimates put the share of the population aged below 18 at only 23 percent, similar to that in Slovenia. There were considerable efforts during the war to move children out to other countries, and fertility also fell sharply. The population census in 1991 recorded 4.4 million people, 44 percent of whom reported themselves as Bosnian Muslims (known as "Bosniaks"), 31 percent as Bosnian Serbs and 17 percent as Bosnian Croats. (The remaining 8 percent were either of other ethnic origins or declared themselves as "Yugoslavs".) The Dayton peace accord created two separate entities, which together form the sovereign state. The Federation of Bosnia and Herzegovina (which itself has been divided into ten units called "cantons") was estimated in October 1996 to have about 2.3 million people. Republika Srpska, home to most Bosnian Serbs, has an estimated population of 1.5 million. The population estimates imply that there are still many former inhabitants of Bosnia-Herzegovina outside the country. (It is believed that they are scattered in over 60 other countries.)

The pre-1990 development of Bosnia-Herzegovina was reflected in an infant mortality rate similar to that of Central Serbia. The country was fairly urbanized: three-fifths of the population lived in urban areas. Civil war followed the declaration of independence in March 1992 and lasted until the Dayton peace accord. It is estimated that at least 16,000 children were killed during the fighting – a horrific figure – and 140,000 persons in all (some 3 percent of the population), although no one knows the exact figures, and graves are still being uncovered. As in Croatia there are millions of anti-personnel mines that represent a constant threat to children playing outside their homes.

It is not only death and physical harm which took a heavy toll on children, but also the war trauma resulting in deep psychological wounds. Huge numbers of children suffer from at least mild forms of stress disorder, with symptoms such as aggressiveness, insomnia, bedwetting, lack of concentration, and stuttering. A survey in Sarajevo of 1,500 children showed that many had suffered extreme exposure to traumatic events, such as the killing of close relatives, and about three-quarters of children had been in situations when they thought they would be killed themselves. Virtually all children in the survey had been exposed to shooting and shelling at a close range. A survey conducted in Republika Srpska has shown that about one-quarter of primary school children experienced the death of a close friend or relative.

Not surprisingly there is no continuous data series available for economic output in Bosnia-Herzegovina. Taking the Federation and Republika Srpska together, EBRD estimates indicate an 8 percent increase in GDP in 1995, 50 percent in 1996 and 35 percent in 1997 – reflecting the start of what will be a very long recovery from the war's destruction of the economy. It is notable, however, that economic indicators are much worse for Republika Srpska; the EBRD estimates that the economy continued to shrink there in 1995 and grew by only one-fifth in 1996. Foreign aid, of enormous importance to Bosnia-Herzegovina, is often directed at the Federation only, on account of a failure by Republika Srpska to comply with articles of the Dayton peace accord covering the arrest of war crimes suspects and the return of refugees. (Republika Srpska received less than 2 percent of the total international donor money in 1996.)

Figure 1.20



Stunting among children aged under 6 in FR Yugoslavia (percent of children)

Note: Stunting = height for age two standard deviations or more below median of reference population.

Source: UNICEF (1997a), Table 6.5.

Separated geographically from the war-affected areas, the Former Yugoslav Republic of Macedonia, referred to as FYR Macedonia in this Report, has a population of just over two million people, including more than 500,000 children. Although it managed to win independence without bloodshed, FYR Macedonia is far from free of ethnic tension. There is a significant Albanian minority, which official estimates put at about one-quarter of the population, although the figure is subject to some uncertainty. (Most ethnic Albanians boycotted the 1991 census, and the results of the 1994 census are also disputed.) The government of FYR Macedonia has made laudable efforts to recognize ethnic diversity. There is a

constitutional right for children to be taught in their own language in school, and as many as five languages are in use (although the Albanian minority and the central authorities clashed in 1995 over an attempt to establish an Albanian-language university).

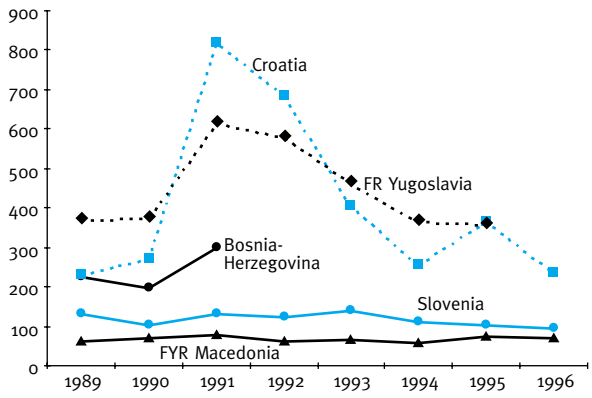
The economy of FYR Macedonia has suffered for various reasons beyond those associated with the transformation from the planned system. UN sanctions on its large neighbour, FR Yugoslavia, affected the country badly and blocked northern trade routes. A dispute over its name with another neighbour, Greece, restricted southern trade routes. (The border between the two countries was literally closed from February 1994 until late 1996.) This dispute also impeded membership of international organizations and denied FYR Macedonia access to European Union assistance funds. (As a landlocked country, FYR Macedonia has no direct access to ports through which to trade.)

Prior to 1990, FYR Macedonia was one of the least developed parts of former Yugoslavia. Although its urbanization rate was close to that of Bosnia-Herzegovina, infant mortality was considerably higher – more than 30 deaths per 1,000 live births in 1990, similar to that of Kosovo-Metohija or neighbouring Albania. Economic welfare has suffered an enormous reduction during the transition years. Figure 1.19 shows that recorded output has fallen in FYR Macedonia by not much less than it has in FR Yugoslavia, and, although there has now been growth for two years, it has been very weak. (As with the data for all other countries in the region it should be remembered that the figure for 1997 is an estimate made well before the end of the year.) As much as one-third of the labour force is officially registered as unemployed. GDP per capita in 1995 at purchasing power exchange rates was estimated by the EBRD to be US$2,130 – one-half of that in Bulgaria and one-fifth of the level in Slovenia.

Figure 1.21

Deaths among young men in former Yugoslavia, 1989-96 (absolute number of recorded deaths, males aged 20-24)

Source: MONEE project database.



The availability and the reliability of indicators used by the MONEE project to measure social change during the transition represent special problems in much of former Yugoslavia (although they are not unique to this part of the region). Even the basic population numbers are often unclear. Administrative reporting is alleged to be partial in some countries, and co-operation with data collecting agencies suffers from the ethnic tensions. The large number of refugees in some countries clouds measurement issues. And, as with the information on GDP, many data for Bosnia-Herzegovina are missing for part of the period and since 1995 have been collected separately for the Federation and Republika Srpska.

Earlier sections in this chapter include analysis of some of these data for the countries of former Yugoslavia. Figure 1.7 indicates recorded infant mortality rates for all five countries, and the data in the Statistical Annex show how these have changed during the transition. The data demonstrate notable but only temporary increases in Bosnia-Herzegovina and marked declines in all other countries, which is encouraging (although it is sometimes alleged that the problems with data noted above may be present). Figure 1.10 shows that the change in the male mortality rate for 40-49 year olds in FR Yugoslavia has been lower than one would have expected from the experience of other countries. Marriage has fallen in all five countries, as in the rest of the region, and the number of divorces relative to marriages has gone down everywhere except in Slovenia (Figure 1.11). The countries of former Yugoslavia have also been found to be in the group of low-divorce countries. The share of non-marital births has risen, as elsewhere (Figure 1.14).

A sobering reminder of both the main feature of former Yugoslavia's experience of the 1990s and of the difficulties in adequately measuring human welfare in the area is given by Figure 1.21, which shows the recorded number of deaths among men aged 20-24 in each country during the period. The data series for Slovenia and FYR Macedonia are flat, reflecting the absence of war in these countries. The number of deaths of young men in Croatia leapt from 271 in 1990 to 819 in 1991 and 685 in 1992 – the two years when the war was at its peak. Registered deaths in FR Yugoslavia also rose sharply in these two years. If all the war-related deaths had been recorded, the numbers in both these countries could well have been significantly higher. The available data for Bosnia-Herzegovina finish in 1991. If the series were to continue, it would go far off the top of the page, reflecting the terrible toll of deaths among young men during the fighting. ■

2 Changes and Challenges in Education

What was the system of education for children like under communism, and how has it changed during the 1990s? Many features common to the countries of the region before the transition were based on Marxist-Leninist doctrine, on the role accorded to the labour requirements of central planners, and on educational theories and practices that were claimed to represent "socialist attainment". At the same time there were differences among countries, reflecting the diversity in the pre-communist educational systems and the extent to which innovations from elsewhere – including Western countries – had been adopted. Differences also reflected variation in the level of economic and social development across the region.

The system had both good and bad points. Some of the bad ones are immediately obvious from even the briefest description of the general principles underlying education under communism. Individuality, the best interests of the child, the development of the child to his or her full potential – these seem to have been missing from the picture. On the other hand, in much of the region a lot of children went to school who would not have done so in other countries at similar levels of economic development. Schools also gave a considerable degree of social support to families, performing a positive role in society that was wider than the one of merely providing instruction.

This chapter gives an overview of education in the region that highlights a number of the major changes that have taken place in the 1990s. In doing so, it emphasizes both the achievements and the weaknesses of the old system (much of which is still in place in many countries), together with the major challenges faced during the transition. Some changes have brought improvements, but others represent a step backwards and a significant loss. In part, the chapter also prepares the ground for detailed treatment of selected topics in Chapters 3 and 4.

The first section looks at *access* in education, focusing in particular on changes in enrolments at different levels. How have enrolments held up during the 1990s? Major changes are identified, with, for example, some countries registering significant falls in enrolment at all levels of schooling.

The *financing and governance* of educational systems are considered in Section 2.2. How have reduced economic output and government spending affected the educational system and the learning that takes place in schools? What are the main issues in the control of education?

The *structure and content* of education are dealt with in Section 2.3. What is taught in schools, and are curricula changing in the right direction and changing quickly enough? How much do children actually learn in schools, and what is the experience of school really like for children? How has the social support provided by schools changed?

Section 2.4 looks at *links to the labour market*. Is there any evidence that education now has a greater impact on earnings than it had under communism, and to what extent does more schooling help young people establish themselves in the labour market? ■

2.1 Access to the Educational System

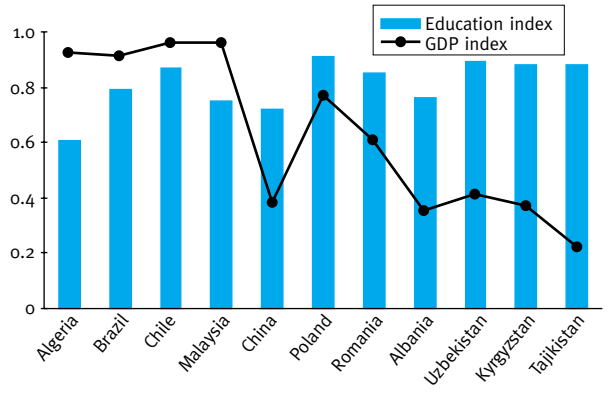
Universal access to free basic education (primary and lower secondary schooling), together with the literacy that this should bring, is a key element of child rights. Throughout the region, this was largely attained (although not always completely) by the early 1980s, often with substantial enrolments at other levels of schooling as well. Are these past achievements now under threat?

In several countries, broad educational access was built upon rates of enrolment that were already high by the Second World War. In Romania, for example, free elementary education was established in 1864, and by the 1920s primary enrolment exceeded 75 percent. A number of countries enjoyed a tradition of scholarship dating to the pre-communist era and boasted centres of higher learning that had been created in medieval times. Nevertheless, high aggregate enrolment rates were a notable achievement of central planning, especially in countries that were less developed or that had rapidly growing populations, such as the Central Asian republics. During the first five-year plans in the Soviet Union, large-scale literacy campaigns were implemented, and wage differentials sought to create incentives for education and the acquisition of skills. (Poland is another example of a

country where the communist take-over led to a huge drive against illiteracy.)

Figure 2.1 shows an index of educational achievement for various countries of Central Asia and Central and South-East Europe and for several developing countries. This graphically illustrates the commitment of state planners to ensuring sufficient resources and broad access to education at levels well above those in market-based comparators. In each former socialist country, the ranking on educational attainment significantly exceeds that on income, whereas the reverse is true of the developing country examples. The comparison is particularly notable for the Central Asian countries.

Figure 2.1



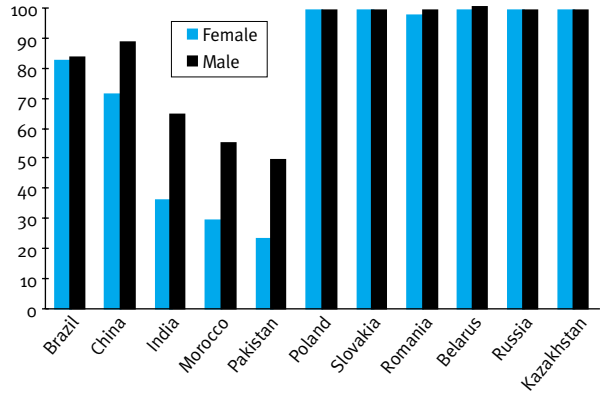
Education achievements of the planned system

Source: UNDP (1996a), Annex Table 2.

Note: The GDP index captures each country's ranking in terms of real GDP per capita. The education index is a ranking based on first-, second- and third-level gross enrolment and adult literacy rates in 1993.

Figure 2.2 highlights the outstanding achievement of the socialist regimes with respect to *gender equity* by comparing male and female literacy rates in 1993 for selected countries. The countries of the region reached virtual parity in literacy rates, which again sharply distinguishes them from many countries of comparable or higher levels of income.

Figure 2.2



Inherited gender equity: male and female literacy rates, 1993 (percent)

Source: UNDP (1996a), Annex Table 2.

The broadening of access under the planned system naturally promoted the representation of lower income groups in education. The education of the children in worker and peasant families was in fact an important ideological objective. University candidates with a worker or peasant family background were given additional points in the entrance exams in Poland, Hungary and elsewhere in the region. In addition, they were entitled to financial aid such as scholarships and cheap accommodation. (This also acted to support other students from low-income families.)

However, this is not to say that higher socio-economic background brought no advantage in terms of educational access under socialism. Indeed, it appears to have done so, as in Western countries, and this theme is taken up further in Chapter 3. Although data are scarce, evidence does suggest that social stratification in education was present and tended to persist. The relative over-representation at higher levels of education of children from professional family backgrounds seems to have been of similar orders of magnitude to that in Western countries. One study finds that university students from professional backgrounds were 2.1 times over-represented in 1970 in the USSR and 3.2 times in Hungary in 1963, compared to 2.5 times in the USA (1957), 2.4 times in France (1965), 2.4 times in the UK (1979), and 1.8 times in Japan (1968).

The extent of private contributions to the financing of education was limited. As early as the 1930s, schoolchildren in the Soviet Union apparently received a free textbook in each subject and an annual supply of paper and pencils. Fees were charged to help defray living costs (food and clothing) in boarding schools and in kindergartens, although the extent to which costs were recovered was very partial. Another form of private expenditure was private tuition, generally with the aim of facilitating entry to a better higher education institution. In Romania the deterioration of investment in public education after 1980 frequently caused parents to rely on private teachers at home, while the school was geared towards "civic" activities. The growing link between income and access during the transition is discussed in Chapter 3.

Enrolments during transition

Enrolment rates are one useful measure of educational access, and there is a substantial amount of evidence on changes in enrolment at different levels of schooling during the transition. Before this evidence is considered, however, the drawbacks of enrolment rate data need to be made clear. (Some information on complementary indicators of access is given at the end of the section.)

First, enrolment rates are typically based on administrative registration at the beginning of the school year and fail to capture either attendance, or drop-out during the year. Second, repetition of school years and changes in the structure of the educational system affect "gross" enrolment rates. (A gross enrolment rate is the total number of children enrolled in a given level of schooling, irrespective of age, divided by the number of children in the age group that usually attends that level. The enrolment rates in this Report are all "gross" unless otherwise indicated, and they have been calculated from data on enrol-

Box 2.1

The structure of education at the start of the transition

The structure of the educational system in the region from pre-school to upper secondary level was usually characterized by the following organization.

Pre-school education was divided into two levels:

- "Crèches" for infants and young children below the age of 3 and serving a primarily custodial function, often at the place of work.
- Kindergartens for children from the age of 3 up to entry to compulsory schooling. These had both custodial and developmental functions.

Compulsory schooling, often called basic or elementary schooling, in general lasted from age 6 or 7 to age 14 or 15. This was often divided into primary (to age 10) and lower secondary.

Secondary education (often called upper secondary), from 14 or 15 years of age, was usually divided into three types of schools:

- General secondary schools (gymnasia/lycees), offering a four-year programme of academic study, possibly leading on to higher education, with entry on a selective basis. In a number of countries, gymnasia streams began from lower secondary grades.
- Technical schools (technical gymnasia/lycees, "technikums") offering three- to five-year programmes of technical study leading to a diploma and the opportunity to continue studies. These often included training for medicine, engineering, and so on.
- Vocational schools (known in the former USSR as professional-technical institutions or PTUs) provided vocational courses of one to three years or more. Students often trained for employment in a very specialized occupation, and the possibility for continuing into tertiary education was usually very limited. Many countries also offered vocational programmes that were combined with academic courses, allowing students to complete general secondary school equivalency at the same time as vocational training and thus permitting access to tertiary education.

ment and age-cohort numbers provided to the MONEE project.) Third, enrolment rates do not directly reveal the *quality* of the education that is obtained, although, insofar as enrolment reflects demand for education, they do show perceptions about quality and value. Finally, accurate calculation of enrolment rates depends on good estimates being made of age cohorts, and in some countries this has been particularly difficult during transition due to large population movements. The relevance of each of these caveats varies over time in accordance with changes, among other things, in economic conditions and institutional capacity.

Data on enrolments are available for different levels of schooling. The overall structure of education systems was broadly similar across the region at the start of the transition, and for many countries this is still true. Box 2.1 provides a brief overview of the typical system that was inherited and is restricted to education below tertiary level; education beyond the secondary level displayed considerable variety. The data used in this section include enrolments in accredited private institutions, as well as in the public sector; the numbers of pupils in private education are generally small (with the exception of enterprise pre-schools). The emergence of private schooling in the region and the issues surrounding it are considered in Chapter 4.

Pre-schools

Networks of pre-schools were quite extensive in much of the region. The provision of pre-schools was undertaken in part to promote female employment, which was relatively high by Western standards, but pre-schools were also used to encourage the early development of children. They were important, for example, in supporting nutrition and in providing preventive health care. And in some countries they played a role in starting the process of formal education.

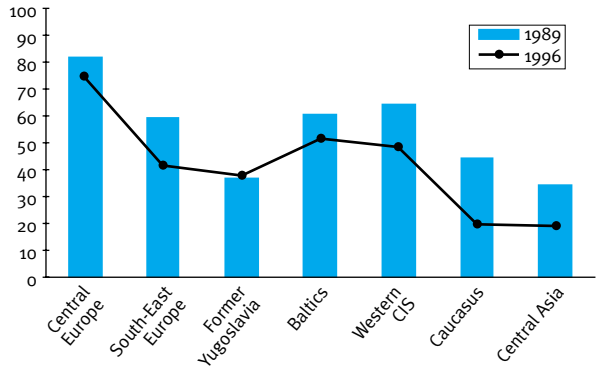
Figure 2.3 shows kindergarten enrolment rates in 1989 and 1996 in subregional groups of countries. Figure 2.4 gives the data for each country separately. If one looks at the data for 1989, it is clear that there was striking variation in enrolment across the region. Contrary to what is often thought, it was *not* the case that kindergarten enrolment was anywhere near universal in all countries. Only in Central Europe does one find figures that were as high as 80 percent (and Poland was an exception here, with an enrolment rate of only 50 percent). In the Baltics and in several western CIS countries, less than two-thirds of children were enrolled. And the systems of kindergartens in most of Central Asia, the Caucasus and former Yugoslavia covered much less than half of the relevant child cohorts. For example, only about one in five children attended kindergarten in Azerbaijan prior to transition and one in three in Uzbekistan and FR Yugoslavia. (The data for Central Asia refer to enrolment in all pre-schools among 1-6 year olds and therefore understate kindergarten enrolment rates slightly.) Even within countries that had overall higher levels of access, children in rural areas were often less likely to be enrolled, reflecting the lower level of provision. In Ukraine, for example, enrolment in urban areas was almost twice that in rural areas.

The two graphs show that pre-school enrolment rates have fallen sharply in much of the region since 1989, although there are some notable differences in the changes. A number of Central and Eastern European countries have maintained enrolments or have restored them to pre-transition levels, including Belarus, Bulgaria, the Czech Republic, and Hungary, and several in former Yugoslavia. Recovery has taken place in Estonia and Latvia following initial sharp falls. Elsewhere, particularly in the former Soviet republics, there have been big declines, for example in Moldova, Ukraine, Armenia, Georgia, Kazakhstan, and Kyrgyzstan.

The trends in enrolment reflect changes both in the supply of places and in the demand. As far as the former is concerned, there have been some striking falls. First, the overall numbers of institutions have been sharply reduced. In the former Soviet Union as a whole (excluding the Baltics), 32,000 pre-school institutions closed between 1991 and 1995. Second, there have been significant shifts in the structure of ownership. There has been a general withdrawal of (formerly state) enterprises and farms from the provision of pre-schools in the face of hardening budget constraints and greater profit orientation. Local authorities have assumed a relatively more important role in provision, even if the absolute number of state institutions and places has not risen. Kazakhstan is a good example of this general trend, as shown in Figure 2.5.

The implications of these falls in enrolment for early childhood development and the appropriate policy responses are taken up in Chapter 4, which looks at *demand* for pre-school places, as well as at supply. Do families want pre-schools of the type existing at the start of the transition, and can they afford them if they do? The falls in enrolment during transition appear to be a big loss for child welfare, and in many individual cases this is no doubt true. But is the story more complicated than it may at first seem? It is worth emphasizing that the drop in enrolment in many countries over the period has been much less than the shortfall from universal enrolment that already existed at the end of the 1980s. Too big a focus on the decline in enrolments may draw attention away from the goal of promoting the early development of *all* children.

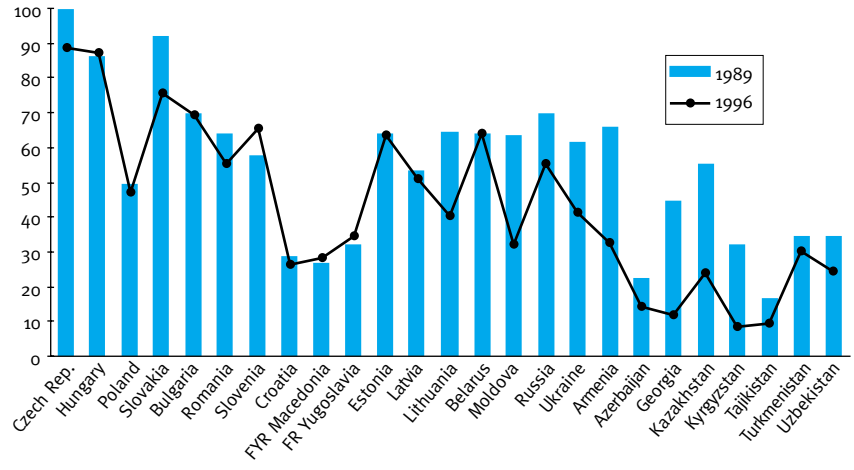
Figure 2.3



Kindergarten enrolment rates by area, 1989-96 (percent)
Source: Statistical Annex, Table 7.1.

Note: The data are based on unweighted averages and represent net enrolment rates among 3-5/6 year olds, except in Central Asia and Moldova, where rates are for the 1-6 age group. The earlier and later years for former Yugoslavia are 1990 and 1995, and the regional average excludes data for Bosnia-Herzegovina. The later year is 1995 for Kazakhstan and 1994 for Tajikistan and Turkmenistan. The definition of enrolment cohort varies by country; see additional notes in the Statistical Annex.

Figure 2.4



Kindergarten enrolment rates by country, 1989-96 (percent)
Source: Statistical Annex, Table 7.1.

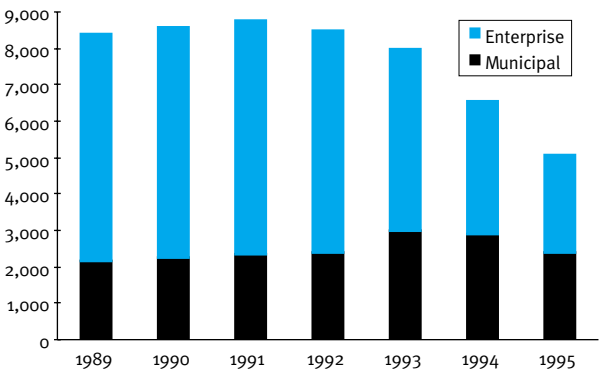
Note: Unless otherwise noted, all enrolment rates are net. The later year is 1995 for Kazakhstan, Croatia and FYR Macedonia and 1994 for Tajikistan, Turkmenistan and Georgia. The definition of enrolment cohort varies by country; see additional notes in the Statistical Annex.

Compulsory schooling

Aggregate trends in enrolment in primary and lower secondary schools suggest that most countries have maintained previous achievements at the compulsory level. However, there seems to be clear evidence of deterioration at the lower secondary level in the poorer parts of the region. Figure 2.6 shows countries for which data are available that have suffered adverse trends in enrolment at this level, showing also the apparent change in primary enrolment rates. (There are other countries where official figures show falls in enrolment, but these are probably due to statistical problems, for example, in the Baltic republics, where emigration has complicated the estimation of age cohorts.)

Where the lower secondary enrolment rate

Figure 2.5



Enterprise provision of kindergartens in Kazakhstan (number of institutions)
Source: MONEE project database.

decreases, but the primary rate rises by a similar amount, as in Romania, Bulgaria and Slovakia, there must be a suspicion that the changes are merely the result of a shift in classification. However, in the countries in the Caucasus and Central Asia this does not seem to be the explanation. The situation in Georgia and Kyrgyzstan appears particularly alarming, with significant falls apparently taking place in enrolment rates at the primary level, as well as lower secondary level. Taking both levels together, the data appear to indicate that about one in seven children of compulsory age are not enrolled in school in several countries in Central Asia and the Caucasus (see Statistical Annex, Table 7.2), with as many as one in four out of school in Kyrgyzstan.

The explanations for these changes in enrolment at the compulsory level are unclear, although it is easy to guess that rising direct costs of schooling, such as expenditure on textbooks, coupled with pressure to find work, may be significant factors. Reduced provision of schooling may also be to blame in some countries, especially those affected by war; it would be wrong to focus only on factors affecting demand. The situation cries out for further investigation. If, as seems to be the case, the falls in enrolment are real rather than a statistical artefact, they represent an obvious violation of children's rights and a most worrying development.

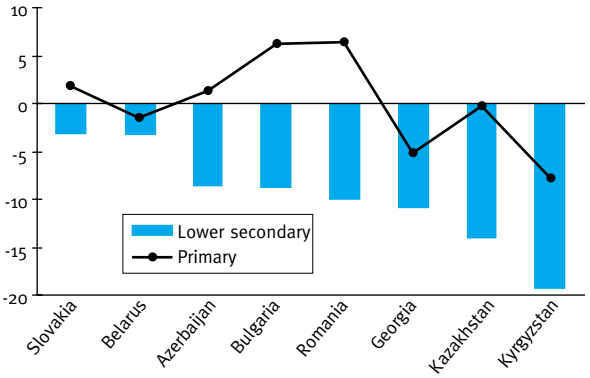


Figure 2.6

Enrolment changes in primary and lower secondary education, 1990-96 (percentage points)
Source: MONEE project database.

Post-compulsory schooling

The picture at the upper secondary level is difficult to summarize and is complicated by the different types of schooling (see Box 2.1). In a number of Central and Eastern European countries and also in the Baltics, enrolment rates in general secondary schools – the more academic stream – have risen (Figure 2.7). (The variation in the level of the enrolment rate in general secondary schools across the region in 1989 reflects a number of factors, including differences in the definition of this type of school.) The most striking case is that of Romania, where academic education was seriously repressed under the communist regime. Enrolment in this form of schooling rose from less than 5 percent in 1989 to almost 20 percent in 1996. Substantial increases have also taken place in Poland and Latvia. On the other hand, general secondary enrolment is more or less unchanged in Russia, Ukraine and Belarus and has deteriorated notably in countries in the Caucasus and Central Asia. (The graph includes only Kazakhstan and Kyrgyzstan, but shorter series of data for the other Central Asian republics in the Statistical Annex show the same pattern.) The latter changes are consistent with the changes for lower secondary levels of education.

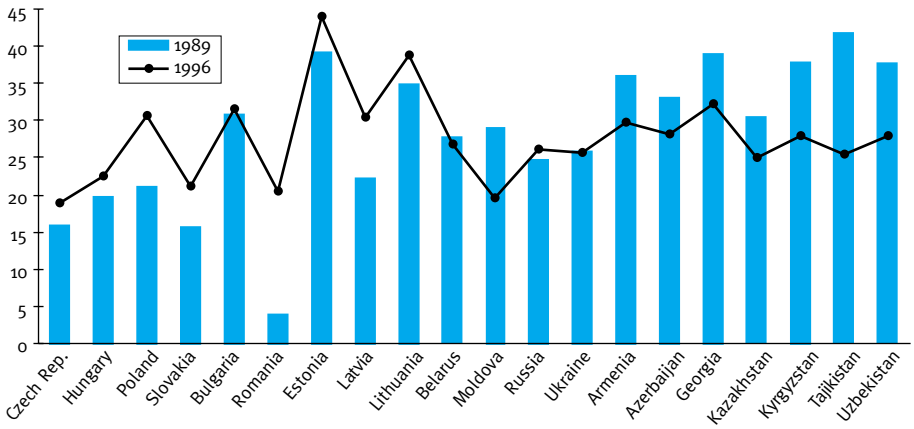


Figure 2.7

Enrolment in general secondary schools, 1989-96 (percent)
Source: Statistical Annex, Table 7.3.

Note: Gross enrolment rates have been estimated using the total number of students enrolled and the 15-18 age group as the reference cohort. (This may understate general secondary enrolment rates in countries with programmes that are shorter in duration.) The later year is 1995 for Slovakia, Bulgaria, Romania, Estonia, and Kyrgyzstan and 1994 for Tajikistan, Turkmenistan and Georgia. See additional notes in the Statistical Annex.

Vocational and technical school enrolment has declined in much of the region. As with pre-schools, this reflects a mix of demand and supply factors ranging from enterprise-based schools closing down to children opting for other types of schools or dropping out of the educational system altogether. Figure 2.8 shows the situation in several countries for vocational schools, the lower level of the two forms of non-academic secondary school. (The Statistical Annex gives the data for technical schools as

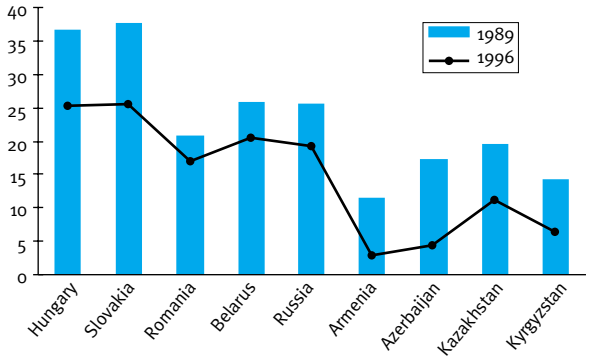


Figure 2.8

Enrolment in vocational secondary schools, 1989-96 (percent)
Source: Statistical Annex, Table 7.5.

Note: Vocational secondary schools encompass a broad range of forms across the region and can last from one to four years (see Box 2.1). For comparative purposes, gross enrolment rates have been estimated on the basis of total vocational enrolments and the 15-18 age cohort. See additional notes in the Statistical Annex.

well.) In some cases, the declines in technical or vocational enrolment reflect a shift towards general secondary schools with their broader education that may well be more appropriate for a market economy. This is the case in Hungary, Slovakia and Romania. In the first two of these, the changes in vocational and technical enrolment over the period exactly balance the rise in general secondary school enrolment, and the overall upper secondary enrolment rate is unchanged. Overall enrolment appears to have fallen in Romania despite the large rise in general secondary schooling, because of the stronger decline in vocational and technical programmes.

But in other cases, enrolment in *all three* forms of upper secondary school has gone down. This is the situation in the Caucasus and in Central Asia. For example, total enrolment in Kazakhstan appears to have dropped from about 70 percent in 1990 to 50 percent in 1996 and in Azerbaijan from 60 percent to 40 percent. These are shockingly large measured falls in post-compulsory education, and, on the evidence of Figure 2.6, they come on top of falls in lower secondary education and in some cases primary education, too.

Western CIS countries also appear to have experienced overall declines in post-compulsory education despite the little change shown by most of them in general secondary enrolment. The drop in enrolment rates in vocational schools (the cases of Russia and Belarus are shown in Figure 2.8) and in technical schools (for example, by about six percentage points for both Russia and Ukraine over 1989-96) has resulted in some large overall reductions in upper secondary enrolment – from 78 percent to 68 percent for Belarus, from 89 percent to 68 percent for Russia and from 76 percent to 58 percent for Ukraine. In Moldova, given the decline in general secondary enrolment as well, the fall in overall secondary enrolment has been particularly big (from 71 percent to 42 percent), although some of this almost certainly represents a failure of the enrolment data during transition to cover the disputed Transdniestr region.

The available data therefore appear to show some really major reversals in post-compulsory education during transition. Caution is probably needed in some cases when interpreting the figures, however. In addition to the problems outlined earlier for all enrolment rates, there is the issue of the treatment in the data at the post-compulsory level of part-time enrolment and of distance learning (for example, correspondence courses). These are probably more important with tertiary institutions, but may also be relevant in some countries at the upper secondary level. Still, in most cases the recorded changes seem credible and are consistent with other indicators of economic and social welfare, for example, output decline, spending on education (see below) and pre-school enrolment.

Enrolments at the tertiary level also display a variety of patterns. There are some noted increases in Central and Eastern Europe, for example, from 14 percent in Hungary in 1989 to 21 percent in 1996. Bulgaria is another country that shows a substantial rise. Most of the countries of the former Soviet Union show relatively little change in overall enrolment rates (Uzbekistan is an exception with quite a significant fall), although data on the numbers of new students admitted in 1995-96 reveal some noted rises. The data for these countries allow full-time enrolments to be separately identified so that the problem of part-time study and distance education should not arise. There are slight increases, for example, in overall enrolment rates in Belarus, Russia and Ukraine and falls in Latvia and Lithuania. The lack of significant change in tertiary enrolments in much of Central Asia and the Caucasus contrasts sharply with the situation at all other levels of education.

Other indicators of access

Enrolment rates are at best a crude indicator of access. Children may be enrolled, but may not go to school. Or they may go, but the instruction might be of such low quality that there is no "access" to genuine education in the real sense of the word. Even in the absence of an alternative measure for all countries, it is important to illustrate indicators that might more accurately reflect genuine educational opportunity.

There is a great deal of anecdotal evidence from many countries that indicates that, indeed, enrolment data tell only part of the story. Numerous reports exist of non-attendance and of conditions that cannot encourage learning. Unfortunately, systematic data are scarce. One study including Russia, the Baltics and several Central European countries, but, regrettably, no country from Central Asia or the Caucasus, provides evidence on teacher assessments of attendance in 1995 in representative samples of schools. (The same source, the Third International Mathematics and Science Study of the International Association for the Evaluation of Educational Achievement, is drawn on later in the chapter in Box 2.4 and in Table 2.2.) The rate of absenteeism in these countries among eighth grade children was in general around 6 percent, and the drop-out rate ranged up to over 11 percent in several countries, while repetition rates were fairly low. Data from administrative sources show that repetition rates in basic schools in Slovenia have remained at around 2 percent; at the secondary level the rates were already 4 percent in 1989 and had increased further to over 5 percent by 1995. These rates are not dissimilar to those found in some Western countries. Even in the absence of data on absenteeism and drop-outs, inferences may be made from data on graduation. In Ukraine, for example, there was a steady decline between 1990 and 1994 in the number of children completing secondary education.

Where education systems have experienced drastic declines in funding (a subject dealt with below), the worsening conditions in schools have certainly affected absenteeism and the motivation of children (as well as staff).

They have even restricted the ability of schools to operate at all. Georgia provides a good example. Serious energy shortages since 1993 have meant that teaching in the winter months has been very restricted because of the cold temperatures in classrooms. There are many reported cases where schools in Georgia have dismissed those few children who have managed to turn up in cold weather. In FYR Macedonia, the European Union has funded oil to heat schools in winter, while in Kyrgyzstan UNICEF has helped keep schools open in winter through the provision of coal supplies. However, there are other cases in the region where schools have had to close their doors in winter and deny access to enrolled children, for example in Bulgaria and Moldova.

Summary

The picture of access to education varies substantially across the region. Enrolment rates in a number of Central European countries show little change at different levels of schooling. (This should not be taken as meaning that the quality of education is unchanged.) High kindergarten enrolment rates have been preserved, and there has been expansion of general secondary schooling. Other countries in the region show significant declines at both kindergarten and upper secondary levels, and this is a particular feature of many countries of the former Soviet Union. In the Caucasus and Central Asia, there appear to have been some major falls in enrolment at *every* school level – kindergarten, primary, lower secondary, and all three forms of upper secondary. In these countries, there has been a major reduction in access to education. And the evidence cited in the previous paragraph is a reminder that enrolment is only part of the picture. Attendance and, most important of all, learning – the overall goal of the process – may have suffered even more.

■

2.2 The Financing and Governance of Schools

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 big declines in national income and, in many cases, public revenue as a share of that reduced output. 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, and how might one expect children's learning to have changed as a result?

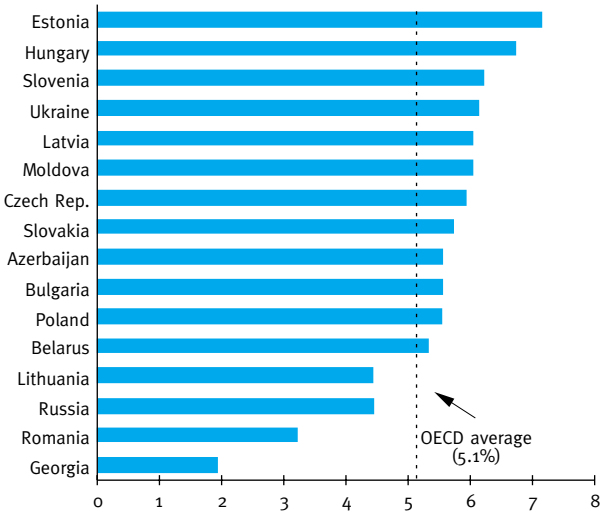
Availability of public resources

It is difficult to measure the availability of resources in education so as to allow comparability over time or across countries. Three indicators are normally used, all based on information on aggregate public expenditure on education, which is a crude measure of input that helps one trace the potential impacts of change on access and outcomes: public expenditure on education as a share of national income, educational expenditure as a share of total public expenditure, and expenditure per pupil in real terms. While the last measure has the most direct relevance for children in schools, the others usefully indicate whether education is regarded as a luxury or as a necessity by government – expenditure on a "necessity" rises in relative terms as income falls. This also sheds light on the commitment of states to further the economic, social and cultural rights laid down in the UN Convention on the Rights of the Child "to the maximum extent of their available resources".

Data collected by UNESCO on *public expenditure on education as a share of GDP* in 1993 are presented in Figure 2.9 for 16 countries. At that time, most of the transition countries were directing a larger share of national income towards education than were many Western countries. The diagram shows that only four – Lithuania, Russia, Romania, and Georgia – were spending less than the average figure for the ten OECD countries included in the same study.

This suggests a reasonable public commitment to education. Figure 2.10 shows how this has changed between 1990 and 1996 for 15 countries for which data are available. (The information comes from a source different from that in Figure 2.9 and may not be directly comparable.) In seven countries, including several in very

Figure 2.9



Note: The later year is 1994 for Azerbaijan. The vertical line shows the value of the unweighted average for ten OECD countries: Austria, France, Germany, Greece (1991), Ireland, Italy, Japan (1991), Spain, UK (1992), and USA (1991).

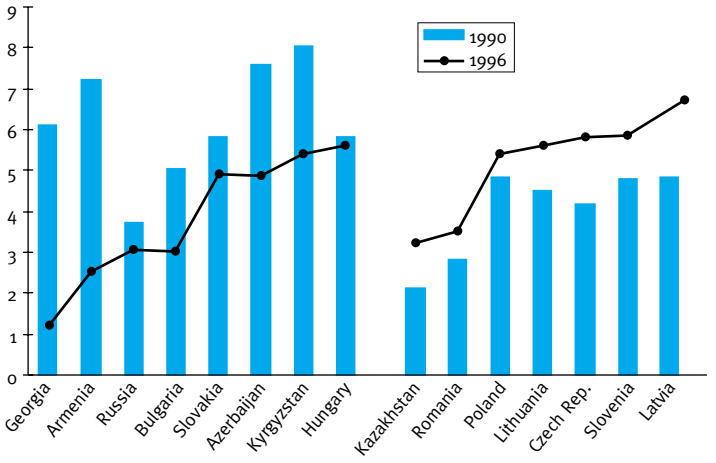
Public expenditure on education as a percentage of GDP, 1993

Source: UNESCO (1997), Table 4.1.

different economic circumstances (for example, Kazakhstan and Poland), the share of national income being directed to education rises. But it falls in the other eight – the opposite of what one would hope for.

In these eight countries education is being treated as a luxury, in economic terms, with expenditure cut back more than proportionately as GDP falls. (It should be noted that the fall has not been continuous in a number of cases.) The share almost collapses in Georgia and Armenia. Not only has national income shrunk enormously, by two-thirds in both cases, but the *proportion* of that reduced income going to education has plunged as well. The explanation may be sought in the massive falls in public revenue in these countries (see Chapter 1).

Figure 2.10



Changes in public expenditure on education as a percentage of GDP, 1990-96

Sources: Statistical Annex, Table 7.7; World Bank (1997b) for Armenia.

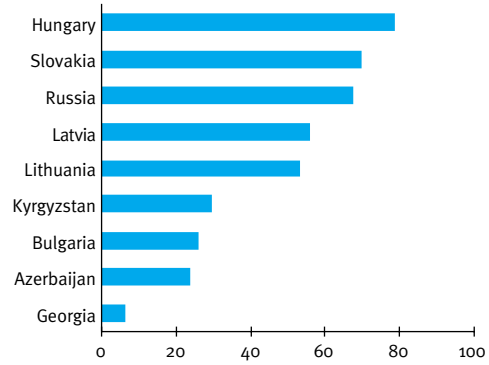
Note: The later year is 1995 for Russia, Azerbaijan, Kazakhstan, and Slovenia. The earlier year is 1991 for Slovenia and 1992 for Kazakhstan and Armenia.

These two countries aside, one of the lowest shares is in Russia (where public revenue also fell), and it is a concern that this country, with so many children, devotes such a relatively small slice of national income to education.

The *share of total public expenditure going to education* has tended to be maintained or even increased. This occurred in ten of the 14 countries for which data are available. (The range of this share – from 8 percent to 20 percent – is similar to that in OECD countries.) In one sense, this gives a more encouraging picture, but it also underlines a principal problem behind the falls in the share of education spending in GDP – a failure to collect enough tax revenue.

Real education spending has dropped throughout much of the region. The exceptions among countries for which data are available are Romania (where spending as a percent of GDP was low pre-reform), Poland and Slovenia (the two countries where GDP has recovered the most). In some cases, trends in real spending have been offset by declining numbers of children, so that *per pupil* expenditure has not been affected. This has occurred in parts of Central Europe, but elsewhere increasing cohort sizes have worsened the situation. Figure 2.11 shows the change in total (not per pupil) real expenditure in a number of countries. The decline exceeds one-third in each of the six former Soviet republics, with expenditure falling three-quarters or more in Azerbaijan, Georgia and Kyrgyzstan and also in Bulgaria.

Figure 2.11



Falls in real education expenditure during transition, 1989-96

(1989=100)

Source: MONEE project database.

Note: Consumer price indices from EBRD (1997) are used as deflators. The earlier year is 1990 for Poland, Bulgaria, Lithuania, and Georgia and 1991 for Russia. The later year is 1995 for Hungary.

Box 2.2

Enterprise financing of education

The state budget was not the sole source of finance for schools during the period of central planning. In addition, enterprises and farms often provided assistance. (One estimate for the Soviet Union in 1960 put their relevant contribution to education, culture and scientific research at about one-fifth of the total budget.) This support was particularly important for school construction and repair and for equipment. Enterprises also provided teaching in technical schools; for example, a welding foreman might teach students how to weld. Enterprises operated as well as financed educational institutions. For example, municipal kindergartens, run by the Ministry of Education, accounted for only one in four kindergartens in Kyrgyzstan and Kazakhstan and one in three in Uzbekistan.

The distributional impact of such support is unclear. On the one hand, schools fortunate enough to be near to wealthy enterprises in favoured sectors, like heavy industry, probably enjoyed greater than average support. On the other, provision in rural areas may have filled a gap. This latter view implies that enterprise contributions had a positive impact on the equity of provision and that the withdrawal of this support has had adverse repercussions for disadvantaged regions. In any case, widespread withdrawal of such support because of hardening budget constraints on enterprises has certainly compounded the financial problems facing schools. And remaining ties to the skills used in specific enterprises have hindered the attempts of technical schools to transform their curricula.

Two further factors need to be taken into account when assessing changes in spending. First, the effects of declines in government support for education have often been exacerbated by the withdrawal of enterprises and state farms from the provision and financing of education (see Box 2.2). Second, in countries where substantial reductions in public expenditure on education have occurred, the same underlying economic factors have been associated with falling household incomes and rising poverty. The *cumulative* effect of these changes on children needs to be emphasized. Here is the view of a seventh grade pupil in Karelia, Russia:

> "Our parents have not received either their salaries or their child stipends for half a year. Our teachers are on strike, consequently we are not receiving a full education. Our school is falling apart. There is nothing to repaint the school with. The roof leaks. Every year everything just gets worse and worse." (*Uchitel'skaia gazeta*, 20 May 1997)

Use of public resources

The shifts in financial resources for education have created enormous difficulties for children, parents and teachers and pose big challenges for policy-makers concerned with promoting equitable access to good quality schooling. However, changes in spending should not be equated with changes in educational opportunities, let alone actual outcomes. The impact of changes in spending depends on a range of factors, including the extent to which there have been offsetting efficiency gains, the allocation of cuts among different categories of expenditure and, not least, the responses of teaching staff to new working conditions.

It is well known that central planning was associated with pervasive inefficiencies. These were evident in educational provision in several ways. Financing mechanisms did not provide incentives to schools to reduce costs; any budget surpluses that arose simply reduced the allocation for the subsequent year. In any case, despite the volume of detailed statistics on inputs, planners lacked the types of information needed to monitor the quality of outcomes. For example, the system of student assessment was very decentralized, and feedback to decision-makers was at best minimal; centralized control over inputs and processes in the education system was assumed to have predictable outcomes, so that any assessment of students would be redundant. (The subject of testing is taken up in the next section.) Of course, the fact that the old system was characterized by inefficiencies in provision does not mean that lower expenditure per pupil since 1990 reflects a reversal of this picture.

How have cuts in real spending affected different types of expenditure? The liberalization of prices for heating and lighting means that the share of these items in budgets has typically risen quite sharply. The notion of "protected items" has been used frequently in the region to try to safeguard certain types of expenditure, in particular that on staff, so that capital and maintenance expenditures are disproportionately affected.

Available data suggest that capital expenditures are generally very low indeed. (The Czech Republic and Hungary are known to be exceptions to this pattern.) Aside from many anecdotal reports, as in the Russian child's letter quoted above, there is substantial evidence of enormous deterioration in school buildings due to lack of financing for repairs and maintenance. Box 2.3 provides some examples.

Salary costs comprise an important part of education spending in every country. At the end of the communist period, the pupil-teacher ratios in the region were quite low by international standards. It should be noted that available data relate to total numbers of teachers and pupils at different levels of schooling and *not* to class sizes; there are various reasons why the latter are often larger than pupil-teacher ratios suggest (for example, due to use of specialist teachers for selected subjects). Moreover, the interpretation of differences across countries is hindered since the number of teaching hours may vary significantly. Nevertheless, it is generally accepted that, at the start of the transition, overstaffing pervaded education alongside other sectors in the planned economy.

It is striking that pupil-teacher ratios in basic edu-

Box 2.3

Deterioration of school buildings

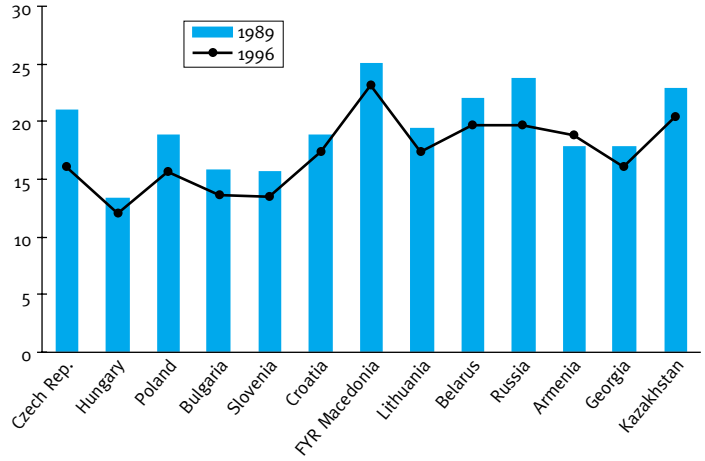
The evidence of deterioration of school buildings comes from a variety of countries.

- A school in western Georgia has operated in a railway car since its premises were destroyed by the 1991 earthquake. The buildings of about one in five schools in the country were classified in 1997 as unfit for occupation, and over half were in need of capital repairs.
- A 1995 survey of 12,000 schools by the Romanian Ministry of Education found 1,150 with buildings suffering from serious structural damage, and 200 in such dangerous condition that they were immediately closed until they could be made safe.
- Countries affected by war and civil unrest have suffered enormous damage to school buildings, and rebuilding takes scarce resources away from other uses. Bosnia-Herzegovina is an obvious case; it is estimated that between one-third and one-half of all school buildings were destroyed during the war, and the majority of the others are in need of maintenance that has not been carried out for several years. The experience of Albania in early 1997 is another example.

cation have fallen in almost every country for which data are available. (Figure 2.12 shows ratios in 1989 and 1996 for a range of countries.) Moreover, this has not just been due to a fall in the number of pupils (and in some cases pupil numbers have risen). There have also been increases in the number of teachers; this is true in nine of the 13 countries shown in the graph. In some countries there have been really large rises – over 30 percent in Russia and Kazakhstan and over 25 percent in Lithuania – despite very adverse economic conditions and reduced public revenue. Where declines in the number of teachers have occurred, one tends also to see either a particularly harsh fall in the economy (for example, FR Yugoslavia and Georgia), or a more deliberate orientation towards reform (for example, Hungary and Estonia).

The reasons for the rise in teacher numbers are unclear. They may, for example, relate to perverse incentives given to school managers through budgeting systems.

Figure 2.12



Pupil-teacher ratios in basic education, 1989-96

Source: MONEE project database.

Note: Rates for all countries of the former USSR refer to the primary level. The later year is 1995 for Bulgaria and FYR Macedonia, and the earlier year is 1990 for FYR Macedonia.

Whatever the causes, it must be questioned whether the additional money spent in this way has been employed in the best interests of children – given alternative uses within the educational sector, such as capital maintenance and textbook supply, as well as teacher salaries (see below). One reason that may help explain the rises in some countries, and put them in a better perspective, is the commitment to provide teaching in minority languages (for example, in FYR Macedonia), a subject considered in Chapter 3.

Teacher salaries were traditionally low under communism, which kept down total labour costs. In an overall context of significant real wage cuts, teacher salaries have declined further in relative terms in a number of countries; this is true in seven of the 14 former Soviet countries for which data are available. (In 1995 in former Soviet republics, teacher salaries ranged from 41 percent of the average wage in Armenia to 105 percent in Ukraine.) But, generally, since the number of teachers has not declined, total staff costs have not fallen. To the extent that there has been adjustment in response to tighter budget constraints, it has often taken place on an ad hoc basis through the crude mechanism of delaying the payment of wages, a particularly effective mechanism when inflation is high. In Russia in 1996, arrears became very widespread and lasted as long as nine months. At the end of the same year, arrears amounted to over one-third of the salary bill in Kazakhstan.

This situation is not sustainable. The commitment of the large core of generally female teachers has been sorely tested by worsening pay and conditions and cannot be assumed to continue. School systems have in this sense been living on borrowed time. Those teachers with outside opportunities may leave the profession, and recruitment is an increasing problem in various countries. There are many reports of difficulties in the retention of foreign language teachers in capital cities, due to competition for their skills from businesses and various other organizations.

Low wages often mean that formally employed teachers resort to informal sector activities to obtain a livelihood, rather than using any extra available time for the benefit of the children they teach, for example in the preparation of lessons. In Georgia, teacher salaries stood at about one-third of the subsistence minimum in mid-1997, and in the market in Tiblisi it was apparently quite common to find village teachers selling fruit and vegetables or household items. Many teachers give private lessons to supplement their meagre salaries, which of course only benefits the children in those families that can afford to pay. Box 2.4 reports on survey evidence of the way teachers currently view their position.

Higher salaries are likely to follow only when the rationalization of staff numbers has been achieved. Such changes are of course difficult to implement, as was evidenced in the strikes in Poland in 1993 when reforms were announced. (The reforms were intended to raise wages, but at the same time reduce staff by one-third and increase hours.)

Governance of schools

The issue of educational "governance" – the control of education – is crucial to school reform. Who takes decisions on all the different aspects of an educational system? Or, put another way, what is the process by which the rights of children to education, reflected in constitutional guarantees in many countries, are translated into action on the ground?

The role of the central state in the communist period in the expansion of basic education, and in the attempt to ensure minimum standards, was a source of both strength and weakness. The discussion below describes the starting points for each of the countries embarking on transition, emphasizing the locus of decision-making for budgetary and other decisions.

As one might expect, most aspects of education in the Soviet Union were highly centralized. Education was

Box 2.4

Teacher views of conditions and status

A study in 1995 of seven countries in the region (the Czech Republic, Hungary, Latvia, Lithuania, Russia, Slovakia, and Slovenia) found that teachers often perceived their social status to be relatively low and that they did not view teaching to be a desirable profession. (The results refer to maths teachers of eighth grade children.)

In all countries (except Romania) over 80 percent of the teachers were female, and in Latvia and Russia the figure was over 90 percent, compared with less than 50 percent in many of the Western European countries included in the same study. The typical teacher was about 40 years old and had 20 years of experience. In some other countries in the region not included in the study many teachers are apparently much older; an estimated 60 percent are said to be near or over retirement age in Georgia, where, again, over 80 percent are female.

Besides non-payment of wages, frequently reported problems facing teachers in the study included unmotivated children and inadequate teaching facilities; for example, 70 percent of teachers in Lithuania and Romania felt that lack of instructional materials impeded their teaching.

to serve political and economic needs as interpreted by the Supreme Soviet. The Council of Ministers, acting on behalf of the Supreme Soviet, passed directives down the line for implementation. The Soviet planning agency, Gosplan, analysed the proposals submitted by republics, then stipulated the number of pupils and schools at each level, the number of teachers and other staff, the volume of investment, and the necessary finances. There were nonetheless local responsibilities. Direct control over schools was exercised by the regional and municipal educational authorities. A similar system prevailed in Central and Eastern European countries, albeit with exceptions, perhaps most notably in Hungary, which embarked on substantial decentralization in 1985.

Norms played a pivotal role in the central control over the education system, limiting the budgetary involvement of local authorities to the transfer of the central funds to schools, although on paper the expenditure on education may have been classified as "local" rather than "central". There were different types of norms: for unit expenditure (per teacher, per class, per pupil), input ratios (for example, pupils per class), and targets (for example, enrolments). The allocation of funds among different types of schools and items of expenditure was centrally determined and was not subject to local priorities.

A positive outcome of centralized control was the relatively uniform provision of education services, at least in terms of the expenditures undertaken. For example, one study in the early 1960s determined that, if one controls for different factors, the variation in expenditures per pupil among the republics of the Soviet Union was modest and far less than it was among the states of the USA (ranging from 28 percent above the all-Union average in Estonia to 12 percent below the average in Moldova and Kazakhstan). Furthermore, efforts were made to extend access in rural areas. Higher teacher-pupil ratios in rural areas in the face of declining rural populations led to relatively higher education expenditures in the countryside compared to the urban centres.

It would nonetheless be wrong to conclude that the systems of education developed under central planning attained uniform standards throughout the Union. Double or even triple shifts were common in schools. In Georgia, one in four schools operated on at least a double-shift basis. Particularly in rural areas, material standards were often poor. Table 2.1 shows that the great majority of rural schools lacked running water, central heating and indoor plumbing, whereas most urban schools possessed them. (Of course, in many cases these differences in schools reflected similar differences between urban and rural areas in terms of housing conditions.) Rural schools throughout the region were prone to the same problems associated with small size common in rural areas in other countries, including teacher shortages and subjects either not being offered or being taught by non-specialists.

Inherited urban-rural differences can be expected to have widened during the transition, a theme developed in Chapter 3. These differences, and how they have changed, become particularly important if one considers the shifts that are taking place in many countries in the relationship between central and local government. *Decentralization* has become a major theme in the governance and the financing of education during the transition. Even where local spending once ostensibly accounted for the bulk of educational expenditure, this responsibility has generally assumed far greater significance in the 1990s because central governments are no longer willing (or able) always to ensure that the necessary budget resources are made available. Chapter 4 doc-

Table 2.1

Rural-urban disparities in conditions in basic schools, USSR, 1985

Percentage of schools:	Urban	Rural
Requiring major capital repairs	21	18
To be demolished	3	8
Without:		
electricity	1	5
water	20	76
central heating	13	57
indoor plumbing	31	85

Source: Goskomstat (1989), page 121.

uments the degree of decentralization of educational systems, emphasizing especially the issues of equity in finance and provision that arise when different local governments have very different resources available to them.

Issues of governance of course go well beyond those relating to finance. Many of the areas covered in the next section require an appropriate division of responsibilities between different levels of government, and one that is clearly defined. ■

2.3 The Structure and Content of Schooling

How good is the education provided to the region's children? What levels of learning are achieved? Do curricula and teaching and examination methods contribute positively to the new societies that are being built?

Quality and achievement

The view that high-quality education was provided under the planned system was perpetuated for years by the excellent results achieved by children in international academic "Olympiads", especially in maths and science: teams from the region often far outscored their Western counterparts. These teams, however, were formed from small groups of highly talented youngsters who had typically been selected early (often at the age of 10 or 12) for specialized schools and carefully coached for years by good teachers. The results of such competitions therefore say nothing about the quality of education provided to children in general.

The learning achievements in maths and science of representative samples of *all* children were tested in 1995 in a number of countries in the region as part of an international assessment of education standards (see Table 2.2). Children in the Czech Republic, Slovakia, Slovenia, Bulgaria, Hungary, and Russia did in fact achieve scores in standardized tests in both maths and science that were above the international averages and ahead of children in such countries as England, Germany and the USA. The results for eighth grade children ranked the Czech Republic sixth in maths and second in science among the 41 countries covered by the study, while, for example, the USA ranked 28th and 17th.

These results do not appear inconsistent with those of the "Olympiad" competitions. However, other countries in the region performed much less well in the 1995 study; Latvia, Lithuania and Romania scored below the average, although still on a par with Spain (in the case of maths) and not far behind a number of Western countries. (Cross-country comparisons are fraught with difficulty, although the study behind the information in Table 2.2 does adjust for repetition rates and other factors that might be expected to affect the reliability of the results.)

Some commentators have argued that the relatively good achievements of Central and Eastern European children in these tests of maths and science imply that the educational systems in the region are in quite good shape (while accepting that achievement reflects a number of factors other than the quality of teaching). This ignores the fact that the results are largely due to the *inherited* attainment of systems that in some countries are now "running on air", with deteriorating buildings and increasingly demoralized teachers. And the lack of coverage in areas seen to be in the worst shape on the evidence of changes in enrolments and expenditure – the Caucasus and Central Asia – should be firmly noted.

Maintaining past progress is a real challenge. Data from Hungary suggest that learning outcomes in basic skills have worsened. A survey modelled on the international standardized tests found that learning achievements had generally eroded during the ten years to 1995. The worst deterioration was evident in reading skills, especially in rural areas. A survey in 1997 that tested sixth grade children in Moldova, a country that has suffered very sharply in the transition, found particularly poor performance in maths.

Table 2.2

Children's achievements in mathematics and science, 1995

	Mathematics		Science	
	Score	Rank	Score	Rank
Czech Republic	110	6	111	2
Slovakia	107	7	105	13
Switzerland	106	8	101	25
Netherlands	105	9	109	6
Slovenia	105	10	109	7
Bulgaria	105	11	109	5
Austria	105	12	108	8
France	105	13	97	28
Hungary	105	14	107	9
Russia	104	15	104	14
Ireland	103	17	104	15
Canada	103	18	103	19
Sweden	101	22	104	16
Germany	99	23	103	18
England	99	25	107	10
Norway	98	26	102	20
USA	97	28	103	17
Latvia	96	30	94	32
Spain	95	31	100	27
Romania	94	34	94	31
Lithuania	93	35	92	35
Portugal	88	37	93	33

Sources: Beaton et al. (1996a), Table 1.1; Beaton et al. (1996b), Table 1.1.

Note: Scores are presented as a percent relative to the average score (100 in each case) among 41 countries. The results refer to children in eighth grade. The survey on which the data are based (TIMSS) also involved the testing of children in the seventh grade.

A major problem with international comparisons of test scores in maths and science is that they measure only a small part of learning achievement and a small part of the quality of education more generally. Tests of "functional literacy" gauge the ability to perform tasks encountered in everyday life, including at the workplace, rather than knowledge of subjects in a curriculum. Low levels of functional literacy may marginalize sections of the population to low-skill, low-paying jobs. Unfortunately, standardized measures of functional literacy are not available for countries in the region. An exception, however, is provided by Poland, which participated in the International Adult Literacy Survey carried out in 1994. In all tests, adults in Poland scored well below adults in the other six countries covered by the survey (Sweden, the Netherlands, Germany, Switzerland, Canada, and the USA). For example, three-quarters of Polish adults scored in the bottom two levels in a test of ability to locate and use information in documents, compared to only 35-45 percent of adults in the Netherlands and Germany. And the results among young persons aged 16-24 followed the same pattern as those among all adults.

The general opinion of the region's school systems, at the end of the 1980s, is that children accumulated a lot of knowledge, but were relatively weak (in comparison with children in Western countries) in *applying* this knowledge in new situations. Some commentators have used the word "factology" to describe the emphasis of much teaching and learning. This weakness is a serious problem in the effort to realize a type of economy and society that requires more flexibility from individuals than did the planned system. And the rigid methods of rote-learning associated with the approach of the old system fail to satisfy and stimulate children while in school and are far from reflecting any "child-centred" concept of education.

Teaching and learning in schools

Moves away from "factology" and towards school systems that more effectively serve the learning and the development of children (and the needs of society in general) require various changes. Substantial progress has been made in some countries, but a lot remains to be done.

First, variety and balance are needed in curricula. Curricula were often limited in scope under the old regimes, in part because of central norms that helped ensure minimum standards and in part because of the deliberate suppression of subjects deemed incompatible with communist ideology, for example several of the social sciences. There has been an obvious need for the revision of curricula relating to history and for a balanced approach towards issues of ethnic sensitivity, a topic examined in Chapter 3. Diversification of curricula in order to increase choice may be especially important for older students. One example of this comes from Romania, where, as a result of changes introduced in 1990, 15 percent of school programmes were accounted for by elective subjects.

The extent to which the genuine reform of curricula has occurred varies enormously across the region. At its worst, "reform" has merely meant removal of Marxist-Leninist doctrine from textbooks and its replacement with nothing else. An example of this is provided by the report of one commentator on visiting a history lesson in a fourth grade classroom in a former Soviet republic in 1997 and being told by the teacher that the curriculum had been revised:

> "On looking at a textbook, I saw small pieces of white paper pasted carefully over portraits of Lenin and all references to him crossed out but replaced by nothing, so that sentences read something like '…was born in… and became a great leader of our nation'."

This story may not be representative of the typical situation, but it does give a sense of the distance that curriculum reform still has to go in many countries.

Second, the scope for individual expression should be improved. Individuality was too rarely encouraged in the past, and there is evidence that this is still a problem. In the old system there were insufficient mechanisms to identify the capacities of pupils and allow for correspondingly differentiated approaches.

An important group of children with unusual requirements are the handicapped and others identified as having "special needs". The provision for this group, typically in quite separate institutions, can be seen as symptomatic of the way in which the mainstream education system was unable to adjust for children of differing needs and capabilities. The old approach towards special-needs education and the changes during the transition are discussed in Chapter 3.

Third, the production, choice and design of textbooks are often far from ideal. The story cited above of the "revision" of a history curriculum serves as a reminder that curriculum changes demand more than a decision by the Ministry of Education on new subject matter. Amongst other things, they require the production of new textbooks, and there is considerable evidence of textbook shortages in the region. For example, at the start of the 1996 school year, the Russian government admitted that only half of the 100 million textbooks needed for basic tuition had been produced. The provision of textbooks is often more limited in rural areas. And where schools are permitted a choice of textbooks and private suppliers are allowed to compete with state production (although there are often long delays in the approval of alternative textbooks), that choice will not be available in practice in rural areas unless private suppliers engage in costly national marketing.

Where new textbooks have been introduced, they have sometimes been in the "workbook" format in which children fill in answers. This may motivate children, but

the books cannot be re-used. If textbooks are no longer supplied free of charge by the state, the result is an increase in the direct costs of schooling to families; this can be expected to reduce access, particularly among poorer households. Armenia and FYR Macedonia are examples of countries where such workbooks have been introduced.

Fourth, the structure of post-compulsory schooling needs to be re-thought. This is true at both ends of the academic spectrum. The old system often required vocational or technical specialization from age 14 (see Box 2.1) that severely limited an individual's options in terms of a later change in occupation. Training was organized on the basis of the responsible sectoral ministry, for example agriculture, heavy industry, railways. It has been argued that much of the training was of rather low quality, and the re-structuring of industry in the formerly planned economies implies that much of this training may become obsolete. The reform of vocational and technical training presents a structural challenge in much of the region that has only just begun to be addressed. (The links between schooling and the labour market are discussed below.)

At the other end of the spectrum, there was an élite of fast learners in selective schools. The transition has seen a marked tendency to favour these children and their schools. Excellence in education is of course to be celebrated rather than condemned – as long as it does not lead to the use of selection to exclude, in contrast to an inclusive philosophy of education. "Streaming" in educational systems (dividing pupils on the basis of ability) requires numerous entry and exit points in the streaming process, together with checks and adjustments that allow the full potential of children to be developed. The streaming in much of Central and Eastern Europe and the former Soviet Union leaves a lot to be desired in this respect, and much anecdotal evidence suggests that selection depends increasingly on the affluence, influence, geographical location, or ethnicity of parents, rather than on the academic ability of children.

Teachers, children and parents

The attitudes and capabilities of teachers, children and parents are vital in any effort to reform the structure and content of education. As far as teachers are concerned, all four of the areas highlighted above require change on the part of existing school staff, as well as the re-structuring of the system for training new teachers; there is much more to the issue of teachers than over-staffing and low pay.

There is some evidence that teachers in both the former Soviet Union and Central and Eastern Europe tend to be poorly qualified, especially at the elementary level. In Russia, for example, more than half of primary school teachers have no higher education, and some pedagogical institutes admit students with only ninth grade education. In Slovenia in 1989, two-thirds of teachers in basic schools had only two years of college education, while about one-quarter had completed only upper secondary school. Surveys suggest that even in the 1980s well over 80 percent of Soviet teachers were dissatisfied with the quality of their training. This situation was associated with the rapid expansion of the education system which had stretched the qualified labour supply to its limits, but also with wage rewards that were generally below average and which made teaching relatively unattractive. Training and re-training are costly, however; in FYR Macedonia in 1997, the annual government re-training budget amounted to only 70 US cents per teacher. However, FYR Macedonia does present an innovative case of "interactive learning" that involves the attempt to introduce a more individualized approach in teaching (see Box 2.5).

Box 2.5

Active teaching and interactive learning in FYR Macedonia

FYR Macedonia has embarked on a series of major reforms in education during the transition. Since 1995 a comprehensive revision of the curriculum is being undertaken, a process in which the Active Teaching Interactive Learning Project has played a critical role in re-training teachers. This UNICEF-supported project began in just four schools that were deliberately chosen to represent the diversity of conditions in the country. The project has been extended beyond these "pilot" schools to cover 44 schools as of late 1997. Responsibility for the project lies with the national Pedagogical Institute, which has run a series of workshops for teachers and which appoints advisers to visit schools. Teachers who have participated in resident workshops act in turn as trainers and disseminators in their own and neighbouring schools. Most classroom teachers involved in the project have joined voluntarily.

The central principles can be summarized as follows. Teaching should foster independent individual progress. Pupils should regard their teachers as more experienced partners; parents should also be partners in the collaboration, and teaching should encourage interaction and provide for quality learning that results in permanent and applicable knowledge. These principles clearly contrast with the traditional approach to teaching that characterizes much of the region.

Significant progress has been achieved so far in changing traditional classroom practices. Rather than a uniform approach, the ages and aptitudes of the children have formed the basis for the planned work, and differentiated levels of study are much in evidence. Writing tasks are varied, and in most classes children are given opportunities to read for a wider range of purposes. While teachers have been resourceful in finding ways to offset material shortages, for example by bringing books from home and starting classroom collections of stones or buttons, the lack of books and other written materials has reportedly been a serious limitation.

The problem of poorly qualified teachers worsens that of textbook shortages. Teachers without the necessary training in alternative teaching methods rely too heavily on textbooks.

The perceptions of children of their schools and of their teaching are of considerable importance. School is, after all, *for* children. In addition, learning achievement is positively linked to the existence of good relationships between children and teachers and the extent to which children like school. The disruptions associated with the transition, including falling teacher morale and the elimination of extra-curricular activities, as well as the opening up of new opportunities such as greater subject choice, have had direct impacts on children in schools. It would not be a surprise, however, if on balance children's opinions of school have fallen in many countries during the transition, in line with the worsening conditions. Evidence about the changes in children's views during the 1990s is not available, but survey data collected in a number of countries during the 1993/94 school year provide interesting information on the situation at that time (see Box 2.6).

Box 2.6

Children's views of schools

In 1993-94 the World Health Organization (WHO) sponsored a cross-national survey of 11, 13 and 15 year olds that included eight transition countries. A number of questions was included on children's views of their experiences at school. (Table 2.3 gives the responses to three questions among 13-year-old girls.) Some of the results are sobering.

Many children in the region had a rather negative attitude towards school, as indicated in responses to such statements as "school is a nice place to be" and "sense of belonging" at school. Schools in St Petersburg and neighbouring districts, the only part of Russia that was covered, were the least satisfying among children in all age groups. Relatively low scores for schools were also recorded in Slovakia and Poland, while the results in the Czech Republic and Estonia were better. The proportion of students who liked school tended to decline with age; for example, among Lithuanian girls the share who liked school "a lot" fell from 58 percent for 11 year olds to 16 percent for 15 year olds.

Children's perceptions of their teachers are important. School systems that have a more child-centred approach to learning are also those in which the children believe that the free expression of their views is encouraged. The Czech Republic, Finland, Russia (St Petersburg), Lithuania, and Slovakia ranked lowest in this sense. Children in countries with more formal educational systems and didactic teaching, such as the countries of the former Soviet Union (and Finland), tended to disagree with the proposition that their teachers showed interest in them as individuals. The general atmosphere in the classroom seemed to be lacking in collaborative spirit in schools in some parts of the region; the majority of boys and girls in all three age groups in the Czech Republic disagreed with the statement that their classmates were kind and helpful, compared to between one-quarter and one-third of the children in Denmark and Sweden.

Parental interest in their children's schools is vital. The WHO study found that children in several countries in the region did not believe this to be strong (although this may also reflect discouragement of parental involvement on the part of the schools). Table 2.3 shows that parents in the three Baltic countries were rated particularly poorly by children in terms of the willingness to come to school to talk to teachers; one in five children or less believed their parents were always willing to come. In no country in the region did the figure reach one-half, and, with the exception of Finland, this compares strikingly with the figures for the European Union countries.

Table 2.3

Views of 13-year-old girls towards school

	"School is a nice place to be"	"Teachers encourage me to express my views in class"	"My parents are always willing to come to school to talk to teachers"
Russia (St Petersburg)	18	23	12
Slovakia	43	38	47
Poland	47	46	41
Hungary	51 Average =	50 Average =	33 Average =
Lithuania	51 48	38 39	22 30
Latvia	56	46	26
Czech Republic	57	34	46
Estonia	58	38	14
Scotland	39	64	63
Finland	55	39	18
Denmark	59	41	73
Belgium	69 Average =	58 Average =	52 Average =
Germany	72 63	54 52	58 58
Sweden	74	48	71
Norway	76	57	72

Source: King et al. (1996), Figures 8.9, 8.11, 8.12.

Note: Data for boys are also given in the source. The figures for Belgium are an unweighted average of data for children in French– and Flemish-speaking schools.

The survey data allow comparisons with countries outside the region, and the results are not very encouraging, as shown by the average values for the two groups of countries given in Table 2.3. Stimulating a more individual approach to teaching children remains an important task in many countries.

The evidence in Table 2.3 also suggests a need for a higher level of parental involvement in schools. Parents play a key role in fostering and monitoring learning both inside and outside schools, and their mobilization is essential in efforts to improve education for children. Of course, this may require schools to encourage more parental participation in school life.

Examination methods

Changes in curricula and practices in teaching and learning must be carried forward into examination methods. The effects of changes can be hindered or even negated by an outdated national examination system that still emphasizes "factology" or that fails to reflect the new subject matter adequately. Moreover, a well-run national system of school examinations helps ensure that selection is on *merit* rather than on any other criterion.

Good methods of examining and certifying learning achievement are therefore an important part of an educational system that furthers the efforts to meet the needs of all children. (A national examination system is distinct from the type of cross-national survey of achievement in maths and science described earlier in the section.) Ministries of Education require measuring rods to assess the performance of schools and to set educational policy on the basis of factual evidence about what children – *all* children – actually learn in school. Children need to be able to demonstrate their scholastic achievements when trying to move up in a selective school system, to enter university, or to find a job. The examination system should 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, and much reform is still required. The main school-leaving qualifications typically have almost no social, employment, or mobility value; for example, universities largely ignore them and establish their own examinations to select entrants, thereby placing a double-exam burden on students, without any benefit in terms of improved academic standards. Box 2.7 describes some of the problems and some of the ways forward.

In advocating for more attention to testing, one must make two caveats. First, there should be "exams for all". Examinations should test the knowledge and ability that each child *does* have rather than being used just to "cream off" the high-flyers for selective schooling and higher education. Second, school should be more than a ranking mechanism. While testing and certification should be taken seriously, they should not come to dominate the life of schools.

Extra-curricular activities and support

The activity of schools is not necessarily restricted to teaching and learning even in the broadest sense, which includes the development of civic values and social cohesion. Throughout the region, there was a range of extra-curricular activities and support through schools in the communist era that at most required only nominal financial contributions from parents. For example, there were subsidized meals, health care and after-school activities, and there was access to recreational facilities that were especially important for urban children and for children who would not otherwise have gone on holiday.

The case of Poland illustrates the fall in the access to these "social" functions of schools that has occurred during the 1990s (see Box 2.8). Similar or even more drastic contraction is evident elsewhere in the region, in part due to cuts in provision and in part due to the fact that parents have reduced their use of these services in the face of increased charges. In FR Yugoslavia, for example, there has been a marked reversal of earlier trends towards expanded coverage in preventive medical care for primary and secondary schoolchildren. After doubling to 44 percent over the decade to 1991, coverage dropped to 27 percent by 1995. Figure 2.13 shows the changes in the number of health and dental check-ups in schools in Georgia. The number of basic-grade children receiving general health check-ups in 1996 was 250,000, compared to 670,000 in 1989; dental check-ups among boys of all school ages fell from just under 500,000 in 1989 to 200,000 in 1996.

Supervision in schools after the teaching day has finished is an important service for children whose parents work. This is especially true for young children. For older children, organized after-school activities of various types may help curb any tendency to drift into juvenile delinquency or other anti-social behaviour, as well as provide stimulus for the individual's development in the broad sense.

The number of children covered by after-school supervision in primary schools has dropped across much of the region, as shown in Figure 2.14 (which also makes clear that coverage varied notably pre-reform). While some Central European countries have been able to maintain former levels of supervision, coverage in Kazakhstan, Kyrgyzstan and Georgia has disappeared. Ukraine, Slovakia and Belarus have also witnessed sharp contractions. The same general pattern can be seen in

Box 2.7

Reforming examinations for a fair school system

Most national examination systems in the region do not benefit children. The over-centralized education systems of the past, where curricula, textbooks, timetables, and teaching methods were minutely prescribed, assumed that outcomes would be predictable; they did not systematically rely on the external verification of children's learning. There was remarkably little Ministry of Education involvement in the setting, administration, scoring, and evaluation of exams. Typically, this situation continues, and the prevalent systems are surprisingly *de*centralized and school-based. In most cases, Ministry involvement is limited to setting examination dates and in some countries determining basic written questions in compulsory subjects (usually maths and the national language) and approving topics for oral examinations in schools.

In many countries, a great deal of testing (usually oral) happens in classrooms: if anything, children are *over*-tested, but the marks they receive do not seem to be based on any reliable criteria. Marks are often used to punish misbehaviour. Sometimes, children are even labelled on the basis of their marks: "Wojciech *is* a *six*"; "Marilena *is* a four", and such labels too often become self-fulfilling prophecies throughout a child's school career.

Typically, teachers examine their own pupils; in some countries they do this in consultation with a school-based "examinations commission" for each subject that monitors the conduct of the exams. There are no agreed marking standards, and no attempt is made to equate marks given by one teacher with those given by another either within, or among schools. The exams or tests are of low technical quality (in that they rarely satisfy professional testing criteria such as reliability and validity) and may vary substantially in terms of level of difficulty from one year to the next. The potential for the abuse of such systems is clear, and the variations in quality within most countries are probably enormous.

The main advantage of the current systems is the low cost. Ministries in the region do not normally spend any money on student assessment or examination logistics. Indeed, in several countries (for example, Georgia and Moldova), examination questions have been read out on national radio, taken down by heads of schools in the presence of teacher and student representatives and reproduced on classroom blackboards. This method obviously limits the type of questions that can be asked; no diagrams or maps can be used, nor can any but the most straightforward maths or essay questions be set.

Even in the less extreme case in countries that set examination papers of the more conventional type, the questions asked are almost invariably memory-based and test "factology" rather than the more complex critical-thinking and problem-solving skills students need both to enjoy their time at school and to survive in the modern marketplace. Assessment specialists have argued that the school-leaving "matura" exam in Poland "measures very little except the ability to absorb knowledge", that the equivalent exam in Moldova and FYR Macedonia only tests acquired facts, and that in Hungary "there is a huge gap between the curriculum, teaching practices, and the Matura examination".

Because students and teachers *know* that tests reward "factology", classroom teaching and learning remain heavily based on rote-learning, in spite of efforts to reform curricula. Outdated assessment methods thus place a dead hand on efforts to modernize; unless assessment methods change, real curriculum reform will not penetrate into the classroom.

Several countries have embarked on examination reform projects, often with substantial external funding. One of the first was a project started by the government of Romania in 1994. This project has a substantial component aiming at the creation of a cadre of testing experts and trained examiners and at setting up a national assessment and examinations service. At the time of its mid-term review, only 1 percent of the funding for the assessment component had been spent. The main stumbling block has been problems in the establishment and institutional status of the examinations service; political wrangling is diverting attention from the main issue: the need for an independent, accountable and professional entity to monitor the learning achievement of all children.

By contrast, Slovenia managed (without external financing) to start a new school-leaving examination in little more than three years, administering its first new matura in 1995. Exams were offered in 33 subjects and in two languages (Slovene and Italian). Agreement was reached with universities so that they would accept the matura results as the sole basis for selection. Teachers and examiners were trained, and a small, but well-equipped and professional national examinations centre was established with its own annual budget and a governing council responsible directly to the minister of education.

Why did reform work in Slovenia? A number of factors can be identified, of which the first two are probably the most important:

- Local consensus among all stakeholders that change was needed.
- Sustained political commitment to change.
- Willingness to ensure adequate financial resources throughout the process.
- Enough local potential to develop a cadre of professional expertise among teachers.
- Willingness to draw on other systems and use external expertise for advice.
- Attractive and continued public-awareness and information campaigns.

Box 2.8

Withdrawal of social support in schools: the case of Poland

The access of children in Poland to many "social" functions that were previously provided by schools has been reduced. Some of the changes reflect the impact of increased charges. For example, any instruction over the minimum number of hours laid down by law, either for lessons or for extra-curricular activities, is subject to fees. Charges are also made for after-school care.

Access to subsidized accommodation was particularly important for children from villages and small towns. The share of pupils who board has declined significantly at each level of schooling, particularly at the lower levels. Encouragingly, there is some evidence that the contributions of non-governmental organizations may help offset this decline in the future.

Changes in the system of provision of health care mean that schools are no longer the point of contact between children and doctors and dentists for preventive care. Children are instead supposed to visit medical centres in their area of residence. This has been associated with a drop in regular check-ups and in preventive activities such as dental fluoridation.

It seems that the only additional support that has been maintained in Poland is the transport subsidy. Increases in transport fees could clearly affect access negatively; this may well have occurred already elsewhere in the region.

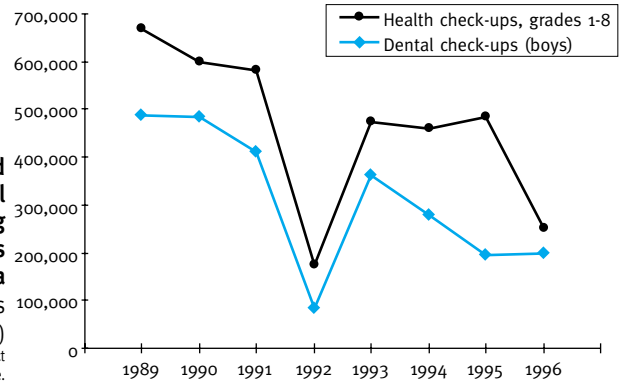
Table 2.4

Changes in provision of school-related services in Poland

Service	Percent children covered	
	1990	1995
Subsidized meals	20	6
Sports clubs	13	5
Art and technical activities	64	3
Free additional lessons	20	6
Subsidized boarding schools		
Secondary	7	3
Vocational	23	8
University	40	31

Source: Golinowska and Kołaczek (1997).

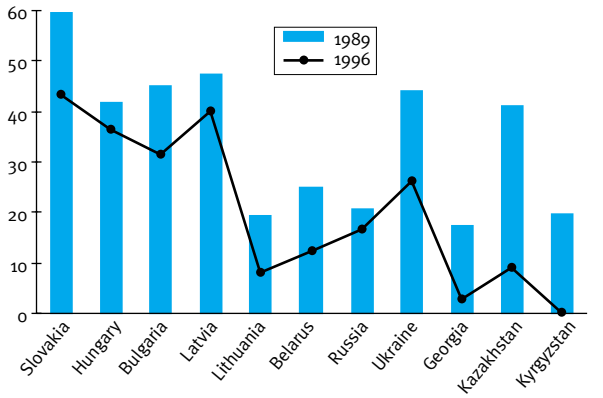
Figure 2.13



Health and dental screening in schools in Georgia (numbers of children)

Source: MONEE project database.

Figure 2.14



Falling after-school supervision, 1989-96 (percent of children covered)

Source: MONEE project database.

Note: Data refer to basic schools in Slovenia, Hungary and Georgia and to primary schools in all other countries. The later year is 1995 for Bulgaria and 1994 for Russia. The earlier year is 1990 for Kyrgyzstan, Russia and Latvia and 1993 for Ukraine.

Figure 2.15, which shows the proportion of children benefiting from meals at school. The pattern is similar to that in after-school supervision: substantial variation across the region in 1989, coverage broadly maintained in several Central European countries, a collapse in Kazakhstan, Kyrgyzstan and Georgia, and notable falls in a number of other countries. A comparison of Hungary and Kazakhstan – countries with the same level of provision in 1989 – offers a striking reminder of the differences that are emerging across the region during the transition.

According to one view of the provision of additional support for children through schools, this type of activity is peripheral to the core function of an educational system and a natural candidate for elimination or charging at full cost when budgets have been greatly reduced. But this is a very limited approach to the role of schools in society. If schools are seen as places where the welfare and development of children are to be nurtured in a variety of ways, then any decline in the social support supplied through the educational system marks a major move in the wrong direction.

Whatever one's view, it is quite clear that the changes which have occurred have been negative for children and come on top of the increased hardship due to lower family incomes. The outcome may be lower nutrition, lower health status and more time spent "on the street". It may also be true that the provision of support through schools affects whether children even attend school at all. In Bulgaria and Romania, there have been explicit monetary incentives for attendance, insofar as child benefits are paid through the school. Studies in Bulgaria have suggested that the cutback of social support offered through schools has influenced drop-out decisions in the poorest families. ■

2.4 Links to the Labour Market

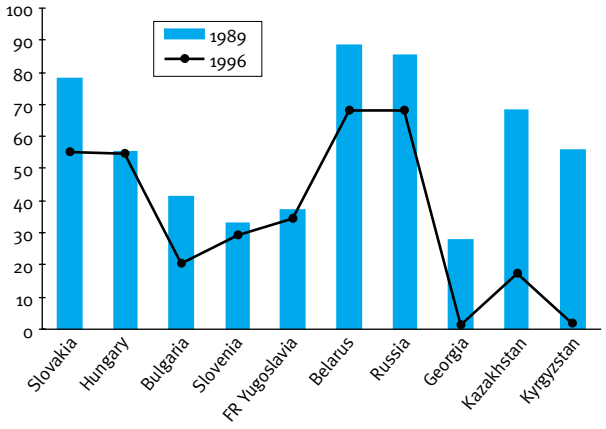
A key purpose of education, beyond its role in furthering knowledge and strengthening civic values, is to create a route to better opportunities to earn higher incomes. The peculiar features of the labour market during the socialist period reduced the incentives for the individual to invest in education, and the private returns on additional education were often well below those in other countries. The extent to which this picture has changed during the transition offers important clues to the outcomes of children's choices, both now and in the future, to pursue various types of education.

A centralized system of wage determination in the planned economy fixed rates for different jobs. Employers had autonomy both in assigning individuals to jobs and the associated skill grades and, to a significant extent, in the allocation of non-wage remuneration. To what extent in this context did individual earnings reflect individual investments in human capital? Concerns in the Soviet literature about "levelling", together with the stated objectives of the wage reforms of the 1960s and 80s, suggest that low returns to education were recognized by both academics and planners as a serious problem. Available evidence – both direct estimates of returns to education based on survey microdata and inference based on the structure of wages and educational levels in different occupations (see Box 2.9) – confirms that additional education was not necessarily an avenue to higher earnings.

The impact of education on earnings

Investigation of microdata on the earnings of individuals suggests that the private rates of return in centrally planned economies were relatively low by international standards and departed significantly from what one would expect in a market-oriented system. (Chapter 1 comments on a related issue, the overall dispersion of earnings.) The estimated returns of around 4-5 percent for an additional year of education are below the most recent estimates for market economies that range from an average of 7 percent for the high-income countries to 11 percent for the low-income developing countries. The average estimates for the market economies in the lower-middle income range, where most of the region's economies would fall, exceed 11 percent for an additional year of schooling. These latter estimates provide some indication of the extent to which human capital was undervalued under central planning, although the supply of skilled human capital was relatively greater in the socialist regimes, and thus, other things being equal, one would expect to see a lower reward.

Figure 2.15



Fewer meals at school, 1989-96 (percent of children covered)

Note: Data for Hungary, Bulgaria, FR Yugoslavia, and Georgia refer to basic schools. All others refer to primary schools. The later year is 1995 for Bulgaria and FR Yugoslavia.

Source: MONEE project database.

Box 2.9

Links between education and wages in the planned economy

A lack of data prevents a thorough investigation of the relationship between levels of education and earnings throughout the region during the planned period. There is, however, considerable indirect evidence showing the existence of distortions and a reduced impact of education on earnings compared to the situation in a market economy.

Many well-educated people earned only a little more than production workers (and sometimes less). Central wage-setting reflected an ideological bias in favour of manual workers in heavy industry. And the emphasis on reaching the planned level of output, with little consideration for cost, created incentives for enterprises to resort to extensive piece-work and extra bonuses for production workers.

One result was that significant numbers of university graduates and people with specialized education took jobs as production workers. In 1987, an estimated one in ten university graduates in the Soviet Union were employed in "worker grades". This figure was rapidly increasing, by 9 percent in 1987 over 1985, and by a further 6 percent to 1989. These trends occurred despite initiatives in the late 1970s that provided for earnings increments of up to 50 percent for workers with high levels of vocational skills. Earlier, a survey from the Russian industrial city of Taganrog in 1967-70 showed that 40 percent of the women were classed as "unskilled", though they had at least a specialist secondary education. About half of both men and women with at least upper secondary education were in jobs classed as "semi-skilled".

A variety of other restrictions on the labour market impinged on the relationship between earnings and education. For example, while employers were largely free to recruit whomever they wished, the geographical mobility of individuals was constrained by administrative restrictions on residence and by pervasive housing shortages, especially in urban areas.

What has happened during the transition? Has the liberalization of the region's economies and of government wage-setting affected the private returns to education? This is an important question, not least because perceived returns on individual investments in education should significantly affect enrolment choices, rates and patterns at post-compulsory levels. The changes in enrolment rates discussed in this chapter may in part reflect changes in these perceived returns.

These issues can be investigated through econometric analysis of the relationship between individual earnings and the type of education completed (see Box 2.10). Empirical analysis has been undertaken for this Report using survey microdata for nine countries representing diverse economic and social circumstances and at varying stages of transition: the Czech Republic, Slovakia, Hungary, Poland, FR Yugoslavia, Russia, Azerbaijan, Kazakhstan, and Uzbekistan.

There indeed appears to have been some significant changes in the returns to education, though not always in the ways that might have been anticipated. Perhaps most striking, however, is the wide range of results across the region. Nor do the patterns among countries always correspond to expectations.

There is reasonably clear evidence that the transition has benefited graduates from tertiary education. This is shown in many of the countries through estimated returns to a university qualification that are not out of line with those obtained in high-income industrial economies. Even in countries where the returns are low by international standards, university qualifications still command the highest premium among all the levels of education. The increase in wages associated with university qualifications with respect to the wages linked to completion of secondary school is estimated to have been as high as 18 percent in Kazakhstan in 1996, but only 4 percent in the Czech Republic and in Slovakia in 1992 (by which time little labour market reform had taken place). The second highest figure, 10 percent, was registered in FR Yugoslavia for 1996. The relatively good returns on such qualifications should ensure continued increases in higher education enrolments in the short run. Of course, educational returns are influenced by cohort effects, and, under stable conditions of demand for different types of labour, the greater supply of graduates may be expected to exert downward pressure on wage returns and ultimately influence higher education enrolments.

One might think that the skills associated with vocational qualifications would be less in demand given the changing structure of the economy and the movement away from heavy industry. And, in fact, as noted earlier, there have been substantial declines in enrolments in vocational schools in many countries in the region. Yet, vocational qualifications still command a positive, if somewhat modest, wage premium. There is little evidence of a major collapse, and, indeed, in several countries estimated returns to vocational education appear to have actually risen during the transition. This is the case in Hungary (comparing 1992 and 1996) and in the Czech Republic (comparing 1984 and 1992) and may reflect the emergence of stronger markets for skills. In Poland, however, the opposite trend is observed, with falling rates of return for vocational education, especially for women.

There is substantial evidence that gender differences in wages existed that disadvantaged women in the formerly planned economies (as in market economies), despite the generally higher educational qualifications of women. To what extent has labour market liberalization affected returns to education by gender? In most of the countries studied there is little evidence of differences in returns between women and men in the mid-1990s. Hungary is an exception; there, women with university qualifications have experienced significant increases in returns with respect to an apparently unfavourable initial

Box 2.10

Calculating private rates of return to education

There are a number of methods available to calculate the rate of return to education obtained by an individual in terms of earnings (the "private" return to education). Work for this Report has relied on the earnings function approach, which involves accessing information on large samples of individual earners. Earnings in each individual's main job are analysed as a function of the type of education completed, for example, secondary education or less, a vocational education, or a university qualification, together with numerous variables chosen to control for other factors expected to affect earnings (for example, years of labour market experience).

One must bear in mind a number of caveats when drawing conclusions from econometric studies of rates of return, only some of which are mentioned here. First, failure explicitly to control for an individual's ability leads to an upward bias in the estimates of rates of return since ability can be expected to correlate positively with schooling and earnings. Second, the earnings measure may fail to capture the total benefits that attach to a given job. Non-wage benefits may act as a substitute for cash earnings in a way that varies among different levels of education. Third, the analysis does not show the effect of education on total labour market earnings, including those from second jobs (a noted feature of labour markets in many transition countries). Finally, differences in the quality of education are not taken explicitly into consideration in the analysis.

position. Poland presents a different story: returns to university-educated women actually fell over the period 1992-96, whereas for men the returns rose. For vocational training the picture is more mixed: the returns among women fell in Poland, while over the period 1984-93 returns to vocational education rose among Czech women.

It might be thought that younger workers would enjoy higher wage returns to education relative to their older counterparts. This would occur because of the greater flexibility of the young, the more relevant qualifications of youth, or the fact that firms are more willing to adjust the relative wages of new recruits than they are those of current workers. The relationship between returns to education and age has been investigated for the nine countries listed above. There is little evidence that younger workers secured higher returns to their qualifications than did their older counterparts, with the notable exception of Russia in 1996.

The evidence therefore implies that some significant changes in returns to education have occurred in a number of countries in the region. Over the same period, there was a widening in the distribution of earnings in many countries, as shown in Chapter 1. An obvious question that arises is whether greater returns to education have caused the observed increase in inequality of earnings. The ability to answer this question accurately is limited by the data. However, analysis for Russia, which has experienced the most dramatic rise in earnings inequality, suggests that changes in educational returns have played only a minimal role in the rise in inequality over the period 1992-96.

Education and unemployment

A focus on the monthly earnings of employees shows only part of the impact of education on income from the labour market. The effect of education on the probability of having a job and hence of avoiding unemployment is also important. Open unemployment was largely absent under communism, but is a prominent feature of the transition, as noted in Chapter 1. If the risk of unemployment is lower for those persons with greater levels of education, then the relative return to furthering one's education has risen.

Table 2.5 shows the unemployment rates among individuals with different levels of education for ten countries in the region in 1997. (The data are drawn from household surveys and are based on the ILO/OECD criteria of search and availability for work.) The results confirm that, in general, there is a strong association between more education and less unemployment. In no country do persons with higher education have an unemployment rate in double figures, and only in Bulgaria and Latvia does the rate exceed 5 percent, while in several countries there are rates of about 2 percent or lower. By contrast, among people with only primary education or less, unemployment rates in most countries are at least four or five times higher. (Romania is a notable exception to this general pattern.)

However, the results also show that vocational education does not necessarily put the individual at a disadvantage in the job market relative to people with general secondary education. In six countries the unemployment rate among people with general secondary education is *higher* than it is among those with vocational education. As with monthly earnings, there is not much evidence of a collapse in the return to vocational qualifications.

Table 2.5

Unemployment rates by level of education

	Higher	General secondary	Vocational	Primary or less
Czech Rep.	1.1	2.5	3.3	10.4
Slovakia	3.8	14.8	9.9	27.9
Poland	3.7	10.4	13.5	14.3
Hungary	1.9	5.9	9.9	14.8
Slovenia	3.8	7.2	6.9	9.2
Bulgaria	5.2	14.6	12.0	20.1
Romania	2.2	7.7	6.3	3.9
Latvia	7.7	20.6	15.0	19.4
Russia	4.4	11.6	8.5	13.0
Kazakhstan	2.4	5.6	5.3	10.6

Sources: OECD-CCET Labour Market database, except for Kazakhstan (World Bank, 1997a).

Note: Labour force survey data: 1996: first quarter for Russia, July for Kazakhstan, fourth quarter for the Czech Republic; 1997: first quarter for Bulgaria, second quarter for Latvia, Poland, Romania, Slovenia, third quarter for Hungary. Data for "general secondary" in Kazakhstan cover only students finishing technical colleges.

The unemployment rates reported in Table 2.5 refer to persons of all ages, while the immediate job prospects may be of more concern among young people who are deciding whether to continue their education. Chapter 1 notes the much higher youth unemployment rates in all countries for which data are available. More education may help ease entry into the labour market, but it may not overcome all the disadvantages faced by the young in the competition for jobs. Survey data from the Russian Longitudinal Monitoring Study for late 1996 show an unemployment rate of 14 percent among individuals aged 20-29 with higher education. This is a far from trivial level, although it is much lower than the rates of 27 percent among those with five to nine years of schooling and 25 percent for those with ten to 12 years. High rates of unemployment among young people with good qualifications are a sign of the value placed on education by employers and may be taken as further evidence of the need for reform to raise the quality of education.

How could these patterns of unemployment be related to the changes in enrolment rates shown at the beginning of this chapter? The impact of unemployment on decisions about further schooling or higher education is not straightforward. The general emergence of open

unemployment during the transition should have reduced the demand for education, but this effect is offset to the extent that the worsening of job prospects has been greatest among those with the least education. One has to consider also the impact of unemployment in the families of young people. Unemployment among parents leads to lower household incomes, and, given the direct and indirect costs of education, this reduces demand, especially in a situation where scholarships are being cut back and fees increased. Overall, unemployment has probably reduced enrolments in ways that vary among children from different family backgrounds. ■

2.5 Conclusions

The changes and challenges in education in the region are numerous and differ both within and between countries. They range from immediate crises, such as the threats to routine functioning of schools created by lack of heating, to longer term needs related to, for example, methods of instruction.

Children in some parts of the region are clearly better placed, in the sense that a strong public commitment to education is accompanied by healthier economic conditions that are conducive to reform and to the expansion of individual capabilities. Several Central European countries illustrate the opportunities for education that have been created because of the elimination of central planning, although even here there are a variety of problems, such as doubts about quality, excessive selectivity, antiquated exam systems, and the loss of much social support from schools.

More typically, however, the state of educational systems gives cause for very serious concern. Falling enrolment rates at various levels of schooling – including compulsory levels – indicate worsening access to education. Low teacher morale, deteriorating school buildings and huge shortages of textbooks are all further signs of falling educational opportunity. The children in those countries where there has been a collapse in the public resources allocated to schooling are in the worst situation.

The following chapters investigate several key dimensions of these challenges. Among which children have educational opportunities shrunk the most? How much inequality now exists in access? These questions are taken up in Chapter 3, which addresses topics related to equity and rights in education that are of importance in all countries in the region, both those that are relatively rich and those where economic downturn or war has taken a huge toll.

What types of policies can increase opportunity, access and learning, especially among children from disadvantaged households? Chapter 4 looks in detail at a selection of such policies before summarizing the range of issues that policy in the region should address in order to promote education for all children.

■

3 Equity, Rights and Education

Creating equitable, or fair, systems of education to promote the development of all children is an important goal for governments. This chapter looks at three aspects of education in the region that relate to the general themes of *equity* and *rights* in educational systems. By ratifying the UN Convention on the Rights of the Child, every country in Central and Eastern Europe and of the former Soviet Union has implicitly committed itself to an equitable system of education for its children, and the subjects dealt with in this chapter provide insight into the current situation across the region.

First, which children are going to school, and which are not? What lies behind the evidence of falling enrolments at various school levels in many parts of the region? The chapter begins with an investigation of variation in enrolment and attendance with children's family backgrounds.

A naïve view of enrolment patterns outside the compulsory school age during the communist period is that they were free of the variation with family background that is found in Western countries. Surely communism at least achieved a more equal education system in this sense? Section 3.1 challenges this view. Section 3.2 focuses on how enrolment and attendance during the transition years have changed among households at different income levels and between children in urban and rural areas, both of which are dimensions of family background with important consequences for the design of policy. The direct costs of schooling that must be borne by families have gone up; average incomes have fallen, and income is more unequally shared. In these circumstances, is access becoming notably worse for children from poorer households? Are children in rural areas losing out?

It is wrong to equate enrolment and attendance with "access" in the narrow meaning of that word; schools may be provided, but children may not go to them for a number of reasons. Nevertheless, the variation of enrolment and attendance with children's family backgrounds gives considerable insight into the degree of accessibility of an educational system in a more general sense. For example, accessibility depends on family income since there are both direct and indirect costs of schooling; schools may be of such low quality in some areas that they are not worth attending. In both cases the lack of accessibility may be reflected in enrolment patterns, and this has implications for various aspects of government policy. It would be a mistake to argue that equity in access requires universal enrolment and attendance at *all* levels of education, including those before and after the age for compulsory schooling. But countries ratifying the UN Convention on the Rights of the Child recognize the right to education "on the basis of equal opportunity", and any reasonable interpretation of this principle goes far beyond simply providing buildings and teachers in all parts of a country.

Second, what is the provision of educational opportunities for children with special needs – children with a physical or mental disability? This is considered in Section 3.3 and is a subject that is concerned very directly with equality of provision. Do governments ensure that the disabled child receives an education that is conducive to the fulfilment of his or her potential development? Physically and mentally disabled children are discriminated against in educational systems in many countries of the world. Their treatment in Central and Eastern Europe and the former Soviet Union is important to establish – the disabled child should not be forgotten during the formulation of policies to promote education for all children. The fact that the term "defectology" is often still used in the region in relation to the treatment of disabled children is not an encouraging point of departure.

The *form* in which schooling is provided for disabled children is a key issue. Is their schooling conducted in entirely separate institutions, or are disabled children integrated as much as possible into normal schools? It can be argued that integration is better for the child with special needs. And it may also reflect a country's approach to educational practice in general, in the sense that integration shows that the system is accommodating different needs and respecting children's right to both individuality and participation in society.

Third, how do the access and rights of a particular group of children relate to the larger *purposes* of education? The equal access of ethnic minorities to schools is a subject of concern in any country, and the countries of Central and Eastern Europe and the former Soviet Union are no exception. Section 3.4 reviews evidence from the region on this issue and on the schooling of children displaced from their homes by ethnic tension. The discussion then turns to the promotion through the school system of ethnic tolerance and social cohesion more generally.

Several important aspects of equity and rights in education are only touched on in the chapter, but should

not be overlooked. Equity relates to treatment *during* schooling and the opportunities that come as a *result* of education, as well as to access to the educational system in the first place. For example, although boys and girls may have equal opportunities to go to school, girls may not get the same curriculum, or they may not end up with the same employment or further educational opportunities even if they have the same schooling.

Whether boys and girls *do* in fact get the same schooling opportunities is a key issue in the discussion of equity and rights in education, and in other parts of the world this has been at the forefront of the debate on access. (The subject is not pursued further in this chapter.) The data on enrolments available to the MONEE project suggest that the achievements of the communist system in terms of gender equity in educational access have so far been broadly maintained, although anecdotal evidence pointing to the opposite does exist in some of the less-developed parts of the region. This is clearly a vital subject for the future and one that will need careful monitoring.

Finally, differences in *school quality* mean that equity in terms of effective access to a "good" education varies sharply for children enrolled in different schools, so that a focus on enrolment and attendance alone misses an important part of the picture. ■

3.1 Educational Attainment and Family Background under Communism

Patterns of enrolment and attendance in the region in the late 1990s still clearly reflect the system built up during the communist period, as well as the influence of various forces that have come into play during the transition. What differences in educational access according to family background were inherited at the end of the 1980s?

The communist revolutions in the region put forward the idea of a "classless society". Looking at the nature of society in some countries prior to the communist take-over, one has no difficulty in believing that some notable advances were made in equalizing access to education. However, the egalitarian aspects of education policies in communist countries were not built on a principle of inclusion, nor on equal opportunity and selection according to merit in a modern sense. In matters of equity, the archetypal communist regime emphasized certain political and class-related considerations; the aim was not to promote *all* children who were disadvantaged, but rather to promote the children of the industrial (and hence urban) proletariat.

The education systems of many communist countries adopted various elements of the traditional European approach; indeed, the hierarchical structures of early-to-mid-20th century European education systems fitted well with the top-down organization of the industrial and state apparatus of the planned system. Despite the nationalization and secularization of schools, the establishment of compulsory basic education and the provision of special support for children from certain backgrounds, communist regimes failed to eliminate one of the main features of the traditional European system of education: the unequal access among social classes.

This is shown for Hungary and Poland in Figure 3.1. In both countries, the children of managers and professionals were almost four times as likely as the average child to obtain a maturity or tertiary qualification, while children from other non-manual backgrounds were about twice as likely to do so. This fits strikingly with the pattern shown for Western European countries. The graph is consistent with the view that the élite of the communist regimes secured the same educational advantages for their children as those achieved by the higher social classes in the West. However, it should be noted that Figure 3.1 also reveals that the children of manual workers fared considerably better in Hungary and Poland than they did in the Western European countries.

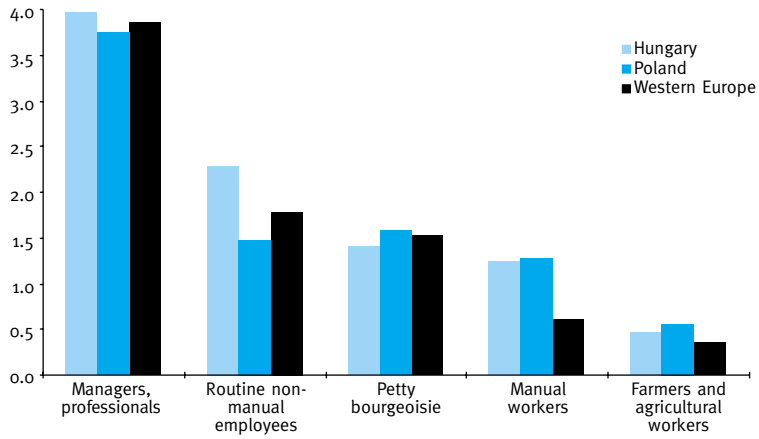
Other evidence confirms a picture of persistence in social stratification in the educational system under communism in Poland and Hungary and also in former Czechoslovakia. A study using longitudinal data on children born between 1910 and 1960 has shown that the impact of social background on educational opportunity was remarkably stable in these three countries, as it was in the Western countries that were included in the analysis.

Similar evidence on social stratification in education exists for the former Soviet Union. Figure 3.2 relates to a sample of children finishing secondary school in the three Baltic republics and in Belarus in 1982 and shows the proportions of children of different socio-economic backgrounds who went on to the tertiary level. (Secondary education in

Figure 3.1

Educational attainment by social class in Hungary, Poland and Western Europe (proportion with maturity or tertiary qualifications relative to the average)

Source: Calculated from Müller (1996), Table 4.4.



Note: The data refer to men aged 30-64 when interviewed in the mid- or late 1980s. The Western European figures are the unweighted averages for England, France, West Germany, Ireland, Northern Ireland, Scotland, and Sweden.

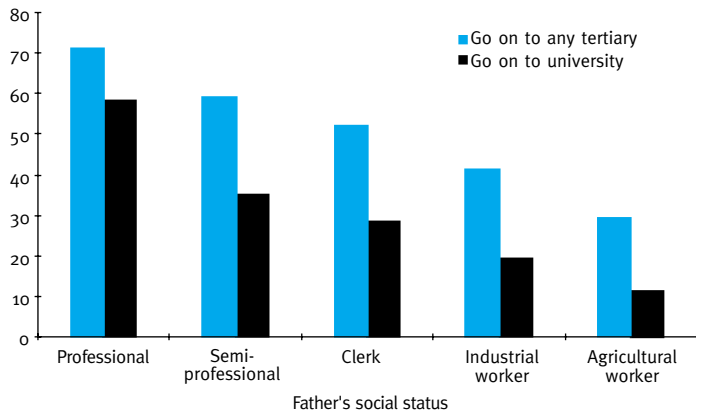
this case includes general and technical secondary schools, but not vocational schools.) About 70 percent of the children with professional fathers continued in education, compared to 40 percent of the children of industrial workers and 30 percent of the children of agricultural workers. The differences in the proportions going on to university are even greater; children from a professional family background had a probability of entering university that was three times that of children from industrial worker families and nearly six times that of children with fathers working in agriculture.

Some authors suspect that "irregular" channels to higher education – created with the intention of helping working class candidates – may have been expropriated by the élite, who knew the rules better. Another factor may have been the lack of a fair and consistent assessment process in the "streaming" of schooling that occurred at age 14. This streaming channelled children into schools intended to offer very different opportunities for further progress in the educational system. The data used in Figure 3.2 also show only one in ten children in vocational schools and less than one in five children in technical schools going on to any form of tertiary education, compared to three-quarters of children in general secondary schools. The absence in the streaming process of clear selection criteria based on ability opened the door for informal pressure and favoured children who possessed the proper "cultural capital". The same was true of school-leaving exams at the upper secondary level; their poor quality and very decentralized nature are described in Chapter 2.

The apparent reproduction of educational advantage on a scale perhaps not so dissimilar to that in Western countries is even more remarkable if one considers the absence in the planned economies of several of the factors associated with social stratification in market economies. Significant unemployment, sharp disparities in household incomes, private schools, and private entrepreneurship (which is sometimes seen as an alternative social ladder) were, in general, all missing under communism.

Besides differences in education by family background, there was considerable regional variation, especially among the republics of the Soviet Union and between rural and urban areas. Table 3.1 summarizes variations in enrolment rates at pre-primary and tertiary level in the former USSR. Children were substantially less likely to go to pre-schools in rural areas and in the southern republics. The differences in tertiary enrolment rates

Figure 3.2



Going on to tertiary education in the Baltics and Belarus in 1982
(percent)
Source: Saar (1997), Table 1.

Note: The data refer to children graduating from secondary schools (including technikum) in 1982 and show the percentage going on to university and to any tertiary education (including university). Weighted averages have been taken of the separate figures for Estonia, Latvia, Lithuania, and Belarus.

across the Union were also notable. Some of these differences represented demand factors. For example, limited local job opportunities may have depressed enrolment rates at the tertiary level in the sparsely populated and less developed parts of the country. However, part of the variation was certainly due to differences in provision. (Chapter 2 notes the differences in the physical infrastructure of schools in rural and urban areas in the USSR.)

Table 3.1

Differences in enrolment rates across the USSR, 1989
(percent)

	Pre-primary (% of 1-6 year olds)		Tertiary (% of 18-22 year olds) (day, full time)
	Urban	Rural	
Russia	76.0	59.0	16.6
Western CIS	76.0	52.7	14.4
Baltic	72.0	44.7	17.8
Caucasus	44.7	21.0	12.8
Central Asia	53.0	22.6	10.0

Sources: Goskomstat (1989); Statistical Annex, Table 7.6.

Note: Figures are unweighted averages of rates for the countries in each sub-region. "Western CIS" refers to Belarus, Moldova and Ukraine.

Educational expansion had some effect on social stratification over time in the Soviet Union. Expansion at lower levels, amplified by demographic trends, resulted in larger waves of students entering upper levels. Bottlenecks occurred both at the full secondary level (general and technical) and, in the late 1960s, at the tertiary level. Children from higher socio-economic backgrounds had more problems in reaching tertiary education than did their peers in previous cohorts, but children from blue-collar or agricultural families faced even greater difficulties, although they became more well represented in upper secondary education. ■

3.2 Patterns of Educational Access during the Transition

How has the picture of educational attainment changed during the transition? The substantial shifts in enrolment at various levels of education, shown in Chapter 2, have surely not 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?

Concrete data that show the changes over time in enrolment, attendance and learning achievement according to household characteristics are scarce for much of the region – see Box 3.1. With a few notable exceptions, the readily available data do not allow the questions posed above to be answered systematically. However, prior reasoning suggests that disparities will have widened, and a conclusion along these lines is supported both by the limited data at hand and by a large amount of anecdotal evidence.

Where enrolment has risen, as it has in general secondary schools in a number of Central European countries, the expansion might be expected to have benefited children who would previously have had less access to education and thereby to have reduced disparities. (This argument implies that general secondary education is preferable to alternative forms of schooling in all cases, whereas this is not true for every child.)

However, in most countries it is *falls* in enrolment that have been more common – at pre-school and post-compulsory levels and in some countries even at the basic level. The factors causing this – school closure (especially of pre-schools) and lower demand due to reduced incomes and higher direct costs – can be expected to have most affected children from poorer families and from rural areas. This will have re-inforced patterns inherited from the communist period, as will the features associated with social stratification in the emerging market economies, such as unemployment and greater inequality in incomes. Furthermore, changes in attendance, dropping-out, repetition, and school quality can all be presumed to be moving in the same direction.

Much of the evidence supplied below refers to a single point in time, and, in terms of access, it is impossible to separate out the inherited pattern from the changes that may be occurring in the 1990s. But this may not matter. What is important is the current picture of the disparities in access that now challenge policy-makers, irrespective of the exact time when these disparities came about. It should be noted at the outset, however, that the analysis that follows is far from balanced among countries, and it is particularly to be regretted that the Central Asian republics are not covered, since falls in enrolment have been especially sharp there, as shown in Chapter 2.

The aspects of household background often thought to influence the educational attainment of children are summarized in Figure 3.3. (Their impact may vary with the age of the child and the level of schooling, as may the impact of public policies.) Each factor is assumed to have an independent effect, but it is important to note that the various factors are correlated. For example, the children of lone parents may get less parental help with their school work, but income may also be lower in such households. Parents who are not so well educated may have more limited expectations for their children and provide less encouragement for study, but they are also likely to have lower incomes on account of their own lack of schooling. Some ethnic minorities may not wish for their children to attend the state school system, but discrimination or other factors may mean that they also have lower incomes. In

Box 3.1

Measuring patterns of access and achievement

The ideal investigation of equity and rights in access to education would show how enrolment, attendance, school quality, and learning achievement vary according to a range of household characteristics and how the picture changes over time. The reality falls well short of the ideal in most of the region, as it does elsewhere in the world. The collection of adequate data and the creation of suitable sources of information for the analysis of issues relating to equity and rights in education remain a major challenge for policy-makers and statisticians.

Data on learning achievement are not common even at the national level. The Third International Mathematics and Science Study carried out in 1995 is one such source, and a number of countries in the region participated in this study (see Table 2.2 in Chapter 2). But parental, social and community backgrounds are not the main focus of this study, and information in this regard is very limited. The lack of good national examination systems in most countries – as described in Chapter 2 – prevents any worthwhile analysis of patterns in learning using administrative data, although such analysis will become possible as more countries undertake reforms in this area.

Administrative records are a potentially rich source of information on school attendance and grade repetition, as well as on enrolment. The use of these records to distinguish regions or localities should be straightforward. This type of data could be much more heavily relied upon than it is now, although in many countries systematic record-keeping by schools appears to have ceased or the data are no longer collected centrally.

Household budget surveys are an important source of information in some countries, although the main focus of these enquiries is incomes, consumption and labour market behaviour, and, typically, few data on education are collected. Since the introduction of reliable surveys is recent in much of the region (see Box 1.2 in Chapter 1), such surveys often cannot be used to reveal the changes in access that have occurred to date. However, even the evidence these surveys provide at a single point in time is very valuable. Information on access to education according to income level was almost non-existent in most countries during the communist period, and knowledge about patterns of access by income level has now become vital for policy-makers.

each case, the apparent lower educational access or attainment reflects a combination of the direct effect of the factor concerned and the indirect effect coming through household income.

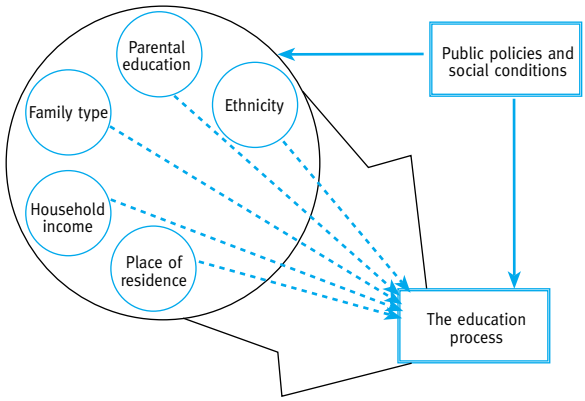
Multivariate analysis that controls for the correlations among the different factors is needed to identify the independent effects. In its absence, the patterns in the data need to be interpreted with some care. If, for example, enrolment is shown to be lower in rural areas, this does not necessarily represent the "pure" effect of rural as opposed to urban residence, since rural areas on average may have lower incomes, and at least part of the observed imbalance in enrolment is due to this. By the same token, it should be remembered that the independent effects *cumulate*, particularly among disadvantaged children.

Parental education appears to be strongly associated with access in all countries for which data are available. A good example is shown in Figure 3.4 for Azerbaijan in 1995. The proportion of children enrolled in education and in attendance rises with the length of the schooling of the head-of-household for all age groups, even among children of compulsory school age (8-12 year olds), although the relationship in the case of these children is weaker than it is for other age groups. The increase is particularly notable for 6-7 year olds and for young persons aged 17-25.

Data from Hungary on the educational attainment of children according to the education level of their parents are particularly interesting since they show the change in the link between children's and parents' education between two years, 1984 and 1995. This association appears to have *increased*, despite the fact that overall enrolments in Hungary have remained broadly unchanged during the transition. The children of less educated parents were found to be *less* likely in 1995 to have improved on their parents' level of education than they had been in 1984, while children of more educated parents were found to be doing slightly better. The stratification of access on the basis of parental education therefore appears to have grown in Hungary, and it does not take a big leap of imagination to believe that this trend is even more likely in countries where overall enrolments have fallen.

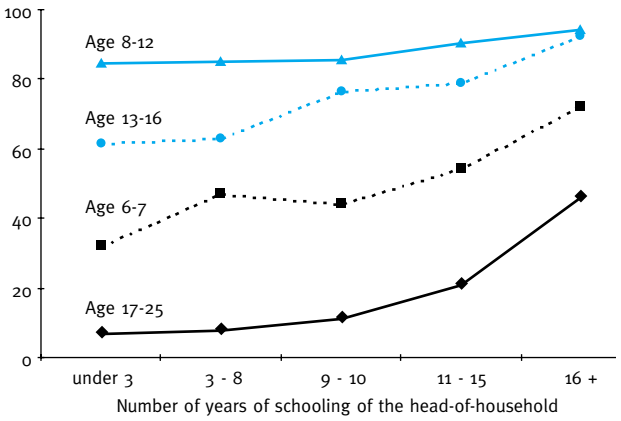
Parental education is, however, a "pre-determined" factor. Current government policy cannot change a parent's schooling, although, like any "fixed" family characteristic, it could be used to help identify disadvantaged children and hence to target compensatory action. Income is a factor of more interest from a policy-maker's standpoint. Income is far from being "fixed". Indeed, it transmits the impact of many changes to households during transition, whether these changes come from the labour market or from government policy on cash transfers. The rest of this section focuses on the link between educational access and income and on the link between access and place of residence. It is with the latter that the discussion starts.

Figure 3.3



Factors affecting educational attainment

Figure 3.4



Attendance rates by parental education in Azerbaijan, 1995
(percent)

Note: Children are considered not in attendance if they are not enrolled or if they were absent four or more weeks during the previous school year.

Source: Based on World Bank (1997c).

Differences between urban and rural areas

The decentralization of educational systems – discussed in detail in Chapter 4 – is one important reason for identifying any differences in access and achievement associated with place of residence. Local governments vary in their capacity to administer and finance schools, this being especially true if central government fails to provide an adequate system for local government funding.

One dimension of "location" that is common to all countries is the rural versus urban distinction. There are several reasons for expecting access to schools and educational achievement to be lower in rural areas, and the evidence from the former Soviet Union shows this to have been the case in the communist period. Lower levels and standards of provision, lower incomes, higher travel costs, and fewer job opportunities for the educated all combine to reduce enrolment and attainment in rural areas.

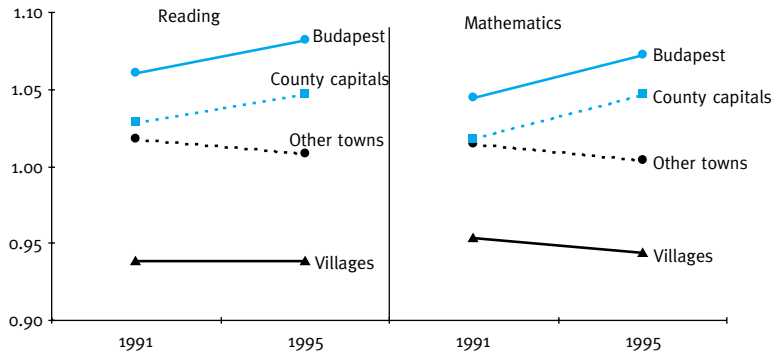
In one case, Hungary, striking evidence exists on how learning achievement has changed among localities during the transition. Figure 3.5 shows average scores in maths and reading among eighth grade children in tests conducted in a sample of schools in 1991 and 1995. There is a notable gap in achievement across localities, especially between villages and the rest of the country, and this gap has been increasing in the 1990s. For example, the average score in maths was 9 percent higher in Budapest than it was in villages in 1990, but 14 percent higher in

1995. This increase could reflect a number of factors, including the decentralization of the responsibility for the financing and provision of basic education, which Chapter 4 shows has been quite extreme in the Hungarian case.

Figure 3.5

Reading and maths achievement by locality in Hungary, 1991 and 1995 (average score as a proportion of the national average)

Source: NIPERC (1996), Table 6.



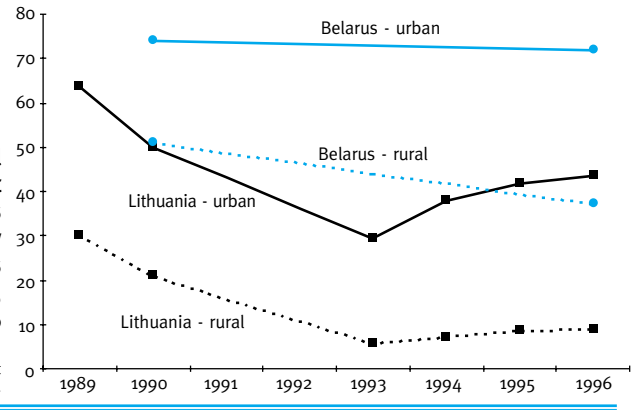
Note: Results refer to samples of eighth grade children in basic schools.

This evidence for Hungary is probably unique in the region in that it measures changes in how much children have *learned*. Data referring to changes in enrolment are more common. Figure 3.6 provides an example, showing pre-school enrolment rates in rural and urban areas of Lithuania and Belarus. The experience of these two countries has been rather different. Belarus has seen a widening in the enrolment gap between rural and urban areas, from 23 percentage points in 1990 to 35 points in 1996. The urban enrolment rate has hardly changed, while enrolment in rural areas has dropped from just over 50 percent to less than 40 percent. By contrast, enrolment in urban areas fell more steeply in Lithuania until 1993, but then recovered much more strongly than did enrolment in rural areas, and the gap in 1996 was slightly bigger than it had been in 1989. Less than 10 percent of children in rural areas in Lithuania now go to pre-schools, compared to over 40 percent in urban areas.

Figure 3.6

Pre-school enrolment rates by locality in Belarus and Lithuania, 1989-96 (percent)

Source: MONEE project database.



More often, the data refer only to enrolment at one point in time. An example from South-East Europe is given in Figure 3.7, which draws on a household survey sponsored by the World Bank in Romania in 1994. Enrolment rates were lower in rural areas at all three levels of education – basic, secondary and tertiary. The differences at the secondary and the tertiary levels are large, 27 and 17 percentage points, respectively. The World Bank's analysis of the data notes that the gaps at these levels could reflect both the higher direct costs of education in rural areas (for example, transport and boarding costs) and the higher opportunity costs in terms of forgone labour income. The policy implications clearly differ depending on which of these explanations is more telling.

Figure 3.8 shows another example of recent differences in enrolment rates given by a household survey in a former Soviet republic, in this case Russia. Within the age ranges of compulsory schooling there are almost no differences in the enrolment rates for cities and for rural areas, and both are almost 100 percent. However, differences are found at pre-school and post-compulsory levels; for example, the rates for 17-18 and 19-20 year olds in the countryside are about 20 percentage points below those in the cities. The greatly reduced value of student scholarships is one factor that especially penalizes young people from rural areas who need to live away from home in order to receive tertiary education.

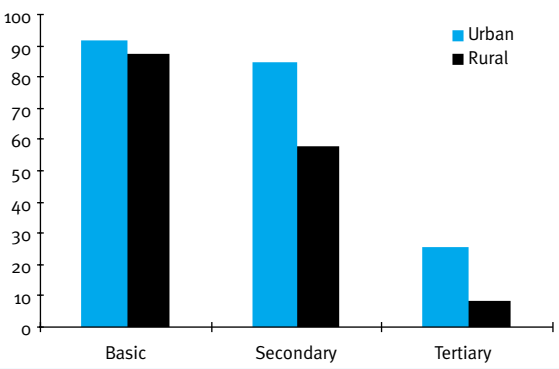
Information from both administrative sources and household surveys take the investigation beyond enrolment to other measures of educational access in the broad sense of the word. These re-inforce the picture of rural disadvantage.

- The *repetition rate* in rural areas of Romania in the 1995-96 school year was 4.6 percent for primary schools and 4.4 percent for general secondary schools, compared to 2.5 percent and 2.8 percent, respectively, in urban areas.
- Four-fifths of the children who *dropped out* of school in Moldova without having finished compulsory education in 1996-97 came from rural areas, although the rural share of the population of Moldova is little more than 50 percent.
- While 96 percent of children aged 8-12 were both enrolled in and *attending* schools in 1995 in Baku, the capital of Azerbaijan, in the rest of the country the figure was only 88 percent.

Figure 3.7

Enrolment rates by locality in Romania, 1994 (percent)

Source: World Bank (1997d), Table 65.



- In a survey in Georgia in Spring 1996, 43 percent of primary and secondary school directors reported that *textbooks were available* for all children, compared to 27 percent of directors in rural areas; none of the sampled schools in rural areas had a functioning *school canteen*, while three-quarters of urban schools had one; only one of the 52 rural schools had school buses.

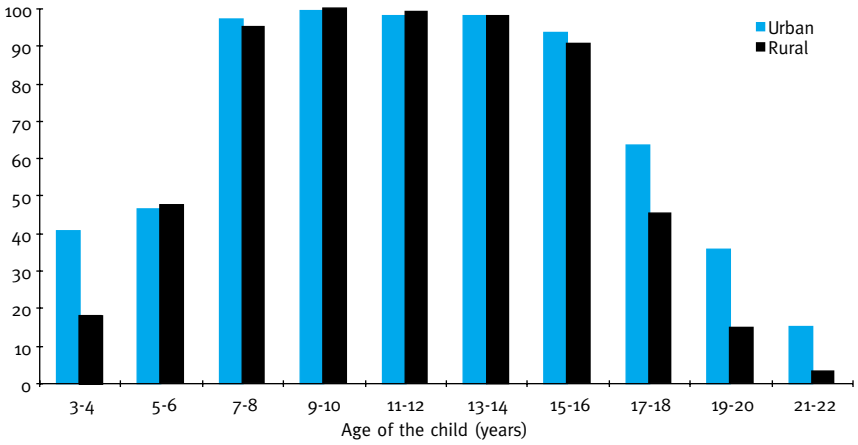


Figure 3.8

Enrolment rates by age and locality in Russia, 1996
(percent)
Source: Based on the Russia Longitudinal Monitoring Survey, Round 7 (Autumn 1996), microdata.

The picture obtained from the different types of information, including a wealth of anecdotal evidence which is not presented here, shows that access to education and quality of schooling are notably worse in rural areas in many countries and that the urban-rural differences are often growing.

Access and income

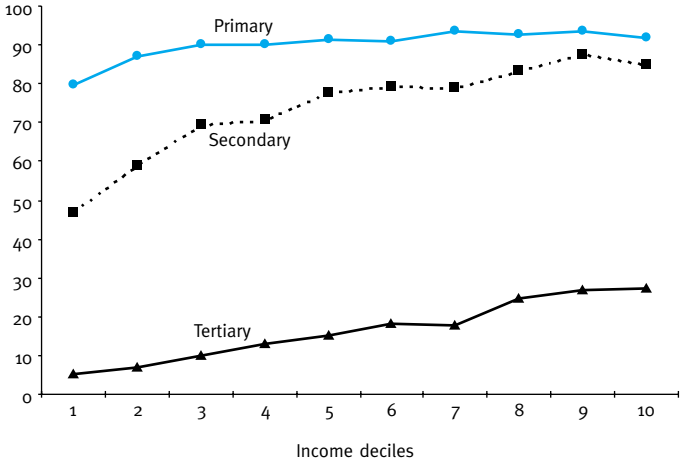
Family income can be expected to have much more importance during the 1990s in determining enrolment and attendance. The costs for families of educating their children have often increased sharply because state support has been reduced. These costs are discussed in more detail in Chapter 4, where evidence is given on the range of expenditures involved. The direct costs include fees (legal and illegal), payments to teachers for extra tuition (a common feature especially in countries of the former Soviet Union), maintenance for children studying away from home, charges for textbooks and other materials, transport costs, and the purchase of clothes for school.

The variation in enrolment rates according to household income is shown for Romania in 1994 in Figure 3.9. (The source of the data is the same World Bank survey used for Figure 3.7.) Enrolments in tertiary education rise steadily across the income distribution, and the rates for the top two deciles are more than three times higher than those for the bottom two deciles. But it is notable that there is also a strong association with income at the secondary level, with children in the lower parts of the income distribution exhibiting markedly lower enrolment rates. The relationship is *still* present at the primary level. One in five children of primary school age in the lowest decile were not enrolled – an especially worrying figure for what is, after all, compulsory schooling. Further investigation of the data shows that controlling for urban versus rural residence and for parental education does not remove the effect of income on enrolment.

Some commentators attribute the link between income and enrolment in Romania to the existence of child labour, especially among ethnic minorities. Box 3.2 discusses the connections between child labour and schooling, emphasizing that children may often combine work and education; it is not just a case of children dropping out of school in order to work. The development of an unregulated informal economy in many countries, especially in retailing and services, may provide plenty of opportunities for child labour, although, as Box 3.2 emphasizes, the number of working children in parts of the region is very unclear.

One method used by the Romanian authorities to try to counter the negative impact of low income on basic school access has been to make the payment of family allowance contingent on children's attendance at school. While this may seem an attractive policy, the size of these payments may not be sufficient to overcome some of the disadvantages of low income and associated factors. In this situation the worst possible outcome is obtained: children from poor households do not go to school, and in addition they do not benefit from state support through the family allowance.

Other countries in Central and South-East Europe also show enrolment or attendance varying with household income. For example, a report in 1996 by the Ministry of Education of Bulgaria noted that many children not at kindergartens came from low-income families and from the families of the unemployed. The relationship between parental employment status and the school-



Note: Income is proxied by monthly per capita consumption.

Figure 3.9

Enrolment rates and income level in Romania, 1994
(percent)
Source: World Bank (1997d), Table 65.

Box 3.2

Child labour and schooling

International labour standards, as well as national legislation in most industrialized countries, recognize the primacy of education over working opportunities for children by establishing the age at which compulsory schooling ends as the minimum age at which one can enter the work force. Exceptions are generally limited to family-based jobs, "light work" and certain types of employment during school holidays.

If not carefully regulated, work can interfere with schooling in a variety of ways. An excessive amount of work during the school year inhibits attendance and the ability to concentrate in the classroom and on homework. Especially in rural areas, the distances to be traveled by children trying to combine work and education may be prohibitive for effective schooling. Some types of work involve health hazards, which may result in poor school attendance or performance. Work may also lead young people, especially adolescents, to feel more independent and resentful of the authoritarian methods traditionally applied in most school systems in the region. In fact, poor-quality schools, including those that fail to motivate underachieving pupils, are one *cause* of child labour. Whatever the patterns of causation, evidence from developing countries with significant child labour problems suggests that working children successfully complete fewer years of schooling than do non-working children.

Combining schooling and work is much more common in industrialized countries than is often assumed. Research in the UK suggests that the majority of children undertake some paid work outside their families by the time they reach the minimum school-leaving age of 16; the proportion of 16-18 year olds studying full time who had some income from employment rose from 40 percent in 1968-71 to almost 60 percent in 1988-91. Among the poorest households in rich countries, including especially vulnerable families such as those headed by women and those among some ethnic minorities, the economic need for children's work may be paramount for the family. The relationship between household income and child labour, however, appears to be less clear in rich countries than it is in most developing countries.

Data on the extent to which children combine work and schooling are weak in most countries of Central and Eastern Europe and the former Soviet Union; this is especially true for children below the minimum school-leaving age. An ILO study of Russia in 1993 surveyed children in the 9-15 age group and found that the average age at which employment had first been undertaken was 12.5 years. Over half the children in the study were working regularly. Although two-thirds of the working children claimed they had jobs only on weekends and during holidays, a substantial portion were employed every day, including school days. One-quarter of these children were working more than 20 hours per week. A recent study of Romania concluded that about 8 percent of the country's 7-15 year olds work, with one in seven of the working children reportedly employed more than four hours per day. The importance of agriculture in much of the region suggests that there may be a substantial amount of unmeasured child labour in the form of unpaid work on family plots.

The ILO study in Russia asked children and adolescents why they were working. The replies suggested that the principal motivation was access to a broadening range of consumer goods, including entertainment, cosmetics, snacks, cigarettes, and alcohol, rather than economic necessity or money needed for school materials (as is sometimes reported in developing countries). Although the Russian data imply that child work, in general, is inversely related to family income, the majority of working children do not come from the most impoverished families. A household survey in Poland, however, found child labour especially widespread among families headed by unemployed parents, particularly in one-parent households.

There is even less evidence on the critical issue of how much and what kinds of work adversely affect educational performance. Parents interviewed for the ILO study in Russia stated that their greatest concern about their children's jobs was the possibility that the jobs would interfere with the children's studies.

Declining school quality and the virtual disappearance of recreational and extra-curricular activities in many countries may shift the trade-off between "learning and labouring" towards more working and less studying. Efforts to make education more appealing to children at risk of dropping out of school or under pressure to work rather than study need to focus on policy measures addressing the quality, relevance and affordability of schooling.

Given the much lower real incomes of most families in the region, as well as the reduced public spending on education, much more attention needs to be paid to the problem of the cost of schooling for low-income families. In other regions facing the challenge of making education more affordable, targeted school-related financial incentives for qualifying families are being adopted on an experimental basis. Recent assessments of what the World Bank calls "demand-side financing" in education are beginning to point to increases in school attendance and declines in drop-out rates as a result of schemes such as attendance-based food distribution programmes and family allowances and voucher systems allowing greater choice in school selection in both public and private systems. But more careful and systematic evaluations, including attention to equity concerns, are needed before firm recommendations are warranted regarding the cost-effectiveness and distributional impacts of these incentive schemes.

A high priority in the region is to document the links between child labour and schooling more thoroughly and to review the policy lessons learned from the experience of other countries in their attempts to enhance affordability and equity in the provision of educational opportunities.

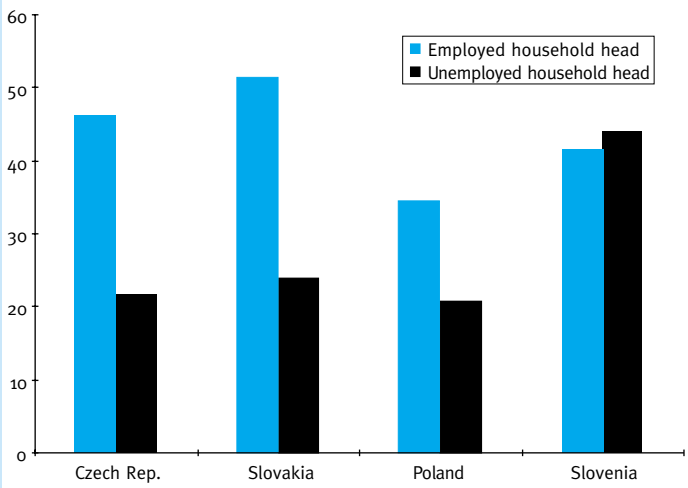
Box 3.3

Education and parental unemployment

Unemployment is an important cause of low income. Since unemployment in many cases lasts only a short time, much of its apparent association with educational access may merely reflect other factors which normally determine household incomes. However, the huge growth in long-term unemployment in parts of the region underlines the need for analysis of the direct impact.

Data from labour force surveys carried out in Central Europe tend to show a strong association between parental unemployment and low educational attainment among children. Figure 3.10 shows that in the Czech Republic, Slovakia and Poland the proportion of 19-22 year olds with secondary or higher education is considerably smaller among households with unemployed heads than it is among households with employed heads. Interestingly, this does not appear to be the case in Slovenia.

Figure 3.10



Note: The graph shows the percentage of 19-22 year olds with secondary or higher education in households headed by employed and unemployed persons. Unemployment is defined according to the ILO/OECD criteria of search and availability. Vocational secondary education with certificate is included for secondary education in Poland, the Czech Republic and Slovakia.

The education of 19-22 year olds and parental employment status
(percent of the age group)
Source: Based on Labour Force Survey microdata in the Luxembourg Employment Study for 1994 (Czech Republic, Poland and Slovenia) and 1995 (Slovakia).

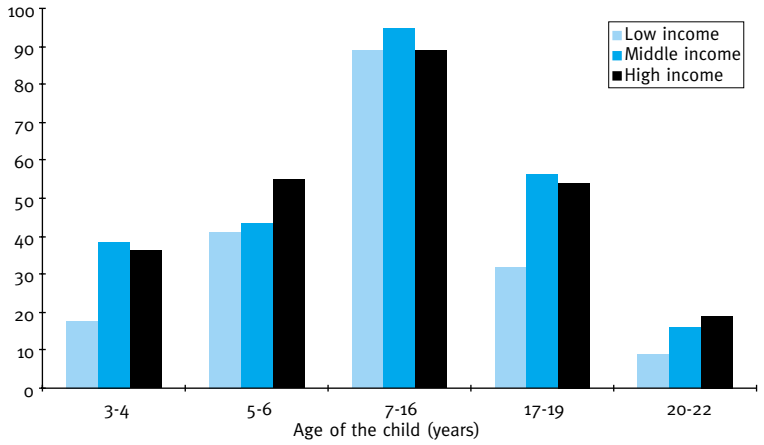
ing of children is discussed in Box 3.3; Figure 3.10 shows notably lower educational attainment among children in households with an unemployed head in three of the four Central European countries covered.

There is considerable evidence from the countries of the former Soviet Union on how educational access varies with income level. Figure 3.11 shows the situation in Russia in 1996. For children aged 7-16, there is little difference in the percentages of children both enrolled in and attending school among households with low, medium and high incomes. But the expected differences emerge outside the age range of compulsory schooling. The proportion of children aged 3-4 from low-income households who are in kindergartens is one-half that of such children in middle and high-income households; at age 17-19 the proportion of teenagers from low-income households in school is more than one-third below that of other children of the same age, and the share in tertiary education of young people aged 20-22 from high-income households is twice that of young people from low-income households. Again, further analysis shows that the relationship between income and education holds up when one controls for a variety of other factors.

The data in Figure 3.11 are based on a survey first conducted in 1992 and can be used to examine how the relationship between income and schooling has changed over time. The results concerning kindergarten enrolments (not attendance) between 1994 and 1996 show the increasing impact of household income. (The data refer to the same period each year.) Enrolments among 3-5 year olds in low-income families fell from 37 percent to 31 percent, while those among children in high-income families rose slightly, from 43 percent to 45 percent.

The situation in upper secondary schooling in Latvia, also in 1996, is shown in Figure 3.12, where attendance rates according to level of income (proxied by household expenditure) are identified separately for urban and rural areas. Only 50-60 percent of the children in the bottom fifth of the distribution were both enrolled in and attending secondary school, compared to 90 percent of children in the top fifth. It is notable that children from lower income families in rural areas are less likely to be at school than are children in urban areas. On the other hand, income seems to be a stronger factor than locality, and the intersecting lines in the diagram indicate that income can effectively "smooth out"

Figure 3.11



Note: A child is considered to be in attendance if enrolled and in school the week preceding the survey. The lower income category includes the bottom 20 percent of households; the middle category includes the next 50 percent, and the top category includes the top 30 percent. Income is adjusted to account for family size and composition and for regional variations in prices and consumption patterns.

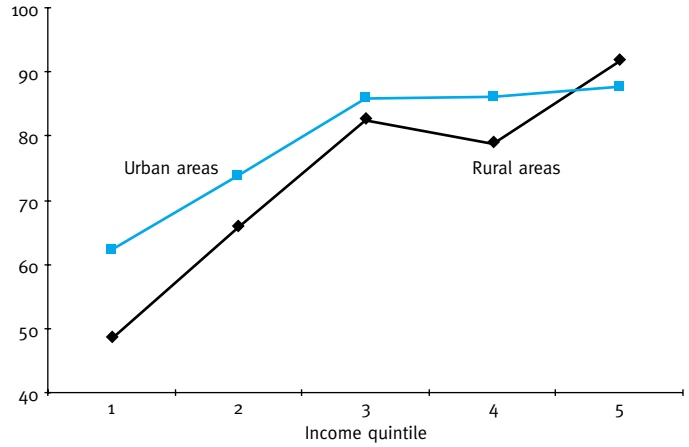
Educational attendance by age and household income in Russia, 1996
(percent)
Source: Based on the Russia Longitudinal Monitoring Survey, Round 7 (Autumn 1996), microdata.

the differences due to place of residence: among children of the richest 20 percent of households there are essentially no differences in attendance between rural and urban areas.

Reports from the countries most affected by lower incomes and drops in enrolment indicate falling attendance rates in primary and secondary schools. In Moldova, for example, official reports consider the difficult financial situation of households as the main cause of absenteeism among children aged 7-16, apparently accounting for about one-half of cases. World Bank survey data from Azerbaijan for 1995 show that rates of extended absence were significantly higher among children from poor households. Among children aged 6-16 from households classified as "very poor", as many as 10 percent of those enrolled in school were not attending; the figure varied substantially by region, ranging from a negligible level in Baku to over 40 percent in the far south. The Azerbaijan survey also collected information on the reasons why children were not attending or had dropped out. Among all children and young people aged 6-25 in these two groups, in one-third of cases the high cost of education was given as the explanation.

The costs of schooling are returned to in Chapter 4 and are one reason for the patterns found here in this section. Alongside enrolment and attendance, the quality of the education obtained and of the learning achieved can also be expected to rise with family income. For example, families with higher income can more easily afford textbooks and extra tuition. Of course, this is also true in other parts of the world, and one would not expect enrolment at all levels of education, including tertiary, to be universal. But this misses the point. As in other countries, the issue is whether children from households with lower incomes and other disadvantages have a *realistic* opportunity to gain access to good schools and, on the basis of ability, to high-quality tertiary education. ■

Figure 3.12



Latvian 16-18 years olds attending secondary school, by income level, 1996
(percent)

Source: MONEE project database.

Note: Income is proxied by per capita expenditure.

3.3 Educational Opportunities for Children with Special Needs

What arrangements are made in the region for the education of children defined as having "special needs" due to some form of mental or physical disability? The potential for this group of children to be particularly disadvantaged in their access to schooling is obvious. International instruments such as the UN Convention on the Rights of the Child emphasize the need for disabled children to have effective access to education, but how is this principle translated into practice? Do disabled children in the region receive schooling "conducive to the child's achieving fullest possible social integration and individual development", as the Convention calls for, and, if not, what are the barriers to progress towards this goal?

The approach in most countries in the region towards disabled children has been dominated by the Soviet science of "defectology". Developed in the USSR in the 1920s, defectology concerns both the theory and treatment of disability and is seen as an independent discipline with its own methods and techniques. The name itself clearly reflects attitudes – a person with a disability has defects which need to be addressed – and emphasizes the discipline's "medical" approach to the disabled individual, in contrast with an approach that focuses on the individual's environment.

Defectology has been associated with the education of disabled children in special schools separated from those for other children. This obviously does not encourage any social integration of the disabled child, and the conditions in the large-scale residential institutions in which children with special needs have sometimes been placed often threaten child welfare, as Chapter 1 notes. However, before jumping to any conclusion about the undesirability of practices in the region, one should appreciate that the education of children with special needs is the subject of fierce debate in other industrialized countries. How practical is the integration of every disabled child into mainstream education, and is it, to quote another part of the Convention on the Rights of the Child, always in the disabled child's "best interests" to be included in normal classrooms? The analysis in this section begins by reviewing international trends in special needs education, emphasizing the range of practices that exist and the main issues that have arisen in recent years.

One view sees the "problem" of disability as not something that is wrong with the child, but rather something that may be wrong with the organization of schools. This "inclusive" approach to special needs education argues that schools should be sufficiently flexible to accommodate any degree of individuality, whether it stems from disability or from some other source. This

strikes an obvious chord with the discussion in Chapter 2 of the rigidity in the school systems inherited from the communist period. On the other hand, others argue that although integration should be achieved where possible, the wholesale inclusion of disabled children into mainstream classes in normal schools is not an appropriate road to take.

The discussion then turns to the current situation in Central and Eastern Europe and the former Soviet Union. How does special needs education in the region compare with overall international trends in thinking and practice, and what changes have there been in the 1990s? Not surprisingly, some differences emerge across the region, but the continuation of old practices is very evident in a number of countries, and a lack of adequate funding for special needs education is a common problem.

International trends

Physical and mental disabilities come in many forms and vary greatly in their severity, ranging from well-identified conditions, such as cerebral palsy, to those that are vaguely defined, such as "emotional" or "behavioural problems". A child classified with special needs in one country might not be so classified in another. Hence, estimates of the number of children with disabilities diverge enormously. Figures for developing countries run from about 30 million children to 160 million, and there are big differences among industrialized countries in the proportion of children classified as having special educational needs.

Policies and practices for educating children with special needs should be seen in relation to overall educational arrangements for children in general. An appreciation is required of the ways children come to be defined as "special" within countries and of the process whereby some "normal" children are given the opportunity to participate in schools and some are excluded.

Many children in the world do not receive any form of conventional schooling, including large numbers of children with disabilities, but concern also exists about the poor quality of teaching in many schools, particularly in less developed countries. Although sufficient school places are usually available in industrialized countries, it is still a problem to find forms of schooling that will enable all children to experience success in their learning. Sadly, for too many children their attendance at school is a largely unsatisfying experience. Indeed, it has been argued that in some countries deficiencies in the education system are a major *reason* some children become categorized as having special needs and, as a result, become marginalized in, or even excluded from, general education.

The initial provision of special education in many Western countries took the form of separate schools set up by religious or philanthropic organizations. This approach was then typically adopted and extended as part of national education arrangements. In recent years, however, the appropriateness of a separate system for children perceived to be in need of special treatment has been challenged both from a human rights perspective and from the point of view of effectiveness. This has led to an increased emphasis in many countries, both developing and developed, on the notion of "integration". Integration, involving attempts to enhance the flexibility of response within local schools, seems sensible for economically poorer countries, given the limitations on resources. (In many less developed countries substantial "casual" integration of children with disabilities in local schools already occurs, particularly in rural districts.) However, in the short run, substantial costs may be incurred in moving from a system of separate schools to integrated schools, because of the requirements in terms of new facilities and teaching and support staff.

The term "integration" is sometimes used for all attempts to avoid a segregated and isolated education for pupils with disabilities. The scope of integration can range from the actual integration of regular and special schools (or classes) to measures for reducing the outflow from general education to special education provision. Consequently, it is difficult to quantify the numbers of pupils with special needs who receive their schooling in integrated settings, particularly if the important distinction is made among locational integration ("being present"), social integration ("mixing with the other pupils") and curricular integration ("learning together with the other pupils").

In some countries, integration still largely represents an aspiration. In Germany, for example, while some pilot initiatives based on the idea of integration are under way, children who are declared eligible for special education are placed in special schools. In the Netherlands it is reported that almost 4 percent of all pupils aged 4 to 18 attend full-time special schools, and as many as 7 percent of 11 year olds do so. (Recent policy is attempting to change this emphasis.) Other countries – for example, Canada, Denmark, Italy, Norway, Spain, and parts of Australia – have shown considerable progress in implementing the integration principle. Here, the local community school is conceived of as the normal setting for pupils seen as having special needs, although the situation often exhibits variation from place to place.

A problem in a number of industrialized countries is that, despite national policies emphasizing integration, paradoxically there is evidence of a significant rise in the proportion of pupils being categorized as having special needs. Schools typically receive more funds for disabled children than they do for other children, creating an incentive to increase the number of pupils officially recorded as having educational difficulties. This is one reason why changes over time in the numbers of children classified as having special needs must be treated with caution.

Dissatisfaction with the pace of progress towards integration has caused demands for more radical changes

in many countries. One of the concerns of those who adopt this view is the way pupils come to be designated as having special needs. They see this as a social process that needs to be constantly challenged. More specifically, they criticize the continued use of what is sometimes referred to as a "medical model" of assessment within which educational difficulties are explained mainly in terms of a child's disabilities. According to their argument, progress will be much more likely when it is recognized that the difficulties experienced by pupils come about as a result of the ways in which schools are organized and the forms of teaching that are provided. On this view, the way forward is to reform schools in ways that will lead them to respond positively to pupil diversity, seeing individual differences not as problems to be fixed, but as opportunities for enriching learning. However, this kind of approach is probably only possible in contexts where there is respect for individuality and a culture of collaboration that encourages and supports problem-solving.

The culmination of this line of thought is the concept of "inclusive" education. This challenges much of the existing thinking in the special needs field, while, at the same time, offering a critique of the practices of mainstream education. Put simply, why is it that schools throughout the world fail to teach so many children successfully? Instead of an emphasis on the idea of integration, with its assumption that additional arrangements should be made to accommodate exceptional children within a system that remains largely unchanged, the aim is to restructure schools and classrooms in order to respond to the needs of all children.

This new, inclusive orientation is a strong feature of "The Salamanca Statement on Principles, Policy and Practice in Special Needs Education", agreed by representatives of 92 governments and 25 international organizations in June 1994 at a meeting organized by UNESCO. The Statement argues that regular schools with an inclusive orientation are:

> "the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system."

Implicit in this orientation is a fundamental shift in the way educational difficulties are addressed, based on the belief that methodological and organizational changes made in response to pupils who experience difficulties are, under certain conditions, likely to benefit all children. Indeed, children seen as having special needs come to be regarded as the stimulus that can encourage developments towards a much richer overall environment for learning.

Advancing towards the implementation of this new orientation is far from easy, and evidence of progress is limited in most countries. Moreover, there is not full acceptance of the inclusive philosophy. Some argue that small specialist units, well integrated into the standard school environment, can give the knowledge, equipment and support for which the mainstream classroom and teacher can never be a full substitute. On this view, such units may represent the only way to provide feasible and effective access to education for certain groups of children.

In summary, international trends in the education of children with special needs are riddled with uncertainties and disputes. However, it is the case that throughout the world attempts are being made to provide more effective educational responses to the problems of children with special needs, and, encouraged by the lead taken by the Salamanca Statement, the overall trend is towards organizing these responses, as far as possible, within the context of general educational provision.

Arrangements in the region

The existing literature about provision for children with disabilities in the region shows the enormous influence of the Soviet science of defectology described at the beginning of this section. There are certainly those who feel that defectology has made a vital contribution in raising awareness of the issues related to disability. But the most striking legacy of defectology is the use of a medical "model" and of medical language in assessing children with disabilities. This often appears to involve an attempt to diagnose and categorize disability at an overly early age, leading to labels being put on children that they can never shed.

As far as the provision of education is concerned, the medical approach to disability has led to a perceived need for separate schools and separate, specialized forms of training for those working in the field. The provision for the disabled in separate institutions was consistent with other aspects of educational policy in the communist period. The strict streaming of secondary school pupils was associated with their separation into academic, technical and vocational schools; the physical separation of different pupils was a prominent feature of the education system in general. And the lack of flexibility in school curricula and the rigidity in the methods of teaching and learning did not favour the integration of children with special needs.

The economic and social transition in the region has had mixed implications for the education of children with special needs. On the one hand, more open attitudes to new teaching methods and concerns to build a more humane society have led to moves towards the integration of disabled children into normal schools in some countries, as the evidence given below shows. On the other hand, a greater emphasis on academic competition and on selection in élite schools creates an overall atmosphere that is not favourable to those children who experience difficulties in the educational system. This has not promoted the

integration of the disabled child, still less any steps to a more "inclusive" approach. Reduced national income has also hindered moves towards integration, given the set-up costs for training teachers and support staff and for adapting school buildings. And where children have remained firmly in separate schools, economic downturn has threatened the quality of the teaching and care received. Finally, the resources available for the diagnosis and treatment of disability have been squeezed everywhere.

Table 3.2

Children enrolled in separate schools for special needs, 1989-96
(number of children)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Rep.	54,052	51,829	50,579	49,513	46,708	45,115	45,222	46,096
Slovenia	4,234	4,238	3,944	3,745	3,450	3,312	3,231	3,124
Bulgaria	13,043	12,381	11,627	11,257	10,869	10,203	10,111	10,286
Lithuania	11,510	11,150	9,913	8,892	7,616	7,144	7,243	7,228
Moldova	11,403	11,565	10,430	7,396	5,857	5,886	5,843	5,767
Kyrgyzstan	–	5,734	–	–	–	–	2,653	2,525

Source: MONEE project database.

Note: Figures refer to basic schools except for Moldova, where they refer to grades 1 to 11.

The statistics and other information available for some countries in the region can be used to catch an initial glimpse of the existing situation. However, care is needed since there are often discrepancies in definitions and perceptions of "special needs", "disability" and "special educational provisions". It is also evident that children who might be expected to belong to certain categories are sometimes not included in the data, for example disabled children who are not within the educational system at all. Meanwhile, in some countries, children are included in surveys of the disabled simply because they are located in institutions.

These problems are illustrated by the cases of Romania and Lithuania. There are three types of institutional care for children in Romania: orphanages, homes for children with disabilities who need care that parents cannot provide, and provision for children from dysfunctional families and children seen as having emotional or behavioural difficulties. Children in all three groups are considered to have special needs. In Lithuania, on the other hand, until recently some children with serious disabilities have had no teaching provided for them at all, so they would not have entered statistics on children in special schools or special classes. (This seems to have been characteristic of the former Soviet Union in general.)

Moves towards the integration of disabled children have been undertaken in various countries, including the Czech Republic, Slovakia, Poland, Slovenia, Romania, Latvia, and Lithuania. (This list is not necessarily exhaustive.) The discussion that follows contains references to most of these, together with other countries where there has not been integration or where the situation is unclear.

Since 1990, disabled children in the Czech Republic have been progressively integrated into normal schools both in ordinary and special classes. However, despite a drop of 15 percent in the number of children in separate special schools at the primary and lower secondary levels (see Table 3.2), the overall share of enrolments in separate schools at these levels has grown because of the falling number of children in this age group; the share rose from 4 percent in 1989 to 4.4 percent in 1996 – the highest figure in any country in the region for which data are available. In addition, the number of children in special upper secondary schools has risen by 10 percent, to more than 17,000.

This information can be interpreted in two ways. On the one hand there are positive signs of integration, but on the other it appears there are relatively large numbers of children classified as having special needs, the reasons for which are unclear. Roma children in the Czech Republic are apparently a noticeable presence in special schools, where, it has been suggested by some commentators, they may have been placed because they are not able to communicate sufficiently well in the language of instruction in normal schools. (The same is said to be true in Romania and Hungary.)

Slovenia is another country where there have been clear moves to integrate children with special needs into normal schools and regular classrooms. Table 3.2 shows that the number of children in special basic schools has fallen by one-quarter; their share in total basic school enrolment in 1996 was 1.5 percent. However, provision is reported to be uneven across the country. Poland, not shown in Table 3.2, has also seen changes towards greater integration. But of the 119,000 children classified as being in special needs schooling at the basic level in Poland in 1996, 80,000 were still in separate schools (1.6 percent of total basic level enrolments), while only 5,800 were in mainstream classes in normal schools.

Bulgaria provides a good example of the problems faced by a country wishing to switch away from separate special schools. The number of children in special basic schools has fallen by 20 percent since 1989, but the share of such children in total basic enrolments (1.2 percent in 1996) has changed little, reflecting both the smaller size of the age cohort and a decline in all enrolments at the basic level. As of mid-1997, all children classified as having special needs were receiving education in separate schools. A 1995 law provides for the integration of disabled children in normal schools, but its implementation was postponed due to the lack of financial resources, illustrating well the problem of the set-up costs of integration referred to earlier. There was a marked economic downturn in 1996-97 in Bulgaria (see Figure 1.2), and the

shelving of the new legislation is a concrete example of the implications for disadvantaged children of the setback in the economy.

By contrast with Bulgaria, the process of integration has progressed steadily in Lithuania since the passage of the 1991 Law on Education. The number of children in separate special schools at the basic level has fallen substantially as a result of stricter criteria for categorization, and there has been an increase in the number of children with special needs who attend normal schools. (The number in special schools shown in Table 3.2 represents 1.5 percent of all enrolments in basic level schools.) Another positive development has been recent steps to ensure access to education for those with the severest disabilities, for whom there was previously no provision. In the majority of cases these children apparently live with their parents, rather than being institutionalized, and attend newly established development centres.

Some commentators within Lithuania have argued that the process of integration has been implemented too quickly and without sufficient preparation of the appropriate facilities or the re-training of teachers. Moreover, the situation in rural areas gives some cause for concern. Some disabled children receive only limited teaching in their own homes; others are sent to normal schools, but without any real attempt at integration, and, as a result, apparently many stop attending.

The figures in Moldova for children in separate special schools have shown a huge drop, from 11,400 in 1989 to 5,800 in 1996 (1 percent of all enrolments). Part of this decline may reflect the exclusion of enrolments for the latter year of children in the Transdniestr region (a problem in the data on the educational system in Moldova discussed in Section 3.4), but this cannot account for most of the change. There is no indication that the shifts in enrolment are due to greater integration into normal schools, and the data suggest that there has been a collapse in special needs education. Moldova has suffered enormously during the transition, with output in 1996 down by two-thirds relative to the 1989 level, and no rise estimated for 1997. Conditions in special schools have apparently deteriorated very badly due to severe shortages of funds. There has been enormous neglect of buildings (including heating and water systems) and other equipment, and malnutrition and disease among children in special schools seem to have risen.

For Kyrgyzstan, the final country in Table 3.2, the data suggest that the state of affairs for special needs education may be very serious. The number of children in separate basic level schools went down by more than half between 1990 and 1996. (The 2,525 children shown enrolled in 1996 in the table represented 0.4 percent of total basic level enrolments.) And the number of children with special needs who are enrolled in normal schools has fallen, too, from 1,401 in 1990 to 619 in 1995. Although these changes in enrolment could be consistent with a positive story, such as a major effort to include the disabled child into mainstream schooling without the categorization of a "special need", the changes in enrolment rates in the educational system in Kyrgyzstan as a whole that are discussed in Chapter 2 – down at every level of schooling – suggest strongly that what has happened is simply a sharp decline in access to education for disabled children.

Finally, Figure 3.13 shows the changes in Russia in enrolments at the basic level for children classified as having special needs, both in separate schools and in normal schools. These data again illustrate some of the problems in the interpretation of trends in the region. The graph shows that the number of children in either separate schools, or in special classes in normal schools has gone up appreciably. The figure for 1995 represents 2.3 percent of total basic level enrolments, up from 2 percent in 1990. Enrolments in separate schools have gone down, and those in special classes in normal schools have gone up. (The share of the latter in the total of the two was nearly 40 percent in 1995.)

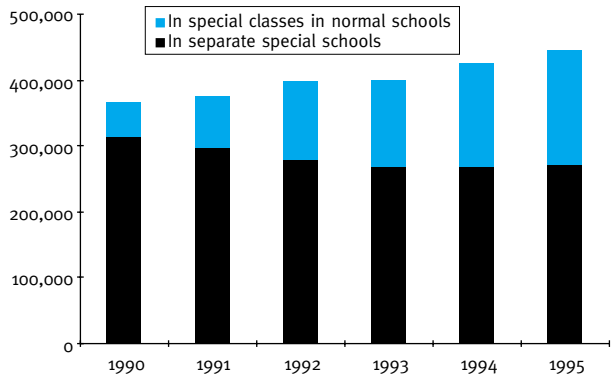
These data seem to indicate a positive trend, but without an understanding of what is driving the changes it is difficult to say anything conclusive. The rising number of children in special classes might merely reflect the operation of an incentive to classify children as having special needs. In this context it is worth noting that the number of children officially recognized as disabled in Russia through receipt of an invalidity pension has risen enormously, from 155,000 in 1990 to 454,000 in 1995 (1.3 percent of all children), but it is known that this increase was due to a liberalization in the criteria used for awarding benefits. (The most marked addition in the numbers of children with special needs in normal schools has been in "classes to support mental development", a category distinct from "classes for the mentally disabled".) One report suggests that only one-third of children with cerebral palsy in Russia are enrolled in either special schools, or special classes, implying that many children in one important group of the disabled are excluded from the data and, more importantly, from access to education.

The available data for the region therefore suggest a variety of changes in access to education for children with special needs. In some countries, there have been moves in the right direction, with more integration of the disabled child into normal schooling, while in others there

Figure 3.13

Children with special needs enrolled in basic schools, Russia, 1990-95

Source: State Report on the Situation of Children in the Russian Federation, 1995 (1996).



has been little or no change or even a worsening of the previous arrangements. It also seems clear that the proportion of children classified as having special needs displays some marked variations among countries, as is often the case in other parts of the world. However, the uncertainties that surround much of the data underline the need for more detailed investigation.

This review of the information for selected countries illustrates the barriers to the improvement of educational opportunities for disabled children. It also shows the constraints to the provision of these opportunities in ways that favour the integration of the disabled child as much as possible into society.

First, the depressed economic situation and the ensuing shortage of funds in much of the region prevent expenditure on initiatives that would shift provision away from separate special schools. This is one reason why, in general, it appears it is the richer countries that have been able to introduce integration into special needs education, despite the fact that in the poorer countries the eventual cost-savings from integration would be of particular benefit. Second, institutional inertia, including that arising from the vested interests in the maintenance of the status quo, blocks reform in this area of educational provision. And lack of change in some other areas of the educational system means that reform in the area of special needs is even more difficult. Third, the inheritance of a strict medical approach to the classification of special needs, with the associated dangers that this entails, continues to act against the emergence of a broader attitude to children with disabilities and other difficulties.

As with reform in other parts of the educational system, parents are one force to help overcome these barriers. There are signs in some countries that increased parental pressure, including that operating through organized groups of parents of disabled children, has had some effect in pushing the responsible authorities towards better provision for children with special needs. ■

3.4 Ethnicity and Education: Strengthening Access and Social Cohesion

Issues surrounding ethnicity represent an important challenge in the region to those responsible for education. On one level, there is the question of access to education among children of ethnic minorities. This is a complex problem particularly because the issue of language immediately enters the debate. One of the main barriers to educational opportunity for children of ethnic minorities – although by no means the only one – is the fact that teaching may be conducted in a language other than their own.

At a more fundamental level, the subject of ethnicity raises vital questions about the purpose of education. Educational systems should not just be fair to ethnic minorities. They should *promote* a spirit of equality and tolerance among people of different ethnic and cultural backgrounds.

These two aspects of ethnicity are reflected in the UN Convention on the Rights of the Child. First, although the Convention certainly does not obligate countries to provide education in minority languages, it does recognize that one of the aims of education should be the development of respect for the child's "own cultural identity, language and values" (Article 29). The extent to which an education system fosters minority languages is important because language transmits the cultural values that are an integral part of an individual's identity. If teaching is not offered in minority languages, then this may be a signal that the state lacks respect for minority culture. Enrolment and attendance may suffer as a result, quite apart from the direct impact on learning if children are being taught in a language not their own.

At the same time, a balanced approach to the issue of language is clearly needed. It is not in the best interests of a child to grow up in isolation from the language, culture and society of the majority population of the country. Without a good command of the national language, the child may later struggle to find work, and some types of employment will almost certainly be completely closed off. Moreover, the cost of supplying adequate instruction in minority languages should not be overlooked; this is particularly important in the parts of the region where national income has fallen the most. Qualified teachers in the minority languages have to be trained and may always be in short supply for languages spoken by only small groups in the population. The problems in textbook provision noted in Chapter 2 multiply. National examination systems also become more expensive.

Second, the same article of the Convention also emphasizes that education should promote respect "for the national values of the country in which the child is living... and for civilizations different from his or her own" and that it should prepare the child "for responsible life in a free society in the spirit of peace, tolerance... and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin." This conception of the purpose of education envisages that schooling should encourage ethnic harmony and thus further social cohesion.

Ethnic groups and their past treatment

The need to consider ethnicity and cultural diversity seriously in any discussion of education and equity is quite obvious given the recent history of ethnic strife in parts of the region. But these issues are relevant in all 27 coun-

Table 3.3

Population structure by nationality or ethnic group

Country	Nationality or ethnic group (%)		Major religions	Country	Nationality or ethnic group (%)		Major religions
Czech Rep. (1991)	Czech Slovak Other	94.4 3.0 1.5	Roman Catholic Protestant Orthodox	Estonia (1997)	Estonian Russian Other	65.0 28.2 6.8	Lutheran Orthodox
Slovakia (1995)	Slovak Hungarian Roma Other	85.7 10.6 1.5 2.1	Roman Catholic Protestant Orthodox	Latvia (1997)	Latvian Russian Other	55.3 32.5 12.2	Lutheran Russian Orthodox
Poland (1990)	Polish German Other	97.6 1.3 1.1	Roman Catholic Eastern Orthodox Protestant	Lithuania (1996)	Lithuanian Russian Polish Other	81.4 8.3 7.0 3.3	Roman Catholic
Hungary (1996)	Hungarian Roma German Serb	89.9 4.0 2.6 2.0	Roman Catholic Calvinist Lutheran	Belarus (1996)	Belarusian Russian Other	77.1 13.2 9.8	Eastern Orthodox
Slovenia (1991)	Slovene Croat Serb Muslim Other	87.8 2.8 2.4 1.4 5.6	Roman Catholic Muslim	Moldova (1996)	Moldovan Ukrainian Russian Other	68.9 12.9 11.8 6.4	Eastern Orthodox
Croatia (1991)	Croat Serb Muslim Other	78.1 12.0 0.9 9.0	Roman Catholic Orthodox Muslim	Russia (1996)	Russian Tatar Ukrainian Chuvash Other	80.8 3.9 2.9 1.2 11.2	Russian Orthodox Muslim
FYR Macedonia (1991)	Macedonian Albanian Turkish Serb Roma Other	69.0 22.0 3.0 2.0 2.0 2.0	Eastern Orthodox Muslim	Ukraine (1996)	Ukrainian Russian Other	72.6 21.5 5.8	Ukrainian Orthodox Ukrainian Catholic (Uniate) Russian Orthodox
Bosnia-Herzegovina (1991)	Serb Muslim Croat	40.0 38.0 22.0	Muslim Orthodox Roman Catholic	Armenia (1996)	Armenian Other	97.1 2.9	Armenian Orthodox
FR Yugoslavia (1991)	Serb Albanian Montenegrin Hungarian Other	62.6 16.5 5.0 3.3 12.6	Orthodox Muslim Roman Catholic	Azerbaijan (1996)	Azeri Russian Other	89.3 2.7 8.0	Muslim Russian Orthodox Armenian Orthodox
Albania (1989)	Albanian Greek Other	95.0 3.0 2.0	Muslim Albanian Orthodox Roman Catholic	Georgia (1996)	Georgian Armenian Russian Azeri Ossetian Abkhazian Other	71.9 8.1 3.7 5.7 3.0 1.8 5.0	Georgian Orthodox Russian Orthodox Muslim Armenian Apostolic
Bulgaria (1996)	Bulgarian Turkish Roma Other	85.3 8.5 2.6 3.6	Bulgarian Orthodox Muslim	Kazakhstan (1996)	Kazakh Russian Ukrainian German Uzbek Other	47.0 33.9 4.8 2.6 2.3 9.4	Muslim Russian Orthodox Protestant
Romania (1996)	Romanian Hungarian Other	89.1 8.9 2.0	Romanian Orthodox Roman Catholic Protestant	Kyrgyzstan (1996)	Kyrgyz Russian Uzbek Other	55.3 15.5 14.1 15.1	Muslim Russian Orthodox
Tajikistan (1996)	Tajik Uzbek Russian Other	68.1 24.4 3.4 4.1	Sunni Muslim Shi'a Muslim	Turkmenistan (1995)	Turkmen Uzbek Russian Other	77.0 9.2 6.7 7.1	Muslim Eastern Orthodox
Uzbekistan (1996)	Uzbek Russian Tajik Kazakh Other	76.6 5.6 4.8 4.1 8.9	Muslim Eastern Orthodox				

Sources: CIA (1998) for Czech Republic, Poland, Hungary, FYR Macedonia, Bosnia-Herzegovina, Albania, Bulgaria, Romania. National Statistical Offices for Slovakia, Slovenia, Croatia, FR Yugoslavia, Estonia, Latvia, Lithuania, Russia. World Bank staff estimates for Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.

tries, none of which is ethnically, linguistically or religiously homogenous. (It would be hard of course to find any country in the world that is completely homogenous in these dimensions.) Table 3.3 gives estimates of ethnic composition for each country. (The ethnic make-up of some countries is a contested issue, and in many there have been changes during the transition as the result of migration.)

Some examples illustrate the situation. The population of Estonia is 65 percent Estonian, 28 percent Russian and 7 percent Ukrainian, Belarusian, Finn, and others. The population of Tajikistan is 68 percent Tajik, 24 percent Uzbek, and 8 percent others. Many other countries of the former Soviet Union exhibit population mixes of similar complexity. Examples abound in Central and South-East Europe, too. The Albanian minority in FYR Macedonia makes up nearly one-quarter of the population. Bulgaria has a Turkish minority that forms over 8 percent of the population. Hungarian minorities represent 11 percent of the population in Slovakia and 9 percent in Romania. Figures on religious composition are also available for some countries and provide another indicator of the potential for cultural divisions and social tension. The population of Albania, for example, is estimated to be 70 percent Muslim, 20 percent Orthodox and 10 percent Roman Catholic.

How were minorities treated by the communist regimes? The Soviet Union initially accommodated ethnic groups through the administrative policy of "korenizatsiya" ("indigenization"). Regional administrations were ethnically based, and ethnic-language schools, cultural organizations and other institutions received state support. This policy was eventually reversed by an assimilative thrust, which sought to blend the myriad ethnic identities in the republics of the Union into one larger Soviet identity. Ironically, Russians, who during the communist era were sent to other republics to promote industrialization and political unity, are now a minority group in several countries. Some minorities in the former Soviet Union were moved forcibly for political reasons, rather than migrating out of choice, producing bitter resentment. For example, German-speakers were relocated to Siberia away from the front during the Second World War. Korean-speakers were moved to Central Asia. Jews, Cossacks, Tatars, Buriats, Poles, Georgians, and many others were relocated to distant and unfamiliar territories.

Campaigns to assimilate minorities also occurred in other parts of the region. In Bulgaria in the 1980s, Turks and other Muslims were forced to adopt Bulgarian names, and all teaching in Turkish was banned. In the early years of the communist regime in Romania, ethnic Hungarian children had access to education in their own language from pre-school through university. By 1974, however, university entrance exams were given only in Romanian. In 1985, television broadcasts in Hungarian were discontinued.

The population in the Kosovo region in former Yugoslavia is overwhelmingly of Albanian ethnic origin. Kosovo gained constitutional recognition in 1974 as a semi-autonomous province of Serbia, one of the two republics of present-day FR Yugoslavia. Albanian-language schools, cultural institutions and media flourished. The Albanian-language university in Pristina became a centre of Kosovo nationalism. The first organized student protests in the early 1980s were violently suppressed, and Kosovo's autonomy was revoked in 1989.

The break-up of the nine countries of the region in 1989 into the 27 of today means that former minorities have become governing majorities in many new states. There is a danger that the new majorities will use their control over school curricula to rectify "old wrongs", thus perpetuating long-repressed antagonisms and laying the intellectual groundwork for future ethnic hostility. Other minorities of the past are still minorities today, but in some cases they, too, may be able to control local curricula as a result of the decentralization of educational systems.

Access for minorities

One ethnic group dispersed throughout the region is the Roma. (The term "gypsies" in reference to this group has a pejorative sense that is also misleading, since many Roma are not itinerant.) In some countries the Roma face greater hostility now than ever before, with consequences for educational opportunity for Roma children.

Lower enrolment and attendance rates can be seen among Roma children in several countries. In Bulgaria in 1995, for example, the kindergarten enrolment rate was reportedly 12 percent among Roma children, compared to a national average of nearly 70 percent. Roma children are heavily underrepresented in lower secondary schools (still part of compulsory education) and even more so at the upper secondary level. An official report notes that most of the drop-outs and repetitions in primary and secondary education occur among Roma children.

In Romania, only half of Roma children aged 7-10 included in a survey in 1992 were attending school regularly, and one-third never attended or had dropped out of school completely. There is little information on the situation in either Bulgaria or Romania before the transition. However, it is clear that lack of educational access is not a new disadvantage for this ethnic group. The 1992 survey in Romania found one-third of Roma women and one-fifth of Roma men illiterate, and a further quarter of both genders could read only with difficulty. Nevertheless, it is probable that enrolment and attendance among the Roma were higher in the past than they are now, at least in compulsory education.

The lower school enrolment and attendance among Roma children may reflect a variety of influences. (It is worth noting that 80 percent of Roma parents responding to the 1992 survey in Romania said that they were satis-

fied with the way school staff treated their children.) Whatever the causes for the current situation, it is highly unsatisfactory. Large numbers of Roma children in the region seem to be missing out on their right to basic education and have a much lower than average probability of attending non-compulsory education.

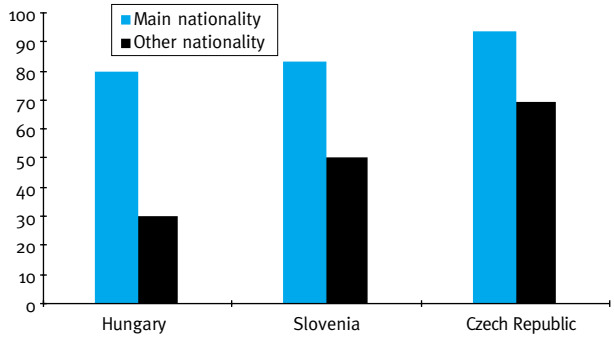
Differences in educational attainment are far from being confined to the Roma. Figure 3.14 shows the proportion of 20-29 year olds who had more than primary education in the Czech Republic, Hungary and Slovenia, distinguishing between the majority ethnic group and all others (proxied by nationality). Children outside the main national group exhibit much lower attainment, especially in Hungary.

The war in Croatia and Bosnia-Herzegovina interrupted the education of many children from all ethnic groups, and, as in other countries in the region where there has been fighting, there is the continuing issue of the access to education among refugees and internally displaced families – see Box 3.4.

Figure 3.14

20-29 year olds with more than primary education, by nationality (percent)

Source: Based on Labour Force Survey microdata in the Luxembourg Employment Study for 1993 (Hungary) and 1994 (Czech Republic and Slovenia).



Another country of former Yugoslavia provides a complicated example of difficulties of access that give much cause for concern. Ethnic Albanians in the Kosovo-Metohija region of FR Yugoslavia have boycotted the official education system since the ending of autonomous status in 1989 and the repression of the local culture. Although the official system offers education in the Albanian language, the imposed curriculum and the seizure by the central authorities of control over school administration have led the majority population of the region (including teachers) to withhold their participation.

The total enrolment in the official system in Kosovo-Metohija at all levels of education plunged by 85 percent between 1987-88 and 1993-94 – almost exactly the share that ethnic Albanians form of this region's population. A "parallel" system of education has been developed by the ethnic Albanians, but not even the most elementary data on this system exist; the extent and quality of education for some 300,000 children in the poorest region of FR Yugoslavia (see Chapter 1) are therefore unknown.

The situation of Russians who form minority ethnic groups in republics of the former Soviet Union is rather different than that of typical ethnic minorities in Central and South-East Europe. Historically, the access of ethnic Russians to education was often better than that of the group now forming the majority. For example, the proportion of ethnic Russians in Ukraine who have had higher education is twice the national average.

The Russian minority in Moldova, concentrated to the north of the river Dniestr, is a particular case. This Transdniestr region, which contains one million people (over 20 percent of the total population of the country),

Box 3.4

The education of refugee and displaced children

The high number of refugees and internally displaced persons poses a special problem for education in several countries in the region. Refugee and displaced children may lag behind in learning, having missed schooling during the upheavals that sent them from their homes. Their departure may have left them disturbed and confused. Their families often lack work and basic resources, and, especially in the case of refugee children, their language may not be that spoken in the area in which they now find themselves. The experience of two countries serves to illustrate the situation.

In Croatia in 1996, internally displaced and refugee children represented 11 percent of all primary school pupils. Substantial efforts have been made to include these children in the normal educational system, and this has been achieved in the great majority of cases. The pressure on schools varies enormously across the country; refugees and internally displaced persons formed less than 2 percent of the population in Zlatar in 1996, but over 20 percent in Vinkovci.

In Georgia, the education of internally displaced children appears to be at special risk. A survey carried out by the Norwegian Refugee Council in November 1994 found that one-quarter of such children of school-age irregularly or never attended school. (There were about 250,000 internally displaced persons at that time.) The reasons given by parents for the non-attendance included the lack of shoes and clothes (62 percent), the lack of school materials (13 percent) and the need for children to work (10 percent). This underlines the economic problems faced by displaced families and the consequences for their children's education. It is therefore encouraging that the particularly difficult circumstances of these families have been recognized through an exemption from payment of the fees introduced in Georgia in 1996 for upper secondary education (although this has apparently caused some resentment among other groups).

has in effect acted as a "state within a state", and its authorities have refused to co-operate with those in the rest of the country since 1992 over matters such as the provision of data on the educational system. As a result, the access of children in Transdniestr to schooling and how it compares with that of children in the rest of the country are unclear.

Although Russian-language schools are still available in countries of the former Soviet Union, ethnic Russians often find that they must learn the national language in order to advance their careers. Ukraine offers teaching to a range of ethnic groups in their mother tongues, with schools (in diminishing order of importance) in Russian, Romanian, Hungarian, Moldovan, Tatar, and Polish (although it is not clear whether such provision is sufficient for all who would like it). Of the 3,168 secondary schools in Georgia in 1996/97, 160 used the Azeri language, a further 160 Armenian, 93 Russian, and 3 Ossetian, and 127 used a mix of languages. The proportion of children taught in Azeri or Armenian has not in fact changed during the transition, while Georgian is now more widely used, and Russian less.

In Russia itself, approximately one-half of the 89 regions of the Federation have minority populations of sufficient size to generate debate over which language should be the language of instruction. The number of languages used in state schools doubled between 1991 and 1995. Four languages other than Russian (Georgian, Tatar, Bashkir, and Armenian) were permitted in schools in 1991. By 1995, nine languages were permitted as languages of instruction (the first five, plus Buriat, Urdmurt, Chuvash, and Lakut), and a total of 87 languages were used in other parts of the curriculum. While this diversity seems laudable, in some instances languages other than Russian are used for instruction in schools in areas where Russian speakers are a minority. This adds a different dimension to the issue of the protection of "minority rights".

FYR Macedonia offers an example from outside the former Soviet Union of a determined effort to supply teaching in the languages of minority ethnic groups. There is a constitutional right to basic education to the age of 15 in the mother tongue – a right that has been taken up enthusiastically. Of the 261,000 children enrolled in basic schools in 1994/95, some 183,000 were taught in Macedonian, 72,000 in Albanian, 5,500 in Turkish, and 750 in Serbian. Some courses are also taught in the languages of other minorities, such as the Roma and the Vlachs. However, tensions surrounded the attempt by the Albanian minority to set up an Albanian-language university in 1995, as noted in Chapter 1.

The experience of FYR Macedonia also illustrates the problem of the costs that are encountered when teaching is provided in minority languages. Budgetary restrictions in 1991 and 1993 led to difficulties in the publication of textbooks in Albanian and Turkish, and this apparently increased existing ethnic tensions.

Easing ethnic tension and promoting tolerance

Ethnic clashes have caused or contributed to war in various parts of the region: in Croatia and Bosnia-Herzegovina, in the Nagorno-Karabakh area of Azerbaijan, in the regions of Abkhazia and South Ossetia in Georgia, in Chechnya, and in Tajikistan. There are also many places where there has been civil unrest associated with ethnic differences and other places where continuing ethnic tension is felt.

Can educational systems contribute to the alleviation of these tensions and to a reduction of the probability that they will escalate into more warfare? Can schools help smooth over the huge differences and resentments that remain after fighting has ceased? Much of the spirit of the UN Convention on the Rights of the Child is that education should play such a role, as noted at the start of this section. In this respect, all the Convention does is merely confirm a set of values that most people would adhere to once they begin to think about the fundamental purposes of education besides the goal of enhancing an individual's human capital. Education thereby helps create what some writers have called "social capital", which strengthens the ties among society's members, thus allowing various aspects of society (including the economy) to function more smoothly.

A statement in 1996 by the UN Special Rapporteur to former Yugoslavia expresses well the need for educational systems to address these issues.

> "Young generations must develop different approaches to human values than those the world has witnessed… during the last five years. There is, therefore, great urgency in including human rights education (i.e. an appreciation for tolerance and a multicultural society) in the curricula of all schools, not only on a voluntary basis but as an important obligation of the different countries' educational systems."

Similarly, the Committee on the Rights of the Child, the body responsible for monitoring the UN Convention, has urged governments in the region to make the principles of children's rights widely known. In particular, it has stressed the need to translate the Convention into all minority languages (not a small task) and to include the study of human rights as part of national curricula and teacher-training programmes.

Several countries have taken steps in this direction, in part in collaboration with international and non-governmental organizations. Examples are given in Table 3.4. The programmes are sometimes promoted under headings such as "civil" or "peace" education. Some teach children skills in negotiation and communication in order to help them resolve conflicts without resorting to violence. Programmes often address the fallacies and dangers of eth-

nic prejudice and teach children and young people to be alert to any tendencies they themselves may possess to engage in ethnic stereotyping.

There are at least three barriers to progress. First, it is clear that the authorities in control of educational curricula in various countries do not always wish to encourage reconciliation and ethnic cohesion, nor may the populations always be ready for this. There are examples in the region of new textbooks and curricula that are highly inflammatory. The history of ethnic repression and tension means that the natural reaction of many authorities in charge of educational systems may be the opposite to that required. And even when positive steps are taken, they may contribute little. Experience from other parts of the world suggests that the introduction of human rights or "peace" education in a context of widespread discrimination may be ineffectual.

Second, the traditional teaching methods described in Chapter 2 do not foster the discussion and resolution of ethnic and cultural differences. The emphasis on learning facts and the often authoritarian climate in classrooms are not compatible with the open debate that is needed.

Third, financial problems may slow down or prevent the introduction of new programmes in the curricula, even where political will and community support are present. Genuine curriculum reform and a fresh approach to ethnic and cultural issues involve new materials and the re-training of teachers, both of which cost money. (There may well be a role for international donors in the support of such expenditures.)

The first of these barriers represents the most fundamental problem and is related to the general process of democratization, of which educational governance forms a part. The participation of ethnic minorities in decision-

Table 3.4

Educational initiatives to promote ethnic and social cohesion

Country	Organizers	Description
Albania	Council of Europe, George Soros Foundation and KulturKontakt	A one-year programme planned for 1997/98 and aimed at creating "schools as places where democracy can be experienced on a day-to-day basis".
Belarus	UNDP	"Democracy, public administration and participation" project set up to provide human rights training to teachers and educators, as well as to jurists and law enforcement officials.
Bulgaria	Bulgarian National Committee for UNICEF	A pilot project set up in six special state-run schools in Sofia to help Roma children at pre-school and primary levels build Bulgarian language skills, pride in Roma culture and positive identification with the influence of this culture on Bulgarian society.
Croatia	UNESCO and Department of Pedagogical Sciences, Zagreb University	Establishment of a National Committee for Human Rights education. A project, "peace and human rights education for Croatian primary schools", is being developed to be responsible for the production of textbooks.
	UNICEF	Promotion of "Education for Peace" and "Education For Tolerance" workshops in Croatia. One, in Selce, targeted pre-school teachers and provided training in helping young children understand individual, cultural, religious, and ethnic differences and learn how to resolve conflicts peacefully.
Poland	Polish Ministry of National Education, in collaboration with the Mershon Centre	"Education for Democratic Citizenship in Poland", a project to "help teachers educate... Polish youth to be active, competent citizens committed to democratic values". The project is developing civic education curriculum materials for secondary schools and universities.
Ukraine	Government	"Programme of legal education of the population of Ukraine", started in May 1995 in connection with the UN Decade for Human Rights Education (1995-2004), provides for a wide range of activities in the field of human rights education, targeted at various age groups, but the priority is children.
All countries	Council of Europe	A regional programme, expected to be completed in 1999, called "Education for Democratic Citizenship", which (among other things) will develop teacher-training programmes and guidelines describing the core skills required for effective citizenship.

Sources: CE (1997) for Albania, CERD (1997) for Belarus, UNICEF (1994a) for Bulgaria, Committee on the Rights of the Child (1995), UNICEF (1995) for Croatia, Remy and Strzemieczny (1997) for Poland, ECOSOC (1996) for Ukraine, CE (website) for the region.

Note: The table provides examples of projects supported by international organizations, non-governmental organizations and other partners during 1994-97.

making at the various levels of the educational system may be necessary, although the danger of this becoming a mere token gesture should be recognized. Parent groups and non-government organizations could contribute to curricula, and the solutions to be adopted in issues relating to ethnicity could be negotiated rather than imposed. Democratic institutions such as schoolboards, professional associations, an independent academic community, and a free press need to be fostered. They are crucial to the process of democratic consensus that should be initiated with regard to the objectives of education, a process which limits the opportunity to politicize schools or to use them to incite hatred.

Although there are clearly problems to be overcome, democratization and the reform of political structures and governance offer a climate that is conducive to teaching children to respect each other, regardless of race or creed. And the promotion of democratic values of participation may in turn help enhance respect for human rights. ■

3.5 Conclusions

The access to good quality education clearly varies between children of different backgrounds throughout the region. A part of this variation – probably a larger part than many people realize – was inherited from the past. Patterns of access by social class resembled aspects of those in Western industrialized countries, and differences between rural and urban areas were far from insignificant. Access for disabled children through special schools did not promote the integration of these children into normal society and failed to recognize the right to education leading to their fullest possible development. And it was not always the case that the access of ethnic minorities to the educational system was protected or promoted.

There have been some positive developments relating to equity and rights in educational access during the transition, for example moves to integrate disabled children into normal schools in some countries. However, many of the changes in economy and society that have occurred have widened the existing differences in access between children from different backgrounds. The evidence to document this situation adequately is not as complete as one would like, but from the evidence reviewed in this chapter it appears that inequality in access to education has increased in richer and poorer countries alike.

■

4 Public Policy and Education

This final chapter concentrates firmly on public policy affecting education. UNICEF's mandate to further the rights of all children highlights the importance of addressing issues such as disparity, discrimination and low-quality services for the poor. While policies that promote educational outcomes of children from less advantaged backgrounds receive particular attention, furthering "education for all" also requires improvements in education for children in general, and obviously public policy must strive to bring this about as well.

The demise of central planning and a reconsideration of the role of government are part of the background in discussion of public policy on any subject in the region. The greatly reduced levels of national income in most countries and the often even larger falls in public revenues also need to be taken into account. Some countries have retained or have developed strong state structures, which make possible public action that would be impossible elsewhere. What is feasible in economic and institutional terms differs sharply between, for example, the Czech Republic and Tajikistan, and of course the differences among countries go well beyond these dimensions.

The need for state action to ensure basic education free of charge is accepted worldwide, and governments everywhere commit themselves to this through national constitutions and international instruments such as the UN Convention on the Rights of the Child. Nevertheless, the case for public intervention in education often needs to be reiterated. Box 4.1 reviews the arguments, drawing on concepts of economic efficiency, equity and human rights. Heightened importance is given to these arguments by the falls in access to education in much of the region and the concerns about the quality of education, both of which are described in Chapter 2, together with the patterns of disparity shown in Chapter 3.

Box 4.1

Public intervention in education

Education benefits the individual through raised earnings, a reduced risk of unemployment and in a large variety of other ways, including self-fulfilment, a greater understanding of many factors affecting life and a simple enjoyment of the process of schooling. These benefits are sufficiently large for governments to act to ensure they reach children who would otherwise be excluded through insufficient income or for some other reason. The need to ensure that some of the benefits are universal leads to the acceptance of access to basic education as a human right, and in this case no argument can justify lack of public action to advance that right, although international instruments such as the UN Convention on the Rights of the Child typically allow for progressive extension of rights rather than immediate implementation.

Further reasons for public intervention stem from society's benefits from increased education; "social rates of return" incorporate these together with the costs. First, modern economics puts great emphasis on the role of knowledge in determining success for the economy as a whole. This factor alone is capable of explaining why some poor countries fail to start the process of catching up with the advanced industrial countries. Economic growth is furthered by heightened social responsibility, improved health, increased political participation, lower delinquency (reducing the diversion of resources for the maintenance of law and order), and an enhanced ability to access and process information (thus improving the function of most markets, including the labour market).

Second, education has benefits for society that can go far beyond the effect on output. For example, lower levels of delinquency are clearly good for society independent of whether economic growth is greater as a result. Reduced ethnic tension is another possible result from education that is good in itself.

Social returns in the communist period were restricted by the inefficiencies in the centrally planned system and the curtailment of individual freedoms. However, the political and economic changes in the 1990s provide an opportunity for change, and social returns may well now be higher than before, a conclusion that is strengthened when the benefits to society other than those coming through increased economic growth are taken into account.

Given that the need for action is established, the *form* of the action may be a separate issue. For example, a very good case can be made for public intervention to promote the mental and physical development of pre-school children. But this does not necessarily imply that governments should strive towards the universal provision of free kindergarten places as the means of bringing this development about. Although the demise of the socialist system may not alter the case for action in various areas of public policy relating to education, the form that action takes may change in line with the new role of the state (and will be determined in part by a country's economic circumstances). A related issue is the difference between broad policy and actual practice. The enforcement of policy and the design of policy that is enforceable become important.

Several policies have already been discussed in earlier chapters. Policy to help ease ethnic tension, discussed at the end of the previous chapter, illustrates the fact that an educational system has a number of purposes in any society, well beyond a strict economic standpoint that emphasizes an individual's productivity, a household's material living standards and a nation's rate of economic growth. Promoting social cohesion may be considered a good thing in its own right, independent of the economic impact.

This final chapter focuses on polices that emphasize the *range* of action that governments need to consider if they want to improve educational opportunities for the less privileged. These extend far beyond what might be termed "educational" policies. Public policy in many fields outside the immediate domain of the Ministry of Education have an important impact on educational outcomes. Some matters of policy concern are specific to particular countries or are especially a feature of the huge falls in income suffered in parts of the region. However, the policies chosen for discussion in the first four sections of the chapter are relevant throughout the region, although the examples from particular countries used to illustrate them are necessarily selective.

What is the use of reforming curricula or teaching methods if children are not in a sufficient mental and physical condition to benefit from the changes? Section 4.1 discusses policies relating to the readiness of children for schooling in terms of health and nutritional status. This leads on to the analysis in Section 4.2 of appropriate policies to encourage development and learning in the period of life before compulsory schooling begins. What was the nature of the traditional pre-schools inherited from the communist period – a system where enrolment was in general very far from universal and typically has since declined – and what alternatives are there?

The patterns of access to education by income level and locality revealed in Chapter 3 are critical to the policies discussed in the next two sections. The impact on educational outcomes of the decentralization of government activity in the region is discussed in Section 4.3. Does decentralization threaten educational opportunities for children in poorer areas, with the result that governments are failing in their obligation to protect the rights of all children? Or are the benefits of decentralizing government so great that child rights are advanced as a result?

Section 4.4 then looks at different aspects of "school choice" in the region, including policy on private schooling and on the use of charges to cover the costs of education. What are the issues surrounding the development of private education? How large are the costs of schooling now faced by families, and what issues of public policy are implied?

The final section draws on all the chapters in the Report in order to summarize the range of policies that governments in the region need to consider if they are to promote "education for all".

Several of the policies analysed in the chapter, including in the final section, relate to areas where there are no easy answers to the questions that arise. This is the case, for example, with the debate on decentralization, where considerations of equity on the one hand and economic efficiency on the other may sometimes lead policy in opposite directions. It should be stressed that the reform of public policy so as to improve the quality of education and to increase access has been the subject of intense debate in recent years in both industrialized and developing countries. Like governments elsewhere in the world, those in Central and Eastern Europe and in the countries of the former Soviet Union are typically faced with only partial or conflicting evidence on which to base action. One of the aims of this chapter is to underline the need in several cases for caution and for an awareness of alternative views. ■

4.1 Health, Nutrition and Educational Achievement

Much evidence from developing and industrialized countries shows a strong link from child health and nutrition to educational achievement. This comes through a number of channels, including mental development, energy levels and school attendance. If unhealthy or malnourished children do not benefit adequately from schooling, action is needed to improve health and nutrition as an integral part of public policy on education.

Support to health and nutritional status can be given through the educational system itself. This was an important feature of the wider social function of schools in the communist period, and Chapter 2 documents the sharp falls during transition in many countries in the provision of school meals and health checks. The discussion in this chapter focuses on the links between nutrition and learning capacity.

Box 4.2

Targeting social assistance on malnourished children in Uzbekistan

As part of its moves to provide targeted support to households in need, the Uzbek government introduced a new means-tested social assistance scheme in 1994, intended in particular to give help to families with children. A key feature of this scheme is that support is administered by committees of the "Mahalla", a pre-Soviet traditional community organization that has been revived under the government's auspices. One in five households were granted benefits under the scheme in 1995 for renewable periods of three months. The scheme combines firm rules on applications and assessment procedures with a large element of discretion for the Mahalla committees.

Evidence suggests that the scheme has operated to the benefit of families with malnourished children. Survey data collected in 1995 from three regions of the country recorded the nutritional status of children (measured by anthropometry) and whether their families were receiving assistance from the Mahalla. The average height of children conditional on their age was significantly lower in households receiving support, indicating that social assistance is more likely to go to households where the nutritional status of children is lower. If receipt of the cash benefit helps support the nutritional status of children, then this could boost cognitive development and achievement among children from low-income households.

The evidence on nutrition

The *causal* link between nutrition and educational outcomes is sometimes debated, but there is a clear consensus in several areas. First, the initial two or three years of life are critical for physical development of the brain, and this is threatened by various forms of malnourishment. Second, the lack of some micronutrients, notably iron and iodine, has a seriously negative impact on mental ability and school performance. Third, macronutrient deficiency – a lack of protein and energy – reduces motivation and increases apathy.

Anaemia due to a lack of iron leaves the body weak and fatigued and reduces the ability to concentrate. Iodine is essential for the development of the brain in the very young and the unborn child, and serious deficits are responsible for mental retardation and, in extreme cases, cretinism. (Iodine is also required at any age for the maintenance of good health.) As described below, iodine deficiency disorders are a problem in much of the region. The high incidence of anaemia among children in Central Asia is noted in Chapter 1; survey data recorded moderate or severe anaemia among nearly 40 percent of children aged under 3 in Kazakhstan in 1995 and over one-quarter of children of the same age in Uzbekistan in 1996. Anaemia among children is also a problem in other countries in the region.

With all forms of malnutrition, direct nutrient supplementation is not the only possible public intervention. Since malnourishment is often associated with other dimensions of disadvantage, action to reduce poverty may improve nutritional status and, hence, educational outcomes among children from low-income families. Box 4.2 gives an example from Uzbekistan of policy to reduce child poverty where such an improvement may be the case. The dissemination of better information on health and nutritional practices to parents and others responsible for caring for children is a vital part of policy to combat malnourishment. Breast-feeding, for example, has an important role in combating protein-energy malnutrition. Community organizations, such as those described in Box 4.2, may be one important channel for promoting these practices. Use of the mass media for campaigns to raise public awareness is another.

Where there is micronutrient deficiency, however, the case for public policy to intervene directly to provide supplementation seems overwhelming. Action is both effective and very cheap. World Bank estimates put the costs of micronutrient deficiency through increased health care, missed schooling and lower productivity at as much as 5 percent of GDP in developing countries, but the cost of addressing these deficiencies at only 0.3 percent of GDP.

Iodine deficiency: a brain drain

The problems brought by iodine deficiency disorders (IDDs) and the principal method for their resolution, the iodization of salt (a simple, low-cost technique), are described in Box 4.3. IDDs occur in varying degrees in much of Central and Eastern Europe and the countries of the former USSR. And, as expected from the review in Box 4.3, there is evidence that rural children are more affected. For example, Russian survey data indicate mild IDDs in Moscow and moderate IDDs in nearby rural areas, while severe pockets are found in remoter areas.

Salt iodization programmes in the region started in the 1950s, and by 1970 they had largely succeeded in eliminating IDDs. Subsequently, however, monitoring and control measures were relaxed, leading to a gradual decline in iodization and a consequent rise in IDDs. Cases of goitre in the Volyn region of Ukraine, for example, doubled in the ten years between 1980 and 1990. With the collapse of the socialist system, control measures disappeared almost completely, especially in the former Soviet Union, and for the most part producers ceased any systematic iodization of salt. Changes in diet that accompanied the fall in living standards have also contributed to

the worsening situation, for example the reduction in the consumption of fish, a rich source of iodine.

In 1990, the World Summit for Children established a goal for the elimination of IDDs by the year 2000. Slovakia and the Czech Republic, the only countries to have sustained effective iodization programmes throughout the transition years, and Bulgaria, which re-established universal salt iodization in 1995, can be said to have reached this goal. These three countries should soon be joined by Poland and Armenia, both of which re-commenced universal iodization programmes in 1997. The overall status of the countries in the region is summarized in Table 4.1 in terms of the prevalence of IDDs and the policy to combat the problem. It is notable that most countries are classified as having taken insufficient action.

Why is so little being done in the region when the problem and its consequences are so well known? The reasons advanced for the lack of action include the following.

- The problem is largely hidden, manifesting itself visibly only in extreme cases of goitre.
- The medical community tends to deal with IDDs as a condition to be treated rather than prevented.
- Exaggerated and unfounded reports of the possible effects iodized salt can have on preserved foodstuffs.
- Salt producers – the people responsible for adding the iodine to the salt – have been largely excluded from the dialogue, as have the trade and commerce sectors.

The good news is that more countries are now taking concrete steps to introduce universal salt iodization. Previously, Bulgaria had one of the worst IDD problems in the region. The fact that the situation has been resolved in the face of severe social and economic deprivation shows that the goal of eliminating IDDs can be achieved virtually anywhere. The main ingredients of the Bulgarian achievement have been a clear identification of the problem, enactment and enforcement of legislation for the iodiza-

Table 4.1

The prevalence and control of IDDs

IDD status	Status of IDD control programmes		
	Effective control programmes with salt iodization	Legislation or iodized salt production exists, but enforcement is poor	Lack of legislation or little or no salt iodization
Virtually eliminated	Bulgaria, Czech Republic, Slovakia		
Mild	Hungary	FYR Macedonia, FR Yugoslavia	Estonia, Latvia, Lithuania
Mostly moderate	Poland	Armenia, Bosnia, Belarus, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russia, Turkmenistan, Ukraine	Azerbaijan, Uzbekistan
Mostly severe			Albania, Tajikistan

Source: McLoughney (1997).

Box 4.3

Iodine deficiency and learning achievement

The most visible effect of iodine deficiency is goitre, an enlargement of the thyroid gland. But many more people suffer from its hidden effects on the brain and on general health status. Worldwide, iodine deficiency disorders (IDDs) are estimated to affect as many as 650 million people. Although the implications of iodine deficiency have been recognized for over a century, it is only in recent years that the significance of marginal iodine intakes on mental development has been fully appreciated.

The link between iodine deficiency and mental development was shown in the 1920s when tiny doses of iodine administered in trials in a school in Michigan resulted in a remarkable improvement in the performance of the children. Lack of iodine during the first trimester of pregnancy produces a smaller brain size with fewer and shorter neurons. In extreme cases, this results in cretinism, a condition which cannot be corrected. More commonly, it leads to reduced mental and physical capacity. This translates into a forfeiture of IQ, usually estimated at between 10 and 15 points depending on the degree of iodine deficiency. However, this deficit can be largely recouped in childhood through iodine supplementation. A lack of iodine also impairs learning by reducing hearing, visual memory and verbal fluency. Affected children are more prone to illnesses that lead to absenteeism from school, shorter attention spans, greater lethargy, and other factors related to poor academic performance.

Iodine enters the food chain from the soil. Deficiency is a particular problem in highland areas due to the leaching effects of snow and rain. But rural areas in general are more affected since food consumed there is often locally produced, while food consumed in cities comes from a greater variety of areas and is more frequently imported.

Supplementation of iodine is necessary to correct and to prevent IDDs. The most effective way of doing this is through the fortification of salt, a commodity consumed regularly by everyone regardless of economic status. (Iodine does not change the colour or taste of salt.) The technology is simple, and the treatment is remarkably cheap.

tion of both locally produced and imported salt, and, above all, a sense of political urgency.

The installation or upgrading of iodization technology costs relatively little, and start-up costs are generally covered in the region by funding from Kiwanis, an international service organization that is committed to raising funds to support IDD elimination worldwide through UNICEF. The recurring cost of iodine adds at most a few US cents to the price of a five-kilogramme packet – a small price to pay for the normal development of a child's brain. ■

4.2 Early Childhood Development

The phrase "early childhood development" covers a large range of subjects relating to those children defined usually as of pre-school age. One of these subjects is health and nutrition – the topic of the previous section. But the early development of children goes well beyond physical condition. In the often-quoted words of the Declaration following the World Conference on Education for All, held in Jomtien, Thailand, in 1990, "learning begins at birth", a principle which is also reflected implicitly in various parts of the UN Convention on the Rights of the Child. "Learning" in the infant and young child includes the development of mental ability, speech and physical dexterity and is the result of the child's interaction with various external stimulants. Among these are certainly the care and attention of parents, as well as play with other children. These stimulants may also include more formal teaching, especially in the years immediately prior to compulsory schooling.

The importance of public investment in early childhood development is widely accepted, and arguments analogous to those made in the context of health and nutritional policy among the young can be brought to bear again here. Indeed, it is best to see health, nutrition, mental and social development, and pre-school education as an integrated whole, with public policy attempting to stimulate the interactions among them and with formal schemes of early child development including elements of each. Equity- or rights-based arguments dictate that as many children as possible should benefit; economic theory points to society having much to gain from public expenditure. One aspect worth stressing is that better prepared children will benefit more from formal education, both to their own advantage and to society's. There are therefore important complementarities between schooling from the compulsory age onwards and public investment in the earlier "education" of the child.

What future for traditional pre-schools?

How does the formal pre-school system of nurseries and kindergartens in the region fit into this picture? These were an important part of the state's commitment to families with children and were provided either free of charge, or for very low fees. Do these inherited systems of pre-schools represent a satisfactory input into early childhood development?

At their best, the pre-schools in the communist period were excellent, and the provision at low or zero cost to families undoubtedly increased the use of them. Besides allowing many mothers to work who otherwise would have found it difficult to do so, an explicit aim of their provision, many pre-schools gave high-quality care and played an important role in child development. Children were often well fed, had medical checks and immunizations, and enjoyed the benefits of early learning, through both socialization with other children and formal instruction from qualified pre-school teachers. In short, many of the classic benefits of formal pre-school institutions could be present, and, to this extent, the declines in enrolment described in Chapter 2 – some of them really striking in size – are to be regretted.

On the other hand, closer consideration gives a much more ambiguous view. First, as Chapter 2 notes, enrolment was far from complete prior to the transition. In only three of the 25 countries shown in Figure 2.4 – Hungary, Slovakia and the Czech Republic – did enrolment in kindergartens in 1989 exceed 70 percent, while in ten countries it fell short of 50 percent. The drop in enrolment in many countries since 1989 has been much less than the shortfall from universal enrolment that already existed at the end of the 1980s. At a time when resources are greatly reduced, the prospects in most countries for increasing enrolment up towards universal levels seem so dim that they are not worth discussing. (As a benchmark, it may be noted that the average pre-school enrolment rate of 4 year olds in OECD countries in the late 1980s was 55 percent.) Nor would a return to the enrolment patterns of the 1980s be especially desirable, since there is much evidence that this would leave many children excluded on a systematic basis. For example, Chapter 3 shows that enrolment rates were (and obviously still are) lower in rural areas.

Second, the conduct of pre-schools in much of the region and the content of curricula often left much to be desired. The type of questions raised in Chapter 2 concerning teaching methods and subject matter for compulsory and post-compulsory schooling are relevant, too, at the pre-school level.

Reports on pre-schools in the region in the 1990s often refer to rigid implementation of formal curricula and the lack of opportunities for informal and creative play. One commentator, visiting Uzbekistan in 1995, noted that children were excessively controlled by teachers and could never play or choose for themselves what to do. The learning environment in Romanian pre-schools was described in

1996 as exhibiting a tendency "to be rigid and [confining] the teacher's role [to] one of transmitting information in an authoritarian manner". The situation in the region is summed up by one writer with the observation that teachers "require all children to do the same thing at the same time". If these reports are representative of the current reality, the appropriate atmosphere of stimulation and creativity necessary to foster child development is often missing.

Evidence on parental attitudes to traditional pre-schools in the region is limited and hard to interpret. A large survey in the USSR in 1990 found that less than 40 percent of women in Russia, Ukraine and Belarus preferred their children to go to pre-school rather than be looked after at home, and only in Uzbekistan and Turkmenistan did the figure reach 50 percent. However, it is not clear whether or not women were giving their view taking into account their own employment status; nor is it obvious whether women living in areas where no pre-schools were available could have made a considered judgement in the absence of any experience of pre-schools.

More recent survey data for Kazakhstan show nearly one-half of employed mothers in 1994 reporting that their

Box 4.4

Pre-school demand and supply in Central Asia

There has been a sharp contraction in pre-school provision in the five Central Asian republics, with some 7,000 fewer pre-schools in existence in 1995 than in 1991. But the drop in enrolments cannot be explained by reduced availability of pre-school places alone.

Figure 4.1 gives pre-school enrolment and capacity rates in Kazakhstan, Uzbekistan and Kyrgyzstan. Enrolments in all three countries show large falls. But two other features also stand out. First, enrolment rates had already started to decrease *before* the break-up of the Soviet Union at the end of 1991. (In Kazakhstan, the speed of decline in 1992-93 was little more than in the previous two years.) As in other areas of Soviet economic and social policy, the pre-school system was already under considerable strain by 1991 and appears to have been unable to sustain the enrolment rates that had been reached. High population growth contributed to this situation. For example, the number of children of pre-school age increased by over 30 percent in Uzbekistan between 1980 and 1990.

Second, in none of the three countries has capacity (measured by engineering design norms) fallen as much as enrolments. The capacity rate fell by about one-quarter in Kazakhstan in 1989-95, compared to the drop in enrolment of nearly one-half, and by about one-half in Kyrgyzstan in 1990-94, compared to the reduction in enrolment of three-quarters. Both enrolment and capacity rates fell less sharply in Uzbekistan, but nevertheless the trend is the same, with the enrolment shrinking at a slightly faster rate. And in all three countries enrolment exceeded capacity in 1991, while the reverse has been true since 1993.

Figure 4.1 suggests sharp falls in demand for pre-school places, as well as in supply. The different influences are listed below. The signs in brackets show the effects on demand during the transition, and these are negative in every case, although the effect of some should be reversed by economic recovery.

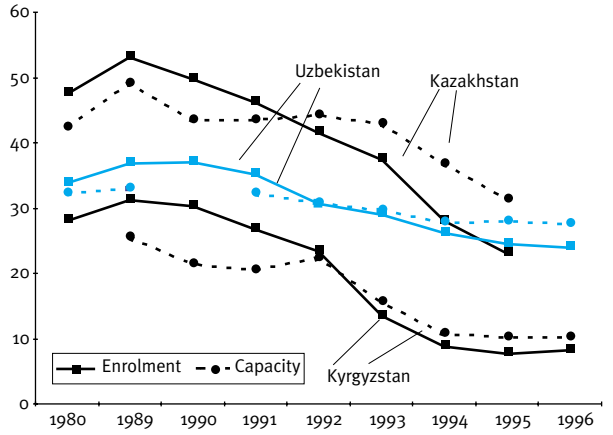
- Employment of mothers (–)
- Employment of other adults (–)
- Household income (–)
- Pre-school quality (–)
- Price of pre-school places (–)

Lower *employment of mothers* during transition reduces demand for pre-school places (although mothers' working behaviour is itself influenced by pre-school availability). Less *employment of other adults* who could provide informal childcare will have the same effect. These changes are re-inforced by cuts in real wages and the emergence of unemployment, which reduces *household income*.

There is considerable anecdotal evidence that *pre-school quality* has fallen substantially, in line with cuts in public expenditure, again reducing demand. There is also some quantitative evidence; in a national household survey in Kazakhstan in 1994 among children attending pre-schools, the provision of meals by the pre-school was reported by parents to have declined during the year in 20 percent of cases.

The responsiveness of demand to *price* is a key issue on which there is little evidence. Households in Kazakhstan using pre-schools in the 1994 survey were asked about their likely response to a doubling of current fee payments, still very low on average at that time; 30 percent of households said they would stop using a pre-school, which suggests that demand may be quite responsive to price rises and that enrolments would decline sharply with substantial rises in fees.

Figure 4.1



Pre-school enrolment and capacity in Central Asia

Source: MONEE project database.

Note: "Capacity" is the number of places measured by engineering norms. The denominator for the enrolment and for capacity rates is the number of 1.5 to 6 year olds. Data refer to the end of each year.

pre-school children were not in kindergarten because the mothers preferred care at home (the survey questionnaire allowed for the excessive price of a kindergarten place as a separate response), although the survey also showed that kindergartens were attended by nearly one in five children whose mothers did *not* work, indicating that kindergartens were valued by parents because they provided more than a mere childminding service. In a survey in Croatia in 1997 examining the reasons pre-school age children were not in kindergartens, the availability of childcare at home (including care by the parents themselves) was reported twice as often as the lack of a local kindergarten or a kindergarten place.

As far as changes over time are concerned, it is clear that demand for pre-schools has dropped substantially in much of the region. It is not just a case of enrolment falling due to kindergarten closure. Box 4.4 explains the factors affecting demand for pre-schools in more detail, illustrating the changes that have occurred with data for three Central Asian countries. Demand has fallen for a variety of reasons, including lower incomes, a higher price of kindergarten places, a reduction in the quality of care, and lower need for childcare due to lower rates of female employment. But as this list shows, demand could in time rise again, as incomes start to grow and employment opportunities begin to expand.

The importance of employment and incomes in helping determine demand suggests that one policy for governments is to merely wait for economic forces to re-stimulate use of the traditional pre-schools. But public policy needs to take a much more active role in encouraging early childhood development than this. Nor should governments merely try to keep children at home by rejuvenating systems of extended paid or unpaid leave for parents with young children – another feature of inherited family policy. Although parental rather than nursery care of very young children has much to recommend it, the question of *what* parents do with their children when at home and *how* to nudge this in appropriate directions must be addressed.

Different ways forward

What should policy be trying to achieve? It is useful to begin with some principles, drawing on experience in other regions.

First, there should be variety. The needs of children differ, for example with their age. The needs of parents for childcare, one aspect of early childhood development schemes, differ. Most obviously, some parents work and some do not, this applying especially to mothers. And parental preferences differ, although some limitations on parental choice in education may be appropriate, as discussed in Section 4.4. The aim of policy should be to cater for this variety with a range of programmes and support provided or enabled. Some schemes may involve formal kindergartens, but others may be home based. Some may focus on the children themselves, but others may target parents to improve their child-rearing skills. Different schemes should be viewed as complementary, and the mix will undoubtedly vary with cultural differences. Box 4.5 describes examples of initiatives that target parents and that use children's own homes.

Box 4.5

What is an early childhood development programme?

"For too many people, a child development programme immediately conjures up the image of 25 or 30 children, ages 3 to 5, playing with blocks or fitting triangles and squares into brightly coloured puzzle boards, supervised by a professional teacher in a 'pre-school' classroom." (Robert Myers, *The Twelve Who Survive*, 1992, page 83)

What types of early childhood development schemes are there besides formal kindergartens? Two complementary approaches described here are illustrated with examples from Latin America.

Educating parents. Not only are parents the most important carers of children, but they are their first teachers. The integrated approach to early childhood development that emphasizes the links between health, nutrition, mental and social development, and education is embodied in parents' nurturing of their children. All parents may benefit from advice, but those from less educated backgrounds or very young parents may be particularly in need of it.

The Mexico Initial Education Project was set up in 1992 to improve childcare by the parents of the country's poorest children under the age of 3. By 1995, 175,000 parents had received help. Parents of young children or health workers living in the community receive a brief training course to enable them to give instruction in child development, nutrition and basic health and hygiene.

Home-based schemes. Care of other parents' children in another mother's home is one of the least "institutional" forms of centre-based care and education. Private, informal arrangements are of course common in all countries. These often provide no more than custodial care, but home-based schemes may also be more formal, with additional developmental input and external monitoring.

The Colombian system of "Homes for Well-being" ("Hogares de Bienestar") began in 1987 and soon expanded to cover nearly 800,000 children throughout the country. Mothers providing this service are selected from within the community by other parents and the overseeing national authority, which gives some training in subjects related to childcare and child play and recreation. Access is given to low-cost loans to improve facilities in homes. The per-child cost of the scheme is estimated at one-fifth that of traditional daycare centres.

Second, new initiatives should be low cost. Unfortunately, pre-school children are likely to be low on the list when ministries decide spending priorities related to education. This is greatly to be regretted, and even a narrow focus on economic growth points to early childhood development as a high priority for expenditure. But one has to be realistic. Countries which are struggling to maintain state provision of compulsory education are unlikely to divert large amounts of resources to children of pre-school age whom they perceive – incorrectly – as a marginal group in terms of policy.

Third, policy must try to embrace the concept of "education for all". It is paradoxical to aim to ensure that high-quality basic education is genuinely available for all children of compulsory school age if provision of pre-school schemes (including new initiatives) favours advantaged groups, for example richer households in urban areas. The aim must be to give some help for the development of every child and to make a clear effort to reach those children who are more disadvantaged.

Fourth, public intervention in early childhood development does not necessarily imply supply by the state sector. The continued provision of traditional kindergartens in many countries by former state enterprises, albeit at a reduced level, is a reminder that the public sector has already lost its monopoly in the supply of formal pre-schools. (It is clear, however, that policy on "divestiture" by enterprises of kindergarten facilities remains an important topic in the region, with some enterprises unwilling to carry on providing facilities, but municipal governments unable to afford to take them over.)

An important role of government is to help mobilize local communities so that they, by themselves, undertake some initiative (which may or may not then receive additional state support). This should not be seen as something appropriate only in the less developed or least well off countries in the region; about one-half of the US Head Start programme in 1993 was administered by community action agencies. Helping stimulate demand by parents for such schemes, including through media campaigns, is one method of achieving this. Experience in other regions shows that the most successful schemes are those that build on local methods that have been devised to cope effectively with problems of childcare and child development, including home-based arrangements.

Finally, careful consideration needs to be given to how to *finance* early childhood development. The restriction on public funds is one reason for stimulating community provision. Within the state sector, the role of fees for participation in formal schemes needs review. (Box 4.6

Box 4.6

Measuring the incidence of pre-school subsidies

How should one measure who benefits from public expenditure on pre-schools? Using household survey data from Kazakhstan for 1994, Figure 4.2 illustrates three ways that lead to rather different answers.

The solid black line relates to the distribution of income among households with children of pre-school age. The poorest 20 percent of these households contain only 13 percent of all children enrolled in pre-schools, while the richest 40 percent contain more than one-third. The picture of targeting is not encouraging.

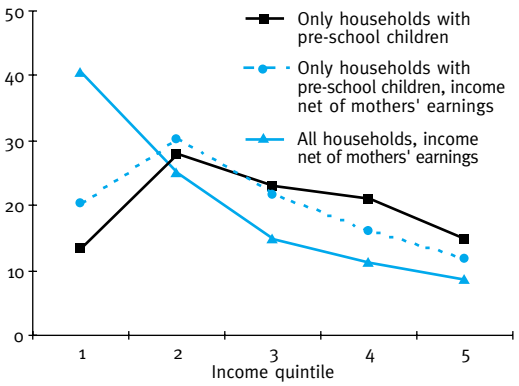
The dashed blue line refers to the same households, but defines income as that net of any earnings of the mother. Pre-schools allow some mothers to work who would not otherwise do so, with the result that household income becomes in part determined by the pre-school attendance of the child. The dashed line adjusts for this so that the incidence of pre-schools is revealed, net of any effect on the mother's earnings. The poorest 20 percent of households now contain one-fifth of enrolled children, and the share of the top 40 percent falls to little more than one-quarter.

But pre-school provision is part of overall policy on social expenditure, and it is the incidence across *all* households, including those without children, that is of most interest. This is shown by the solid blue line (where income for households with pre-school age children is again calculated net of mothers' earnings). Since households with pre-school age children are more concentrated in the lower parts of the income distribution, the picture of targeting is again improved; 40 percent of enrolled children are now found in the lowest quintile, and two-thirds in the bottom two quintiles.

The calculations in Figure 4.2 suffer from various drawbacks and are at best indicative. (For example, cash income is an imperfect measure of household welfare, and no account has been taken of the fees actually charged to families and, hence, of the variation in subsidy received.) But they illustrate important principles that underlie any discussion of targeting of family policy. In particular, the analysis underlines the importance of showing the position of children in general relative to that of other groups in the population.

Figure 4.2

Share of children in pre-schools in each income quintile, Kazakhstan 1994



Source: Kazakhstan 1994 Labour Force Survey microdata.

Note: Data refer to monthly income in cash divided by the square root of household size, and each household is weighted by household size in the calculation of the distribution. Pre-schools are municipal (state owned) or enterprise.

considers how to measure the distributional incidence of kindergarten subsidies.) In many countries there have already been significant increases in the fees charged for traditional pre-schools. The average price of a pre-school place in 1995 in the Czech Republic and in Ukraine was reported to be 8-10 percent of the average wage; the average price in Latvia apparently rose from 4 percent of the average industrial wage in 1990 to 14 percent in 1996. Anecdotal evidence suggests that fees have risen even more in some other countries where the high cost of pre-schools is a common complaint. It is clear that high fees will reduce access among children from disadvantaged backgrounds and that workable schemes of subsidized places are needed.

Although many countries already have schemes to reduce fees or to provide exemption, this type of targeting is often not straightforward due to the problems of adequately assessing household living standards. "Disadvantage" involves dimensions other than low income, and even income is often hard to measure, especially when there is substantial informal activity in the economy or when income is obtained in non-monetized form (such as the production from agriculture). One aspect of schemes organized by local communities may be their ability to target help effectively due to better knowledge of the genuinely needy households. They are also more able to secure contributions in kind, for example in labour.

Many early childhood development programmes do not in fact require large sums of public money. What is needed is careful planning, ingenuity and maximum community involvement. Many of the toys and other objects used in centre-based schemes can often be made or purchased locally; there is no need to make expensive purchases of the "brightly coloured puzzle boards" from abroad referred to in the quotation in Box 4.5.

The provision of advice to parents or of material to stimulate children directly through national radio and television may be enormously cost-effective and can clearly be "supplied" to huge numbers of families at zero charge to the user. The very high rates of television ownership in even the least developed parts of the region may make this a particularly attractive avenue. For example, UNICEF is working with the Ministry of Education in Azerbaijan on the design of television programmes for children specifically intended to encourage pre-school development.

Azerbaijan is an example of a country where the system of formal kindergartens inherited at the start of the 1990s was poorly developed, with only one in five children enrolled (a figure that has now slipped to one in seven). Interesting initiatives to develop new community-based schemes of early childhood development have been taken in another part of the region where enrolments were also low prior to the transition: former Yugoslavia. Between two-thirds and three-quarters of children of the relevant age were not enrolled in kindergartens in 1989 in Croatia, FR Yugoslavia and FYR Macedonia, and even more were not enrolled in Bosnia-Herzegovina.

In FYR Macedonia, UNICEF, in conjunction with international non-governmental organizations, has supported the development of community-based services in several areas of the country, covering both rural and urban districts. Local women's associations in villages in the central and northern parts of the country have been helped to initiate schemes for children who are without access to the publicly funded sector. These services began as a programme of home-visits aimed at assisting families to enhance development among 4 and 5 year olds. However, parents quickly took this further by providing informal facilities where families can meet, an important step in advancing the social development of children in villages too small to have their own schoolrooms. (A similar programme for 0-2 year olds has been started in the south-west of the country.) It is too early yet to assess the sustainability of the initiatives, but the emerging local government system in FYR Macedonia has taken a keen interest and has begun to look at ways in which it can provide support for the maintenance and expansion of these services.

The value of community involvement in the design and operation of schemes is suggested by survey evidence from Croatia. Two-thirds of parents of pre-school age children interviewed in 1997 reported that they would *not* accept home-visits through an existing formal scheme, and there was a generally low level of interest in programmes to improve parenting skills. (The survey also confirmed the importance of television as a source of information about childcare.)

Croatia, however, together with Bosnia-Herzegovina, has been the seat of a notable initiative of centre-based early childhood development that is aimed at a very high level of community participation. In early 1993, Save the Children (US) started a programme that provides three hours per day of structured play to 3-6 year olds. Originally targeted at refugee and displaced children on the Dalmatian coast, the programme expanded rapidly and by June 1997 had led to the establishment of 905 playroom groups in the two countries, with 24,000 children enrolled. There is a strong emphasis on community ownership of the programme, and Save the Children's involvement in each established centre is limited to nine months, with strategies for self-sustainment applied from the outset. Parent involvement and participation are strongly encouraged. The scheme is intended to satisfy the criterion of low cost and appears to do so; set-up costs are about US$1,100 per centre (various types of buildings are used), and the total nine-month cost of teacher support is about US$800. (No fees are charged to parents.)

It would be foolish to pretend that it is easy to establish self-sustaining, high-quality schemes of early childhood development on a large scale and at a low cost. But these initiatives in former Yugoslavia are encouraging in that they demonstrate a high degree of parental enthusiasm and commitment, a vital ingredient for effective public policy. ■

4.3 Decentralization of Educational Governance and Financing

The next area of policy dealt with in this chapter – decentralization – might seem rather a leap from the discussion of early childhood development in the previous section. But pre-school provision is often a function of local, not central, government. As with all other parts of the educational system (broadly defined) it is important to recognize the consequences of the level of government chosen for provision – and for financing.

Decentralization of government activity has been a phenomenon in many parts of the world in recent years. Antipathy to the highly centralized government of the socialist period is a key factor in the transition economies, although the centre holds tightly to its powers in a surprising number of cases. That said, decentralization of educational systems, whether actual or potential, is an issue relevant throughout the region, irrespective of level of development or the extent of economic recovery. Of course, the nature of any decentralization and the degree to which it should be pursued will depend in part on a country's size. What is appropriate for Poland, with a population of nearly 40 million, may not be so for Slovenia and FYR Macedonia, with populations of about two million. Size and population vary even more among the republics of the former Soviet Union, from nearly 150 million people in Russia and over 50 million in Ukraine to fewer than four million people in each of the Baltic republics and in Armenia.

It is important to see decentralization as only a process, as just a means to an end. In the case of education, the purpose of decentralization should be to *raise learning achievement*. The mechanisms for this, in theory, are increased efficiency and greater local accountability in the supply of education, leading to higher quality schools that are more in line with the population's preferences. For example, local autonomy may allow those in charge of school management to exploit local price differences when purchasing inputs, and incentives may be given to managers to cut costs. Cost savings may arise as local electorates demand greater value for money from local taxes. However, this general notion must be qualified in several important respects.

First, the decentralization of government activity is undertaken for various reasons that may unfortunately have little to do with improving school quality, even when changes in educational systems are an important part of the reforms put in place. It is wrong to see decentralization as always the rationally planned act of a well-intentioned central administration. Decentralization involves the transfer of authority from a higher level of government to a lower level and may merely represent a shift in the balance of power between the two.

Second, "decentralization of education" is a rather empty phrase until the elements to be decentralized are made clear. The impact of decentralization on learning depends on what is involved. The list could include the responsibility for operating schools or for financing them, the choice of curricula and teaching materials, exam systems, teacher training, teacher numbers and salaries, school construction and maintenance, and more besides. All or only a few of these may be involved in any policy reform. Central government may devolve responsibility for operating and financing schools, for example, but retain the right to set teacher salaries and numbers, thus placing a major constraint on the room for manoeuvre of local governments and reducing the impact of the decentralization.

Third, the level of government at which decentralization takes place is important to consider. The decentralization of decision-making to the governments of regions with populations of several millions is very different from decentralization to the governments of villages with 1,000 or 2,000 people, or directly to the schools themselves. And where authority is merely delegated to the regional or district offices of central government rather than to elected local governments, there is no effective decentralization in the real sense of the word, and the benefits for school quality suggested by theory will therefore be far fewer. The term "deconcentration" is usually applied in this case.

Fourth, effective decentralization cannot be achieved overnight. It may take years to achieve properly, beyond the time horizon of politicians with an eye on elections ahead. Whatever the benefits in principle of the decentralization of educational systems, the speed at which reform takes place needs to be appropriate to the institutional capacity of lower levels of government or of the schools themselves to accept responsibilities.

Finally, and of major importance for the theme of this Report, central government will always have a prominent role in promoting learning achievement for all children; it cannot decentralize its responsibility for ensuring that there is some minimum level of provision of good education and that as many children as possible benefit from access to that education. This duty overrides any advantages of increased local accountability. The very worst type of decentralization is that in which central government merely abandons its responsibilities, forcing local governments to take on duties that it prefers not to carry out itself. Even if there is decentralization of all the aspects of education mentioned earlier, central government will have a vital role in monitoring, in regulating and in setting standards. To take just one example, the discussion of ethnicity and social cohesion in Chapter 3 stresses the need to prevent curricula (and other elements of the educational system) from being simply "captured" by groups that form a local majority. And, to emphasize a theme that is developed later in this section, the assurance of an equitable provision of education almost inevitably includes a system of financial transfers to local governments in poorer areas.

How much decentralization has occurred?

The extent of decentralization of education to date is not easy to summarize, in part due to the different measuring rods that can be used. A simple indicator of the relative importance of expenditures by central and local government, for example, may give a different picture from that obtained by looking at the actual distribution of decision-making powers.

In several Central and South-East European countries there has been a substantial movement towards the decentralization of various aspects of education, and in at least one case, Hungary, decentralization began as early as the mid-1980s. However, this has not always led to a greater role for local government (or other elected authorities), the reforms sometimes being more a case of "deconcentration".

Table 4.2 provides brief details for seven countries of the structure of local government relevant to the administration of education and the extent to which genuine decentralization has taken place. As a general rule it is the lower levels of education (kindergarten and primary) where there has been decentralization, while upper secondary education has typically remained the responsibility of regional offices or the central Ministry of Education. (Tertiary education institutions usually have a greater amount of autonomy, but are funded by central government directly.) There are considerable differences in the size and structure of local government and in the responsibilities for education that they now bear. For example, the nearly 3,000 Hungarian villages have major responsibilities for providing schooling, whilst the 80 Romanian municipalities, in a country twice as populous, do not. Table 4.3 summarizes the situation among the seven countries. Besides Hungary, only in Bulgaria has there been substantial decentralization of education to local government (although local governments in Poland have an important role in financing education at the primary level). In FYR Macedonia, Romania and Slovakia there has been none.

Where decentralization has occurred it has not always been welcomed by lower levels of government because the centre hands over responsibility without handing over resources. Polish municipalities, for example, apparently regarded responsibility for schools as a nuisance, since they were not initially given the resources to support them; they started receiving subsidies only in 1994. In contrast, Hungarian municipalities were keen to gain control of schools since it was a demonstration of independence and they had a more stable financial basis (described later in this section).

The situation is also mixed in the countries of the former Soviet Union. Responsibility for the management of basic education has been formally transferred to sub-national authorities in most cases. One measure of the

Table 4.2

Local government and administration of education in Central and South-East Europe

Bulgaria	Municipalities (average population 31,000) are responsible for kindergartens and most basic schools and vote on the size of the local education budget. The Ministry of Education is responsible for upper secondary schools, but vocational schools are funded by other relevant ministries (e.g. agriculture). The Ministry also retains 28 regional education inspectorates responsible for the monitoring and control of the municipalities.
Czech Republic	The Ministry of Education maintains 28 district education offices, which channel funds to all primary and secondary schools to pay for teacher salaries, textbooks and teaching. Local governments (average population 1,700) also support primary schools (for which they receive normative funding from the Ministry of Finance), paying for items such as investment expenditures, school meals and after-school clubs.
Hungary	Local governments (average population 25,000 in towns and 1,300 in villages) are responsible for schools at both primary and secondary levels. Smaller municipalities (two-thirds of the total and mostly rural) cannot afford to support larger secondary schools and maintain only primary schools or kindergartens. The smallest communities (one-fifth of the total) do not support schools at all.
FYR Macedonia	There is little local government involvement with schools, which are the responsibility of the Ministry of Labour and Social Policy (for kindergartens and special schools) and the Ministry of Education. Local government can contribute to some of the social aspects of education, such as meals for children of lone parents.
Poland	The Ministry of Education appoints a "curator" in each of the 49 regions (average population 800,000) after local consultation. The curator appoints head-teachers and authorizes new schools (including private schools), among other roles. State support for education goes via the curator to municipalities (average population 15,000) and then to schools. (The regions do not have any budgetary responsibility themselves.) Over the period 1992-97 primary schools were gradually transferred to local government jurisdiction.
Romania	Municipalities (average population 280,000) play no role. The Ministry of Education maintains a system of 41 school inspectorates and appoints the general inspectors who head these. School principals are appointed by the general inspectors. School inspectorates propose budgets each year to the Ministry of Education (based upon proposals from schools), and, once approved by Parliament, the funds are passed down to schools via the inspectorates.
Slovakia	From 1991-96 the Ministry of Education operated a series of territorial and school boards, but these have been replaced by regional and district offices under the Ministry of the Interior. Regional offices now manage kindergartens and basic schools within their jurisdictions, and the Ministry of Education has lost its managerial and financial role. Proposals to transfer kindergartens and basic schools to districts (average population 67,000) and secondary schools to a new tier of regional self-government have been postponed, and there is considerable uncertainty about the future.

Table 4.3

The extent of decentralization of education: a summary

Country	Decentralization?	Via local government (LG) or administration (A)?
Bulgaria	Yes	LG
Czech Republic	Yes	A, some LG
Hungary	Yes	LG
FYR Macedonia	No	–
Poland	Yes	Both
Romania	Limited	A
Slovakia	Little, stalled	A

extent of local responsibility is given in Figure 4.3, which shows local expenditure on education (expenditure by all sub-national levels of government) as a share of total public expenditure on education in six countries in 1995. (For the basic level of education, the share is typically higher than that shown, while it is lower for tertiary education, for which, as in Central and South-East Europe, the central government has tended to retain greater responsibility.) There are striking differences among the Baltic republics, with the extent of local education expenditure much more limited in Latvia, where the figure is below 40 percent, than in Lithuania, where it is nearly 70 percent. Belarus also has a comparatively low figure. Russia leads this group of countries with almost 85 percent of education expenditure at the sub-national level, a rise of almost 20 percent since 1992.

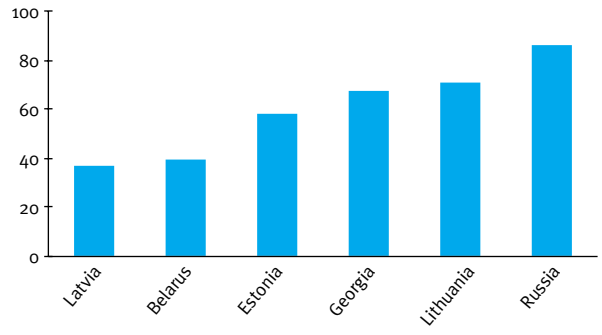
Although Figure 4.3 provides a useful guide, the indicator used is an inadequate measure of the extent of decentralization. Even under central planning, the bulk of education expenditure in the USSR was formally at the sub-national level, but local administrations had very little say in how the expenditures were determined (see Box 4.7). One needs to go behind the expenditure figures and see which level of government really makes the decisions.

The situation in present-day Russia is complicated, not least because legislation and decrees are sometimes contradictory, ambiguous or unrealistic. There are two principal levels of sub-national governments in Russia, the 89 regions (oblasts and other "subjects of the Federation") and, beneath these, the 1,800 municipalities (raions). It is the latter, which have an average population of 80,000, to which the 1995 Federal Law on Local Government gives responsibility for the provision of basic and secondary schooling and of pre-schools. Municipalities are free in principle to emphasize whichever level of schooling they choose when distributing funds. The Law on Local Government also delegates considerable authority to the schools themselves. Schools are to have their own independent budgets, and school directors are to have full control over how the budgets are spent.

However, this picture of an advanced state of decentralization is, in some respects, misleading. It is up to the regions to implement federal law in their areas, and this is not happening at an even pace. Even in what is considered a progressive region, Novgorod in European Russia, only 40 percent of schools had control of their own budgets in July 1997. Moreover, authority over a range of decisions is only devolved from the centre after formal "agreements" with regional governments have been reached, which by 1995 had occurred in only one-half of the regions. These typically cover joint work on the development of teaching standards and the right to establish staff-pupil ratios, to open schools for ethnic minorities, and to licence educational institutions. Each level of government engages in curriculum development and teacher training, and both the regional and federal authorities organize textbook production and distribution. (The latter shows the continuing state dominance over activities that might be transferred in time to the private sector, with any subsidies going directly to households.) And, most importantly, teacher salaries are still set at the central level (with regional coefficients built into the pay scales); so an important influence on expenditure remains centrally determined.

Russia is at the decentralized end of the spectrum, while Uzbekistan is an example of a centralized system. Expenditures in Uzbekistan are closely controlled from the centre, and departures from centrally determined norms have to be approved by the Ministry of Finance. Graduates from teacher colleges are assigned to schools by a central commission. Textbooks are financed by central government and produced in the capital, Tashkent. There

Figure 4.3



Local share of total education expenditure in former Soviet republics, 1995
(percent)
Sources: IMF (1995); Orivel (1996) for Georgia.

Box 4.7

Local government expenditure on education in the Soviet Union of the 1960s

"Although the role of local budgets in providing funds for education seems large, the amounts local authorities may allot to any important function are limited by close controls exercised from above.... Throughout the length and breadth of the Soviet Union school administrators are required to adhere to a single standardized budgeting procedure that allows them virtually no freedom of action whatsoever.... [It is] a picture of thoroughgoing external control exerted via minute concern for the pettiest detail and for every last kopeck of expenditure." (H. J. Noah, *Financing Soviet Schools*, 1966, pages 198-200)

is nonetheless some local autonomy. Budgets for schools are managed at the raion level. And, while the wage scale for teachers is set centrally (as in Russia), school directors are permitted to award bonuses (equal to 15 percent of salary) to the most productive staff. Each school is reportedly able to choose the most appropriate curriculum from among the 20 alternatives provided by the Ministry of Education and can make changes with permission from the regional authorities.

Other examples of practice in former Soviet republics are given in Table 4.4, and these illustrate two general points that apply throughout the region. First, the decentralization of education is not necessarily a one-way process. In both Lithuania and Kazakhstan there has already been significant *re-centralization* following an earlier devolution of power from the centre. Second, what happens "on the ground" in countries where public revenues and expenditures have collapsed may bear little relation to the formal rules, as the example of Georgia shows.

The ability of local government to accept decentralized powers and responsibilities varies across the region, in part due to differences in the size of the local government units and in part due to differences in general economic conditions and institutional capacity. Hungary provides an example of the first problem. Many Hungarian municipalities are so small that they have no specialized administrative staff responsible for education, so it is difficult to see what managerial role municipalities can actually fulfil, apart from channelling funds to schools. There are "economies of scale" in government size that many of the Hungarian municipalities are too small to exploit. Experience to date in the Russian region of Novgorod provides an example of the second sort of problem. The weight of tradition, inertia and other more pressing concerns, given a general shortage of funds, has meant that the old centralized procedures remain, and municipal and regional authorities tend to wait for the way forward to be indicated by higher levels of government rather than using powers made available to them.

In summary, responsibility for various aspects of the educational system has been transferred in a number of countries in the region, while in others there has been little change. And where extensive decentralization has occurred, some key powers such as the setting of salary levels have often remained centralized.

Table 4.4

Governance of education: examples from the Baltics, the Caucasus and Central Asia

Lithuania	Reforms in 1994 created a middle tier of government of ten regions with substantial powers, reversing earlier decentralization of responsibility to the municipal level. Regions may establish, reorganize or close educational establishments and must supervise and inspect schools and promote teacher training. But legislation constrains regional autonomy in determining how much money is to be spent on education and, within the education budget, how much goes to teacher salaries. Schools are not permitted to shift funds among categories of expenditure.
Georgia	State schools are formally subject to extensive centralized control. Neither the municipality, nor the school have any authority in the areas of curriculum, textbooks and teaching materials, testing and examination. Schools are apparently limited to identifying and recruiting staff within central standards and defining teacher-training needs (although the actual training must be requested from and organized by central government). Nor can schools reallocate budget funds among the different expenditure categories. The situation in practice is more unclear. The funding capacity of the state budget is so low that the education system is presently driven more by parents, school entrepreneurs and local authorities than by legislation or the Ministry of Education.
Kazakhstan	A number of recent changes has strengthened central control after a period of more devolved power. Amendments to the Law on Education have given central authorities power to approve local directors of education and have introduced new budget reporting mechanisms. Municipalities have little freedom to move funds among specific categories of expenditure. The central government has the right to establish working hours for teachers and may "define the terms of activities of general schools", a power which implies the possibility of intervention from the centre at any stage.

The effects of decentralization

What have been the effects on learning achievement of any decentralization of education that has taken place in the region? This is a very difficult question to answer conclusively since the necessary evidence simply does not exist. As far as efficiency gains are concerned, it would be virtually impossible to separate out the effect of decentralization of educational systems on average achievement (where such data are available) from that of other factors, in particular reductions in household incomes and in overall government expenditure. As a result, the debate tends to fall back on scattered anecdotal evidence or indirect indicators. For example, the rise in teacher numbers in many countries that is documented in Chapter 2 is not encouraging for the notion that decentralization has reduced costs. Prior beliefs about the extent of gains in efficiency from decentralization and the consequences for school quality are also cited as if such beliefs were equivalent to evidence about outcomes.

However, it is clear that there *should* be a debate and that further evidence needs to be collected. The process of decentralization that has actually occurred so far in the region is such that the benefits suggested by economic theory may not have been obtained. Of course, this does not mean that efficiency gains cannot be realized in the future or that further decentralization should not take place. But it is a reminder that the issues are not as straightforward as they are sometimes presented to be.

Similarly, the impact of decentralization on the

equity of learning outcomes is very difficult to investigate, and the data requirements for doing so would be demanding. In one case, Hungary, genuine decentralization has taken place down to very small local government units, and data exist on the changes in measured learning achievement for 13 year olds during a period of increased local government responsibility. Figure 3.5 in the previous chapter shows how the gap between average test scores in different types of locality has increased over time. But whether this widening in achievement is the *result* of decentralization is very hard to establish.

It is reasonable to suppose that decentralization in Hungary has disadvantaged many villages and small towns financially (information on the Hungarian funding arrangements are given below) and that decentralization has resulted in authority being given to units that are often too small to administer education effectively. But it would be a brave person who concludes that the widening gaps in achievement have been caused by the decentralization alone, with no part played, for example, by growing inequality in household incomes between localities. The authors of the Hungarian study certainly accord some role in the determination of learning achievement to differences in the financial situation of municipalities. And one might reasonably argue that the impact of widening inequality of incomes would at least matter less with a more centralized system of educational funding and governance.

Learning achievement is a measure of the *output* of an educational system. Evidence is more widespread on changes in *inputs* among different localities and their association with decentralization. This type of evidence may even be preferred in the short run. Output measures may be expected to adjust relatively slowly; the learning achievements of the 13 year old Hungarian children in 1995 shown earlier in Figure 3.5 in part reflect influences on child development and education before local budget autonomy was introduced in 1990. Inputs adjust more quickly than do outputs and give an early signal of potential problems. Financial inputs are also relatively easy to measure.

The extent of the correlation of financial inputs with learning outcomes has been the subject of vigorous debate in recent years in the USA, where there is a highly decentralized educational system. The evidence, reviewed in Box 4.8, is ambiguous. Part of the relationship between financial inputs and learning outcomes may need to be taken on faith. 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. This situation, or parts of it, is closer to being the typical one in much of the region than is the situation in the schools analysed in the American studies considered in Box 4.8. Additional inputs and better capital stock should help learning achievement, and local governments with more money can get more of these. But additional money is not a sufficient condition for a lasting improvement in the educational system. As Chapter 2 makes clear, the problems of education in the region go well beyond the falls in real expenditure that have taken place. Money "matters", but funding is far from being the only aspect of educational systems that is in need of attention.

Table 4.5 shows how differences across regions (oblasts and their equivalent) in expenditure on basic education (lower secondary and below) have changed in Russia in the 1990s. (The provision of basic education is the duty of municipalities alone, and the data therefore do not contain any federal elements.) The first set of data in the table shows a considerable rise in the inequality of expenditure per pupil across the regions between 1991

Box 4.8

Does money matter? The debate in the USA

In the state of New Jersey, US$9,429 was spent per pupil on public elementary and secondary schools in 1993-94. At the other end of the range, expenditure in Utah was only US$3,203 per pupil. Do these disparities in spending make a difference to educational outcomes?

The debate in the USA has raged on this issue. Those who argue that spending makes little difference point to two types of evidence. First, large increases in per-pupil spending on public education over time (a doubling between 1970 and 1990) have been associated with falling or stagnant average scores in aptitude tests. Second, it is argued that many studies show a weak relationship between test scores and spending at the state or school district level. The relatively poor showing of the USA, a rich country, in international comparisons of learning achievement is also cited (see Table 2.2). On this argument, money does not appear to matter much.

On the other hand, evidence is found of a significant relationship between the quantity and quality of schooling inputs at the state level and the earnings achieved by individuals in later life, holding constant other factors. The evidence of a weak relationship between local spending and aptitude scores is also challenged. One recent study argues that the evidence shows a 10 percent increase in spending per pupil produces a rise in pupil achievement of about 0.7 standard deviations, a not insignificant amount.

This debate is far from over. One might, however, conclude that additional money is unlikely to be sufficient for raising school performance and pupil achievement in the USA, but it is an important complement to the improvement of school management and teaching methods. Money is probably even more important where real expenditure has suffered large falls, as has been the case in much of Central and Eastern Europe and the former Soviet Union.

and 1995. In 1995 the region with the highest expenditure spent over eight times more per pupil than did the region with the lowest expenditure, compared to only three and a half times more in 1991. (The data have been adjusted for changes in regional price dispersion between the two years.) The comparison with disparities in expenditures across states in the USA is striking. The ratio between maximum and minimum in Russia in 1991 is similar to that between the highest and lowest spending states in 1993-94 given in Box 4.8; the decile ratio for Russia in 1995 was at the same level as that in the USA. (The data for the USA are not weighted by pupil population, a weighting that in the case of Russia has the effect of dampening differences.)

Some of these disparities across regions are due to differences in the costs of purchasing inputs (although, as already noted, the 1995 data have been adjusted for *changes* in general price differences from 1991). In particular, the centrally determined teacher salaries vary across the regions (as they did in the Soviet period). The second set of figures in Table 4.5 simply adjusts total expenditure on education in each region in both 1991 and 1995 by the total wage bill in the educational sector in the region in each of the two years. Disparities across regions are substantially reduced, and there now appears to be little change in the situation over time. The results indicate that the amount spent on education in the top spending region would buy twice as much teaching staff input at local wage rates than it would in the lowest spending region. (If higher wages reflect a higher quality of teaching, then the measure would be misleading since it would suggest the conclusion that children are receiving less, rather than better, education.)

How typical is the situation in Russia? One other example is given in Table 4.6, which summarizes disparities in per pupil expenditures on basic education across the regions of Kazakhstan. These appear to have worsened between 1993 and 1994 (as other studies have shown they did between 1992 and 1993), but then to have fallen back by 1996, which may be the result of the re-centralization and financing reforms introduced in 1995 that are described in Table 4.4.

Finally, it is important to note that in countries where there is more than one level of sub-national government (as in Russia and Kazakhstan) or where the schools themselves have considerable autonomy, the disparities *within* regions must also be considered. (Differences within states are a major feature of expenditures in the USA.) Evidence on this is scarce and can be difficult to interpret. (For example, the smaller the unit considered, the greater the impact on expenditure data of one-off items, such as a major roof repair in one school.) In the Russian region of Novgorod, the municipality (raion) spending the most on education in 1996 spent about 80 percent more per child than did the municipality spending the least, and the third highest spent about 50 percent more than did the third lowest. But these differences were much smaller than those in municipality revenues – a strong transfer mechanism supported poorer municipalities. It is to such issues of redistributive financing that the discussion now turns.

Financing schools and local governments

The implications of the decentralization of the responsibility for education for both efficiency and equity depend critically on the system of financing set in place. These are not mere "economic details" of concern only to Ministries of Finance. They are a vital part of what is needed to implement the rights of children to a good educational system.

If local authorities (governments or schools) have no independent sources of income and simply receive money from the centre that must be spent on specific items, then the situation is no different to that which prevailed in the USSR, described in Box 4.7. Any potential efficiency gains from decentralization will be lost. On the other hand, if local authorities must rely entirely on money raised in their own areas, then poor localities may be unable to provide education of a sufficiently high standard. (Imbalances in resources can be observed even in

Table 4.5

Inequality of expenditure on basic level education among regions in Russia, 1991 and 1995

	No adjustment for differences in regional wages		Allowing for differences in regional wages	
	1991	1995	1991	1995
Decile ratio	1.56	2.05	1.40	1.42
Coefficient of variation	0.25	0.34	0.14	1.13
Maximum/minimum	3.4	8.3	2.2	2.0

Source: Data provided by the Ministry of Education.

Note: The "decile ratio" is the 90th percentile divided by the 10th percentile; the "coefficient of variation" is the standard deviation divided by the mean. The data relate to 76 regions and exclude Chechenia-Ingushetia and the autonomous republics (which together make up less than 2 percent of the national population). The data are weighted in the calculations by the number of pupils in each region, which has the effect of reducing measured inequality. In the first set of figures, the data for 1995 have been deflated to 1991 levels using region-specific consumer price indices and refer to expenditure per pupil. In the second set, each region's total expenditure on education is divided by its total education sector wage bill.

Table 4.6

Inequality of expenditure on basic level education among regions in Kazakhstan, 1993-96

	1993	1994	1996
Decile ratio	1.61	1.64	1.60
Coefficient of variation	0.17	0.30	0.18
Maximum/minimum	1.72	2.95	1.98

Sources: ADB and UNESCO (1995), Table 6; MONEE project database.

Note: Data refer to per pupil expenditures. See the note to Table 4.5 for definitions of "decile ratio" and "coefficient of variation". The data relate to 21 regions and are weighted in the calculations by each region's population (figures for the number of pupils were unavailable).

the smaller countries; for example, Tallinn, with little more than one-quarter of the population of Estonia, generated almost half of all local revenue in 1993.) This should be a particular concern in Central and Eastern Europe and the republics of the former Soviet Union. There were substantial differences under communism in educational provision within countries according to locality, and Chapter 3 highlights the differences between rural and urban areas in educational access during the transition. The danger that these differences will worsen through decentralization is a very real one.

The first requirement for any system of financing to accompany decentralization is that local government should be given access to local sources of taxation with freedom to vary the tax rate. The tax base should ideally yield a substantial proportion of local government income. However, even a small local tax base might allow correction for inadequacies in the central funding arrangements that are perceived at local level. The second requirement is a system of transfers from central government to provide more money to poorer areas (those with a lower tax base). Furthermore, it should give more funding to areas with a higher need to spend on education, for example where there are more children per capita or greater social deprivation.

The extent to which these requirements are met is limited in most of Central and South-East Europe. (Of course, the issue does not arise in countries where branch offices of the central ministry deal with education and where there has been no effective decentralization.) An overview of the system of local taxation in several countries is given in Table 4.7. Not only is there substantial variation, but the direction of change over time differs. Local government in Bulgaria, which has important responsibilities for education, has become more dependent upon central grants over time, while in Hungary the share of local taxes and other local income in total revenue has increased (from one-third in 1991 to nearly 40 percent in 1995).

Arrangements for the financing of local government also vary in the republics of the former Soviet Union. In Russia, the 89 regions share the proceeds with central government of revenues derived from their areas from profit tax, income tax, valued-added tax, and enterprise property tax. But the tax rates are set by the federal government, preventing regions from making adjustments to suit their own needs. Moreover, the shares taken by the centre are the same in every region, which obviously favours those regions with more resources. (The system of municipal level funding in Russia is described in Box 4.9.) In Latvia, by contrast, the cities in 1993 retained only 40 percent of the income tax collected, whereas the districts retained 80 percent, the sharing mechanism thus having an equalizing effect. Uzbekistan is another country where tax sharing rates between central and local government vary between richer and poorer regions.

In most of the region, local tax and revenue systems for local governments are not well developed and are unable to support educational expenditure and other essential social

Table 4.7

Local tax systems in Central Europe

Country	Local tax arrangements
Bulgaria	A variety of local taxes exists, though they are declining in importance.
Czech Republic	There is no local taxation, but municipalities do have some sources of income, such as fees, and the larger municipalities are becoming more independent financially.
Hungary	Local taxes have to fill an increasing gap between local expenditure and declining central government support.
FYR Macedonia	Local government raises revenue from various local taxes, but has no formal responsibility for education.
Romania	Local taxes to cover services such as education are being discussed, but are not yet implemented.
Slovakia	Local government raises revenue from property taxes and other taxes, but has no responsibility for funding education.

Source: MONEE project database.

Box 4.9

Municipal level funding in Russia

Russian federal law gives the municipalities (the raions), which provide basic level education, little autonomy over the size of their budgets, but guarantees a reasonable degree of equalization among the municipalities of each region. (Federal law, however, offers little protection from the effects of differences between regions.) Municipalities share the revenue from the main taxes derived from their areas with the regions (the oblasts and their equivalent) and the centre. It is the regions that in general determine the shares kept by the municipalities (which can vary across them), but federal law imposes on the regions the duty to address disparities between municipalities. Every region must establish a "minimum necessary budget" for each of its municipalities and must ensure this is funded (with, if possible, at least 70 percent coming from the municipality's own tax receipts and the rest in transfers from the region).

expenditures without help from the centre. These "vertical fiscal imbalances", coupled with the differences in resource bases among local governments ("horizontal imbalances"), give great importance to the system of transfers from central government.

The *way* in which these transfers to local governments are determined has important implications for both efficiency and equity. Transfers are based on an assessment of "need", but there are a number of methods by which this can be determined. The use of past expenditures is common in countries of the former Soviet Union; this clearly provides no incentive for local governments to economize. For example, the system in Russia of equalizing transfers from the federal government to the regions uses past expenditures in a base year in the formula. The volume of total transfers is small, of particular concern from the equity standpoint, making up only 12 percent of total revenue of the regions in 1995 (about half the share of federal grants in state and local budgets in the USA). Moreover, the money is spread thinly; some 90 percent of the regions qualified for support in 1995, rather defeating the purpose of a system that is supposed to address "relative" need. The effect of the introduction of an explicit formula to determine the size of transfers in 1994, rather than reliance on closed door negotiations, does not appear to have increased progressivity, which is hardly encouraging. The apparently weak nature of this compensating system may shed some light on the regional inequalities in education expenditure in Russia considered earlier.

Some countries, including Lithuania, are presently developing new systems of normative funding that depend on the number of pupils or children in the age group. This method is to be encouraged since it does not penalize local authorities who make savings, although the norms need to be chosen to include equalizing elements. Several Central and South-East European countries have also made important financing reforms. For example, the main funding from the centre to district education offices in the Czech Republic is carried out according to a formula which awards amounts per pupil that depend upon the level and type of school, together with other factors, including adverse climatic conditions, a poor environment, the existence of small rural schools, and the integration of disabled pupils. Besides being more efficient than funding on the basis of past expenditures, the system thus has a degree of equalization between areas. Formula funding also applies in Hungary, although a shortage of money in 1993-95 apparently led many municipalities to hand their upper secondary schools back to regional (county) governments. In FYR Macedonia, however, part of the money for schools is allocated on the basis of teacher numbers, an example of an incentive to increase inputs rather than outputs. The rise in teacher numbers in several other countries in the region has been noted already, and perverse incentives built into school funding systems may be one factor in this.

A further distinction is that between "categorical" and "block" grants. The former must be spent for the purpose for which they have been made, for example, education. The purpose may even be tied to specific items in the education budget. Block grants may take the needs of education expenditure into account, but the local authority is free to spend the money however it sees fit. Transfers to local governments in Bulgaria and Hungary are of this type, as are those from Russian regions to municipalities. Categorical grants are more common in many countries of the former Soviet Union. They have been made to help finance teacher salaries in Russia, for example, so as to lessen the problem of the "unfunded mandate" that comes about when the centre determines salary levels, but the sub-national governments are responsible for meeting the bill.

Categorical grants allow the centre to promote equity goals directly – the money is spent on whatever the centre wishes, although there may be "crowding out" of the expenditure that the local authority would have otherwise made. Block grants give more discretion to the local authority and are generally regarded by economists as more efficient, in the sense of allowing local preferences to determine local expenditure. This argument in favour of block grants clearly requires budgetary decisions to be taken by representatives of elected local government. Where local democracy is poorly developed or where local administration is ill-equipped to take decisions, as in the case of the small Hungarian municipalities, the argument for categorical grants is strong. And the centre may not wish to give a free hand to elected local administrations if there is a danger that the spending decisions at the local level could discriminate against some groups.

Finally, it is clear that the late payment of transfers from the centre or from higher levels of sub-national government has been a major problem in a number of countries. As with other parts of the educational system, what is laid down on paper as being the system does not always resemble what is happening on the ground.

Self-financing of schools

The final issue considered in this section is the self-financing of schools – the phenomenon of schools raising their own money from whatever sources are available to help meet their expenditures. The association of enterprises and collective farms with the running of parts of the school system in the communist period, especially in the former Soviet Union, is a reminder that self-financing is, in some respects, nothing new. Not surprisingly, there has been considerable emphasis on self-help in countries where the economy has suffered heavily and where budgetary support has fallen sharply. Some forms of self-financing may also reflect the development of civil society – fundraising by parent groups and others in the local community is a feature of many advanced industrial countries, as well as those at lower levels of development.

A range of self-financing initiatives exists. Some forms are clearly to be regretted, such as the illicit charging of fees in cash or in kind for what in principle is still free public education. Other forms may be permitted and indeed encouraged by the state. For example, schools may rent out rooms (sometimes to commercial enterprises), charge for extra-curricular activities, or sell their output (in the case of vocational schools). In Poland it is estimated that the additional income to schools from out-of-school activities amounts to between 4 and 17 percent of school budgets and that nearly half of all schools take advantage of the law allowing them to earn money.

Other initiatives may be more ambitious and in effect represent the take-over of responsibility for local schools by communities in the face of a hopeless situation resulting from collapse in public expenditure. A notable example of self-financing comes from Azerbaijan, where a UNICEF-supported project has provided matching funds to several communities in their efforts to re-vitalize local schools; school attendance appears to have risen markedly during the project – see Box 4.10. Another example comes from Albania, where the Soros Foundation has been successful in getting local communities to raise funds or offer services in kind. Having helped rehabilitate schools, parents apparently defended the buildings from vandalism during the turmoil in Albania in early 1997. One lesson from such projects has been the demonstration of the importance of community involvement in school life in general, as opposed to the mere raising of funds. As noted in Chapter 2, parents play a big role in fostering education both inside and outside schools, and the empowerment of communities to take action themselves, rather than always waiting for government, is an important part of the creation of a civil society during the transition.

However, large-scale self-financing initiatives raise a number of issues concerning governance and equity. Who is included in "the community", both in terms of fundraising and, more fundamentally, in terms of access to education? Who controls what happens in the school? (In the case of the project in Azerbaijan described in Box 4.10, a school committee is elected, including parents, other community members, teachers, pupils, and local authority representatives.) A significant degree of self-financing may cause communities to want to run schools as they wish, but government should still retain its responsibility for ensuring that education is provided for all children according to defined standards. And it should not be forgotten that, inevitably, opportunities for fundraising will be unevenly distributed across school areas.

One issue for public policy is the treatment of these "extra-budgetary funds" in the determination of the public funding of schools. To the extent that only the well-placed schools are in a position to raise additional funds, the tendencies towards increased disparities are exacerbated if funding is not adjusted. But attempts to take the additional funds into account in determining the budget allocation may end up "crowding out" school efforts to raise revenue. In Kazakhstan, following a period when local extra-budgetary funding was encouraged (1992-94), central government regulations changed so that budget allocations have been reduced by the amount of the locally raised funds. Local contributions have apparently been "crowded out" completely, and hence the burden of school financing on the public budget has not been reduced. The system of normative funding in Hungary also takes account of schools' own earnings, thus improving equity, but at the cost of reducing the incentive to raise revenue.

Summary

The current situation regarding the decentralization of schooling in the region is varied and defies easy summary. In some countries there has been substantial decentralization of responsibilities in favour of local governments and schools themselves, but in others there has been little decentralization. In assessing the moves that have been

Box 4.10

Re-vitalizing schools in Azerbaijan

The education system in Azerbaijan suffers from a lack of resources at all levels, decaying infrastructure in terms of buildings and equipment, low morale of staff, and declining interest among pupils leading to non-attendance and drop-out. UNICEF has supported a pilot project in the capital, Baku, and in the rural districts of Salyan and Masalli in southern Azerbaijan that is intended to demonstrate the potential for community finance and involvement to re-vitalize local schools.

UNICEF has provided modest start-up funds matching those raised within the community, and the schools have been given the ability to generate their own income. (For the two rural schools in the project the latter has taken the form of the allocation of land by the district government in one case and the purchase of a tractor in the other.) The income generated has been largely used so far to repair schools, to purchase school equipment and to supplement teacher salaries.

Following school repair, attendance among enrolled children in the project school in Salyan rose from 52 percent in September 1996 to 78 percent in September 1997, and in the Masalli school from 58 percent to 82 percent. It seems likely that this reflects the greater community involvement in school activities and commitment to the future of the schools, as much as it does the impact of the school repairs undertaken with the money raised.

made and those that may be considered, the arguments in favour of decentralization need to be balanced with an appreciation of the dangers. Various aspects of the context in the region also need to be borne in mind. Where there has been decentralization, the systems of governance and financing that have been put in place are often sufficient neither to adequately promote increased efficiency, nor to protect educational provision in poorer areas and thereby to prevent greater disparities in access. These remain important challenges for policy-makers throughout the region.

■

4.4 School Choice and the Costs of Schooling

Should greater choice of schools be offered to parents and children in the region? And for what elements of education is it reasonable to ask families to pay? There has been a diversification of schooling options in a number of countries, including the opening of private schools and further development of élite streams of education at the secondary level. Are these positive developments or not? And there are numerous examples of increased charging for education, from pre-schools up to tertiary level. Is this an inevitable short-term response to the economic situation in much of the region? Or are there more fundamental questions of public policy that need to be addressed?

Competition and choice

The issue of parental choice already came up in the previous section's discussion of decentralization. Part of the case made for genuine decentralization is that it allows public policy to be more closely aligned with voter preferences. But it should be recognized that this argument concerns *parental* choice, and this does not necessarily coincide with the needs of children. After all, the reason that basic-level education is made compulsory is society's recognition that parents with children at this age should not be allowed a choice in the matter. This is an example of a case in which the duty of governments to act in "the best interests of the child", enshrined in the UN Convention on the Rights of the Child, takes precedence over the improvement of the range of choices available to parents.

This is not to say that increased choice and the best interests of children are necessarily incompatible, and the UN Convention does specifically endorse "the liberty of individuals and bodies to establish and direct educational institutions" (subject to the minimum standards laid down by the state). Greater choice and the best interests of the child may indeed coincide in many instances. For example, the increased local participation that genuine decentralization offers may be of enormous benefit to children's learning. But there should be no question of a "trade-off" between the provision of greater choice per se and the consideration of what is in the interests of the child. The latter should come first – although what *does* serve the "best interests" of children may not always be obvious.

This basic principle is relevant to a range of questions concerning "school choice" faced by governments throughout the region. Some of these questions are easier to resolve than are others. For example, is it in the best interests of a child that parents can choose to place him or her in a private religious school with a curriculum emphasizing theology to the exclusion of mathematics and science? Most people would probably disagree with this proposition. A question that is harder to answer is whether it is the "best interests" of each individual child that should be respected or those of children in general. The best interests of all children may not be served by increasing the options available to a minority through the development of élite gymnasia, although the individual child going to a gymnasium may benefit from this.

The discussion in this section focuses principally on the issues surrounding a wider choice of types of school both within the state sector and between the state and private sectors. The arguments in favour of greater choice are well known. A greater choice of school types, and – associated with it – more competition, can lead to various benefits for consumers (in this case children). This may result in a wider range of courses on offer to children, a positive feature in view of the excessive homogenization of the communist period. Separating children by ability level into different schools (or "streaming" within schools) may allow teaching to take place at the level and speed appropriate to the individual child's capacity to learn. Private education may adapt more rapidly than the state sector to new demands, for example for teaching of accountancy or "Western" economics. Private education also provides valuable information about educational provision as a whole. A huge demand for private schools is a signal that something is wrong with public-sector schools. Private schools may innovate more quickly in curricular matters or make better use of teachers and provide them with better conditions. All of these lessons might then be beneficially transferred to the public sector.

The administrative and financial mechanisms that *enable* choice to be exercised are an important aspect of the issue. A logical corollary is a capitation-based system of financing, so that resources go to where the pupils are. Some commentators have argued that this should occur through a system of education "vouchers" in which parents are charged fees, but are given a voucher to pay for them at the school of their choice or to contribute towards what may well be higher fees in the case of private schools.

The drawbacks to more competition and choice are also well known. Some relate to issues of efficiency. There

are, for example, significant fixed costs associated with the expansion or contraction of educational infrastructure. And parents may not have the information to judge whether a new private institution is of sufficient quality. The acquisition and interpretation of adequate information are more difficult for a reasonable choice among schools than for a choice among different sellers of carrots, and the consequences of making the wrong choice are much more serious.

Other drawbacks are associated with the worsening equity of access, which is of especial interest to this Report. First, a family's capacity to exercise choice among schools, even within the state system, may be constrained by distance. This is particularly important in rural areas; hence, the greater choice may be the privilege of families in urban areas, which, according to much evidence, are already more advantaged.

Second, there is the risk of downward spiral. The more articulate and well informed families may be the ones that leave the poorly performing schools, leading to fewer resources for these schools and, as a result, a further deterioration in quality. There will also be a less effective parental voice to lobby for improvements. The tendency towards social stratification may be exacerbated as schools seek to exclude less able children in order to raise average examination marks, a signal often used by parents when choosing schools.

Third, and most obvious, the fees charged by private schools may be well beyond the means of even families with average incomes – a common problem in private education in the region. This is not to say that families with the necessary money should not be permitted to purchase education for their children, but the fact that this option will only be available to a small minority needs to be recognized.

Finally, separating children by ability may be associated with poorer performance among less able students. There is substantial debate on this issue, but some evidence suggests that mixed ability schools result in better average performance since the more able students suffer a reduction in achievement that is smaller than the improvements experienced by students of lower ability.

Selection and choice within the state system

Selection within the system of public education was a major feature of schooling in the region during the communist period. Provision at the secondary level involved an important division between schools focusing on vocational or technical training and those offering general education. Chapter 2 discusses changes in enrolment in both types of school, and Chapter 3 notes the different probabilities of transition to tertiary education associated with the two types. A major issue for educational equity is how this system will change; some relevant aspects can only be touched on here. One notable feature that has emerged in parts of the region has been the increasing differentiation within the general secondary school system.

In the countries of the former Soviet Union there has typically been some diversification in the types of schools within the state sector, and in a number of countries families can choose schools regardless of place of residence. In Russia, the number of "non-traditional" types of educational institution apparently grew eight-fold between 1993 and 1996. The number of élite gymnasia with competitive entry is increasing within the state system, and concern for the equity implications has been expressed, for example, by the OECD in a recent review of educational policy in Russia. Such schools are generally put at a distinct advantage by public policy. In Uzbekistan, both state budget allocations and teacher salaries are higher in the lycees and gymnasia. Similarly, in Lithuania teacher salaries in lycees and gymnasia are 20 percent higher than they are in the normal state schools. Choice is typically greater in metropolitan areas. The new opportunities in schooling in Russia have tended to be concentrated in urban areas; new types of schools in Azerbaijan are rare outside Baku and Sumgait.

Some similar developments can be found in Central Europe. For example, the Czech Republic has introduced gymnasia with competitive entry at age 11 or 13, in addition to those with entry at age 15. Eleven percent of 11-13 year olds attended such schools in 1995-96, with the number of applicants far exceeding the number of those admitted. In FYR Macedonia there are now entrance examinations for the better schools, which did not exist before the 1990s, with five or six candidates for every place in the gymnasia.

One of the concerns about competition for places within the better state-sector schools is that the criterion for selection may drift towards socio-economic status and away from merit. There is some evidence of this happening in Armenia, for example. Recent investigation by the World Bank shows that schools in the capital, Yerevan, experimented with the segregation of children on the basis of ability, but that within a few weeks classes were apparently re-structured along socio-economic lines, as poorer students were excluded from the higher ability classes in favour of children from richer families who had bought their way in.

The development of private schooling

Significant elements of private education have developed in parts of the region. The nature of this education varies considerably. Some private institutions have been founded by churches, and others may not be run for profit. Others are more obviously profit-motivated firms. Much of the development in private education has been at the secondary and tertiary levels, and there are several reasons for this. First, higher education was severely restricted prior to the transition, so there is a serious shortage of places, to

which the private sector has been able to respond quickly. Second, shifts in demand towards new types of secondary education have given scope for the private sector, which has been more readily able to innovate and offer new courses. Finally, from the individual's point of view, the payback to private education is quicker the closer this type of education is to the start of working life. The return to private primary education would be much more distant in time relative to that from private university education.

Figure 4.4 shows the speed at which private secondary schools have emerged in the Czech Republic. One-quarter of all secondary schools were private by 1994, starting from a base of zero at the start of the decade. Private schools tend to be significantly smaller than the state ones, so their importance in terms of total student numbers is much lower. Some 7 percent of secondary pupils were in the private sector in 1996/97. In Hungary the figure was 8 percent. In Poland in 1995/96 the private-sector share of general secondary school enrolment was just over 4 percent, while in Slovakia in 1996 the general secondary share was apparently over 12 percent.

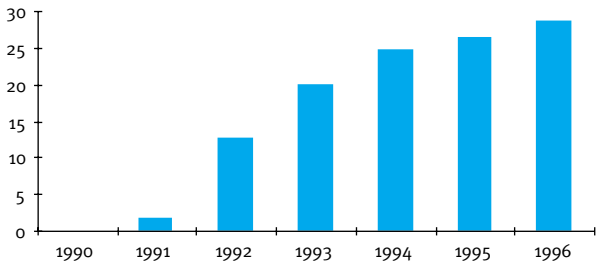
Private schools have been innovative in terms of both the content of courses and organization. In private gymnasia in the Czech Republic, for example, substantially more use is made of external lecturers than in state gymnasia. Similarly, many of the teachers in the private system in Slovakia are part time. However, it is not clear that these are always positive developments. Competition from the private sector has apparently led to the state sector offering additional classes, but on a paid basis. Part-time or external staff in some cases are merely public-sector teachers who are supplementing their pay. This is an example of the private sector "solving" a labour market problem (low wages in the public sector), but there are likely to be negative spillover effects on the quality of public education.

These sorts of issues are also of concern in the countries of the former Soviet Union. The picture is complicated by the sharp falls in public expenditure on education in some countries noted in Chapter 2. If the growth of the private sector merely substitutes for public schools that the state can no longer finance, there is no net positive effect on access, and the distributive impact can be expected to be negative, increasing disparities. In this situation the "choice" between state and private education may be an illusion.

Georgia is an example. There has been quite rapid expansion of private education, especially at the secondary level, alongside a virtual collapse in public financing of education. Many private schools now operate in public buildings, typically public schools that have been leased to private "school entrepreneurs". By 1997 the share of the private sector at the general secondary level was about 5 percent, but reached 60 percent in special secondary schools and 90 percent at the tertiary level. Nevertheless, most private schools reportedly do not yet provide adequate buildings and equipment.

In general, however, the development of private schooling seems to have been slow in countries of the former Soviet Union. This is not surprising given the severely depressed levels of average household income in much of the region, although the substantial widening in income distribution in many countries referred to in Chapter 1 means that a minority can afford private schooling with ease. In Kazakhstan, for example, the number of private secondary schools rose from 18 to 98 between 1994 and 1997, of which one-fifth are in the capital. In Lithuania, the number of private schools remains limited in both absolute and relative terms, amounting in 1996 to only 26, or less than 1 percent of all basic level educational institutions.

Figure 4.4



Note: Data refer to academic years. (Hence, "1996" means "1996/97".)

Private secondary schools in the Czech Republic (percent of total)
Source: MONEE project database.

An important aspect of the debate over public policy on private education (and a factor in the extent and speed of its development) is the degree of public subsidy that the private sector receives. In several Central and Eastern European countries there is considerable state support for private education, as shown in Table 4.8. In Hungary private schools receive the same support as state schools, while in the Czech Republic, Poland and Slovakia there is generous partial support. Private schools

Table 4.8

Public funding of private education in Central Europe

Country	Public financial support
Bulgaria	VAT exemption only.
Czech Republic	Subsidy between 60 percent (secondary schools) and 90 percent (basic and special schools) of the subsidy level for state schools. This can increase if certain conditions are met, for example, if the school agrees to inspections.
Hungary	Subsidy as for state schools. Fees attract tax relief.
Poland	Subsidy 50 percent of the level in state schools. Fees attract tax relief.
Romania	None, but reduced prices for pupil transport, museum admission, and so on.
Slovakia	60-80 percent of state school level (100 percent for church schools).

Source: MONEE project database.

in Lithuania that meet state educational standards are allocated the same amount per pupil as are public schools. The same is in principle true of accredited "non-government institutions" in Russia that have the right to charge fees, although there is anecdotal evidence that such schools have lower priority in the state sector budget. (About one-fifth of the total number of non-state schools were accredited in 1996.) Some countries provide advantages in terms of exemption from certain taxes, as in Kazakhstan, where private schools do not pay taxes on profits.

Public-sector support to private schooling is contentious; this is also true for Western countries, which experience fewer constraints on resources than do many of the countries of Central and Eastern Europe and the former Soviet Union. Direct subsidies to schools on a per-pupil basis are almost certain to be regressive because they subsidize higher income families which are able to pay fees for private education. (Targeting the subsidy on children from needy families would be a better option.) The same is true of offering tax relief on these fees; criticism by the general public of this policy in Poland led to the relief not being indexed. While private education in the region remains within the reach only of the few and the state system is underfunded, a much more equitable policy would be to put the resources concerned into the public sector.

Household spending on education

The formal commitment of countries in the region to the provision of free public education is evident in written constitutions, national legislation and the ratification of international law in the form of the UN Convention on the Rights of the Child. But households throughout Central and Eastern Europe and the former Soviet Union spend significant amounts on education. Moreover, these amounts vary notably across the income distribution, and the differences between rich and poor can be expected to have grown over time. This is illustrated by the data for Bulgaria and Slovakia in Figure 4.5. The graph shows the ratio between expenditure on education in the top 10 percent of the income distribution and that in the bottom 10 percent (both adjusted for the number of children in the decile). In Slovakia the households at the top of the distribution spent three times as much as did those at the bottom in 1989, but 16 times as much in 1995. In Bulgaria the ratio rose from seven in 1992 to nearly 20 in 1996.

For what reasons do households spend money on education, and what are their implications if public policies are to promote education for all? The items of expenditure divide up into several groups:

- Fees for private schools and universities and for public education outside the compulsory age range.
- Communities contributing towards the financing of local schools.
- Payments to public-sector teachers for extra teaching and bribes to obtain good exam results.
- Textbooks, school meals and extra-curricular activities.
- Complementary "inputs" such as clothing and shoes.

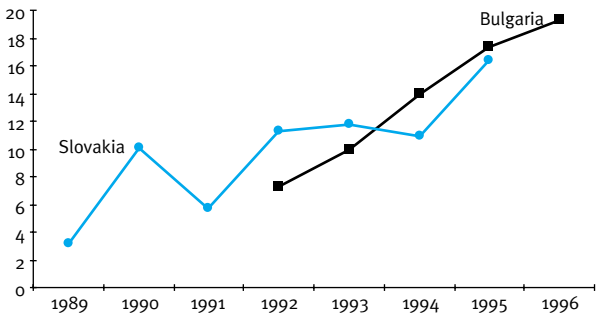
(Not all of these different kinds of expenditures may be observed in budget survey data of the type used in Figure 4.5.) Consideration of these different reasons helps one understand the discussion in Chapter 3 concerning the ways that access to a good education varies with family income and why the relationship between the two has increased during the transition.

The first two sets of expenditures are not incompatible with constitutional or legal obligations to provide public education free of charge. The case of private school and university fees is obvious. And community funding of, for example, repairs to the roof of a public school is also in this category (although the question why the state was not paying should be asked). Fees for public-sector universities – a notable feature in many countries in the region – also qualify, as do charges for kindergartens provided by the state. Even the charging of fees for places in public secondary schools is permissible under the Convention on the Rights of the Child, which stipulates that primary education must be available "free to all", but does not do the same for secondary education. Hence, the introduction, for example, in Georgia in 1996 of a tuition fee in public general secondary schools for grades 10 and 11 does not appear to contravene a strict reading of the Convention.

But any reasonable view of the role of government in promoting educational access leads to concern about the implications of such charges, especially those within state-sector schools. Access becomes limited to those that have the income. And a closer reading shows that the Convention on the Rights of the Child – to use this as an example of governments' stated commitment to certain educational goals – obliges the extension of access to secondary and tertiary schooling to all children, irrespective of means. Rationing access on the basis of price hardly constitutes a fulfilment of this obligation. The secondary school fee in Georgia is waived for 30 percent of children on the basis of ability, not on that of financial need – as would be required to encourage access among families with low incomes.

Figure 4.5

Ratio of expenditures on education in the top and bottom income deciles, Bulgaria and Slovakia



Source: MONEE project database.

Note: The distribution in both cases is of income per capita, and the expenditure data are adjusted for the number of children in each decile.

The reasons for the third set of expenditures on education listed above – other types of payments to teachers or schools in the public system – are a cause for serious concern. There are numerous anecdotal reports from many countries in the region of desirable 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 exam marks. (Such practices may not be widespread in all countries and seem more common in countries of the former Soviet Union than they are in Central Europe.) A mother in Novgorod, Russia, for example, tells of her search for a place in a public kindergarten for her child. At each kindergarten she visits she is asked openly what she can contribute; when her family's limited economic circumstances are revealed, she is told that the kindergarten is full. Parents in Armenia report on the payments required to secure a place for a child in a gymnasium and the amount per child requested by teachers for improved exam grades. All these practices clearly run counter to any aim of promoting access for children in less affluent or less well connected families.

The fourth set of expenditures can be considered to be in an intermediate group, and they call into question the definition of "free" public education. These are the expenditures by households on textbooks, school meals, language lessons, and extra-curricular activities of various kinds. Most of these items were provided free of charge in the communist period or were heavily subsidized. Some might be regarded as peripheral to the main purpose of education, although Chapter 2, which documents the decline in provision of school meals, for example, questions this narrow view. Others, such as textbooks, are clearly at the core of educational provision.

The burden on households of buying textbooks is a major concern in much of the region, especially the countries of the former Soviet Union. Textbooks appear still to be supplied free of charge in Russia, but Chapter 2 documents the failures in supply, and reports of families having to buy their own textbooks are common. Other countries have given up the principle of free textbooks altogether. The obligation on households to purchase textbooks is not, of course, unknown in Western countries, and hence it may not be a surprise that even in Hungary, a relatively affluent country in the region, textbooks are being purchased by families. However, the cost of textbooks in countries in the region is typically far higher relative to household incomes than it is in Western countries. A key issue determining willingness to pay for textbooks (and other items) is the quality of schooling that is provided. Chapter 2 points to problems of quality in the region's educational systems that were inherited from the communist period and other problems that have arisen during the transition (in part due to falling state expenditure). Low-quality schooling provides little incentive to households to make sacrifices to buy textbooks.

The hardship for low-income households in poorer countries in the region is clearly immense, with the result that textbooks are often not bought. In Georgia, where textbooks are free only for refugee families, the cost of a set of books for a grade seven pupil is reported to be double the monthly average wage. (Spending on all types of education in Georgia accounted for almost 9 percent of total household expenditure in the bottom decile of the income distribution in 1996, but less than 2 percent in the top four deciles.) Parents in Armenia are now charged the full costs for textbooks. The problem this poses for low-income families is summarized by the comment of one parent to a World Bank survey: "I spend 90 percent of my wages on food; how can I buy textbooks?" Another parent recounted having to harvest his potato crop early and sell it at a lower price in order to obtain sufficient money to buy materials for his child for the start of the school year.

The final category of household spending is those expenditures on items that are complementary to the education of a child, such as clothing and bus fares. Typically, costs here have increased significantly in real terms with the liberalization of prices and the removal of subsidies that previously ensured access to even the poorest families. Expenditure on children's clothing, unless it is on school uniforms, is often not included in survey data on education expenditures of the type used in Figure 4.5 on the grounds that children have to be clothed whether they attend school or not. But the standard of clothing required to attend school and that sufficient for home may differ sharply. Culture or societal norms are one factor at work here. (This was found to be important in the World Bank survey in Armenia referred to earlier in which parents saw spending on clothing as the single biggest item of expenditure on education.) But this is not the only explanation. A pair of shoes is a necessary condition to even get to school in winter. In the Bel-Adei raion in Kyrgyzstan in 1994, almost two-thirds of children reportedly did not attend school for lack of winter clothes and shoes, and there is much other anecdotal evidence from some parts of the region of this sort of problem. ■

4.5 Conclusions and a Policy Agenda

Thinking about school costs brings the discussion back to the starting point of the Report in Chapter 1 – the greatly depressed nature of many of the region's economies. With higher incomes, households in the region would be able to support private expenditure on education more easily, including that on complementary items such as children's shoes and clothing or food to further nutritional status. (The shifts that have taken place in the structure of prices and the increase in inequality during the transition need to be borne in mind; reversing the fall that has occurred

in average incomes would still leave many households worse-off than before.) With higher revenues, governments could put more resources into public education by raising teacher pay (and hence morale), for example, or by improving school buildings and equipment. (It has been noted that these revenues ought to be higher than they are at present in a number of cases, even with unchanged levels of national income.) Governments could also provide more support in real terms to poorer households, thus further benefiting educational access.

Putting more money into the educational system clearly matters in terms of increasing educational standards, but the problems facing public policy in the effort to advance "education for all" in the region *are not just due to a lack of resources*. For many improvements, more money is far from being a sufficient condition. The promotion of educational access for all children, including aspects of quality, requires consideration of a range of issues, of which a number relate to the distribution of existing resources and the organization of the school system and the social sector more generally.

Table 4.9 lays out a 12-point agenda for policy to increase educational opportunities and quality for less-advantaged children, thereby reducing disparities in access and achievement. It should be emphasized that this agenda does not cover *all* elements of educational systems in the region that are in need of reform. For example, the issue of textbook design and supply, discussed in Chapter 2, is vital to improvements in education, although it does not directly enter the list. But in focusing on those that will help the least advantaged, the table covers many policies of general benefit to all children.

Table 4.9

Twelve steps towards education for all

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

The first policy in Table 4.9 is a good example of a measure that will in fact help all children. Teaching methods and other dimensions of a school environment that *encourage participation* and active learning by children are of general benefit, but they may be particularly important for helping the development of the less-advantaged child.

Reconsideration of streaming and selection at the secondary level is bound up with the uncertain future of vocational and technical schooling in many countries. The streaming of children into different types of secondary school was inherited from the past, and its implications have been re-inforced by a tendency in parts of the region during the transition towards further development of élite secondary schools. These policies need new thought if a polarization of educational opportunities is to be avoided. (This is not to say that all schooling at the secondary level should necessarily be of the same type.)

Fair exam systems are one part of this process. The implications of streaming and selection depend in part on the criteria that are used. A fair exam system that adequately documents achievement helps ensure that streaming and selection take place on the basis of merit rather than on other criteria. But good exam systems are needed in any case to allow children to show what they have achieved at school, whether to aid their entry into the labour market or to allow further progress in the educational system.

The extra-curricular support given by schools is a reminder that an educational system can do much more than impart knowledge. Schools can help children in many other ways. Governments should reconsider the role for schools in providing support to the health and nutrition of children, particularly those from disadvantaged backgrounds. Organized after-school activities may help reduce the phenomenon of "latch-key" children and any tendency among adolescents to drift towards alcohol, drugs and crime.

Parental and community involvement may be important in the organization of after-school activities, especially in a situation where schools lack financial resources. But parents and the community have a far wider role to play in the life of schools than this. Parental encouragement is clearly vital to children's progress at school. A positive attitude of educational systems towards parental involvement in school life may help ensure the continued enrolment and attendance of children from less-advantaged backgrounds. Parents are a key element in the monitoring of school

standards. Community mobilization is particularly important for maintaining school quality in rural areas.

Very little is known about the extent of *child labour* in the region and its impact on school attendance and learning achievement. This is an important topic for further investigation. Children from rural agricultural backgrounds and from low-income families may be particularly at risk of being involved with work that threatens their schooling.

Access to education for children from *low-income families* should be a subject of great concern to all governments, especially in view of the rise in poverty and inequality in much of the region. The evidence in this Report suggests that this access is often under severe threat, both in terms of enrolment or attendance and in terms of the quality of schooling received. Policy is needed to ensure that low-income families have adequate access to textbooks, that they are not barred in practice from education by formal fees, that they can afford clothes and shoes for school, and – together with families of all income levels – that they do not have to pay bribes so that their children can enter into or progress through schools.

The *disabled child* should be integrated into normal schools wherever possible, rather than being educated in special institutions away from other children (or not educated at all). This may require investment in training and special facilities, but ultimately cost savings should result from a policy of integration. But most importantly, integration requires a change in attitude towards the position of the disabled child in society. This can already be observed in some countries, which is encouraging.

The needs of children from *ethnic minorities* should be considered and efforts made to secure good access. The language of instruction is one relevant issue that is being addressed in many countries (although adequate knowledge of the national language is also important). Other issues include the involvement of ethnic minorities in the governance of the local school system.

Various aspects of the *early development* of the child should be promoted. Health, nutrition (both of which influence mental development), socialization, and learning all require attention. Public policy needs to avoid an exclusive focus on formal kindergartens, to which children from rural and low-income families often have lower access, and should include parental education, public health campaigns (to combat, for example, micronutrient deficiencies) and the stimulation of local community action for self-help schemes.

Central government must retain *adequate control over local administration* so that minimum standards of education are adhered to in all parts of a country. In countries where local governments have autonomous powers over local education this involves close monitoring and regulation of the activities of these governments. The arguments for and against the decentralization of various aspects of educational provision, and the forms decentralization may take, need to be carefully assessed by central governments wishing to pass authority down to locally elected officials.

Where local governments do have authority over educational provision, it is vital that central government institutes an *adequate system of financial transfers* to redistribute funds from richer to poorer areas, so that the latter can fulfil their responsibilities despite an inadequate local tax base. This requires a positive attitude in society towards redistribution between the different parts of a country.

The ways in which these 12 steps towards improving educational access and quality can be taken will be the subject of considerable debate. In several cases there are genuine differences of opinion on how to move forward. However, this should not draw attention away from the need for action. Education has a vital role in fostering the development of all children, including recognition of their rights and responsibilities as young citizens. In strengthening this role, reforms to education are an integral part of the transition to more humane societies enjoying higher material standards of living and a better quality of life.

■

Statistical Annex

The data in the Statistical Annex are taken from various sources. The great majority are provided by the central statistical offices participating in the MONEE project. (These institutions should not be considered responsible for the data included here, since in some cases calculations have been made to derive the figures presented, for example, enrolment rates in education.) Other sources are given in the table notes when relevant. The data provided by central statistical offices are what is usually meant by the phrase "MONEE project database" given as the source in a number of tables and graphs in the main text. (The data are not necessarily consistent with those found in other UNICEF publications.) The Glossary, which follows the Statistical Annex, gives definitions of many of the terms used.

A menu-driven database called "TransMONEE 3.0", which includes all the data in the Statistical Annex, together with a substantial amount of additional data, is available free of charge from UNICEF ICDC via the Internet. Windows 3.1 and Windows95/NT versions are available, both of which contain the same set of data. (The Windows95/NT version has an interface with more advanced features.) The database allows the user to extract a profile of economic and social indicators for a single country or to compare a single indicator across sub-regions, countries and time-periods. Data can be converted into index form or expressed as rates of change. Data can also be output as a table or graph and can be exported to different file formats, for example for further use in a spreadsheet package.

For more details or for instructions for downloading and installing the database, see the website of the Centre for Europe's Children, Glasgow University, UK. The address is: *http://eurochild.gla.ac.uk*.

To download the database, access one of the following FTP sites by typing the address in the net browser; then click on the database files: European University Institute (Italy) at *ftp://datacomm.iue.it/unicef/* and the Centre for Europe's Children (UK) at *ftp://eurochild.gla.ac.uk/monee/*. (Users are advised to consult the website of the Centre for Europe's Children first.)

1.1 Total population (beginning of year de facto population, thousands)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic[a b c]	10,320	10,336	10,360	10,362	10,305	10,313	10,326	10,334	10,333	10,321	10,309
Slovakia[a b c]	4,991	—	5,264	5,288	5,272	5,296	5,314	5,336	5,356	5,368	5,377
Poland[a d]	35,578	37,203	37,885	38,038	38,183	38,309	38,418	38,505	38,581	38,609	38,639
Hungary[a e]	10,708	10,579	10,589	10,374	10,355	10,337	10,310	10,277	10,246	10,212	10,174
Slovenia[a f g]	1,801	1,973	1,996	1,996	2,000	1,999	1,994	1,989	1,989	1,990	1,987
Croatia[f h i]	4,588	4,702	4,767	4,778	4,784	4,782	4,779	4,777	4,776	4,494	4,512
FYR Macedonia[f j k]	1,909	—	—	—	2,035	2,047	2,063	2,009	1,957	1,975	1,989
Bosnia-Herzegovina[f l]	—	—	4,435	4,478	4,518	—	—	—	—	2,254	—
FR Yugoslavia[a f i m]	9,842	10,209	10,445	10,500	10,558	10,434	10,469	10,503	10,535	10,568	10,594
Albania[a j]	2,671	2,957	3,227	3,273	3,259	3,189	3,154	3,178	3,219	3,263	3,300
Bulgaria[a]	8,862	8,961	8,987	8,767	8,669	8,595	8,485	8,460	8,427	8,385	8,341
Romania[a d]	22,201	22,725	23,112	23,211	23,192	22,811	22,779	22,748	22,712	22,656	22,582
Estonia[a n]	1,469	1,529	1,566	1,572	1,570	1,562	1,527	1,507	1,492	1,476	1,462
Latvia[a n]	2,512	2,579	2,666	2,673	2,668	2,657	2,606	2,566	2,530	2,502	2,480
Lithuania[a n]	3,413	3,545	3,675	3,708	3,736	3,747	3,736	3,724	3,718	3,712	3,701
Belarus[n o]	9,622	9,969	10,152	10,211	10,212	10,233	10,298	10,319	10,297	10,264	10,236
Moldova[n o]	3,987	4,195	4,335	4,359	4,364	4,357	4,346	4,350	4,346	4,332	4,318
Russia[n]	138,483	143,033	147,022	147,662	148,164	148,326	148,295	147,997	147,939	147,609	147,137
Ukraine[a n o]	49,953	50,858	51,452	51,584	51,690	51,802	51,989	51,860	51,474	51,079	50,639
Armenia[n q]	3,074	3,317	3,288	3,515	3,575	3,649	3,722	3,742	3,754	3,766	3,782
Azerbaijan[n o]	6,114	6,622	7,038	7,131	7,187	7,297	7,368	7,431	7,487	7,535	7,566
Georgia[j]	5,053	5,264	5,424	5,457	5,478	5,466	5,422	5,360	5,290	5,221	5,160
Kazakhstan[n o q]	14,832	15,739	16,673	16,618	16,721	16,892	16,914	16,870	16,607	16,472	16,471
Kyrgyzstan[n o q]	3,593	3,976	4,254	4,335	4,390	4,452	4,469	4,430	4,451	4,512	4,605
Tajikistan[n p q]	3,899	4,493	5,109	5,248	5,358	5,571	5,572	5,704	5,786	5,884	5,953
Turkmenistan[n p q]	2,826	3,189	3,534	3,622	3,714	3,809	4,254	4,361	4,450	4,567	4,570
Uzbekistan[n p q]	15,758	17,926	19,905	20,322	20,708	21,207	21,703	22,193	22,562	23,007	23,448

a. 1980, 1985: mid-year population.
b. 1980, 1991: Czechoslovak Population Census, 1980, 1991.
c. De jure population concept.
d. 1992: census.
e. 1990: census.
f. 1991: census.
g. 1980, 1985: estimates. To 1992, de jure citizens of SFR Yugoslavia w/permanent residence in Slovenia; since 1992, permanent residents of Slovenia.
h. 1980, 1985, 1989-90: CBSC (1996).
i. 1997: ICDC estimate.
j. Population data: US Census Bureau (1997).
k. 1980: refers to 1981. UNICEF (1994b).
l. 1989-91: estimate, 31 March. 1996: estimate, 30 June, for Federation of B-H (excluding Republika Srpska).
m. 1980, 1985: FSOY (1996).
n. 1989: census.
o. 1980, 1985: CIS Stat (1997a).
p. 1980-96: CIS Stat (1997a).
q. 1997: CIS Stat (1997b).

1.2 Rate of natural population increase

(birth rate minus death rate, percent; excludes population change due to migration)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	4.2	2.8	0.1	0.2	0.5	0.2	0.3	-1.0	-2.1	-2.1
Slovakia	—	—	5.0	4.9	4.6	4.1	3.9	2.9	1.7	1.7
Poland	9.6	7.9	4.9	4.2	3.8	3.2	2.7	2.6	1.3	1.2
Hungary	0.4	-1.6	-2.0	-1.9	-1.6	-2.6	-3.2	-3.0	-3.2	-3.7
Slovenia	5.8	3.1	2.5	2.0	1.2	0.4	-0.1	0.1	-0.2	0.1
Croatia[a]	4.0	2.3	0.6	0.7	-0.6	-1.0	-0.4	-0.1	-0.1	0.8
FYR Macedonia	13.9	12.1	10.1	9.7	10.0	8.5	8.3	9.3	8.2	7.9
Bosnia-Herzegovina	—	—	8.3	8.5	—	—	—	—	—	7.2
FR Yugoslavia[b]	8.6	6.8	5.3	5.5	4.9	3.4	3.3	3.1	3.2	—
Albania	20.1	20.4	18.8	19.5	18.3	13.0	8.4	—	—	—
Bulgaria	3.5	1.4	0.7	-0.3	-1.6	-2.1	-2.9	-3.8	-5.0	-5.3
Romania	7.6	4.9	5.4	3.0	1.1	-0.1	-0.5	-0.8	-1.5	-2.4
Estonia	2.7	2.8	3.8	1.9	-0.2	-1.3	-3.9	-5.2	-4.9	-3.8
Latvia	1.3	2.2	2.5	1.2	0.1	-1.3	-4.7	-6.8	-6.8	-5.8
Lithuania	4.7	5.4	4.9	4.7	4.2	3.4	0.3	-0.9	-1.0	-0.9
Belarus[c]	6.1	5.9	5.0	3.3	1.8	1.2	-1.0	-1.8	-3.1	-3.6
Moldova[c]	9.7	10.6	9.8	8.1	6.1	5.9	4.6	2.5	0.9	0.5
Russia	4.9	5.3	4.0	2.4	0.8	-1.4	-5.0	-6.0	-5.6	-5.2
Ukraine[c]	3.5	2.9	1.9	0.6	-0.7	-1.8	-3.4	-4.6	-5.8	-6.0
Armenia[c]	18.2	19.8	15.9	16.6	15.3	12.3	8.6	7.2	6.5	6.2
Azerbaijan[c]	17.2	18.2	19.7	19.9	20.5	18.1	16.8	14.3	12.6	10.9
Georgia[c]	9.1	9.8	8.2	8.7	7.9	4.8	11.4	3.0	3.6	3.8
Kazakhstan[c]	15.9	17.1	23.0	14.1	13.1	11.9	9.5	8.7	6.5	5.3
Kyrgyzstan[c]	21.2	23.9	23.4	22.5	22.3	21.6	18.5	16.4	17.9	16.1
Tajikistan[d]	28.9	33.0	32.2	32.6	32.8	25.6	24.4	21.2	22.7	16.9
Turkmenistan[d]	26.0	27.9	27.2	27.1	26.3	25.7	23.1	19.3	21.2	17.0
Uzbekistan[d]	26.4	30.2	26.9	27.6	28.3	26.6	24.9	22.8	23.4	21.1

a. 1980, 1985, 1989-90, 1995: CBSC (1996).
b. 1980, 1985: FSOY (1996).
c. 1980, 1985: CIS Stat (1997a).
d. CIS Stat (1997a).

1.3 Child population, 0-17 years (thousands)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	3,818	3,659	2,804	2,780	2,727	2,679	2,611	2,543	2,467	2,386	2,302
Slovakia	—	—	1,615	1,613	1,595	1,584	1,563	1,543	1,514	1,479	1,442
Poland	11,619	12,130	11,352	11,350	11,319	11,275	11,175	11,032	10,857	10,645	10,418
Hungary	3,759	3,629	2,648	2,611	2,587	2,560	2,497	2,422	2,358	2,297	2,238
Slovenia	558	588	511	506	500	490	481	470	459	452	438
Croatia[a b]	—	—	—	—	1,138	1,098	1,075	1,070	1,047	1,021	995
FYR Macedonia[a]	—	—	—	—	589	590	588	583	582	580	577
Bosnia-Herzegovina[a]	—	—	—	—	1,244	1,200	1,093	942	792	719	734
FR Yugoslavia[b]	—	—	2,923	2,916	2,907	2,846	2,822	2,795	2,767	2,743	2,721
Albania[a]	—	—	1,248	1,259	1,265	1,263	1,267	1,279	1,291	1,301	1,306
Bulgaria	3,306	3,109	2,273	2,188	2,138	2,083	2,000	1,954	1,901	1,844	1,791
Romania	7,349	7,590	6,661	6,635	6,543	6,398	6,235	6,069	5,900	5,723	5,553
Estonia	—	538	415	416	414	408	393	382	372	362	352
Latvia	831	877	681	681	678	674	656	639	623	609	594
Lithuania	1,294	1,312	1,000	1,000	1,003	1,003	994	982	971	959	945
Belarus	—	—	2,777	2,800	2,793	2,783	2,784	2,764	2,715	2,673	2,618
Moldova	1,749	1,833	1,420	1,439	1,439	1,432	1,415	1,403	1,387	1,366	1,339
Russia	49,577	51,349	40,048	40,174	40,082	39,881	39,458	38,823	38,260	37,570	36,718
Ukraine	17,615	17,778	13,317	13,325	13,257	13,183	13,136	12,973	12,705	12,449	12,151
Armenia[b]	—	—	1,224	1,262	1,281	1,298	1,303	1,292	1,275	1,255	1,235
Azerbaijan	3,471	3,537	2,700	2,741	2,755	2,810	2,839	2,859	2,868	2,863	2,878
Georgia[a]	2,102	2,111	1,593	1,594	1,592	1,576	1,544	1,505	1,463	1,420	1,381
Kazakhstan[b]	—	—	6,099	6,170	6,152	6,184	6,152	6,088	5,946	5,839	5,723
Kyrgyzstan[b]	—	—	1,850	1,888	1,911	1,940	1,955	1,950	1,952	1,971	1,975
Tajikistan[a]	—	—	2,555	2,635	2,715	2,774	2,806	2,831	2,849	2,860	2,867
Turkmenistan[a]	—	—	1,676	1,715	1,755	1,792	1,825	1,854	1,878	1,897	1,911
Uzbekistan[a]	—	—	9,458	9,696	9,920	10,109	10,263	10,382	10,464	10,510	10,530

a. ICDC estimates. Population data: US Census Bureau (1997).

b. 1997: ICDC estimates.

1.4 Child population, 0-4 years (thousands)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	815	693	663	655	642	639	632	622	602	570	532
Slovakia	479	—	426	416	401	394	386	378	367	350	332
Poland	3,238	3,423	3,145	3,009	2,884	2,799	2,711	2,620	2,540	2,430	2,316
Hungary	803	635	622	617	614	615	612	605	599	586	565
Slovenia	146	142	128	125	122	117	112	106	102	100	97
Croatia[a]	—	—	—	—	283	269	259	256	249	244	239
FYR Macedonia[b]	—	—	—	—	156	156	155	153	156	157	156
Bosnia-Herzegovina[b]	—	—	—	—	—	—	—	—	—	—	—
FR Yugoslavia[a]	—	—	806	789	779	765	744	726	710	696	684
Albania[b]	401	—	380	383	387	389	387	382	376	367	359
Bulgaria	700	591	591	569	543	515	482	460	435	409	390
Romania	1,998	1,727	1,794	1,811	1,763	1,615	1,507	1,397	1,281	1,225	1,191
Estonia	109	118	122	121	119	113	104	94	85	77	72
Latvia	173	193	208	205	200	192	178	162	148	134	121
Lithuania	259	277	295	294	292	290	279	266	251	236	220
Belarus	727	—	819	813	793	757	727	678	622	585	547
Moldova	377	417	438	433	420	400	379	357	338	318	299
Russia	10,663	11,586	12,032	11,730	11,300	10,624	9,759	8,841	8,192	7,585	7,090
Ukraine	3,653	3,821	3,791	3,714	3,616	3,474	3,343	3,146	2,950	2,773	2,596
Armenia[a]	321	—	380	385	382	377	365	344	317	287	259
Azerbaijan	697	793	862	875	875	894	896	884	859	818	822
Georgia[b]	430	458	464	457	450	436	414	388	359	328	307
Kazakhstan[a]	—	—	1,916	1,918	1,873	1,833	1,768	1,678	1,591	1,509	1,420
Kyrgyzstan[a]	—	—	617	624	625	624	618	599	580	573	555
Tajikistan[b]	—	—	929	950	966	961	936	907	868	819	782
Turkmenistan[b]	—	—	575	585	590	591	590	586	577	566	552
Uzbekistan[b]	—	—	3,297	3,329	3,337	3,307	3,255	3,189	3,092	2,970	2,853

a. 1997: ICDC estimates.

b. ICDC estimates. Population data: US Census Bureau (1997).

1.5 Youth dependency ratio (ratio of 0-17 population to 18-59 population)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	32.8	32.6	32.2	31.6	30.8	30.0	29.1	28.2	27.2
Slovakia	35.9	35.8	35.5	35.1	34.6	34.0	33.3	32.5	31.6
Poland	35.0	35.0	34.9	34.7	34.4	33.9	33.4	32.8	32.1
Hungary	30.8	31.0	30.9	30.6	30.0	29.2	28.5	27.9	27.3
Slovenia	30.3	30.0	29.7	29.3	29.0	28.5	28.0	27.6	26.9
Croatia[a]	—	—	28.9	28.1	27.6	27.7	27.2	28.7	28.4
FYR Macedonia[b]	—	—	32.5	35.1	34.8	33.7	33.6	33.3	33.0
Bosnia-Herzegovina	—	—	—	—	—	—	—	—	—
FR Yugoslavia[a]	28.0	27.8	27.5	27.3	27.0	26.6	26.3	26.0	25.7
Albania[b]	39.4	39.2	39.6	40.4	41.0	41.1	40.1	39.9	39.6
Bulgaria	31.1	30.9	30.7	30.3	29.6	29.1	28.6	28.0	27.4
Romania	34.0	33.8	33.5	33.5	32.9	32.2	31.4	30.7	30.0
Estonia	31.9	31.9	31.9	31.7	31.4	31.0	30.6	30.2	29.8
Latvia	30.9	30.9	30.9	31.0	30.9	30.6	30.4	30.1	29.7
Lithuania	32.3	32.1	32.1	31.9	31.9	31.7	31.5	31.2	30.9
Belarus	32.6	32.8	32.9	32.7	32.7	32.4	31.9	31.6	31.2
Moldova	37.5	37.8	37.8	37.7	37.5	37.1	36.7	36.3	35.8
Russia	32.2	32.3	32.3	32.2	32.0	31.5	31.0	30.6	30.1
Ukraine	31.6	31.6	31.5	31.3	31.1	30.7	30.2	29.9	29.6
Armenia	41.6	40.0	40.1	39.9	39.4	38.9	38.4	37.8	—
Azerbaijan	41.7	41.9	42.1	42.3	42.5	42.5	42.4	42.1	42.1
Georgia[b]	34.8	34.6	34.0	34.3	34.7	35.0	34.9	34.6	34.1
Kazakhstan[a]	40.7	41.0	40.8	40.6	40.3	40.0	39.6	39.3	38.5
Kyrgyzstan[a]	47.3	47.5	47.5	47.5	47.8	48.0	47.7	47.5	46.8
Tajikistan[b]	52.5	52.7	52.9	52.9	52.8	52.7	52.4	52.1	51.7
Turkmenistan[b]	50.0	49.9	49.8	49.7	49.5	49.3	49.0	48.6	48.2
Uzbekistan[b]	50.3	50.3	50.3	50.1	49.9	49.6	49.2	48.7	48.1

a. 1997: ICDC estimates.
b. ICDC estimates. Population data: US Census Bureau (1997).

1.6 Elderly dependency ratio (ratio of 60+ population to 18-59 population)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	24.1	24.1	24.2	24.2	24.0	23.8	23.6	23.4	23.2
Slovakia	21.1	21.2	21.2	21.2	21.3	21.2	21.1	20.9	20.8
Poland	20.7	21.0	21.3	21.5	21.7	21.8	21.8	21.9	22.0
Hungary	25.0	25.2	25.4	25.5	25.4	25.3	25.2	25.1	24.9
Slovenia	20.6	20.9	21.3	21.7	22.1	22.5	22.8	23.1	23.3
Croatia[a]	—	—	23.4	23.6	24.0	24.5	24.8	27.0	27.3
FYR Macedonia[b]	—	—	17.4	19.7	20.0	18.1	18.5	18.8	19.0
Bosnia-Herzegovina	—	—	—	—	—	—	—	—	—
FR Yugoslavia[a]	20.6	21.1	21.8	22.9	23.4	23.8	24.1	24.4	24.6
Albania[b]	12.7	12.8	13.1	13.7	14.2	14.5	14.6	14.7	14.9
Bulgaria	25.0	25.5	26.0	26.3	26.7	27.0	27.3	27.4	27.4
Romania	21.4	21.7	22.1	22.8	23.1	23.2	23.4	23.6	23.7
Estonia	22.9	23.2	23.5	23.8	24.4	24.6	24.7	24.9	25.2
Latvia	23.3	23.5	23.8	24.2	24.7	25.0	25.0	25.2	25.5
Lithuania	21.6	21.9	22.2	22.1	22.5	22.8	23.1	23.3	23.4
Belarus	22.2	22.5	23.1	23.3	23.7	23.7	23.7	23.9	24.2
Moldova	18.7	19.1	19.2	19.2	19.4	19.3	19.2	19.2	19.2
Russia	21.0	21.6	22.2	22.5	22.8	22.7	22.4	22.5	22.7
Ukraine	24.3	24.7	25.1	25.2	25.1	24.7	24.4	24.5	24.8
Armenia	16.6	15.9	16.4	16.9	17.1	17.2	17.4	17.8	—
Azerbaijan	12.8	13.0	13.2	13.2	13.8	14.1	14.3	14.6	14.6
Georgia[b]	20.5	21.1	21.6	21.9	22.3	22.5	22.7	23.0	23.4
Kazakhstan[a]	16.1	15.0	15.5	15.4	15.4	15.2	15.1	15.1	14.9
Kyrgyzstan[a]	14.4	14.7	14.7	14.7	15.0	14.7	14.4	14.3	14.5
Tajikistan[b]	12.1	12.3	12.5	12.5	12.7	12.7	12.7	12.8	12.9
Turkmenistan[b]	11.5	11.7	11.7	11.7	11.7	11.5	11.4	11.3	11.3
Uzbekistan[b]	12.3	12.5	12.5	12.5	12.6	12.4	12.3	12.3	12.3

a. 1997: ICDC estimates.
b. ICDC estimates. Population data: US Census Bureau (1997).

1.7 Net external migration (number of immigrants minus number of emigrants, thousands)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	-1.3	-1.0	1.5	0.6	2.9	11.8	5.5	9.9	10.0	10.1
Slovakia	—	—	0.0	0.1	1.2	2.0	1.8	4.8	2.8	2.3
Poland	-21.2	-18.9	-24.4	-15.8	-15.9	-11.6	-15.5	-19.0	-18.2	-13.1
Hungary[a]	—	—	21.8	25.7	17.4	10.4	12.9	9.2	11.2	7.0
Slovenia	—	—	2.4	2.2	-3.1	-0.4	1.4	0.9	2.5	—
Croatia	—	—	—	—	1.4	39.5	48.5	23.3	26.6	34.6
FYR Macedonia	—	—	—	—	—	-0.6	3.2	3.0	1.7	1.2
Bosnia-Herzegovina	—	—	—	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—	—	—	—
Albania	—	—	—	—	—	—	—	—	—	—
Bulgaria	—	—	-217.6	-87.6	-46.5	-67.7	-64.4	-62.7	-50.5	-66.1
Romania	-24.7	-27.2	-41.4	-96.9	-42.6	-29.4	-17.2	-16.3	-21.2	-19.5
Estonia	—	6.5	0.2	-4.0	-8.0	-33.8	-13.8	-7.6	-8.2	-5.7
Latvia	4.4	10.9	1.2	-0.5	-10.8	-46.9	-27.9	-18.8	-10.5	-7.3
Lithuania	8.9	13.8	1.3	-8.8	-8.9	-22.2	-13.1	-2.6	-1.8	-0.9
Belarus[b]	14.4	0.3	25.9	-19.6	30.4	66.0	37.9	-3.3	-0.2	9.4
Moldova[c]	5.7	-3.7	-16.3	-29.8	-33.7	-36.8	-15.1	-14.8	-17.1	-16.5
Russia	63.4	267.2	115.3	183.8	16.7	252.9	440.3	809.6	502.5	343.5
Ukraine	7.9	22.5	-108.9	-139.3	148.4	288.1	49.6	-143.2	-94.8	-131.1
Armenia	-19.1	-36.3	17.8	40.8	23.0	-6.3	-20.9	-19.1	-7.8	-6.4
Azerbaijan	-8.4	-15.4	2.1	-10.5	-18.5	-32.6	-21.2	-22.8	-21.8	-25.4
Georgia	-5.5	-5.5	-14.9	-39.0	-44.0	-41.6	-30.3	-31.5	-20.2	-11.7
Kazakhstan[b]	-62.7	-92.6	-93.4	-130.9	-48.9	-179.3	-222.1	-414.4	-238.5	-175.5
Kyrgyzstan[b]	7.9	-19.8	-16.0	-41.9	-33.8	-77.5	-120.6	-51.1	-18.9	-11.7
Tajikistan[c]	-8.6	-2.6	-20.5	-60.3	19.0	-142.3	-2.2	-51.8	—	—
Turkmenistan[c]	-4.8	-9.0	-4.9	-7.3	-4.8	342.7	7.8	-9.2	—	-17.4
Uzbekistan[c]	-31.7	-48.9	-97.9	-179.6	-95.9	-74.7	-54.0	-138.9	-89.0	-50.3

a. 1996: preliminary data.
b. 1980, 1985: CIS Stat (1997a).
c. CIS Stat (1997a).

2.1 Crude birth rate (per thousand population)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b c]	16.4	14.7	12.4	12.7	12.6	11.8	11.8	10.3	9.3	8.8
Slovakia[a b c]	16.4	14.7	15.3	15.2	14.9	14.1	13.8	12.5	11.5	11.2
Poland[b c]	19.5	18.2	15.0	14.5	14.4	13.5	12.9	12.6	11.3	11.2
Hungary[b c]	14.0	12.4	11.8	12.2	12.4	11.8	11.4	11.3	11.0	10.4
Slovenia[d]	15.7	13.1	11.8	11.2	10.8	10.1	10.0	9.8	9.6	9.5
Croatia[e f]	14.9	13.3	11.7	11.6	10.9	9.9	10.2	10.2	10.9	12.4
FYR Macedonia[g h]	21.0	19.2	17.0	16.6	17.2	16.3	15.8	17.4	16.5	16.0
Bosnia-Herzegovina[i j]	17.3	16.8	15.1	15.0	—	—	—	—	—	14.7
FR Yugoslavia[e f]	17.6	16.3	14.8	14.8	14.6	13.6	13.5	13.2	13.4	—
Albania[b c h]	26.5	26.2	24.7	25.2	23.4	23.6	19.2	23.1	—	—
Bulgaria[b c]	14.6	13.4	12.7	12.1	11.2	10.5	10.0	9.5	8.6	8.7
Romania	18.0	15.8	16.1	13.7	12.1	11.5	11.1	10.9	10.5	10.3
Estonia	15.0	15.5	15.6	14.3	12.4	11.8	10.1	9.5	9.2	9.1
Latvia	14.1	15.4	14.7	14.3	13.1	12.1	10.5	9.6	8.7	8.0
Lithuania	15.2	16.5	15.2	15.4	15.1	14.4	12.6	11.6	11.2	10.6
Belarus[k]	16.0	16.5	15.2	14.0	13.0	12.5	11.4	10.8	9.9	9.4
Moldova[k]	19.8	21.5	19.1	17.8	16.6	16.1	15.3	14.4	13.1	12.1
Russia	15.9	16.6	14.8	13.6	12.2	10.8	9.4	9.6	9.3	8.9
Ukraine[l]	14.8	15.0	13.5	12.8	12.3	11.6	10.9	10.2	9.7	9.2
Armenia[k]	22.7	24.1	21.9	22.8	21.8	19.3	15.9	13.7	13.1	12.9
Azerbaijan[k]	25.2	26.6	25.9	26.0	26.8	25.2	24.0	21.8	19.4	17.4
Georgia[k h m]	17.6	18.5	16.9	17.1	16.4	13.3	11.4	10.8	10.7	10.4
Kazakhstan[c k l]	23.9	25.1	23.0	21.8	21.1	20.0	18.7	18.3	16.7	15.4
Kyrgyzstan[c k l]	29.6	32.0	30.6	29.5	29.3	28.8	26.2	24.8	26.2	23.7
Tajikistan[c n]	37.0	40.0	38.7	38.8	38.9	32.2	33.1	28.2	28.6	22.0
Turkmenistan[c n]	34.3	36.0	35.0	34.2	33.6	34.0	33.1	32.1	28.1	24.0
Uzbekistan[c n]	33.9	37.4	33.3	33.7	34.5	33.1	31.5	29.4	29.8	27.3

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. Live births.
d. 1980, 1985: estimates.
e. 1980, 1985: FSOY (1996).
f. 1996: estimates.
g. 1980, 1985, 1989-90: CE (1993).
h. Population data: US Census Bureau (1997).
i. 1980, 1985, 1991: CE (1993).
j. 1992-96: Federation of B-H.
k. 1980, 1985: CIS Stat (1997a).
l. 1996: CIS Stat (1997b).
m. 1992-96: excludes Abkhazia and Tskhinvali.
n. CIS Stat (1997a).

2.2 Share of births to unmarried mothers (percent of total live births)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	7.9	8.6	9.8	10.7	12.7	14.5	15.6	16.9
Slovakia	7.2	7.6	8.9	9.8	10.6	11.7	12.6	14.0
Poland	6.1	6.5	6.9	7.5	8.5	9.0	9.5	10.2
Hungary	12.4	13.1	14.1	15.6	17.6	19.4	20.7	22.6
Slovenia	23.2	24.5	26.4	27.7	28.0	28.8	29.8	31.9
Croatia	6.6	7.0	7.5	7.7	7.7	7.6	7.5	7.1
FYR Macedonia	7.0	7.1	7.0	7.3	8.1	8.5	8.2	8.2
Bosnia-Herzegovina	6.9	7.4	—	—	—	—	—	—
FR Yugoslavia	12.4	12.7	13.6	14.0	15.8	16.0	16.4	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	11.4	12.4	15.5	18.5	22.1	24.5	25.7	28.1
Romania	—	—	—	—	17.0	18.3	19.7	20.7
Estonia	25.2	27.1	31.1	34.0	38.2	40.9	44.1	48.1
Latvia	15.9	16.9	18.4	19.6	23.0	26.4	29.9	33.1
Lithuania	6.7	7.0	7.0	7.9	9.0	10.8	12.6	14.2
Belarus	7.9	8.5	9.4	9.8	10.9	12.1	13.5	14.9
Moldova	10.4	11.0	11.8	11.6	11.2	12.3	13.3	—
Russia	13.5	14.6	16.0	17.1	18.2	19.6	21.1	23.0
Ukraine	10.8	11.2	11.9	12.1	13.0	12.8	13.2	13.6
Armenia	7.9	9.3	10.9	12.3	14.0	15.3	15.2	22.3
Azerbaijan	2.5	2.6	3.7	4.4	5.0	5.2	5.8	6.8
Georgia	17.7	18.2	18.7	21.8	—	28.4	29.2	30.9
Kazakhstan[a]	12.0	13.2	13.4	13.4	13.4	14.5	15.7	17.6
Kyrgyzstan	12.7	13.0	13.9	13.2	16.7	16.8	18.5	21.1
Tajikistan[a b]	7.0	6.9	—	—	9.2	—	—	—
Turkmenistan[a b]	3.5	4.4	—	—	3.8	—	—	—
Uzbekistan[a b]	4.2	4.4	—	—	3.8	—	—	—

a. 1993: CIS Stat (1995a).
b. 1989. 1990: CE (1993).

2.3 Share of births to mothers under 20 years old (percent of total live births)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	13.6	14.1	15.5	16.2	15.8	13.5	11.0	9.0
Slovakia	11.9	12.0	14.0	14.3	14.3	13.4	12.3	11.7
Poland	7.4	8.0	8.5	8.4	8.3	8.2	8.0	7.8
Hungary	12.3	12.3	12.3	12.4	12.6	12.5	11.5	11.0
Slovenia	8.2	7.8	7.0	7.0	5.9	5.4	5.1	4.3
Croatia	8.4	7.9	7.8	7.2	6.5	6.2	5.7	5.6
FYR Macedonia	11.1	10.8	10.5	10.4	11.5	10.9	11.0	10.0
Bosnia-Herzegovina	10.4	10.4	10.4	—	—	—	—	—
FR Yugoslavia	10.6	10.3	10.0	9.8	9.9	9.8	9.0	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	20.9	21.4	23.5	24.6	24.9	23.7	22.6	21.1
Romania	15.1	15.2	16.9	17.4	18.4	17.9	17.3	16.5
Estonia	10.5	12.0	13.2	14.7	14.8	14.1	13.7	12.9
Latvia	10.3	11.7	12.7	12.9	13.5	11.4	11.2	10.5
Lithuania	8.9	9.8	11.2	11.7	11.7	12.4	12.5	12.1
Belarus	9.2	11.0	12.3	12.9	13.4	14.1	14.3	14.0
Moldova	11.1	12.8	15.1	15.9	17.7	18.9	19.8	18.6
Russia	11.8	13.9	15.4	16.5	17.7	18.2	17.5	16.1
Ukraine	14.1	16.1	17.3	18.3	18.9	19.5	19.9	19.5
Armenia	11.3	12.5	14.5	17.6	20.0	20.8	18.3	18.1
Azerbaijan	5.0	4.7	5.2	6.3	7.2	8.4	9.3	9.5
Georgia	12.9	12.8	13.5	14.4	—	22.0	21.1	19.7
Kazakhstan	8.7	10.0	10.9	11.2	12.2	13.0	13.0	12.6
Kyrgyzstan	6.9	7.6	8.5	9.3	10.8	10.8	10.6	11.3
Tajikistan[a]	5.1	—	—	—	8.0	—	—	—
Turkmenistan[a]	3.2	—	—	—	4.7	—	—	—
Uzbekistan[a]	6.3	—	—	—	10.7	—	—	—

a. 1989: Goskomstat (1990). 1993: CIS Stat (1995a).

2.4 Total fertility rate (births per woman)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	2.15	2.06	1.87	1.89	1.86	1.72	1.67	1.44	1.28	1.19
Slovakia[a b]	2.15	2.06	2.08	2.09	2.05	1.98	1.92	1.66	1.52	1.47
Poland[b]	2.28	2.33	2.05	2.04	2.05	1.93	1.85	1.80	1.61	1.60
Hungary[b]	1.92	1.83	1.78	1.84	1.86	1.77	1.69	1.64	1.57	1.46
Slovenia[b]	2.11	1.72	1.52	1.46	1.42	1.34	1.34	1.32	1.29	1.28
Croatia	—	—	1.63	1.63	1.53	1.48	1.52	1.47	1.58	1.67
FYR Macedonia[b]	2.45	2.31	2.09	2.06	2.30	2.18	—	—	—	—
Bosnia-Herzegovina[c]	1.88	1.89	1.70	1.70	—	—	—	—	—	—
FR Yugoslavia[d]	2.30	2.20	2.06	2.08	2.08	1.91	1.91	1.85	1.88	—
Albania[b]	3.62	3.26	2.96	3.03	—	—	—	—	—	—
Bulgaria[b]	2.05	1.95	1.90	1.81	1.65	1.54	1.45	1.37	1.23	1.24
Romania[b]	2.45	2.26	2.20	1.84	1.57	1.52	1.44	1.41	1.34	1.30
Estonia[e]	2.02	2.12	2.21	2.05	1.79	1.69	1.45	1.37	1.32	—
Latvia[e]	1.88	2.07	2.05	2.02	1.86	1.73	1.51	1.39	1.25	1.16
Lithuania[e]	2.00	2.10	1.98	2.00	1.97	1.89	1.67	1.54	1.49	1.43
Belarus[e f]	2.01	2.07	2.03	1.91	1.80	1.75	1.61	1.51	1.39	1.31
Moldova[e f]	2.39	2.66	2.46	2.39	2.26	2.21	2.10	1.95	1.76	1.60
Russia[e]	1.87	2.05	2.01	1.89	1.73	1.55	1.39	1.40	1.34	1.28
Ukraine[e]	1.95	2.10	1.90	1.90	1.70	1.70	1.60	1.50	1.40	1.30
Armenia[e f]	2.31	2.47	2.61	2.62	2.58	2.35	1.97	1.70	1.63	1.60
Azerbaijan[e]	3.22	2.90	2.79	2.77	2.89	2.74	2.70	2.52	2.29	2.06
Georgia[e]	2.21	2.26	2.13	2.20	2.15	1.79	—	—	—	—
Kazakhstan[e f]	2.90	3.03	2.88	2.72	—	—	—	—	—	—
Kyrgyzstan[e f]	4.07	4.14	3.81	3.69	3.67	3.62	3.30	3.14	3.31	2.99
Tajikistan[e f g]	5.64	5.50	5.08	5.05	5.01	4.13	—	—	—	—
Turkmenistan[e f g]	4.93	4.66	4.27	4.17	4.09	—	—	—	—	—
Uzbekistan[e f g]	4.81	4.64	4.02	4.07	—	—	—	—	—	—

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. CE (1993).
d. 1980: refers to 1975. 1975, 1985: FSOY (1996).
e. 1980: refers to 1980-81. 1985: refers to 1984-85.
f. 1980, 1985: Goskomstat (1988).
g. 1989: CE (1993).

2.5 Number of abortions (thousands)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	126.5	126.1	120.1	109.3	85.4	67.4	61.6	60.0
Slovakia	56.3	56.2	53.1	49.5	45.6	41.3	35.9	30.9
Poland	82.1	59.4	30.9	11.6	1.2	0.9	0.6	0.5
Hungary	90.5	90.4	89.9	87.1	75.3	74.5	77.0	76.6
Slovenia	15.9	14.7	14.0	13.3	12.2	11.3	10.8	10.2
Croatia	—	46.7	40.3	34.9	31.2	26.0	20.0	12.3
FYR Macedonia	30.4	21.9	23.2	19.9	18.5	16.5	15.8	14.2
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	201.7	195.7	157.5	142.3	119.3	—	—	—
Albania	14.2	17.4	20.3	18.7	25.2	—	—	—
Bulgaria	132.0	144.6	138.4	132.9	107.4	97.6	97.1	98.6
Romania	192.5	992.3	866.9	691.9	585.8	530.2	502.8	456.2
Estonia	28.2	29.4	26.5	25.8	23.3	19.8	17.7	16.9
Latvia	—	—	38.8	34.3	31.3	26.8	25.9	24.2
Lithuania	—	—	40.8	41.0	35.2	30.4	31.3	27.8
Belarus	250.9	254.7	235.3	234.3	212.7	207.7	188.7	169.9
Moldova	80.0	68.6	58.8	61.8	55.2	50.4	49.5	46.0
Russia	4,427.7	4,103.4	3,608.4	3,436.7	3,244.0	3,060.2	2,766.4	2,652.0
Ukraine	1,058.4	1,019.0	957.0	932.3	861.0	770.0	—	—
Armenia	26.1	25.3	27.2	28.0	27.9	30.6	30.7	31.3
Azerbaijan	39.0	24.6	34.0	32.3	34.0	33.4	28.7	28.4
Georgia	64.6	56.9	59.4	50.7	33.9	35.6	32.0	30.0
Kazakhstan	295.3	278.3	338.5	346.4	290.7	261.8	224.1	194.2
Kyrgyzstan	87.2	73.8	66.4	59.4	52.7	49.3	42.5	34.1
Tajikistan[a b]	54.5	52.7	—	47.0	—	—	—	—
Turkmenistan[a b]	39.1	35.7	—	37.0	—	—	—	—
Uzbekistan[a b]	226.3	214.1	—	168.3	—	—	—	—

a. 1989-90: CE (1993).
b. 1992: CIS Stat (1995b).

2.6 Abortion rate (per hundred live births)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	98.6	96.5	92.8	89.8	70.6	63.3	64.1	66.3
Slovakia	70.3	70.2	67.6	66.4	62.2	62.2	58.4	51.4
Poland	14.6	10.8	5.6	2.3	0.2	0.2	0.1	0.1
Hungary	73.4	71.9	70.7	71.5	64.3	64.4	68.7	72.8
Slovenia	67.7	65.9	65.0	66.3	61.4	58.2	56.9	54.4
Croatia	—	84.2	77.8	74.3	64.4	53.5	39.8	22.9
FYR Macedonia	84.7	61.8	66.5	59.7	57.0	49.2	49.2	45.1
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	130.5	126.2	103.5	101.1	84.6	—	—	—
Albania	18.0	21.2	26.2	30.9	54.2	—	—	—
Bulgaria	117.6	137.5	144.3	149.1	127.3	122.8	134.9	136.5
Romania	52.1	315.3	314.9	265.7	234.3	214.9	212.5	197.2
Estonia	116.2	131.8	137.0	143.3	153.5	139.5	130.3	127.1
Latvia[a]	125.8	—	112.1	108.7	117.1	110.5	120.1	122.5
Lithuania[a]	89.8	—	72.5	76.4	75.4	70.9	76.0	71.1
Belarus	163.5	179.2	178.2	183.1	181.2	187.8	186.5	177.4
Moldova	97.3	89.0	81.6	88.7	83.5	81.1	87.7	88.7
Russia	204.9	206.3	201.1	216.5	235.2	217.3	202.8	203.3
Ukraine	153.2	155.1	151.7	156.2	154.4	147.6	—	—
Armenia	34.7	31.6	34.9	39.6	47.3	59.8	62.8	65.1
Azerbaijan	21.5	13.4	17.9	17.8	19.4	20.9	20.0	22.0
Georgia	70.9	61.3	66.7	69.9	55.0	62.1	56.8	55.9
Kazakhstan	77.2	76.6	95.6	102.3	91.9	85.4	80.9	76.7
Kyrgyzstan	66.3	57.3	51.3	46.3	45.1	44.8	36.2	31.6
Tajikistan[b c]	27.2	25.6	—	26.2	—	—	—	—
Turkmenistan[b c]	31.3	28.5	—	28.2	—	—	—	—
Uzbekistan[b c]	33.8	31.0	—	23.7	—	—	—	—

a. 1989: Goskomstat (1990).
b. 1989-90: CE (1993).
c. 1992: CIS Stat (1995b).

3.1 Infant mortality rate (per thousand live births)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b 1]	18.4	14.0	10.0	10.8	10.4	9.9	8.5	7.9	7.7	6.0
Slovakia[a b 1]	18.4	14.0	13.5	12.0	13.2	12.6	10.6	11.2	11.0	10.2
Poland[1]	25.5	22.0	19.1	19.3	18.2	17.3	16.1	15.1	13.6	12.2
Hungary[b 1]	23.2	20.4	15.7	14.8	15.6	14.1	12.5	11.5	10.7	10.9
Slovenia[b 1]	15.3	13.0	8.2	8.4	8.2	8.9	6.8	6.5	5.5	4.7
Croatia[b 1]	20.6	16.6	11.7	10.7	11.1	11.6	9.9	10.2	9.0	—
FYR Macedonia[b 1]	54.2	43.4	36.7	31.6	28.2	30.6	24.1	22.5	22.7	16.4
Bosnia-Herzegovina[b c 1]	31.5	25.1	18.4	15.3	14.6	20.6	22.7	13.8	13.2	12.5
FR Yugoslavia[b d 1]	33.9	33.7	29.3	22.8	20.9	21.7	21.9	18.4	16.8	14.3
Albania[b]	50.3	30.1	30.8	28.3	32.9	30.9	33.2	35.7	34.0	25.8
Bulgaria[b 2]	20.2	15.4	14.4	14.8	16.9	15.9	15.5	16.3	14.8	15.6
Romania[b 1]	29.3	25.6	26.9	26.9	22.7	23.3	23.3	23.9	21.2	22.3
Estonia[b 3]	17.1	14.1	14.8	12.4	13.4	15.8	15.8	14.5	14.8	10.4
Latvia[b 4]	15.3	13.0	11.1	13.7	15.6	17.4	15.9	15.5	18.5	15.8
Lithuania[b 4]	14.5	14.2	10.7	10.3	14.3	16.5	15.6	13.9	12.4	10.1
Belarus[b 5]	16.2	14.6	11.8	11.9	12.1	12.3	12.5	13.2	13.3	12.5
Moldova[b 6]	35.0	30.8	20.4	19.0	19.8	18.4	21.5	22.6	21.2	20.2
Russia[b 7]	22.0	20.8	17.8	17.4	17.8	18.0	19.9	18.6	17.6	17.0
Ukraine[b 6]	16.6	15.9	13.0	12.8	13.9	14.0	14.9	14.5	14.4	14.3
Armenia[b 8]	26.2	24.7	20.4	18.3	18.0	18.9	17.8	14.7	14.2	15.5
Azerbaijan[b 6]	30.3	29.2	26.2	23.0	25.3	25.5	28.2	25.2	23.3	19.9
Georgia[b 5]	25.4	23.9	19.6	15.8	13.8	12.4	18.3	16.7	13.1	17.4
Kazakhstan[b]	32.7	30.1	25.9	26.4	27.4	26.1	28.4	27.2	27.3	25.4
Kyrgyzstan[b 6]	43.3	41.6	32.2	30.0	29.7	31.5	31.9	29.1	28.1	25.9
Tajikistan[e 6]	58.1	46.8	43.2	40.7	40.6	45.9	47.0	40.6	30.9	31.8
Turkmenistan[e 6]	53.6	52.4	54.7	45.2	47.0	43.6	45.9	46.4	42.2	—
Uzbekistan[e 6]	47.0	45.3	37.7	34.6	35.5	37.4	32.0	28.2	26.0	24.2

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. 1992-96: Federation of B-H.
d. 1980, 1985: Serbia.
e. CIS Stat (1997a).

Birth concepts:
1 WHO.
2 National concept.
3 1980-91: Soviet. 1992-96: WHO.
4 1980-90: Soviet. 1991-96: WHO.
5 1980-93: Soviet. 1994-96: WHO.
6 Soviet concept.
7 1980-92: Soviet. 1993-96: WHO.
8 1980-94: Soviet. 1995-96: WHO.

3.2 Maternal mortality rate (per hundred thousand live births)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	9.2	8.0	9.3	8.4	13.1	9.9	11.6	6.6	2.1	5.5
Slovakia[a b]	9.2	8.0	10.0	6.3	14.0	1.3	12.3	6.0	8.1	5.0
Poland[a]	11.7	11.1	10.6	12.8	12.8	9.9	11.7	11.0	9.9	4.9
Hungary[a]	20.9	26.1	15.4	20.7	12.6	9.9	18.8	10.4	15.2	11.4
Slovenia[a]	13.4	15.5	4.3	0.0	4.6	5.0	10.1	10.3	5.3	—
Croatia	—	—	3.6	1.8	7.7	4.3	10.3	10.3	12.0	1.9
FYR Macedonia	—	—	16.7	11.3	11.5	9.0	6.2	11.9	21.8	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—	—	—
FR Yugoslavia[a c]	17.8	16.4	16.8	11.0	13.1	8.5	17.7	13.1	12.1	—
Albania	45.2	57.6	49.5	37.7	29.7	31.5	28.0	—	—	—
Bulgaria[a]	21.1	12.6	18.7	20.9	10.4	21.3	14.2	12.6	19.5	—
Romania[a]	132.1	137.4	169.4	83.6	66.5	60.3	53.2	60.4	47.8	41.1
Estonia[d]	27.0	46.6	41.2	31.4	31.1	22.2	33.0	56.4	51.6	—
Latvia[a]	25.3	30.2	56.5	23.7	31.8	31.7	29.9	45.3	23.2	15.2
Lithuania	27.0	22.2	28.7	22.9	19.6	20.5	12.8	16.3	17.0	12.8
Belarus[d]	29.1	17.0	24.8	21.8	31.1	21.1	20.4	19.0	13.8	21.9
Moldova[d]	64.1	49.8	34.1	44.1	26.4	37.3	33.2	17.7	12.4	40.5
Russia[a]	68.0	54.0	49.0	47.4	52.4	50.8	51.6	52.3	53.3	48.9
Ukraine[d]	44.8	40.4	32.7	32.4	29.8	31.3	32.8	31.3	32.3	30.4
Armenia[d]	27.0	22.4	34.6	40.1	23.1	14.2	27.1	29.3	34.7	20.8
Azerbaijan[a]	38.7	41.1	28.6	9.3	10.5	17.6	34.4	43.8	37.0	44.1
Georgia[d]	25.7	22.5	54.9	20.5	10.1	5.5	—	—	33.7	18.6
Kazakhstan[d]	55.6	47.9	53.1	54.8	48.0	57.0	49.6	48.3	57.4	52.9
Kyrgyzstan[d]	49.4	42.8	42.6	62.9	55.6	49.9	44.5	42.7	44.3	31.5
Tajikistan[d e]	94.2	59.1	38.9	—	—	69.6	74.0	—	—	—
Turkmenistan[d e]	40.8	56.8	55.2	—	—	58.8	44.4	—	—	—
Uzbekistan[d e]	46.3	48.6	42.8	—	—	30.1	24.1	—	—	—

a. 1980, 1985: UN (1986), (1992).
b. 1980, 1985: Czechoslovakia.
c. 1980, 1985: Yugoslavia.
d. 1980, 1985: Goskomstat (1991a).
e. 1989: Goskomstat (1990).
1992: CIS Stat (1995b).
1993: CIS Stat (1995a).

3.3 Under-5 mortality rate (per thousand live births)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	11.8	12.4	12.1	11.6	10.1	10.2	9.5	7.8
Slovakia	15.8	14.1	15.4	14.7	12.7	13.2	13.1	—
Poland	21.8	21.9	20.4	19.6	18.1	17.3	15.6	14.1
Hungary	18.0	16.8	17.6	16.0	14.6	13.5	12.5	12.7
Slovenia	10.3	10.2	10.0	10.6	8.4	8.2	6.7	6.1
Croatia	13.7	12.5	12.6	14.0	12.0	11.8	10.4	—
FYR Macedonia	38.2	33.3	30.2	32.3	25.3	25.5	24.5	18.3
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	33.8	26.2	24.1	24.6	24.9	21.5	19.4	—
Albania	45.5	41.5	44.5	56.8	62.9	—	—	—
Bulgaria	18.3	18.7	21.4	20.6	19.6	20.9	19.0	19.8
Romania	34.9	35.7	30.8	30.5	30.3	29.7	26.2	27.5
Estonia	18.9	17.2	17.6	21.0	20.1	17.4	20.0	12.3
Latvia	15.2	18.1	20.5	22.2	22.2	20.1	19.5	20.7
Lithuania	14.3	13.5	17.4	20.0	19.3	18.2	16.2	13.2
Belarus	15.4	15.8	16.2	16.0	16.2	16.2	16.4	16.5
Moldova	27.1	25.2	25.0	24.5	27.6	28.8	27.4	26.4
Russia	22.0	21.4	21.9	22.1	24.3	23.0	22.7	25.0
Ukraine	17.4	17.2	18.4	18.6	19.7	19.4	19.7	19.3
Armenia	27.1	23.8	22.6	24.2	24.2	21.4	19.9	19.5
Azerbaijan	45.5	40.5	40.1	41.7	44.4	45.2	43.2	39.3
Georgia	—	—	—	—	—	—	—	—
Kazakhstan	—	34.9	35.6	34.2	38.1	36.2	38.4	35.2
Kyrgyzstan	46.9	41.3	38.6	42.2	44.6	41.9	41.3	36.4
Tajikistan[a]	—	—	—	—	81.7	—	—	—
Turkmenistan[a]	—	—	—	—	68.2	—	—	—
Uzbekistan[a]	—	—	—	—	48.1	—	—	—

a. 1993: CIS Stat (1995a).

3.4 Age 5-19 mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	0.33	0.35	0.38	0.37	0.37	0.37	0.39	0.33
Slovakia	0.36	0.37	0.38	0.34	0.33	0.35	0.34	—
Poland	0.41	0.40	0.41	0.39	0.36	0.37	0.36	0.35
Hungary	0.41	0.44	0.39	0.40	0.35	0.35	0.36	0.32
Slovenia	0.39	0.35	0.36	0.36	0.33	0.44	0.38	0.35
Croatia[a]	—	—	0.57	0.61	0.47	0.36	0.42	—
FYR Macedonia[a]	—	—	0.36	0.38	0.38	0.38	0.29	0.32
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	0.38	0.40	0.40	0.44	0.39	0.33	0.32	—
Albania[a]	0.64	0.18	—	0.61	0.72	—	—	—
Bulgaria	0.50	0.53	0.51	0.52	0.50	0.51	0.48	0.49
Romania	0.64	0.60	0.57	0.53	0.55	0.61	0.63	0.65
Estonia	0.74	0.73	0.65	0.68	0.67	0.67	0.66	0.52
Latvia	0.79	0.85	0.79	0.75	0.77	0.67	0.70	0.51
Lithuania	0.66	0.58	0.68	0.60	0.62	0.62	0.54	0.51
Belarus	0.54	0.52	0.58	0.57	0.51	0.56	0.54	0.48
Moldova	0.68	0.60	0.66	0.72	0.65	0.70	0.63	0.57
Russia	0.69	0.69	0.74	0.76	0.83	0.81	0.88	0.80
Ukraine	0.59	0.57	0.62	0.61	0.62	0.65	0.65	0.61
Armenia	0.45	0.38	0.29	0.36	0.41	0.55	0.38	0.36
Azerbaijan	0.52	0.48	0.56	0.94	0.94	1.12	0.74	0.59
Georgia[a b]	0.43	0.42	0.42	0.44	—	0.34	0.29	0.22
Kazakhstan[c]	0.69	0.71	0.77	0.76	0.82	0.77	0.77	—
Kyrgyzstan	0.65	0.67	0.59	0.64	0.63	0.62	0.64	—
Tajikistan[c]	0.65	—	—	—	—	—	—	—
Turkmenistan[c]	0.77	—	—	—	—	—	—	—
Uzbekistan[c]	0.65	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. 1989: Goskomstat (1990).

3.5 Age 5-19 mortality rate due to infectious and parasitic diseases

(per hundred thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	0.2	0.2	0.2	0.1	0.2	0.6	0.4	0.2
Slovakia	0.4	0.2	0.4	0.3	0.1	0.2	0.2	—
Poland	0.7	0.5	0.6	0.4	0.5	0.5	0.4	0.4
Hungary	0.6	0.4	0.2	0.3	0.5	0.3	0.3	0.2
Slovenia	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.0
Croatia[a]	—	—	0.5	0.5	0.4	0.3	0.6	—
FYR Macedonia[a]	—	—	0.8	1.2	2.0	0.4	0.6	0.2
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	1.3	0.7	1.0	1.1	0.8	1.0	1.1	—
Albania[a]	2.8	0.9	—	1.6	2.5	—	—	—
Bulgaria	0.9	1.0	1.4	1.1	0.9	1.0	1.5	1.1
Romania	2.7	2.3	2.4	1.9	2.0	6.1	8.5	9.9
Estonia	0.9	0.3	1.5	0.3	0.6	0.0	0.9	0.3
Latvia	1.6	1.4	1.6	0.9	0.7	1.3	1.3	0.9
Lithuania	0.5	0.5	0.5	1.0	0.4	0.6	0.8	0.1
Belarus	0.6	0.4	0.8	0.6	0.6	0.6	0.5	0.5
Moldova	1.9	1.6	1.1	2.3	1.0	2.3	2.2	1.0
Russia	1.1	1.0	1.0	1.1	1.3	1.6	2.0	1.6
Ukraine	0.8	0.7	1.0	1.0	0.9	1.4	1.7	1.4
Armenia	1.2	0.7	0.6	1.2	1.5	0.7	2.2	1.0
Azerbaijan	1.4	1.5	2.0	2.2	3.3	6.9	6.5	4.0
Georgia[a b]	0.7	1.1	1.1	3.4	—	1.3	1.8	0.7
Kazakhstan	—	1.8	2.2	2.3	2.6	2.8	4.5	—
Kyrgyzstan	4.3	4.2	3.1	3.6	4.0	5.1	4.9	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).

b. 1992-96: excludes Abkhazia and Tskhinvali.

3.6 Age 5-19 mortality rate due to diseases of the respiratory system

(per hundred thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	1.8	1.2	1.3	1.1	0.7	1.1	1.5	1.1
Slovakia	3.8	4.2	4.5	3.6	4.1	3.1	3.9	—
Poland	1.4	0.9	1.0	0.6	0.9	0.7	0.8	1.0
Hungary	1.6	1.4	1.3	1.2	1.5	1.3	1.2	1.7
Slovenia	1.1	0.7	0.0	0.2	0.7	0.0	0.2	0.0
Croatia[a]	—	—	1.6	1.5	1.5	0.6	1.0	—
FYR Macedonia[a]	—	—	2.6	2.2	2.2	1.8	1.0	2.9
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	2.6	2.1	1.9	1.9	2.4	1.5	1.5	—
Albania[a]	10.5	4.4	—	4.8	4.0	—	—	—
Bulgaria	5.0	3.6	4.2	4.6	4.3	4.9	4.7	5.1
Romania	7.6	5.1	3.5	3.6	4.5	5.7	6.4	7.4
Estonia	0.9	1.5	1.5	0.9	1.8	0.9	1.2	2.5
Latvia	1.6	1.3	1.3	1.5	1.1	1.3	1.7	0.9
Lithuania	2.6	2.7	1.0	1.0	1.1	1.1	1.3	1.0
Belarus	1.8	1.3	1.5	1.2	1.4	1.7	1.2	0.9
Moldova	1.8	2.3	3.6	2.7	3.1	3.8	5.3	2.8
Russia	2.0	2.0	2.0	1.9	2.4	2.1	2.4	2.3
Ukraine	—	1.2	1.4	—	1.5	1.9	2.2	1.7
Armenia	2.8	2.1	1.4	2.5	2.6	2.2	3.3	1.8
Azerbaijan	7.9	8.0	9.7	10.5	12.8	15.8	14.5	11.7
Georgia[a b]	7.1	7.9	9.4	6.6	—	—	—	—
Kazakhstan	—	4.8	5.4	4.7	5.7	5.8	6.7	—
Kyrgyzstan	8.2	8.3	6.0	6.6	8.6	9.6	11.2	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).

b. 1992: excludes Abkhazia and Tskhinvali.

3.7 Age 5-19 mortality rate due to accidents, poisonings and violence
(per hundred thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	16.3	19.4	21.9	23.0	22.6	23.4	24.0	20.6
Slovakia	17.7	18.9	20.1	18.6	17.6	18.4	19.5	—
Poland	22.2	23.1	23.6	22.5	20.5	22.3	21.5	20.0
Hungary	23.5	25.9	22.3	24.7	18.8	20.1	18.8	17.1
Slovenia	24.7	22.5	24.9	22.1	22.1	31.9	23.9	23.4
Croatia[a]	—	—	40.8	46.9	32.8	24.5	27.6	—
FYR Macedonia[a]	—	—	13.0	13.2	15.4	15.8	9.6	13.3
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	15.2	16.3	17.7	20.5	13.4	14.0	12.6	—
Albania[a]	15.7	5.9	—	22.2	18.7	—	—	—
Bulgaria	24.1	26.7	23.5	26.4	25.3	26.2	23.3	18.5
Romania	29.8	31.3	31.0	27.5	28.6	29.3	28.2	28.3
Estonia	35.7	52.2	46.6	46.6	44.5	50.7	47.0	32.7
Latvia	52.0	53.4	55.9	56.5	54.8	45.8	51.2	41.4
Lithuania	44.8	39.7	48.5	45.0	42.2	44.2	37.2	37.0
Belarus	32.9	30.8	38.0	36.1	30.5	35.3	33.6	31.8
Moldova	40.9	26.8	34.1	39.9	28.9	30.0	25.0	32.1
Russia	45.4	45.6	50.0	50.7	57.0	55.9	62.1	54.9
Ukraine	—	35.3	37.3	—	35.7	38.6	37.4	35.2
Armenia	26.1	21.9	16.4	20.9	22.8	38.6	19.9	20.5
Azerbaijan	18.3	18.7	19.9	55.0	51.7	64.0	16.1	17.4
Georgia[a b]	21.4	19.9	17.5	23.1	—	14.5	12.5	9.3
Kazakhstan	—	43.7	47.0	45.3	48.5	42.2	41.2	—
Kyrgyzstan	27.1	33.9	32.4	32.0	28.5	27.0	26.2	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.

3.8 Age 5-19 male suicide rate (per hundred thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	3.6	3.4	5.9	5.1	5.1	6.1	7.0	6.0
Slovakia	3.3	3.2	5.2	2.4	3.5	4.8	4.7	—
Poland	3.7	3.8	4.4	4.4	5.2	5.3	6.0	6.1
Hungary	6.4	6.0	5.6	7.9	5.9	7.1	6.8	5.3
Slovenia	4.5	3.6	4.9	5.9	11.5	9.3	8.5	7.7
Croatia[a]	—	—	1.0	1.6	1.8	2.0	1.2	—
FYR Macedonia[a]	—	—	2.4	5.5	7.0	4.3	1.6	3.6
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	2.4	2.7	2.0	3.4	3.3	2.7	3.5	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	5.4	5.4	5.0	5.6	6.9	5.5	5.7	5.4
Romania	2.6	3.1	2.5	3.1	3.2	3.0	3.3	3.5
Estonia	10.4	8.7	8.7	9.4	13.1	9.6	10.2	8.5
Latvia	6.8	8.2	9.2	11.8	11.5	10.9	8.7	8.7
Lithuania	7.7	5.5	8.6	7.9	9.3	10.3	11.0	10.4
Belarus	4.4	4.3	5.5	8.6	6.0	7.3	8.4	7.2
Moldova	—	3.3	4.5	5.1	6.0	5.5	3.8	4.3
Russia	7.4	8.9	9.3	9.7	11.8	13.0	13.4	13.0
Ukraine	5.0	5.1	5.2	5.3	6.5	6.8	7.1	6.8
Armenia	1.4	1.2	0.8	0.6	0.7	0.7	0.5	0.5
Azerbaijan	0.6	0.9	0.8	1.1	1.0	0.2	0.2	0.3
Georgia[a b]	1.1	2.1	0.9	1.5	—	0.6	0.9	0.8
Kazakhstan	—	8.6	10.1	11.3	13.2	10.3	11.3	—
Kyrgyzstan	6.1	5.4	5.1	5.7	5.8	5.2	5.2	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.

3.9 Age 5-19 female suicide rate (per hundred thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	0.8	1.2	1.1	0.6	1.3	1.2	2.1	1.3
Slovakia	1.4	1.2	0.9	0.8	1.4	0.8	1.5	—
Poland	0.7	1.0	0.9	1.0	0.9	1.1	1.1	1.2
Hungary	2.2	2.9	1.3	2.0	2.5	1.5	0.9	1.3
Slovenia	2.3	1.9	2.4	2.4	1.9	2.0	2.5	3.5
Croatia[a]	—	—	1.0	1.7	0.7	0.9	0.7	—
FYR Macedonia[a]	—	—	1.2	1.2	1.7	2.1	3.4	1.3
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	1.2	2.0	1.2	0.9	1.4	1.5	1.6	—
Albania[a]	—	—	—	—	—	—	—	—
Bulgaria	2.5	2.0	2.1	2.0	1.9	2.4	2.5	2.1
Romania	1.8	1.3	1.1	1.0	1.0	1.0	1.1	0.8
Estonia	2.4	1.2	1.8	4.3	3.1	5.6	1.9	3.1
Latvia	4.1	3.3	1.1	1.5	1.9	1.9	2.3	1.9
Lithuania	2.2	1.7	1.2	2.7	1.7	4.0	2.5	2.2
Belarus	1.4	1.2	1.4	1.7	1.6	1.6	1.6	1.8
Moldova	—	1.8	2.1	2.4	2.9	2.0	1.2	2.4
Russia	2.3	2.3	2.4	2.6	3.0	3.3	3.5	3.0
Ukraine	1.9	1.6	1.8	2.1	1.7	1.9	2.0	1.6
Armenia	0.0	0.2	0.0	0.0	0.2	0.4	0.6	0.2
Azerbaijan	0.3	0.2	0.3	0.3	0.4	0.2	0.0	0.1
Georgia[a b]	0.2	0.2	0.6	0.5	—	0.2	0.5	0.0
Kazakhstan	—	3.7	3.7	3.9	5.1	3.9	3.4	—
Kyrgyzstan	3.0	2.7	3.3	2.7	1.7	1.3	3.8	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).

b. 1992-96: excludes Abkhazia and Tskhinvali.

4.1 Crude death rate (per thousand population)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	12.2	11.9	12.3	12.5	12.1	11.7	11.4	11.4	11.4	10.9
Slovakia[a b]	12.2	11.9	10.2	10.3	10.3	10.1	9.9	9.6	9.8	9.5
Poland	9.9	10.3	10.1	10.2	10.6	10.3	10.2	10.0	10.0	10.0
Hungary[b]	13.6	14.0	13.8	14.1	14.0	14.4	14.6	14.3	14.2	14.0
Slovenia	9.9	10.0	9.4	9.3	9.7	9.7	10.0	9.7	9.5	9.4
Croatia[b c d]	10.9	11.1	11.0	10.9	11.5	10.8	10.6	10.4	10.9	11.6
FYR Macedonia[b e f]	7.1	7.1	6.9	6.9	7.3	7.8	7.5	8.1	8.3	8.1
Bosnia-Herzegovina[b g]	6.4	6.7	6.8	6.5	—	—	—	—	—	7.5
FR Yugoslavia[b d h]	9.2	9.8	9.5	9.3	9.7	10.1	10.2	10.0	10.2	—
Albania[b f]	6.4	5.8	5.6	5.6	5.4	5.9	6.3	5.5	5.6	5.7
Bulgaria[b]	11.1	12.0	12.0	12.5	12.8	12.6	12.9	13.2	13.6	14.0
Romania[b]	10.4	10.9	10.7	10.6	10.9	11.6	11.6	11.7	12.0	12.7
Estonia	12.3	12.7	11.8	12.4	12.6	13.0	14.0	14.8	14.1	12.9
Latvia	12.8	13.2	12.2	13.0	13.1	13.5	15.2	16.4	15.5	13.8
Lithuania	10.5	11.1	10.3	10.7	11.0	11.1	12.4	12.5	12.2	11.6
Belarus[i]	9.9	10.6	10.2	10.7	11.2	11.4	12.5	12.6	13.0	13.0
Moldova[i]	10.1	10.9	9.2	9.7	10.5	10.2	10.7	11.8	12.2	11.6
Russia[i]	11.0	11.3	10.7	11.2	11.4	12.2	14.4	15.6	14.9	14.1
Ukraine[i j]	11.3	12.1	11.7	12.2	12.9	13.4	14.3	14.8	15.5	15.2
Armenia[i]	5.6	6.1	6.0	6.2	6.5	7.0	7.4	6.6	6.6	6.6
Azerbaijan[i]	7.0	6.8	6.2	6.0	6.2	7.1	7.2	7.4	6.8	6.4
Georgia[f i k]	8.5	8.7	8.7	8.4	8.5	8.6	—	7.8	7.2	6.6
Kazakhstan[j l]	8.0	8.0	7.6	7.7	8.0	8.1	9.3	9.6	10.2	10.1
Kyrgyzstan[i j]	8.4	8.1	7.3	7.0	7.0	7.2	7.8	8.4	8.2	7.6
Tajikistan[i m]	8.1	7.0	6.5	6.2	6.1	6.6	8.7	7.0	5.9	5.1
Turkmenistan[i m]	8.3	8.1	7.7	7.0	7.3	7.1	7.9	7.9	6.9	7.0
Uzbekistan[i m]	7.5	7.2	6.3	6.1	6.2	6.5	6.6	6.6	6.4	6.2

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. 1989, 1990: CBSC (1996).
d. 1996: estimates.
e. 1989, 1990: CE (1993).
f. Population data: US Census Bureau (1997).
g. 1992-96: Federation of B-H.
h. 1980, 1985: Serbia.
i. 1980, 1985: Goskomstat (1990).
j. 1996: CIS Stat (1997b).
k. 1992-96: excludes Abkhazia and Tskhinvali.
l. 1980, 1985, 1989: Goskomstat (1990).
m. 1989-96: CIS Stat (1997a).

4.2 Male life expectancy at birth (years)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	66.8	67.3	68.1	67.5	68.2	68.5	69.3	69.5	70.0	70.4
Slovakia[a b]	66.8	67.3	66.8	66.6	66.8	67.6	68.4	68.3	68.4	68.8
Poland[b]	66.9	66.9	66.8	66.5	66.1	66.7	67.4	67.5	67.6	68.1
Hungary[b]	65.5	65.1	65.4	65.1	65.0	64.6	64.5	64.8	65.3	66.1
Slovenia	67.4	67.9	68.8	69.4	69.5	69.5	69.4	69.6	70.3	70.8
Croatia[c]	66.6	—	66.8	—	68.6	—	—	—	—	—
FYR Macedonia[c]	68.3	—	70.1	—	70.1	—	—	69.6	—	—
Bosnia-Herzegovina[c]	67.9	—	69.7	—	—	—	—	—	—	—
FR Yugoslavia[d]	68.1	—	68.7	69.1	69.0	68.6	69.1	69.1	69.9	—
Albania[b]	67.7	68.5	69.6	69.3	—	68.5	68.5	69.5	—	—
Bulgaria[b]	68.4	—	68.6	68.1	68.0	68.0	67.7	67.3	67.1	67.1
Romania[b]	66.5	66.8	66.5	66.6	66.6	66.6	66.1	65.9	65.7	65.3
Estonia[e f]	64.0	65.0	65.7	64.6	64.4	63.5	62.5	61.1	61.7	—
Latvia	63.6	65.5	65.3	64.2	63.9	63.3	61.6	60.7	60.8	63.3
Lithuania[e f]	65.0	66.0	66.9	66.6	65.3	64.9	63.3	62.8	63.6	65.0
Belarus[g]	65.9	67.4	66.8	66.3	65.5	64.9	63.8	63.5	62.9	63.1
Moldova[g]	62.4	62.0	65.5	65.0	64.3	63.9	64.3	62.3	61.8	62.9
Russia[g]	61.5	62.3	64.2	63.8	63.5	62.0	58.9	57.6	58.3	59.9
Ukraine[g]	64.6	64.8	66.0	66.0	66.0	64.0	63.0	62.8	61.8	—
Armenia[g]	69.5	69.8	69.0	68.4	68.9	68.7	67.9	68.1	68.9	69.3
Azerbaijan[e f]	64.2	65.3	66.6	67.0	66.3	65.4	65.2	65.2	63.4	64.7
Georgia[e f]	67.1	67.4	68.1	68.7	—	—	—	—	—	—
Kazakhstan[g]	61.6	62.6	63.9	67.7	63.3	63.0	61.8	60.6	59.7	—
Kyrgyzstan[f g]	61.1	64.1	64.3	64.2	64.6	64.2	62.9	61.6	61.4	62.3
Tajikistan[h]	63.7	65.3	66.8	66.8	67.6	—	—	—	—	—
Turkmenistan[h]	61.1	61.1	61.8	62.9	62.3	—	—	—	—	—
Uzbekistan[h]	64.0	64.3	66.0	66.1	—	—	—	—	—	—

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: UN (1986), (1992).
c. 1980: refers to 1980-81. 1989: refers to 1989-90. CE (1993).
d. 1980: refers to 1980-81 for Serbia only. CE (1993).
e. 1980: refers to 1979-80. Goskomstat (1991a).
f. 1985: refers to 1985-86. Goskomstat (1991b).
g. 1980, 1985: CIS Stat (1997a).
h. 1989-91: CIS Stat (1997a).

4.3 Female life expectancy at birth (years)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	74.0	74.7	75.4	76.0	75.7	76.1	76.4	76.6	76.9	77.3
Slovakia[a b]	74.0	74.7	75.2	75.4	75.2	76.2	76.7	76.5	76.3	76.7
Poland[b]	75.4	75.3	75.5	75.5	75.3	75.7	76.0	76.1	76.4	76.6
Hungary[b]	72.7	73.1	73.8	73.7	73.8	73.7	73.8	74.2	74.5	74.7
Slovenia	75.4	75.3	76.7	77.3	77.4	77.3	77.3	77.4	76.8	78.3
Croatia[c]	74.2	—	74.8	—	76.0	—	—	—	—	—
FYR Macedonia[c]	71.9	—	74.0	—	74.4	—	—	74.0	—	—
Bosnia-Herzegovina[c]	72.9	—	75.2	—	—	—	—	—	—	—
FR Yugoslavia[d]	72.8	—	73.8	74.3	74.6	74.4	74.5	74.5	74.7	—
Albania[b]	72.2	73.9	75.5	75.4	—	74.3	74.3	75.6	—	—
Bulgaria[b]	73.6	—	75.1	74.8	74.7	74.5	74.6	74.9	74.9	74.6
Romania[b]	71.8	72.8	72.4	72.7	73.1	73.2	73.2	73.3	73.4	73.1
Estonia[e f]	74.0	75.0	74.7	74.6	74.8	74.7	73.8	73.1	74.3	—
Latvia	73.9	74.5	75.2	74.6	74.8	74.8	73.8	72.9	73.1	75.7
Lithuania[e f]	75.0	75.0	76.3	76.2	76.1	76.0	75.0	74.9	75.2	76.1
Belarus[g]	75.6	77.2	76.4	75.6	75.5	75.4	74.4	74.3	74.3	74.4
Moldova[g]	68.8	68.6	72.3	71.8	71.0	71.9	71.1	69.8	69.7	70.4
Russia[g]	73.0	73.3	74.5	74.3	74.3	73.8	71.9	71.2	71.7	72.6
Ukraine[g]	74.0	74.0	75.0	75.0	75.0	74.0	73.0	73.2	72.7	—
Armenia[g]	75.7	75.7	74.7	75.2	75.6	75.5	74.4	74.9	75.9	76.2
Azerbaijan[g]	71.8	73.1	74.2	74.8	74.5	73.9	73.9	73.9	73.5	74.0
Georgia[g]	74.8	75.1	75.7	76.1	—	—	—	—	—	—
Kazakhstan[g]	71.9	72.5	73.1	73.0	72.9	72.7	71.9	71.0	70.4	—
Kyrgyzstan[g]	70.1	70.2	72.4	72.6	72.7	72.2	71.7	70.7	70.4	71.0
Tajikistan[h]	68.6	70.8	71.7	71.9	73.2	—	—	—	—	—
Turkmenistan[h]	67.8	68.1	68.4	69.7	69.3	—	—	—	—	—
Uzbekistan[h]	70.7	70.8	72.1	72.4	—	—	—	—	—	—

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: UN (1986), (1992).
c. 1980: refers to 1980-81. 1989: refers to 1989-90. CE (1993).
d. 1980: refers to 1980-81 for Serbia only. CE (1993).
e. 1980: refers to 1979-80. Goskomstat (1991a).
f. 1985: refers to 1985-86. Goskomstat (1991b).
g. 1980. 1985: CIS Stat (1997a).
h. CIS Stat (1997a).

4.4 Age 20-39 male mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	1.58	1.77	1.68	1.69	1.59	1.58	1.51	1.38
Slovakia	2.01	2.16	2.11	2.12	1.83	1.75	1.71	1.61
Poland	2.48	2.61	2.71	2.55	2.29	2.33	2.31	2.10
Hungary	2.89	3.06	3.00	3.20	3.19	2.99	2.70	2.23
Slovenia	2.07	1.14	1.34	1.37	1.46	1.36	1.12	1.13
Croatia[a]	—	—	2.79	2.37	1.66	1.32	1.48	1.18
FYR Macedonia[a]	—	—	1.21	1.13	1.24	1.24	1.19	1.10
Bosnia-Herzegovina	1.47	1.50	—	—	—	—	—	—
FR Yugoslavia	1.50	1.55	2.00	1.93	1.62	1.45	1.38	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	1.95	2.04	1.94	2.08	2.19	2.24	2.10	1.90
Romania	2.34	2.36	2.30	2.49	2.42	2.52	2.57	2.51
Estonia	2.98	3.45	3.67	4.06	4.44	5.39	4.78	3.54
Latvia	3.41	3.59	3.95	4.45	5.30	6.08	5.41	4.20
Lithuania	3.20	3.20	3.86	3.73	4.34	4.73	4.27	3.88
Belarus	3.01	3.19	3.37	3.77	4.00	4.21	4.31	4.28
Moldova	3.21	3.29	3.54	4.39	3.35	3.84	3.98	3.66
Russia	3.84	4.01	4.27	5.11	6.46	7.15	6.95	6.22
Ukraine	3.16	3.27	3.59	3.98	4.04	4.49	4.99	4.85
Armenia	1.70	1.91	1.99	2.80	2.70	3.00	1.91	1.68
Azerbaijan	1.75	1.97	2.04	4.11	3.56	4.68	2.59	2.44
Georgia[a b]	2.28	2.24	2.43	3.00	—	2.57	2.23	1.75
Kazakhstan[c]	3.37	3.40	3.61	3.73	4.50	4.55	5.28	—
Kyrgyzstan	3.08	3.21	3.27	3.01	3.52	3.87	4.07	—
Tajikistan[c]	1.77	—	—	—	—	—	—	—
Turkmenistan[c]	2.62	—	—	—	—	—	—	—
Uzbekistan[c]	2.16	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. 1989: Goskomstat (1990).

4.5 Age 20-39 female mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	0.62	0.65	0.65	0.66	0.64	0.58	0.57	0.52
Slovakia	0.68	0.73	0.69	0.65	0.65	0.60	0.58	0.54
Poland	0.76	0.77	0.81	0.74	0.71	0.69	0.68	0.63
Hungary	1.16	1.17	1.19	1.21	1.25	1.11	1.00	0.91
Slovenia	0.69	0.61	0.60	0.64	0.70	0.70	0.60	0.63
Croatia[a]	—	—	0.76	0.72	0.64	0.68	0.63	0.59
FYR Macedonia[a]	—	—	0.66	0.62	0.66	0.56	0.72	0.67
Bosnia-Herzegovina	0.62	0.54	—	—	—	—	—	—
FR Yugoslavia	0.76	0.70	0.75	0.73	0.77	0.73	0.67	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	0.79	0.86	0.78	0.84	0.83	0.86	0.81	0.81
Romania	1.13	1.01	0.99	0.95	0.98	0.94	0.95	0.96
Estonia	1.00	0.95	0.92	0.94	1.06	1.66	1.20	0.99
Latvia	1.03	1.02	1.00	1.12	1.33	1.43	1.28	1.08
Lithuania	0.96	0.87	0.91	0.90	1.03	1.13	1.10	1.02
Belarus	0.85	0.83	0.93	0.95	0.98	1.00	1.07	1.04
Moldova	1.10	1.09	1.22	1.15	1.20	1.27	1.29	1.27
Russia	1.02	1.04	1.11	1.28	1.58	1.74	1.72	1.56
Ukraine	0.90	0.94	1.00	1.07	1.12	1.24	1.37	1.33
Armenia	0.85	0.80	0.72	0.78	0.76	0.71	0.65	0.65
Azerbaijan	0.89	0.85	0.91	1.19	1.15	1.25	1.20	1.14
Georgia[a b]	0.83	0.79	0.76	0.80	—	0.72	0.71	0.58
Kazakhstan[c]	1.17	1.20	1.26	1.31	1.52	1.55	1.69	—
Kyrgyzstan	1.30	1.35	1.40	1.41	1.44	1.58	1.66	—
Tajikistan[c]	1.39	—	—	—	—	—	—	—
Turkmenistan[c]	1.48	—	—	—	—	—	—	—
Uzbekistan[c]	1.30	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. 1989: Goskomstat (1990).

4.6 Age 40-59 male mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	9.40	10.05	9.27	9.06	8.38	8.31	8.09	8.03
Slovakia	12.31	12.47	11.78	11.31	10.63	9.85	9.71	9.23
Poland	11.83	11.87	12.38	11.76	10.82	10.47	10.59	10.01
Hungary	13.98	14.29	14.46	15.56	15.87	15.73	15.24	14.14
Slovenia	9.63	9.19	8.83	8.51	8.98	8.31	7.82	7.41
Croatia[a]	—	—	10.84	10.08	9.38	8.77	8.57	8.35
FYR Macedonia[a]	—	—	6.17	6.60	5.97	7.45	7.48	7.44
Bosnia-Herzegovina	9.21	8.20	—	—	—	—	—	—
FR Yugoslavia	8.58	8.33	8.87	8.76	8.47	8.23	8.06	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	10.07	10.03	9.63	10.47	10.93	11.19	11.20	10.88
Romania	10.52	10.94	10.98	11.95	12.34	12.67	13.16	13.33
Estonia	12.13	13.54	14.36	14.51	16.89	19.75	18.62	15.36
Latvia	13.15	14.28	15.06	16.49	20.56	23.68	21.51	16.69
Lithuania	12.27	12.89	13.63	14.20	16.70	17.84	17.60	15.42
Belarus	12.78	13.02	13.56	14.12	16.08	16.21	17.05	16.49
Moldova	12.00	12.76	13.37	12.43	12.84	15.46	16.09	14.72
Russia	13.87	14.35	14.42	16.49	21.09	24.11	22.35	19.69
Ukraine	12.33	13.10	14.14	15.27	16.17	17.38	19.53	19.11
Armenia	8.72	9.38	9.65	9.35	9.90	8.95	8.90	8.48
Azerbaijan	10.49	10.85	11.49	11.79	11.95	11.99	11.45	10.76
Georgia[a b]	9.91	9.86	9.89	9.42	—	8.25	8.16	7.47
Kazakhstan[c]	13.03	13.02	13.14	13.44	16.07	16.75	19.05	—
Kyrgyzstan	12.10	12.32	12.10	12.07	13.75	16.42	16.12	—
Tajikistan[c]	8.41	—	—	—	—	—	—	—
Turkmenistan[c]	12.33	—	—	—	—	—	—	—
Uzbekistan[c]	10.03	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. 1989: Goskomstat (1990).

4.7 Age 40-59 female mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	4.06	3.93	3.89	3.67	3.49	3.40	3.53	3.28
Slovakia	4.24	4.44	4.39	4.05	3.88	3.65	3.61	3.42
Poland	4.49	4.41	4.44	4.27	3.98	3.90	3.83	3.71
Hungary	5.87	5.78	5.72	5.99	6.07	5.83	5.74	5.27
Slovenia	3.94	3.50	3.84	3.63	3.61	3.52	3.33	3.39
Croatia[a]	—	—	4.16	3.79	3.64	3.53	3.49	3.53
FYR Macedonia[a]	—	—	3.55	3.56	3.91	3.88	3.64	3.71
Bosnia-Herzegovina	4.32	3.86	—	—	—	—	—	—
FR Yugoslavia	4.26	4.13	4.23	4.43	4.47	4.41	4.23	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	4.16	4.19	4.18	4.19	3.94	4.06	4.14	4.13
Romania	4.98	4.93	4.86	5.07	5.10	5.19	5.27	5.36
Estonia	4.91	4.52	5.08	4.82	5.51	6.37	5.70	4.92
Latvia	5.02	5.12	5.11	5.56	6.56	7.57	7.31	5.61
Lithuania	4.58	4.60	4.93	4.81	5.45	5.80	5.76	5.19
Belarus	4.58	4.83	4.85	5.07	5.50	5.52	5.66	5.44
Moldova	7.14	7.08	7.65	6.69	6.89	7.70	8.07	7.41
Russia	4.99	5.04	5.06	5.51	6.82	7.71	7.17	6.41
Ukraine	4.76	4.83	5.10	5.33	5.78	6.14	6.63	6.47
Armenia	4.06	6.60	6.59	6.58	6.75	6.03	6.09	5.96
Azerbaijan	4.77	4.78	4.89	5.26	5.33	5.36	4.94	4.66
Georgia[a b]	4.12	3.94	3.95	3.92	—	3.44	3.03	2.75
Kazakhstan[c]	5.54	5.27	5.22	5.42	6.27	6.64	7.25	—
Kyrgyzstan	5.65	5.54	6.08	5.77	6.09	7.00	7.43	—
Tajikistan[c]	5.56	—	—	—	—	—	—	—
Turkmenistan[c]	6.57	—	—	—	—	—	—	—
Uzbekistan[c]	5.75	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. 1989: Goskomstat (1990).

4.8 Age 60+ mortality rate (per thousand relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	57.68	57.54	55.17	53.00	52.32	51.90	52.23	49.91
Slovakia	52.85	53.02	53.03	51.50	51.01	49.64	50.92	49.39
Poland	50.69	50.71	51.86	49.96	50.05	48.65	48.04	48.01
Hungary	55.82	56.30	55.50	56.40	56.86	55.54	55.34	55.61
Slovenia	45.64	45.47	46.28	45.52	46.17	43.92	42.98	41.54
Croatia[a]	—	—	47.09	44.49	44.59	43.04	43.31	43.46
FYR Macedonia[a]	—	—	40.68	43.39	41.12	45.91	46.95	45.40
Bosnia-Herzegovina	44.16	42.34	—	—	—	—	—	—
FR Yugoslavia	46.47	44.79	44.68	45.69	45.72	44.25	44.91	—
Albania	—	—	—	—	—	—	—	—
Bulgaria	50.36	51.12	52.15	49.75	50.02	50.37	51.79	53.21
Romania	49.87	49.05	50.28	51.84	50.58	50.13	50.55	53.20
Estonia	51.60	53.75	52.84	53.60	55.73	55.50	52.86	50.33
Latvia	51.43	54.27	52.91	52.48	56.65	59.59	56.23	52.09
Lithuania	46.80	48.04	47.52	47.70	51.99	50.71	49.20	47.52
Belarus	44.94	47.20	48.61	47.92	52.10	52.18	53.13	52.92
Moldova	—	—	—	—	—	—	—	60.16
Russia	47.62	48.77	48.60	49.89	56.76	60.26	57.76	55.57
Ukraine	47.80	49.34	51.60	52.84	56.64	58.29	59.65	58.23
Armenia	37.81	39.01	41.29	43.59	46.07	39.39	40.76	39.95
Azerbaijan	41.25	39.37	40.32	43.16	44.37	43.90	43.93	42.43
Georgia[a b]	42.44	40.35	39.98	39.84	—	35.11	31.97	29.08
Kazakhstan	—	45.94	47.29	48.35	54.20	57.21	59.03	—
Kyrgyzstan	44.93	43.81	44.54	46.52	50.62	56.67	55.23	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Population data: US Census Bureau (1997).
b. 1992-96: excludes Abkhazia and Tskhinvali.

5.1 Crude marriage rate (per thousand population)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	7.7	7.7	7.8	8.8	7.0	7.2	6.4	5.7	5.3	5.2
Slovakia[a b]	7.7	7.7	6.9	7.7	6.2	6.4	5.8	5.3	5.1	5.1
Poland[b]	8.6	7.2	6.7	6.7	6.1	5.7	5.4	5.4	5.4	5.3
Hungary[b]	7.5	6.9	6.4	6.4	5.9	5.5	5.3	5.3	5.2	4.8
Slovenia[b]	6.5	5.4	4.9	4.3	4.1	4.6	4.5	4.2	4.1	3.8
Croatia[c]	7.3	6.6	6.1	5.8	4.5	4.6	4.8	5.0	5.3	5.7
FYR Macedonia[d e]	8.5	8.1	—	—	7.7	7.4	7.4	8.1	8.0	7.1
Bosnia-Herzegovina[b f]	8.6	8.1	7.8	6.7	—	—	—	—	—	6.2
FR Yugoslavia[g]	7.6	6.9	6.6	6.2	5.9	6.1	5.9	5.7	5.7	—
Albania[b e]	8.1	8.5	8.6	8.9	7.6	8.3	6.6	—	—	—
Bulgaria[b]	7.9	7.4	7.1	6.9	5.7	5.2	4.7	4.5	4.4	4.3
Romania[b]	8.2	7.1	7.7	8.3	8.0	7.7	7.1	6.8	6.8	6.6
Estonia	8.8	8.4	8.1	7.5	6.6	5.7	5.1	4.9	4.7	3.8
Latvia	9.8	9.3	9.2	8.8	8.4	7.2	5.6	4.5	4.4	3.9
Lithuania	9.2	9.7	9.4	9.8	9.2	8.0	6.4	6.3	6.0	5.5
Belarus[h]	10.1	9.9	9.6	9.7	9.3	7.8	8.0	7.3	7.5	6.2
Moldova[h]	11.5	9.7	9.2	9.4	9.1	9.0	9.1	7.8	7.6	6.0
Russia	10.6	9.7	9.4	8.9	8.6	7.1	7.5	7.3	7.3	5.9
Ukraine	9.3	9.6	9.5	9.3	9.5	7.6	8.2	7.7	8.4	6.0
Armenia	10.4	9.9	7.8	8.0	7.8	6.2	5.8	4.6	4.2	3.8
Azerbaijan[h]	9.8	10.5	10.2	10.3	10.4	9.5	8.2	6.4	5.8	5.2
Georgia[e i]	10.0	8.4	7.1	6.7	7.0	4.9	4.4	4.1	4.1	3.7
Kazakhstan[h j]	10.6	10.1	9.9	9.9	9.9	8.7	8.7	7.4	7.0	6.2
Kyrgyzstan[h j]	10.7	10.1	9.7	10.0	10.6	9.2	8.3	5.9	6.0	5.7
Tajikistan[k]	10.7	10.5	9.2	9.5	10.3	8.4	9.6	6.8	—	—
Turkmenistan[k]	9.8	9.8	9.8	10.2	10.8	11.1	10.7	8.7	7.4	—
Uzbekistan[k]	10.9	11.0	10.0	10.6	12.9	11.0	10.3	7.9	7.5	7.4

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. 1980, 1985, 1989-90: CBSC (1996). 1996: estimate.
d. 1980, 1985, 1989-90: CE (1993).
e. Population data: US Census Bureau (1997).
f. 1992-96: Federation of B-H.
g. 1980, 1985: FSOY (1996). 1996: estimate.
h. 1980, 1985: CIS Stat (1997a).
i. 1992-96: excludes Abkhazia and Tskhinvali.
j. 1996: CIS Stat (1997b).
k. CIS Stat (1997a).

5.2 Mean age at first marriage, females (years)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	21.2	21.1	21.4	21.6	21.7	22.0	22.4	22.8
Slovakia	22.9	22.7	21.3	21.7	21.1	21.3	—	—
Poland[a]	21.8	22.6	21.7	21.7	21.8	21.7	22.0	—
Hungary	21.4	21.5	21.5	21.6	21.7	22.0	22.2	22.6
Slovenia	23.4	23.6	23.9	24.1	24.5	24.7	25.4	25.6
Croatia	23.5	23.6	23.7	24.1	24.1	24.4	24.5	24.7
FYR Macedonia[b]	22.6	22.8	—	—	—	—	—	—
Bosnia-Herzegovina[b]	22.9	23.3	—	—	—	—	—	—
FR Yugoslavia	23.2	23.6	23.8	23.8	24.0	23.8	24.0	—
Albania	22.8	22.6	22.2	22.2	22.3	—	—	—
Bulgaria	21.5	21.4	21.5	21.6	21.9	22.3	22.6	24.6
Romania	22.1	22.0	22.0	22.1	22.2	22.4	22.8	22.8
Estonia[c]	23.0	23.0	23.0	—	23.4	23.7	25.8	26.2
Latvia	22.2	22.2	22.2	22.4	22.5	22.5	22.8	23.2
Lithuania	—	—	—	—	22.4	22.5	22.6	22.4
Belarus	22.3	22.0	21.9	21.8	21.7	21.7	21.7	21.9
Moldova	22.0	21.0	21.0	21.0	21.0	21.0	22.0	22.0
Russia	22.9	22.6	22.5	22.5	22.4	22.4	22.6	22.7
Ukraine	21.5	21.6	21.6	—	—	—	—	—
Armenia	22.3	22.3	22.0	21.9	21.8	21.7	21.9	22.1
Azerbaijan	22.8	23.2	22.9	22.7	22.3	22.3	22.9	22.6
Georgia[d]	24.5	24.2	23.9	23.7	—	23.2	23.7	23.8
Kazakhstan[e]	23.1	—	—	—	—	—	—	—
Kyrgyzstan	21.9	21.7	21.7	21.4	21.2	21.2	21.4	21.5
Tajikistan[e]	22.1	—	—	—	—	—	—	—
Turkmenistan[e]	23.6	—	—	—	—	—	—	—
Uzbekistan[e]	22.3	—	—	—	—	—	—	—

a. Median age.
b. 1989-90: CE (1993).
c. 1989-91: CE (1993).
d. 1992-96: excludes Abkhazia and Tskhinvali.
e. 1989: CE (1993).

5.3 Crude divorce rate (per thousand population)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	2.2	2.2	3.0	3.1	2.8	2.8	2.9	3.0	3.0	3.2
Slovakia[a b]	2.2	2.2	1.6	1.7	1.5	1.5	1.5	1.6	1.7	1.8
Poland[b]	1.1	1.3	1.2	1.1	0.9	0.8	0.7	0.8	1.0	1.0
Hungary[b]	2.6	2.8	2.4	2.4	2.4	2.1	2.2	2.3	2.4	2.2
Slovenia[b]	1.2	1.3	1.1	0.9	0.9	1.0	1.0	1.0	0.8	1.0
Croatia[c]	1.2	1.1	1.1	1.1	1.0	0.8	1.0	1.0	0.9	0.8
FYR Macedonia[d e]	0.5	0.4	0.5	0.4	0.2	0.3	0.3	0.3	0.4	0.4
Bosnia-Herzegovina[f g]	0.6	0.7	0.5	0.4	0.3	—	—	—	—	0.1
FR Yugoslavia[h]	1.2	1.2	1.2	1.0	0.8	0.7	0.7	0.7	0.8	—
Albania[b e]	0.8	0.9	0.8	0.8	0.7	0.8	0.7	0.7	—	—
Bulgaria[b]	1.5	1.6	1.4	1.3	1.3	1.1	0.9	0.9	1.3	1.2
Romania[b]	1.5	1.4	1.6	1.4	1.6	1.3	1.4	1.7	1.5	1.6
Estonia	4.2	4.0	3.8	3.7	3.7	4.3	3.8	3.7	5.0	3.9
Latvia	5.0	4.5	4.2	4.0	4.2	5.5	4.0	3.3	3.1	2.4
Lithuania	3.2	3.2	3.3	3.4	4.1	3.7	3.7	3.0	2.8	3.1
Belarus[i]	3.2	3.1	3.4	3.4	3.7	3.9	4.4	4.3	4.1	4.2
Moldova[i]	2.8	2.7	2.9	3.0	3.2	3.4	3.3	3.2	3.4	3.1
Russia	4.2	4.0	4.0	3.8	4.0	4.3	4.5	4.6	4.5	3.8
Ukraine	3.6	3.6	3.8	3.7	3.9	4.3	4.2	4.0	3.9	3.8
Armenia	1.1	1.2	1.2	1.2	1.1	0.9	0.8	0.9	0.7	0.7
Azerbaijan	1.2	1.2	1.6	2.0	1.5	1.3	0.9	0.8	0.8	0.7
Georgia[e i j]	1.3	1.2	1.4	1.4	1.4	0.9	0.6	0.6	0.5	0.4
Kazakhstan[i k]	2.6	2.6	2.7	2.6	2.9	3.0	2.7	2.5	2.4	2.5
Kyrgyzstan[i k]	1.8	1.7	1.9	1.8	2.0	1.8	1.6	1.2	1.3	1.4
Tajikistan[l]	1.5	1.5	1.5	1.4	1.4	1.2	0.9	0.8	0.7	—
Turkmenistan[l]	1.4	1.5	1.4	1.4	1.6	1.5	1.3	1.5	1.3	—
Uzbekistan[l]	1.4	1.4	1.5	1.5	1.6	1.5	1.2	1.1	0.9	0.9

a. 1980, 1985: Czechoslovakia.
b. 1980, 1985: CE (1993).
c. 1989-90: CBSC (1996).
1996: estimate.
d. 1980, 1985, 1989-90: CE (1993).
e. Population data:
US Census Bureau (1997).
f. 1980, 1985, 1991: CE (1993).
g. 1992-96: Federation of B-H.
h. 1980, 1985: FSOY (1996).
1996: estimate.
i. 1980, 1985: CIS Stat (1997a).
j. 1992-96: excludes Abkhazia and Tskhinvali.
k. 1996: CIS Stat (1997b).
l. CIS Stat (1997a).

5.4 General divorce rate (per hundred marriages)

	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	28.6	28.6	38.6	35.2	40.8	38.6	45.8	52.9	56.7	61.4
Slovakia[a b]	28.6	28.6	22.7	21.9	24.1	23.8	26.5	30.8	32.7	34.2
Poland[a]	12.8	18.1	18.5	16.6	14.5	14.7	13.4	15.2	18.4	19.4
Hungary[a]	34.7	40.6	37.3	37.5	39.9	37.9	41.3	43.3	46.5	46.2
Slovenia[a]	18.5	24.1	22.1	21.8	22.4	21.6	21.7	23.1	19.2	26.5
Croatia[c]	16.0	17.4	18.6	19.6	22.6	16.6	20.3	19.3	17.4	14.7
FYR Macedonia[a]	5.9	4.9	5.8	4.7	3.2	3.8	4.1	3.9	4.5	5.0
Bosnia-Herzegovina[a d]	7.0	8.6	6.1	5.9	5.6	—	—	4.0	3.0	2.2
FR Yugoslavia[e]	15.3	17.5	17.5	16.5	14.2	11.2	11.9	11.7	13.2	—
Albania[a]	9.9	10.6	9.5	9.2	9.0	9.4	10.7	—	—	—
Bulgaria[a]	19.0	21.6	20.0	19.0	22.6	21.1	18.3	21.1	29.0	28.0
Romania[a]	18.3	19.7	20.2	17.1	20.2	16.8	19.3	25.7	22.7	23.7
Estonia[a]	47.7	47.6	46.8	49.1	55.8	74.9	74.3	76.0	106.4	102.5
Latvia[a]	51.0	48.4	45.9	45.7	49.6	77.0	70.4	72.7	70.6	62.8
Lithuania[a]	34.8	33.0	35.5	35.1	44.5	46.4	58.6	47.4	46.1	55.4
Belarus[f]	32.0	31.6	35.3	35.3	39.9	50.0	54.5	58.3	54.7	67.7
Moldova[f]	24.5	27.3	31.1	32.2	35.0	37.7	36.7	40.9	44.6	51.5
Russia[f]	39.7	41.3	42.1	42.4	46.8	60.7	59.9	63.0	61.9	64.9
Ukraine[f]	39.2	37.4	39.6	39.9	40.7	56.5	51.2	52.0	45.9	62.8
Armenia[f]	10.5	11.2	15.2	15.4	13.8	13.7	14.3	20.1	17.2	18.3
Azerbaijan[f]	11.8	11.2	15.9	19.2	14.4	13.8	10.9	13.3	13.1	14.5
Georgia[f g]	13.4	14.7	19.2	21.2	19.5	18.2	13.3	14.1	12.5	11.8
Kazakhstan[f]	24.2	25.9	27.7	26.5	29.5	33.9	31.1	34.0	33.5	39.5
Kyrgyzstan[f]	17.2	17.0	19.7	18.0	19.0	19.7	19.9	21.2	22.3	25.1
Tajikistan[h]	14.3	14.6	15.9	14.7	13.4	13.9	9.8	11.3	13.5	—
Turkmenistan[h]	13.8	15.0	14.2	13.2	14.4	13.7	13.3	17.5	18.0	—
Uzbekistan[h]	13.0	13.0	14.9	13.8	12.3	13.9	12.0	13.8	12.4	11.8

a. 1980, 1985: computed from crude divorce and marriage rates.
b. 1980, 1985: Czechoslovakia.
c. 1980, 1985: CBSC (1996).
d. 1992-96: Federation of B-H.
e. 1980, 1985: FSOY (1996).
f. 1980, 1985: CIS Stat (1997a).
g. 1992-96: excludes Abkhazia and Tskhinvali.
h. CIS Stat (1997a).

5.5 Number of children involved in divorce (children under 18 living in the household)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	34,655	35,225	32,014	31,050	32,529	33,143	32,792	34,663
Slovakia	10,922	13,474	10,310	9,675	9,678	10,317	6,774	7,002
Poland	50,095	45,105	35,793	33,530	28,385	32,787	40,636	42,205
Hungary[a]	26,136	26,103	25,400	22,902	22,895	23,313	24,935	21,006
Slovenia	2,126	1,991	1,912	1,989	1,995	2,011	1,518	1,982
Croatia	6,562	6,709	6,294	4,601	5,908	5,790	5,473	4,726
FYR Macedonia	—	—	—	—	—	—	—	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	6,961	6,288	4,908	4,060	4,196	4,461	5,027	—
Albania	2,278	2,496	2,102	—	2,066	2,083	—	—
Bulgaria	14,078	12,698	12,037	10,258	7,764	7,007	9,293	8,555
Romania	30,556	27,745	30,457	23,639	21,599	32,751	27,236	26,752
Estonia[a]	—	—	—	—	—	4,839	7,003	5,572
Latvia[a]	9,724	9,556	9,958	13,677	9,237	8,077	7,653	5,599
Lithuania	11,569	12,020	15,237	13,776	13,262	11,469	11,037	11,311
Belarus	31,589	31,647	35,882	38,770	45,041	42,921	40,510	42,273
Moldova	10,645	11,593	12,851	14,302	13,461	12,171	12,967	—
Russia	479,066	466,137	522,150	569,117	593,782	613,429	588,078	463,527
Ukraine	155,933	158,521	170,664	186,718	184,685	—	—	—
Armenia	3,513	3,644	3,214	2,740	2,819	3,026	2,170	2,264
Azerbaijan	7,525	9,865	7,973	6,484	4,754	4,044	2,526	2,209
Georgia[a b]	4,477	4,407	4,537	1,890	—	1,566	1,498	988
Kazakhstan	41,102	40,484	45,847	47,444	43,593	39,156	37,098	39,322
Kyrgyzstan	7,781	6,958	8,339	7,069	6,482	5,094	5,839	6,636
Tajikistan[c]	6,954	—	—	—	4,909	—	—	—
Turkmenistan[c]	4,730	—	—	—	5,840	—	—	—
Uzbekistan[c]	25,841	—	—	—	—	—	—	—

a. Only children from the marriage.
b. 1992-96: excludes Abkhazia and Tskhinvali.
c. CIS Stat (1995a).

6.1 DPT immunization rate (percent of children under 2 immunized against diphtheria, pertussis and tetanus)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	99.0	99.0	99.0	99.0	99.0	98.0	96.0	98.0
Slovakia	99.1	99.4	99.7	99.3	99.1	98.9	99.1	—
Poland[a b]	—	90.1	88.9	88.0	89.0	89.5	90.5	91.7
Hungary	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8
Slovenia	97.4	97.1	97.3	97.8	98.1	98.1	—	—
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia	93.7	94.4	92.5	95.4	89.6	87.7	95.2	92.5
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[c d]	89.2	84.0	79.0	84.2	84.6	85.0	89.0	—
Albania[a b]	99.5	99.5	99.4	97.9	97.7	93.3	94.8	—
Bulgaria[c e]	99.5	99.5	99.4	97.9	97.7	93.3	94.8	95.1
Romania	79.3	75.5	77.3	86.8	97.6	97.6	98.3	98.0
Estonia[b c]	—	—	—	79.5	82.3	87.4	95.3	96.9
Latvia[b c f g]	81.1	83.5	82.8	83.5	78.8	72.4	71.8	77.0
Lithuania[e]	81.9	78.4	74.9	87.2	86.8	87.2	97.3	92.1
Belarus[f h]	93.8	92.4	87.7	88.1	89.4	89.5	93.9	97.7
Moldova[f]	84.0	81.0	81.0	84.0	87.0	86.0	96.0	97.7
Russia[e]	82.7	68.5	68.7	72.6	79.2	88.1	92.7	95.1
Ukraine[e]	—	—	65.5	82.7	95.6	91.5	95.8	—
Armenia[f h]	81.5	82.3	83.0	85.2	85.3	86.0	98.0	86.0
Azerbaijan	90.8	92.1	92.2	82.0	89.5	94.0	95.9	95.8
Georgia	31.1	36.2	30.4	—	24.4	30.0	47.1	—
Kazakhstan[e h]	84.8	84.2	82.7	85.3	81.6	84.4	92.9	95.0
Kyrgyzstan[h i j]	—	—	86.9	74.5	62.7	78.5	93.0	93.1
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan[k]	—	—	—	—	—	—	80.0	—
Uzbekistan[e h l]	—	—	84.1	83.2	49.2	65.2	86.1	95.0

a. 3 year olds.
b. Diphtheria and tetanus.
c. Vaccination and re-vaccination.
d. Infants under 1.
e. 1-2 year olds.
f. 1 year olds.
g. 1996: preliminary data.
h. Diphtheria.
i. 1991-94: 1, 3, 10, 16 year olds. 1995-96: 1, 3, 7, 12, 16 year olds.
j. A 1995 survey on DPT3 among children 12-23 months old found 74%. MOHK and UNICEF (1995).
k. Survey result on DPT3 among children 12-23 months old. MOHT and UNICEF (1995).
l. UNDP (1997).

6.2 Polio immunization rate (percent of children under 2 immunized against polio)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	99.0	99.0	99.0	99.0	99.0	98.0	98.0	98.0
Slovakia	98.8	99.0	99.2	98.6	98.6	98.6	98.6	—
Poland[a]	—	90.1	88.6	87.9	88.9	89.3	90.4	91.6
Hungary	98.5	98.6	98.6	98.6	99.9	99.9	99.9	99.8
Slovenia	96.5	96.8	97.6	98.3	98.5	98.5	—	—
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia	94.4	94.3	93.5	93.8	93.7	90.7	94.7	94.4
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[b c]	88.8	80.7	80.5	84.5	82.6	84.4	89.6	—
Albania	—	94.0	82.0	96.5	97.0	—	—	—
Bulgaria[b d]	99.7	99.7	99.0	98.8	97.0	93.9	96.8	95.4
Romania	89.4	80.5	83.5	92.3	90.7	91.0	94.2	96.8
Estonia[b c]	—	—	—	83.8	84.4	86.5	95.3	96.9
Latvia[b c]	83.6	85.6	84.1	64.5	80.9	59.3	76.3	76.9
Lithuania[d]	86.6	77.1	79.0	88.2	86.3	87.7	89.3	92.6
Belarus[b c]	90.0	89.2	89.4	89.9	90.5	92.4	96.1	97.9
Moldova[b c]	92.0	91.0	89.0	93.0	97.0	94.0	97.0	98.6
Russia[b c]	68.6	69.4	71.5	69.0	82.2	87.5	91.6	96.8
Ukraine[d]	—	—	—	—	91.1	96.3	97.5	98.9
Armenia[b c]	93.1	93.3	91.8	91.9	91.9	92.0	93.0	97.0
Azerbaijan[b c]	96.8	95.7	97.5	96.2	94.2	93.6	98.0	97.3
Georgia	36.6	38.8	32.5	36.7	38.5	36.7	58.9	30.2
Kazakhstan[e]	85.6	85.0	83.7	86.5	68.7	57.9	93.1	94.2
Kyrgyzstan[f g]	—	—	91.6	93.6	55.2	72.5	95.6	91.3
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan[h]	—	—	—	—	—	—	83.0	—
Uzbekistan[i]	—	—	89.1	85.3	45.9	79.0	98.1	96.5

a. 3 year olds.
b. Vaccination and re-vaccination.
c. Infants under 1.
d. 1-2 year olds.
e. 1989-93: 1-2 year olds. 1994-96: 0-2 year olds.
f. 1991: 1-3, 6, 16 year olds. 1992: 1-3, 8, 14, 16 year olds. 1993-96: 1-2, 8 year olds.
g. A 1995 survey on OPV3 among children 12-23 months old found 67%. MOHK and UNICEF (1995).
h. Survey result on OPV3 among children 12-23 months old. MOHT and UNICEF (1995).
i. 1 year olds. UNDP (1997).

6.3 Measles immunization rate (percent of children under 2)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	99.0	98.0	98.0	97.0	98.0	97.0	96.0	97.0
Slovakia	98.9	98.5	98.0	96.2	97.9	97.8	97.4	—
Poland[c]	—	94.6	93.5	94.9	95.3	95.6	96.1	96.7
Hungary	99.9	99.0	99.2	99.1	99.8	99.8	99.9	99.9
Slovenia	90.8	92.3	90.6	90.3	89.7	91.1	—	—
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia	93.7	93.6	92.8	52.9	97.8	86.0	96.7	91.0
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[d]	90.7	83.0	75.5	81.8	84.9	80.8	86.0	—
Albania	—	96.0	80.0	87.2	76.0	—	—	—
Bulgaria[a b]	99.6	99.6	97.8	92.2	87.9	93.3	96.4	95.1
Romania	86.2	93.0	87.6	90.8	90.2	90.1	93.3	93.8
Estonia[a e]	—	—	—	74.8	74.2	76.1	65.1	71.5
Latvia[a e]	89.4	89.1	89.4	68.4	78.7	66.4	75.5	82.1
Lithuania[a b]	92.2	98.0	85.7	98.0	91.8	92.7	93.7	96.3
Belarus[a e]	90.0	89.9	89.9	89.9	90.5	92.1	86.8	96.4
Moldova	95.0	94.0	93.0	92.0	92.0	95.0	98.0	98.4
Russia	82.0	81.1	78.7	82.6	88.2	91.3	94.1	95.3
Ukraine[a b]	—	—	—	—	94.3	95.5	97.1	92.4
Armenia[a e]	94.5	94.8	80.7	77.4	82.1	95.0	96.0	89.0
Azerbaijan[a e]	87.6	83.3	70.1	66.3	27.8	91.3	97.0	98.5
Georgia	34.8	37.1	28.5	9.1	36.6	26.5	39.2	29.1
Kazakhstan[f]	93.0	95.1	91.4	90.2	91.0	71.7	95.4	96.6
Kyrgyzstan[g h]	—	—	85.7	71.6	73.8	76.4	—	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan[i]	—	—	—	—	—	—	66.0	—
Uzbekistan[j k]	—	—	83.9	84.1	82.2	20.9	60.3	98.2

a. Vaccination and re-vaccination.
b. 1-2 year olds.
c. 3 year olds.
d. Infants under 1. 1989-90: measles, rubella and pertussis.
e. 1 year olds.
f. 2-3 year olds.
g. 2, 7 year olds.
h. A 1995 survey on immunization among children 12-23 months old found 65%. MOHK and UNICEF (1995).
i. Valid immunization of children 12-23 months old. MOHT and UNICEF (1995).
j. 2 year olds. UNDP (1997).
k. A survey of 400 children 12-23 months old found 92% in 1996. IOGU and Macro International (1996).

7.1 Kindergarten enrolments (net rates, percent of relevant population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a]	89.8	89.8	89.8	83.3	84.9	86.6	88.7	88.5
Slovakia[b]	91.5	83.7	75.7	78.1	78.0	74.6	70.2	75.2
Poland[b]	48.7	47.1	43.9	42.6	42.7	44.3	45.3	46.8
Hungary[a]	85.7	84.9	85.9	86.5	86.6	86.1	86.9	87.0
Slovenia[b c]	57.0	56.3	56.6	55.8	56.2	60.3	62.8	65.1
Croatia[b d]	28.2	29.4	29.4	19.1	20.0	—	26.1	—
FYR Macedonia[b]	—	26.2	24.4	25.3	25.5	26.9	28.0	—
Bosnia-Herzegovina[b]	—	—	—	—	—	—	—	—
FR Yugoslavia[e]	31.2	31.9	31.6	29.2	34.0	28.5	32.6	34.5
Albania[a d]	43.1	44.1	36.3	26.8	26.5	26.5	—	—
Bulgaria[a c]	69.1	67.7	58.7	62.5	60.4	62.6	67.5	69.2
Romania[b]	63.3	54.3	51.9	53.3	50.2	55.2	58.4	55.1
Estonia[b]	63.3	62.2	67.4	60.5	53.7	56.0	58.8	63.2
Latvia[b]	52.8	44.8	37.0	28.3	32.6	39.9	47.1	50.8
Lithuania[b]	63.9	58.6	63.9	39.1	30.1	34.5	36.2	40.0
Belarus[b]	63.1	63.3	62.5	58.0	58.3	61.0	62.3	64.0
Moldova[e f]	62.8	61.4	58.7	42.4	36.6	35.1	32.3	32.1
Russia[b]	69.3	66.4	63.9	56.8	57.4	56.2	55.5	55.0
Ukraine[e g]	61.0	57.4	51.0	54.7	49.4	47.0	44.3	41.0
Armenia[b]	65.2	60.5	60.4	51.9	45.3	39.1	31.4	32.4
Azerbaijan[b]	21.9	20.6	20.6	18.8	18.7	16.6	15.1	13.8
Georgia[b]	44.1	43.6	39.9	31.0	26.8	17.4	14.2	11.7
Kazakhstan[e]	54.7	53.5	52.5	45.3	39.8	29.3	23.5	—
Kyrgyzstan[e]	31.3	30.3	26.7	23.3	13.4	8.8	7.7	8.0
Tajikistan[e g]	16.0	15.0	14.0	11.0	10.4	9.4	—	—
Turkmenistan[e h]	33.8	33.9	32.8	32.0	39.6	30.1	—	—
Uzbekistan[e h]	33.8	36.8	35.1	30.7	29.0	26.1	24.5	24.0

a. 3-5 years.
b. 3-6 years.
c. Public schools only.
d. ICDC estimates. Population data: US Census Bureau (1997).
e. 1-6 years.
f. 1992-96: excluding Transdniestr.
g. CIS Stat (1997a).
h. Uzbekistan Ministry of Labour.

7.2 Basic education enrolments (gross rates, percent of 6/7-14/15 age group)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	96.9	97.3	99.3	98.6	97.4	96.1	95.3	92.0
Slovakia[a]	96.8	97.2	98.0	99.8	99.5	97.0	96.5	96.3
Poland[c]	97.9	97.5	97.3	97.1	97.2	97.1	97.2	97.4
Hungary[d]	99.0	99.2	99.2	99.2	99.1	99.1	99.1	99.2
Slovenia[c e]	96.0	96.1	97.1	96.8	97.6	97.8	96.7	97.3
Croatia[c f]	96.0	94.0	81.0	79.0	85.0	89.0	88.0	—
FYR Macedonia[c g]	—	89.4	87.1	86.2	86.2	86.8	86.5	86.9
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[c h i]	95.3	95.0	94.4	72.7	74.3	72.5	71.6	72.7
Albania[d g]	90.8	90.7	88.5	85.9	86.6	87.6	—	—
Bulgaria[a]	98.4	98.6	97.3	95.1	94.0	94.3	93.7	93.6
Romania[c]	93.6	89.5	89.4	89.6	90.3	91.4	92.6	93.9
Estonia[j k]	98.1	96.2	94.9	93.6	92.3	91.7	91.2	92.2
Latvia[j k]	95.8	96.4	95.2	90.9	89.4	89.0	89.5	89.5
Lithuania[c]	94.0	93.0	92.6	92.8	91.9	92.2	93.2	94.0
Belarus[j]	95.8	94.9	94.2	94.2	93.7	93.6	94.1	93.8
Moldova[c l]	95.8	95.6	94.4	80.3	80.0	79.3	79.8	79.3
Russia[j]	93.0	93.6	94.4	93.3	91.9	90.7	91.3	91.4
Ukraine[j]	93.1	93.5	92.4	—	91.6	90.8	91.0	90.3
Armenia[c]	98.8	97.8	95.8	95.3	91.3	89.5	84.4	85.3
Azerbaijan[j]	90.6	90.4	91.2	92.8	92.9	90.6	86.7	—
Georgia[j]	90.5	92.0	91.2	89.4	86.1	—	—	—
Kazakhstan[j]	93.9	93.1	92.7	91.7	91.5	90.9	90.5	90.0
Kyrgyzstan[j]	85.4	—	84.5	83.9	83.6	83.0	82.5	76.4
Tajikistan[g j]	94.1	94.0	94.2	89.6	85.1	86.4	—	—
Turkmenistan[g j]	92.8	92.2	89.5	88.5	88.5	89.1	—	—
Uzbekistan[g j]	92.2	91.1	87.9	87.5	87.9	88.6	—	—

a. 6-14 years.
b. 1996: excludes extended gymnasia, dance conservatories and special schools.
c. 7-14 years.
d. 6-13 years.
e. End of school year.
f. 1991-95: some areas not reported; estimated rate 95%.
g. ICDC estimates. Population data: US Census Bureau (1997).
h. 1991/92-96: excludes ethnic Albanians in Kosovo-Metohija.
i. Net rates.
j. 7-15 years.
k. ICDC estimates.
l. 1992-96: excludes Transdniestr.

7.3 General secondary enrolments[a] (gross rates, percent of 15-18 age group)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	15.9	16.1	15.6	15.9	16.5	17.6	18.8	18.7
Slovakia	15.6	16.0	16.4	17.1	18.0	19.0	20.0	20.9
Poland	21.0	21.7	23.3	24.9	26.4	28.1	29.7	30.5
Hungary	19.7	19.8	19.5	19.5	19.2	20.0	21.2	22.3
Slovenia[b]	—	—	—	—	—	19.5	20.1	20.5
Croatia[c]	—	—	—	8.8	13.9	18.0	18.5	18.7
FYR Macedonia[c]	—	—	10.6	14.4	15.8	17.5	18.2	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	—	—	8.0	12.8	19.6	—	—	—
Albania[c]	20.0	21.9	26.3	29.5	29.9	29.3	—	—
Bulgaria	30.7	29.9	29.4	29.3	29.6	31.3	31.7	31.4
Romania	3.8	11.6	16.4	17.8	18.4	19.3	19.8	20.4
Estonia	37.3	36.3	36.7	37.0	39.4	43.5	43.7	43.9
Latvia	22.1	21.2	20.3	20.3	24.7	26.7	28.7	30.3
Lithuania	34.7	34.2	32.8	30.6	30.4	32.9	34.8	38.6
Belarus	27.5	26.6	26.0	25.2	24.2	24.9	24.9	26.8
Moldova[d]	29.0	26.6	22.6	17.1	17.1	17.6	18.1	19.4
Russia	23.6	24.4	24.7	23.6	22.6	22.3	23.4	24.5
Ukraine	25.8	25.2	24.2	—	22.7	23.4	24.0	25.5
Armenia	35.9	34.3	32.5	31.3	31.2	30.7	29.1	29.6
Azerbaijan	33.0	33.5	34.5	32.8	28.9	27.0	25.8	28.1
Georgia[e]	39.0	40.2	39.7	34.4	26.4	23.0	21.8	24.0
Kazakhstan	30.4	31.7	32.3	31.0	28.4	27.0	25.5	24.8
Kyrgyzstan	—	36.6	36.7	36.0	32.5	28.6	27.3	—
Tajikistan[e]	41.5	40.7	37.7	29.7	26.8	25.3	23.6	22.3
Turkmenistan[e]	39.0	39.7	37.5	34.9	35.2	35.6	—	—
Uzbekistan[e]	37.5	37.7	36.5	31.0	28.0	27.8	—	27.0

a. Typically, 2-4-year programmes. In countries w/2-year programmes, rates may be underestimated.
b. 15-19 years.
c. ICDC estimates. Population data: US Census Bureau (1997).
d. 1992-96: excludes Transdniestr.
e. ICDC estimates. Data: US Census Bureau (1997), CIS Stat (1997a).

7.4 Technical secondary enrolments[a] (gross rates, percent of 15-18 age group)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	24.5	23.9	23.6	23.5	25.8	26.5	28.2	22.7
Hungary	33.5	34.0	34.8	36.2	37.5	38.9	39.6	40.5
Poland	34.7	34.9	34.7	35.2	36.8	38.5	39.3	40.5
Slovakia	26.6	27.0	26.7	26.6	26.7	28.1	31.3	34.9
Slovenia	—	—	—	—	—	34.0	34.4	35.5
Croatia[b]	—	—	—	50.5	44.8	34.2	28.9	30.6
FYR Macedonia[b]	—	—	54.5	43.1	39.0	39.7	39.8	41.1
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	9.9	10.3	7.8	8.7	9.1	8.1	8.6	—
Albania[b]	34.7	35.4	21.6	14.5	10.4	7.6	—	—
Bulgaria	46.6	46.8	45.6	42.6	40.9	41.8	41.7	41.5
Romania[c]	66.9	43.4	28.1	22.8	21.7	22.5	24.1	24.4
Estonia	17.5	—	—	15.5	13.5	13.2	14.8	15.9
Latvia	—	24.8	22.7	19.2	15.9	13.6	13.0	12.7
Lithuania	10.3	9.7	8.7	8.3	8.4	9.3	10.4	11.9
Belarus[d]	25.5	24.5	23.8	23.2	22.0	21.1	20.5	20.7
Moldova[d]	19.4	17.6	16.4	15.5	17.8	11.1	10.6	11.3
Russia	29.1	27.9	26.7	25.1	23.6	21.8	22.3	22.7
Ukraine	26.7	25.6	24.8	24.3	23.1	22.0	21.2	20.5
Armenia	20.6	19.3	16.7	13.6	10.0	8.7	7.1	9.0
Azerbaijan	11.1	11.1	11.6	9.0	6.4	5.7	6.3	6.4
Georgia[e]	17.5	16.9	—	16.2	12.0	12.9	11.9	13.2
Kazakhstan	21.7	20.9	20.0	19.0	18.2	17.5	16.4	14.7
Kyrgyzstan[e]	13.8	12.6	12.2	11.7	11.0	9.3	8.2	7.7
Tajikistan[e]	9.8	9.4	9.2	8.6	8.5	7.6	—	4.9
Turkmenistan[e]	11.9	11.4	11.0	10.7	9.1	—	—	—
Uzbekistan[e]	17.1	15.7	14.9	14.4	13.6	11.7	10.6	10.5

a. Typically 3-4-year programmes. Includes full-time, evening and correspondence courses.
b. ICDC estimates. Population data: US Census Bureau (1997).
c. Based on 15-19 age cohort.
d. ICDC estimates. Data: CIS Stat (1997a).
e. ICDC estimates. Data: US Census Bureau (1997), CIS Stat (1997a).

7.5 Vocational secondary enrolments[a] (gross rates, percent of 15-17 age group)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	47.7	41.1	37.7	36.6	39.7	40.4	32.1	—
Slovakia	37.2	33.6	30.7	28.5	27.5	26.7	26.5	25.4
Poland	37.5	35.9	34.3	32.6	31.0	29.6	28.3	27.0
Hungary	36.1	35.7	33.1	30.2	27.6	26.5	25.9	25.1
Slovenia	—	—	—	—	—	27.0	27.8	28.2
Croatia[b]	—	—	—	8.0	15.3	24.2	25.8	26.5
FYR Macedonia	—	—	—	—	—	—	—	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	7.5	5.3	4.3	4.4	4.8	4.5	4.4	—
Albania	—	—	—	—	—	—	—	—
Bulgaria[c]	0.4	0.5	0.5	0.5	0.6	0.8	0.8	0.7
Romania	20.3	24.4	24.8	21.3	18.6	18.1	18.2	16.9
Estonia	—	20.3	—	19.9	19.5	19.6	20.1	21.5
Latvia	—	21.5	21.2	20.7	20.6	20.1	19.1	20.0
Lithuania	—	—	—	11.4	12.4	12.4	13.2	12.0
Belarus	32.5	30.2	31.6	31.5	32.0	30.7	28.4	20.5
Moldova[d]	22.7	20.8	19.2	14.0	12.7	12.0	11.9	11.5
Russia	25.1	22.9	22.3	21.3	20.6	19.8	19.5	19.1
Ukraine	23.4	—	—	—	14.6	13.3	12.6	12.1
Armenia	11.0	9.7	9.0	9.2	8.3	6.2	4.2	2.7
Azerbaijan	16.8	14.9	14.0	12.0	9.9	7.7	5.0	4.3
Georgia	19.0	17.4	16.8	15.8	16.3	12.1	13.1	12.0
Kazakhstan	—	19.0	—	—	—	13.0	12.6	11.0
Kyrgyzstan	13.8	12.6	12.2	11.7	11.0	9.3	8.2	6.2
Tajikistan[b]	9.8	9.4	9.2	8.6	8.5	7.6	—	—
Turkmenistan[b]	11.9	11.4	11.0	10.7	9.1	6.9	4.2	—
Uzbekistan[b]	17.1	15.7	14.9	14.4	13.6	11.7	10.6	—

a. Various educational and apprenticeship programmes lasting 1-4 years.
b. ICDC estimates.
Data: US Census Bureau (1997), CIS Stat (1997a).
c. Trade school licence only.
d. 1992-96: excludes Transdniestr.

7.6 Tertiary enrolments[a] (gross rates, percent of 18-22 age group)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	12.7	13.6	13.1	13.3	13.6	14.2	15.0	16.6
Slovakia	13.2	13.8	13.3	14.2	14.4	15.0	15.6	16.8
Poland[b]	11.6	12.4	13.0	14.3	15.7	17.0	18.1	19.7
Hungary[c]	13.9	14.2	14.8	15.7	16.8	18.5	20.7	22.9
Slovenia	18.2	19.3	21.8	21.6	22.9	23.4	24.7	—
Croatia[d]	—	—	13.9	14.3	16.0	16.5	16.6	17.2
FYR Macedonia[b]	—	—	14.4	14.4	12.6	11.3	—	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[b]	17.1	16.9	15.8	13.7	14.8	14.5	14.9	16.5
Albania[e]	4.8	5.8	6.0	5.9	5.2	4.6	—	—
Bulgaria[f]	16.4	18.8	18.7	19.8	20.9	23.0	26.0	27.3
Romania[b]	8.8	10.1	11.0	12.2	13.1	13.4	13.2	—
Estonia	—	14.2	14.1	13.8	14.3	15.6	16.9	18.6
Latvia[b]	15.2	15.5	15.6	15.9	15.8	16.4	18.5	22.8
Lithuania	17.7	17.2	15.6	13.7	13.3	13.1	13.9	15.4
Belarus[g]	16.5	16.7	16.6	17.0	16.1	17.3	17.8	18.7
Moldova[g]	11.6	11.7	11.4	10.8	10.3	10.8	11.9	12.5
Russia[g]	16.6	16.9	17.1	17.0	16.4	16.1	16.9	17.6
Ukraine[g]	15.3	15.3	15.2	15.1	14.5	16.0	16.8	17.9
Armenia[g]	16.5	17.0	16.8	15.0	12.3	10.2	13.2	11.5
Azerbaijan[g]	8.1	8.6	9.2	8.6	8.5	8.7	11.0	—
Georgia[g]	13.9	16.0	15.5	13.5	12.8	—	—	—
Kazakhstan[g]	12.9	13.0	13.4	13.1	12.7	12.6	12.5	12.9
Kyrgyzstan[g]	10.9	10.8	10.4	9.7	9.7	10.8	11.8	12.9
Tajikistan[h]	9.0	9.4	9.4	9.3	8.6	9.2	—	9.4
Turkmenistan[h]	8.1	8.0	7.9	7.4	7.4	—	7.3	—
Uzbekistan[h]	9.1	9.5	9.4	8.7	7.4	6.3	5.4	5.0

a. Only full-time tertiary.
b. ICDC estimates.
c. 1996: estimate.
d. ICDC estimates.
Population data: US Census Bureau (1997).
e. Laporte and Ringold (1997).
f. Includes full- and part-time students; 19-25 year age group.
g. ICDC estimates.
Data: CIS Stat (1997a).
h. ICDC estimates.
Data: US Census Bureau (1997), CIS Stat (1997a).

7.7 Public expenditures on education (as percent of GDP)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	4.0	4.1	4.3	4.8	5.7	5.9	5.6	5.8
Slovakia	—	5.5	5.6	6.0	5.2	4.4	5.1	4.9
Poland	—	4.8	5.1	5.4	5.4	5.2	5.1	5.4
Hungary	5.7	5.8	6.3	6.6	6.5	6.4	5.6	5.0
Slovenia	—	—	4.8	5.5	5.8	5.5	5.8	5.8
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia	—	5.9	6.8	5.4	6.0	5.7	6.1	6.3
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania[a]	4.0	4.2	5.0	4.4	3.7	3.2	3.8	3.2
Bulgaria	—	5.0	5.1	6.1	5.7	4.8	4.1	3.5
Romania[b]	2.2	2.8	3.6	3.6	3.3	3.1	3.4	3.5
Estonia	—	—	—	6.1	7.0	6.6	7.0	—
Latvia	5.8	4.8	4.2	4.6	6.1	6.1	6.7	6.5
Lithuania[c]	—	4.5	—	—	4.3	4.3	4.3	4.3
Belarus	—	—	4.6	5.4	6.0	5.9	5.6	6.2
Moldova	—	—	—	7.8	6.0	7.4	7.3	8.0
Russia[d]	—	3.7	3.6	3.6	4.0	4.5	3.5	3.7
Ukraine	—	—	—	—	—	—	—	—
Armenia	—	—	7.5	8.9	5.7	2.5	3.3	—
Azerbaijan	—	7.5	6.9	6.5	6.2	3.4	3.1	3.5
Georgia	—	6.1	6.4	4.0	0.6	0.5	0.9	1.2
Kazakhstan[e]	—	—	—	2.1	3.9	3.0	3.2	—
Kyrgyzstan	7.5	8.0	1.3	1.0	4.2	6.1	6.6	5.4
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. 1989-95: Laporte and Ringold (1997).
b. Current expenditures.
c. 1990: Mockienė, Klepačienė and Jackūnas (1997).
d. 1990-91: UNESCO (1997).
e. 1993-95: ADB and UNESCO (1995).

8.1 Children in infant homes (per hundred thousand children aged 0-3)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a]	533.0	509.0	492.0	460.5	455.8	466.7	498.7	517.7
Slovakia	191.7	170.7	170.5	206.2	215.3	238.3	240.2	272.6
Poland	179.7	190.9	196.9	193.5	193.2	—	—	—
Hungary	504.6	390.1	376.6	390.5	396.7	385.0	382.5	384.2
Slovenia	40.8	28.7	27.6	25.8	40.1	34.3	23.9	—
Croatia[b c]	—	—	—	61.4	—	57.1	—	70.7
FYR Macedonia[c d]	—	—	51.3	140.8	64.3	81.0	85.6	63.6
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	—	48.2	—	43.8	—	52.6	—	—
Albania[c e f]	—	—	—	—	—	73.9	75.9	82.5
Bulgaria	873.8	861.8	863.7	923.4	1,009.9	1,084.2	1,089.0	1,205.8
Romania	—	597.1	604.5	653.8	750.3	1,074.0	887.7	938.9
Estonia	296.7	297.2	315.5	356.1	400.9	433.1	512.6	592.0
Latvia	528.2	497.4	461.1	488.5	575.4	661.0	737.1	803.4
Lithuania	275.6	202.7	216.2	218.5	245.4	215.7	254.4	296.4
Belarus	169.4	164.7	162.6	168.6	184.2	207.6	225.5	241.6
Moldova[g]	183.5	175.0	182.0	172.2	182.1	198.1	195.8	217.7
Russia	203.8	203.5	209.2	226.2	250.7	278.8	306.0	346.1
Ukraine	—	—	—	—	160.9	177.5	200.1	223.0
Armenia	19.9	17.7	16.5	19.9	18.9	21.6	25.0	30.3
Azerbaijan	35.5	34.3	32.8	26.3	27.0	27.5	25.2	25.1
Georgia[c]	74.7	69.4	56.9	35.8	40.5	31.9	35.9	57.9
Kazakhstan	122.0	118.1	120.1	111.2	131.5	146.1	168.4	189.6
Kyrgyzstan[h]	48.5	46.9	47.2	47.5	42.4	50.7	48.8	—
Tajikistan[c h]	92.1	87.3	74.9	67.4	59.1	—	—	—
Turkmenistan[c h]	61.9	57.1	51.0	46.3	47.7	45.8	—	—
Uzbekistan[c h]	180.8	183.7	173.5	179.3	—	—	—	—

a. Ministry of Health institutions and homes.
b. Data collected every two years.
c. ICDC estimates. Population data: US Census Bureau (1997).
d. 1992: increase reportedly due to refugees.
e. Personal communication, General Administration of Social Services (Albania).
f. Includes only children 0-3 in infant homes.
g. 1992-96: excludes Transdniestr.
h. CIS Stat (1997a).

8.2 Gross adoption rate[a] (per hundred thousand children aged 0-3)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	104.2	96.7	103.6	90.8	92.7	111.8	—	—
Slovakia	114.6	122.4	126.7	119.3	148.1	140.6	182.9	196.6
Poland	149.7	157.4	150.3	139.2	133.8	127.7	128.0	136.6
Hungary	198.4	195.3	206.9	188.0	183.1	190.5	201.0	227.6
Slovenia	153.3	135.1	149.8	131.2	121.6	161.8	93.2	101.3
Croatia[b]	—	—	47.2	54.9	106.0	150.8	88.0	92.3
FYR Macedonia[b]	—	—	204.4	166.4	159.3	153.0	140.1	164.6
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania[b c]	—	—	—	—	—	22.6	28.6	39.9
Bulgaria	588.7	577.9	551.3	557.0	542.5	603.2	639.1	668.1
Romania	—	—	—	—	—	—	—	243.4
Estonia	—	—	—	309.9	418.0	417.0	436.6	471.1
Latvia	356.0	362.2	415.7	426.8	356.5	354.4	360.6	400.2
Lithuania	—	—	—	43.2	53.5	107.6	66.9	68.9
Belarus	—	—	—	—	45.7	65.9	56.2	57.4
Moldova[d]	—	—	—	—	—	109.2	131.9	134.7
Russia	129.9	141.1	152.5	178.6	215.6	252.4	225.5	213.9
Ukraine	217.2	201.1	235.6	243.3	269.0	327.9	341.3	231.3
Armenia	178.2	102.5	71.2	61.1	57.8	166.5	217.2	96.5
Azerbaijan	99.8	86.4	73.5	63.7	52.4	74.9	60.2	71.7
Georgia[b]	—	—	—	—	—	—	—	40.4
Kazakhstan	—	—	—	—	—	—	—	—
Kyrgyzstan	—	—	—	—	—	—	—	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Total adoptions divided by total 0-3 population.
b. Population data: US Census Bureau (1997).
c. Personal communication, General Administration of Social Services (Albania).
d. 1992: excludes Transdniestr.

8.3 Children cared for by foster parents (per hundred thousand children aged 0-17)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	188.5	193.9	197.9	198.5	205.6	218.0	229.0	246.6
Slovakia	145.5	143.9	147.8	149.7	155.0	155.4	155.1	160.4
Poland	337.9	328.3	332.8	344.3	367.3	401.2	428.8	468.8
Hungary	340.9	341.8	332.7	337.5	343.2	346.3	345.5	349.5
Slovenia	249.8	374.4	372.9	363.7	358.9	356.1	357.0	354.0
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia[a b]	—	—	107.9	231.3	203.8	212.5	209.1	245.3
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[c]	128.4	113.9	128.1	119.1	110.9	103.3	87.3	—
Albania	—	—	—	—	—	—	—	—
Bulgaria[d]	—	—	—	—	—	—	—	—
Romania	—	—	—	119.5	134.9	139.4	181.0	195.1
Estonia	—	—	—	457.2	623.1	568.8	580.3	678.7
Latvia	—	118.1	105.1	105.8	116.9	124.7	128.4	128.3
Lithuania	459.4	459.6	492.1	523.3	545.6	543.5	607.7	654.3
Belarus[e]	410.3	377.6	370.5	373.8	380.4	222.6	264.9	317.8
Moldova[e f]	—	—	347.4	283.3	277.7	278.8	287.2	299.1
Russia[e]	433.7	424.9	451.0	480.1	514.6	585.0	666.1	748.6
Ukraine[e]	—	—	291.7	—	326.5	339.3	374.6	409.8
Armenia	—	—	—	—	—	—	—	—
Azerbaijan[e]	238.5	242.8	257.7	269.8	278.0	285.5	278.4	283.2
Georgia[b e]	—	—	—	—	—	—	—	30.6
Kazakhstan	—	—	—	—	—	—	—	—
Kyrgyzstan	—	—	—	—	—	—	—	—
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Paid family foster care and unpaid guardianship care.
b. Population data: US Census Bureau (1997).
c. Only family foster care.
d. Bulgaria has no foster arrangements.
e. Guardianship care in families.
f. 1992: excludes Transdniestr.

9.1 Youth sentencing rate (per hundred thousand 14-17 year olds)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a]	1,060.2	418.3	631.0	755.3	963.5	1,146.8	1,242.2	1,325.6
Slovakia[a]	825.9	522.0	871.4	346.8	953.1	1,082.4	1,427.2	1,060.7
Poland[b]	405.9	412.8	477.5	475.9	497.6	599.1	483.3	573.6
Hungary	982.9	751.5	871.4	969.6	966.2	1,161.4	1,417.3	1,334.8
Slovenia	1,010.0	841.5	901.1	927.8	905.4	848.1	413.1	419.3
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia[c]	—	—	—	—	—	1,171.9	893.3	1,745.1
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	405.3	458.1	391.2	460.1	569.5	574.1	506.9	839.6
Albania	—	—	—	—	—	—	—	—
Bulgaria	330.6	188.6	204.4	193.4	101.8	136.4	136.2	251.8
Romania	184.6	129.6	239.8	286.0	438.2	584.1	639.7	703.6
Estonia	671.2	805.0	901.4	1,100.4	1,127.7	1,386.2	1,656.0	1,835.7
Latvia	794.3	780.9	702.1	839.2	908.2	858.1	796.1	912.7
Lithuania	408.6	538.4	580.9	736.9	1,019.6	1,113.4	958.1	1,040.9
Belarus	563.4	743.3	761.2	800.6	998.2	1,010.2	1,060.2	1,018.7
Moldova[d]	469.4	538.6	569.6	516.8	505.7	579.2	601.5	459.7
Russia	761.9	956.3	1,013.3	1,070.0	1,219.3	1,282.3	1,325.6	1,356.3
Ukraine	351.0	427.7	387.1	396.5	497.5	578.3	574.2	652.0
Armenia	49.5	54.8	82.0	128.6	150.8	143.1	109.6	130.7
Azerbaijan	61.3	55.4	57.5	102.2	128.0	115.5	110.7	79.7
Georgia[c]	—	—	144.6	98.5	—	—	—	149.5
Kazakhstan	427.7	561.0	615.0	728.6	786.2	652.5	593.2	465.5
Kyrgyzstan	—	—	232.4	274.0	320.3	228.4	330.8	286.5
Tajikistan[c e]	—	124.8	147.6	122.9	138.3	150.6	109.8	—
Turkmenistan[c e]	—	217.8	217.2	225.7	—	—	—	—
Uzbekistan[c e]	—	160.6	199.0	215.7	—	—	—	—

a. 15-17 year olds.
b. 13-16 year olds.
c. Population data: US Census Bureau (1997).
d. 1992-96: excludes Transdniestr.
e. CIS Stat (1997a).

9.2 Registered total crime rate (per hundred thousand population)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	1,165.6	2,098.6	2,745.3	3,345.3	3,857.8	3,604.0	3,637.3	3,822.2
Slovakia	879.4	1,323.4	1,668.4	1,980.4	2,744.0	2,575.8	2,136.9	1,850.2
Poland	1,442.5	2,317.8	2,264.5	2,296.6	2,216.5	2,351.0	2,526.1	2,324.3
Hungary	2,150.4	3,290.7	4,256.4	4,331.9	3,895.0	3,795.3	4,908.0	4,572.1
Slovenia	2,002.0	1,919.4	2,113.1	2,709.0	2,223.1	2,193.3	1,918.6	1,839.8
Croatia	1,184.6	1,122.6	971.0	1,324.6	1,517.7	1,177.6	1,049.1	1,141.3
FYR Macedonia[a]	—	—	797.3	1,224.2	1,174.0	1,204.1	1,177.7	1,263.9
Bosnia-Herzegovina[b]	48.0	39.1	—	—	—	—	—	35.5
FR Yugoslavia	1,174.8	1,143.9	1,173.7	1,292.6	1,655.9	1,511.7	1,267.6	1,238.0
Albania	—	—	—	—	—	—	—	—
Bulgaria	672.4	772.0	2,061.9	2,629.7	2,598.5	2,639.0	2,451.8	2,336.8
Romania	207.9	421.6	605.6	635.0	964.2	1,042.7	1,309.5	1,422.0
Estonia	1,220.2	1,515.4	2,026.9	2,671.2	2,450.2	2,383.8	2,666.5	2,410.2
Latvia	1,111.6	1,298.8	1,574.8	2,351.1	2,043.1	1,608.6	1,555.9	1,533.9
Lithuania	846.2	995.5	1,202.2	1,513.1	1,618.6	1,575.8	1,637.2	1,836.0
Belarus	653.1	741.3	795.7	941.4	1,002.3	1,166.6	1,281.6	1,241.3
Moldova[c]	939.9	986.2	1,021.2	900.7	852.6	858.2	885.2	805.2
Russia	1,098.9	1,243.6	1,465.9	1,861.4	1,889.8	1,779.2	1,864.8	1,781.2
Ukraine	602.1	669.1	751.6	833.8	1,038.6	1,107.4	1,251.8	1,210.3
Armenia	241.5	341.6	363.0	440.9	350.0	264.8	269.7	330.7
Azerbaijan	211.9	216.5	217.7	309.0	247.5	251.0	268.1	234.1
Georgia[a]	—	361.2	512.5	442.2	407.0	329.2	297.4	277.4
Kazakhstan	813.1	888.2	1,034.5	1,188.4	1,219.5	1,205.6	1,112.0	1,117.0
Kyrgyzstan	594.7	679.8	725.3	985.2	955.0	926.9	915.0	869.2
Tajikistan[a d]	316.7	318.4	338.1	454.0	436.3	248.6	249.0	226.2
Turkmenistan[a d]	482.6	507.6	512.2	444.3	364.4	336.5	328.7	323.6
Uzbekistan[a d]	419.9	429.7	422.9	436.4	410.2	328.7	294.2	284.1

a. Population data: US Census Bureau (1997).
b. 1996: only Federation of B-H.
c. 1992: excludes Transdniestr.
d. CIS Stat (1997a).

10.1 GDP growth[a] (percent change)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic[b]	2.4	-1.2	-11.5	-3.3	0.6	2.7	5.9	4.1	1.0
Slovakia[c]	1.1	-2.5	-14.6	-6.5	-3.7	4.9	6.8	6.9	4.5
Poland	0.2	-11.6	-7.0	2.6	3.8	5.2	7.0	6.0	5.5
Hungary	0.4	-3.5	-11.9	-3.1	-0.6	2.9	1.5	1.0	3.0
Slovenia	-0.5	-4.7	-8.9	-5.5	2.8	5.3	4.1	3.1	4.0
Croatia	-1.5	-6.9	-19.8	-11.1	-0.9	0.6	1.7	4.2	5.0
FYR Macedonia	—	-9.9	-12.1	-21.1	-8.4	-4.0	-1.4	1.1	2.0
Bosnia-Herzegovina[d]	—	-9.0	-20.0	—	—	—	8.0	50.0	35.0
FR Yugoslavia[e f]	-1.9	-8.4	-11.2	-26.2	-27.7	2.5	6.0	4.3	5.0
Albania	11.7	-10.0	-27.7	-7.2	9.6	9.4	8.9	8.2	-15.0
Bulgaria	-0.3	-9.1	-11.7	-7.3	-2.4	1.8	2.1	-10.9	-7.0
Romania[g]	-5.8	-5.6	-12.9	-8.7	1.5	3.9	7.1	4.1	-1.5
Estonia	6.6	-8.1	-7.9	-14.2	-8.5	-1.8	4.3	4.0	7.0
Latvia[g]	7.4	2.9	-10.4	-34.9	-14.9	0.6	-0.8	2.8	3.4
Lithuania[g]	1.6	-5.0	-13.4	-37.7	-24.2	1.0	3.0	3.6	4.5
Belarus[g]	8.2	-3.0	-1.2	-9.6	-7.6	-12.6	-10.4	2.6	3.0
Moldova[g]	8.8	-2.4	-17.5	-29.0	-1.0	-31.2	-3.0	-8.0	-2.0
Russia[g h]	1.6	-4.0	-5.0	-14.5	-8.7	-12.6	-4.0	-5.0	1.0
Ukraine[g]	5.0	-3.4	-11.6	-13.7	-14.2	-23.0	-11.8	-10.1	-3.0
Armenia[g]	8.4	-7.4	-17.1	-52.6	-14.8	5.4	6.9	5.8	5.8
Azerbaijan[g]	-8.9	-11.7	-0.7	-22.6	-23.1	-18.1	-11.0	1.3	5.2
Georgia[g]	-3.4	-12.4	-13.8	-44.8	-25.4	-11.4	2.4	10.5	10.5
Kazakhstan[g]	-0.1	-0.4	-13.0	-2.9	-10.4	-17.8	-8.9	1.1	2.0
Kyrgyzstan[g i]	4.5	3.0	-5.0	-19.0	-16.0	-20.0	1.3	5.6	6.0
Tajikistan[g]	-6.5	-1.6	-7.1	-29.0	-11.0	-21.5	-12.5	-7.0	-3.0
Turkmenistan[g]	-7.0	2.0	-4.7	-5.3	-10.0	-18.8	-8.2	-3.0	-15.0
Uzbekistan[g]	3.1	1.6	-0.5	-11.1	-2.3	-4.2	-0.9	1.6	1.0

a. 1989: UNECE (1993). 1990-97: EBRD (1997). 1996: estimates. 1997: projections.
b. 1989-90: 1984 constant prices. 1991-97: 1994 constant prices.
c. 1990: Czechoslovakia.
d. Federation, 1995: 28, 1996: 68, 1997: 40. Republika Srpska, 1995: -23, 1996: 19, 1997: — (na).
e. Net material product.
f. 1989-90: UNECE (1993). 1991: UNECE (1994). 1992-93: UNECE (1995a). 1994-96: UNECE (1997a). 1997: EIU (1997).
g. 1989: net material product.
h. 1989-90: UNECE (1993).
i. 1997: actual growth rate, January-March.

10.2 Gross industrial output[a] (percent change)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	1.7	-3.5	-22.3	-7.9	-5.3	2.1	8.7	6.4
Slovakia	-1.3	-3.6	-17.6	-14.4	-10.2	6.4	8.3	2.5
Poland	-0.5	-24.2	-8.0	2.8	6.3	12.1	9.7	8.5
Hungary	-2.5	-9.3	-18.4	-9.7	4.0	9.6	4.6	3.0
Slovenia	1.1	-10.5	-11.6	-12.6	-2.5	6.6	2.3	1.2
Croatia	-1.0	-11.3	-28.7	-14.6	-6.0	-2.6	0.3	3.1
FYR Macedonia	—	—	-17.2	-13.0	-9.0	-7.0	-6.0	2.0
Bosnia-Herzegovina[b]	—	—	-10.7	-50.0	-92.0	-50.0	400.0	87.0
FR Yugoslavia[c d]	1.0	-11.7	-17.6	-21.4	-37.4	1.2	3.8	6.8
Albania	5.0	-14.2	-42.0	-51.2	-10.0	-2.0	1.0	—
Bulgaria	2.2	-16.0	-27.8	-15.0	-11.8	7.8	-6.3	-7.9
Romania	-2.1	-23.7	-22.8	-21.9	1.2	3.1	10.0	8.2
Estonia[c e]	0.7	-5.6	-7.2	-38.9	-26.6	-2.2	4.7	6.3
Latvia[c]	3.1	-0.2	-0.3	-46.2	-29.8	-7.7	0.9	3.1
Lithuania[c f]	4.2	-2.8	-4.9	-30.0	-34.4	-26.5	5.2	1.3
Belarus[c]	4.6	2.1	1.0	-5.2	-10.5	-18.9	-10.2	3.0
Moldova[c]	5.7	3.2	-21.0	-29.5	3.9	-30.2	-2.4	-8.0
Russia	1.4	-0.1	-8.0	-18.8	-16.2	-22.8	4.7	-5.0
Ukraine	2.8	-0.1	-4.8	-6.4	-8.0	-27.3	-12.0	-5.1
Armenia[c g]	-8.3	7.5	-7.7	-48.2	-28.0	5.6	1.6	2.2
Azerbaijan[c]	0.7	-6.3	-7.5	-23.7	-20.0	-25.0	-21.0	-8.2
Georgia	0.7	-29.9	-24.4	-43.3	-21.0	-40.0	-10.0	4.5
Kazakhstan	2.5	-1.0	-1.0	-14.0	-14.0	-27.5	-8.2	0.3
Kyrgyzstan	5.2	-0.6	-0.3	-26.0	-25.0	-28.0	-12.5	10.8
Tajikistan	1.8	—	-2.0	-23.3	-17.8	-31.4	-5.1	—
Turkmenistan	3.3	—	4.8	-14.9	5.4	-25.0	-7.0	18.0
Uzbekistan	3.6	—	-3.8	-23.9	1.5	-3.4	2.0	-7.0

a. 1989: UNECE (1993). 1990-96: EBRD (1997). 1996: estimates.
b. Based on index, 1991=100. 1991-95: Bosniak-majority area. 1996: Federation.
c. 1989-90: UNECE (1993).
d. 1991: UNECE (1994). 1992-93: UNECE (1995a). 1994-96: UNECE (1997a).
e. 1991-93: UNECE (1994).
f. 1991: UNECE (1994). 1992: UNECE (1995a).
g. 1991-92: UNECE (1995a).

10.3 Share of the agricultural sector in output[a] (in percent of GDP)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[b]	9.9	8.4	6.0	6.1	6.5	3.8	5.3	5.1
Slovakia[b]	9.9	—	—	6.2	6.6	6.6	5.6	5.2
Poland	12.9	7.4	6.8	6.7	6.6	6.2	6.6	—
Hungary	13.7	9.6	7.8	6.5	5.8	6.0	6.4	—
Slovenia	4.4	4.7	4.9	5.2	4.5	4.7	4.4	4.3
Croatia[c d]	—	8.3	9.6	9.5	10.0	9.6	9.5	9.2
FYR Macedonia	—	10.3	13.8	16.8	15.8	16.5	17.8	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania[c]	32.4	37.0	42.5	54.2	54.6	55.1	55.9	—
Bulgaria[e]	10.9	17.7	14.2	12.0	10.6	12.4	12.8	11.4
Romania	13.9	21.8	18.9	19.0	21.0	19.8	19.9	19.1
Estonia	—	—	—	12.6	9.8	9.0	7.1	6.4
Latvia[f]	—	21.9	23.1	17.6	11.8	9.5	9.8	9.1
Lithuania[g]	—	27.6	19.2	11.6	11.0	7.3	9.3	11.4
Belarus	—	—	18.2	17.2	17.3	16.8	17.3	16.7
Moldova	—	—	—	—	31.2	27.3	29.8	30.0
Russia	—	—	13.8	7.3	7.5	8.7	8.6	8.6
Ukraine	—	24.4	24.4	20.8	21.5	14.6	13.6	—
Armenia[e]	14.4	17.3	23.6	28.4	49.1	43.5	42.8	38.3
Azerbaijan	—	26.0	39.0	27.0	30.0	30.0	31.0	30.0
Georgia	—	—	—	54.5	67.7	28.7	38.0	32.6
Kazakhstan	—	28.1	29.0	30.4	16.4	14.9	12.1	11.9
Kyrgyzstan	—	32.0	35.0	37.0	39.0	38.0	40.0	47.0
Tajikistan	—	—	26.1	27.1	21.7	19.0	17.2	17.1
Turkmenistan	—	—	46.0	19.0	11.5	9.0	30.3	17.5
Uzbekistan	—	33.4	37.3	35.4	27.9	34.5	28.1	22.5

a. 1989: UNECE (1993). 1990-96: EBRD (1997). 1996: estimates.
b. 1989: Czechoslovakia.
c. 1990 constant prices.
d. Including fishing.
e. 1989-90: UNECE (1993).
f. % gross value added at current prices.
g. Including forestry.

10.4 Current account balance[a] (US$ millions)

	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	-1,100.0	400.0	-300.0	100.0	-100.0	-1,400.0	-4,500.0	—
Slovakia[b]	-756.0	-690.0	176.0	-580.0	720.0	390.0	-1,940.0	-2,020.0
Poland	600.0	-2,000.0	900.0	-600.0	2,300.0	5,500.0	-1,300.0	-5,500.0
Hungary	127.0	267.0	324.0	-3,455.0	-3,911.0	-2,480.0	1,700.0	-1,900.0
Slovenia[c]	526.2	131.0	929.1	192.0	540.4	-36.4	46.5	-40.0
Croatia[d]	1,053.0	-589.0	823.0	104.0	103.4	-1,712.0	-1,452.2	-1,900.0
FYR Macedonia	-400.0	-262.0	-19.0	-87.0	-181.0	-232.0	-288.0	—
Bosnia-Herzegovina[e]	—	—	—	—	-177.0	-193.0	-748.0	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania	-122.0	-249.0	-434.0	-365.0	-283.0	-181.0	-249.0	-195.0
Bulgaria	-1,180.0	-406.0	-801.0	-1,386.0	-203.0	-59.0	117.0	65.0
Romania	-1,656.0	-1,181.0	-1,518.0	-1,239.0	-516.0	-1,732.0	-2,336.0	-1,400.0
Estonia	—	—	36.1	23.3	-171.0	-165.6	-448.0	-470.0
Latvia	—	—	25.0	151.0	-86.0	-166.0	-361.0	-390.0
Lithuania[f]	—	—	203.0	-132.0	-175.0	-343.0	-440.0	—
Belarus	—	—	—	-1,113.0	-641.0	-254.0	-909.0	-1,150.0
Moldova	—	—	-39.0	-182.0	-98.0	-146.0	-250.0	-216.0
Russia[g]	—	—	—	2,100.0	10,400.0	4,500.0	9,600.0	—
Ukraine	—	-2,900.0	-600.0	-800.0	-1,400.0	-1,500.0	-1,200.0	—
Armenia[h]	—	—	-194.8	-315.3	-231.4	-483.0	-423.9	—
Azerbaijan	—	153.0	488.0	2.0	-121.0	-318.0	-811.0	-725.0
Georgia[e]	—	—	-248.0	-354.0	-278.0	-236.0	-222.0	-273.0
Kazakhstan	—	-1,300.0	-1,900.0	-400.0	-900.0	-700.0	-700.0	-1,400.0
Kyrgyzstan	—	—	-61.0	-162.1	-124.1	-287.7	-414.1	—
Tajikistan	—	—	52.8	-208.0	-169.0	1.0	-110.0	—
Turkmenistan	—	—	—	776.0	84.0	23.0	43.0	—
Uzbekistan	—	7,225.0	-238.0	-429.0	118.0	-49.0	-1,075.1	-500.0

a. 1990-97: EBRD (1997). 1996: estimates. 1997: projections.
b. 1990-92: UNECE (1995b).
c. 1990-91: excludes transactions w/former Yugoslavia.
d. 1990-92: excludes transactions w/former Yugoslavia.
e. Includes official transfers.
f. Balance of payments estimates, IMF.
g. Consolidated balance of payments; transactions w/CIS and non-CIS.
h. Excludes grants.

10.5 Debt service[a] (as percent of current account revenues, excluding transfers)

	1990	1991	1992	1993	1994	1995	1996
Czech Republic[b]	—	—	11.4	8.4	13.1	10.3	12.8
Slovakia[b]	—	—	—	8.6	8.7	9.3	10.8
Poland	53.7	68.9	19.3	20.1	14.3	6.7	7.6
Hungary[c]	48.2	33.9	34.4	43.2	54.8	47.3	50.4
Slovenia[d]	—	7.0	5.2	5.5	5.4	6.9	8.5
Croatia[b e]	—	12.3	8.9	7.2	4.6	6.3	8.4
FYR Macedonia	—	—	—	13.0	15.7	10.3	11.1
Bosnia-Herzegovina	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—
Albania	—	33.0	55.6	27.7	23.2	6.0	6.4
Bulgaria	64.8	24.1	22.8	16.6	12.9	14.8	19.5
Romania	0.2	2.3	8.9	6.2	8.7	11.5	14.8
Estonia[f]	—	—	—	1.4	0.4	0.5	0.8
Latvia[b]	—	—	0.0	2.0	5.0	3.0	5.0
Lithuania[g h]	—	—	—	1.6	2.2	2.9	6.7
Belarus[b]	—	—	—	0.5	4.3	3.4	2.5
Moldova[b]	—	—	—	—	—	10.0	6.0
Russia[i]	—	—	—	5.2	4.7	6.7	7.3
Ukraine[b]	—	—	—	1.3	11.0	8.8	6.4
Armenia[b]	—	—	—	—	3.1	20.6	18.7
Azerbaijan[b]	—	—	—	—	—	7.9	9.7
Georgia[b j]	—	—	—	—	—	7.3	9.8
Kazakhstan[b]	—	—	4.3	1.4	3.3	8.0	5.5
Kyrgyzstan[h]	—	—	—	0.6	5.0	22.0	18.0
Tajikistan[h]	—	—	—	4.1	6.3	19.6	52.5
Turkmenistan	—	—	—	0.0	1.8	12.6	16.3
Uzbekistan[b]	—	—	0.4	0.7	10.5	15.8	8.2

a. 1990-96: EBRD (1997). 1996: estimates.
b. As % of exports of goods and services.
c. 1996: includes prepayments (ca $1.5 billion) to international financial institutions and commercial creditors.
d. 1990-91: excludes transactions w/former Yugoslavia.
e. 1990-92: excludes transactions w/former Yugoslavia.
f. As % of exports of goods and non-factor services.
g. Based on balance of payments estimates, IMF staff.
h. As % of merchandise exports.
i. Paid. Due: 1993: 35.7, 1994: 24.2, 1995: 19.1, 1996: 15.6.
j. Following debt re-structuring.

10.6 Foreign direct investment[a] (net, US$ millions)

	1990	1991	1992	1993	1994	1995	1996
Czech Republic[b]	180.0	511.0	1,000.0	500.0	1,000.0	2,700.0	1,300.0
Slovakia[c]	18.0	82.0	100.0	130.0	180.0	130.0	180.0
Poland[d]	0.0	100.0	300.0	600.0	500.0	1,100.0	2,700.0
Hungary	311.0	1,459.0	1,471.0	2,339.0	1,146.0	4,453.0	1,986.0
Slovenia[e]	-2.1	41.3	112.9	111.3	131.2	170.3	179.5
Croatia[f]	—	—	13.0	74.3	97.6	80.5	348.9
FYR Macedonia	—	—	0.0	0.0	24.0	13.0	39.0
Bosnia-Herzegovina	—	—	—	—	—	—	—
FR Yugoslavia	—	—	—	—	—	—	—
Albania[g]	—	8.0	32.0	45.0	65.0	89.0	97.0
Bulgaria[h]	4.0	56.0	42.0	40.0	105.4	82.0	100.0
Romania	18.0	37.0	73.0	97.0	347.0	404.0	210.0
Estonia[i]	—	—	58.0	162.2	214.4	199.2	110.0
Latvia	—	—	43.0	51.0	155.0	165.0	230.0
Lithuania[j]	—	—	—	30.2	31.3	71.5	152.3
Belarus	—	—	—	18.0	10.0	7.0	75.0
Moldova	—	—	17.4	14.0	18.0	73.0	56.0
Russia[k]	—	100.0	700.0	400.0	600.0	2,000.0	2,000.0
Ukraine	—	—	200.0	200.0	100.0	300.0	500.0
Armenia	—	—	—	—	2.6	19.1	22.0
Azerbaijan	—	—	—	20.0	22.0	284.0	661.0
Georgia	—	—	—	—	8.0	6.0	25.0
Kazakhstan	—	—	—	473.0	635.0	860.0	1,100.0
Kyrgyzstan	—	—	—	10.0	44.9	61.0	30.5
Tajikistan	—	—	—	9.0	12.0	13.0	13.0
Turkmenistan	—	—	—	79.0	103.0	233.0	129.0
Uzbekistan	—	—	9.0	48.0	73.0	-24.0	50.0

a. 1990-96: EBRD (1997). 1996: estimates.
b. 1990-91: UNECE (1995b).
c. Inflow. 1990-92: UNECE (1995b).
d. Balance of payments data: banking statistics, on a settlement basis. Reports to Foreign Investment Agency: cumulative 1989 FDI stock: $12 billion end-1996. Series differences partly due to investments in-kind and re-invested earnings.
e. Balance of payments data. 1990-91: excludes transactions w/former Yugoslavia.
f. 1990-92: excludes transactions w/former Yugoslavia.
g. 1997 projection: 33.0. EBRD (1997).
h. 1990: UNECE (1995b).
i. 1992: UNECE (1995b).
j. 1993-94: investment in equity capital. 1995-96: equity capital and re-invested earnings.
k. 1991: UNECE (1995b).

10.7 General government balance[a] (as percent of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic[b]	—	—	—	2.7	0.8	0.4	-0.2	-0.6
Slovakia[b]	—	—	—	-7.0	-1.3	0.1	-1.2	-3.5
Poland[b c]	3.1	-6.7	-6.6	-3.4	-2.8	-3.6	-3.1	-4.0
Hungary[b]	0.4	-2.2	-5.5	-6.8	-8.2	-6.5	-3.5	-5.0
Slovenia[b]	-0.3	2.6	0.2	0.3	-0.2	0.0	0.3	-1.0
Croatia[d]	—	—	-4.0	-0.8	1.7	-0.9	-0.5	-2.7
FYR Macedonia[b]	—	—	-9.6	-13.6	-3.2	-1.3	-0.4	-1.0
Bosnia-Herzegovina[e]	—	—	—	—	-57.0	-8.8	35.4	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania[b f]	-15.0	-31.0	-22.0	-15.0	-12.0	-10.0	-12.0	-13.0
Bulgaria[b g]	—	—	-5.2	-10.9	-5.8	-6.4	-13.4	-6.3
Romania[b]	1.0	3.3	-4.6	-0.4	-1.9	-2.6	-3.9	-4.5
Estonia[b]	—	5.2	-0.3	-0.7	1.3	-1.2	-1.5	—
Latvia[b]	—	—	-0.8	0.6	-4.1	-3.5	-1.4	-0.9
Lithuania[b]	-5.4	2.7	0.8	-3.1	-4.2	-3.3	-3.6	-2.8
Belarus[b]	—	—	—	-1.9	-2.6	-1.9	-1.6	-2.7
Moldova[b]	—	0.0	-26.2	-7.4	-8.7	-5.7	-6.7	-4.5
Russia[b h]	—	—	-21.6	-7.2	-10.4	-5.5	-8.3	-8.0
Ukraine[b]	—	—	-25.4	-16.2	-7.8	-4.9	-3.2	—
Armenia[i]	—	-1.8	-8.1	-56.1	-16.5	-11.1	-9.3	-6.7
Azerbaijan[b]	—	—	2.8	-12.7	-11.4	-4.2	-2.6	-2.0
Georgia[b]	—	-3.0	-25.4	-26.2	-7.4	-4.5	-4.4	-3.5
Kazakhstan[b]	1.4	-7.9	-7.3	-1.3	-7.2	-2.0	-2.5	-4.2
Kyrgyzstan[b]	0.3	4.6	-17.4	-14.2	-7.7	-13.5	-6.4	-5.3
Tajikistan[b]	—	-16.4	-31.2	-25.0	-10.5	-11.2	-5.3	—
Turkmenistan[j]	1.2	2.5	13.2	-0.5	-1.4	-1.6	-0.2	—
Uzbekistan[k]	-1.1	-3.6	-18.4	-10.4	-6.1	-4.1	-7.3	-3.0

a. 1990-97: EBRD (1997). 1996: estimates. 1997: projections.
b. Includes state, municipalities, extrabudgetary funds.
c. Excludes privatization receipts.
d. Consolidated central government.
e. D-marks, millions. Sum of Federation and Republika Srpska. Cash basis, including grants. 1996: estimates for first nine months, inconsistent sources.
f. Commitment basis. 1996: first six months.
g. 1997: budget law.
h. 1990-94: includes unbudgeted import subsidies.
i. Consolidated state government.
j. Includes state, municipalities, some extrabudgetary funds. Until 1997, most quasi-budgetary sectoral ministry expenditures were outside budget, and off-budget funds were in operation.
k. Includes extrabudgetary funds.

10.8 General government expenditure[a] (as percent of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic[b]	—	—	—	41.9	43.3	43.4	42.8	—
Slovakia[b]	—	—	—	51.2	47.7	46.7	46.0	—
Poland[b c]	39.8	48.9	50.4	50.5	49.2	49.9	—	—
Hungary	53.5	54.3	61.6	62.2	62.1	56.1	50.0	—
Slovenia	49.6	41.1	45.8	46.7	46.1	45.7	45.7	46.0
Croatia[d]	—	—	37.0	33.0	42.0	47.0	47.0	—
FYR Macedonia	—	—	48.2	54.5	54.2	46.5	44.3	39.7
Bosnia-Herzegovina[e]	—	—	—	—	669.0	1,051.0	1,919.5	—
FR Yugoslavia	—	—	—	—	—	—	—	—
Albania[b f]	62.1	61.9	43.9	40.2	36.3	34.3	29.2	—
Bulgaria[b g]	65.9	45.6	45.4	48.1	45.7	43.0	47.6	—
Romania	38.7	38.7	42.0	34.2	33.9	34.5	33.7	—
Estonia	—	—	34.9	40.3	38.3	40.8	40.4	—
Latvia	—	—	28.2	35.2	38.2	40.5	40.2	—
Lithuania[h]	49.1	38.7	31.3	33.3	29.3	27.9	26.9	29.3
Belarus[b]	—	—	—	56.6	50.5	45.1	43.5	—
Moldova	—	24.7	28.5	23.4	30.5	29.9	31.9	—
Russia	—	—	65.8	43.3	45.0	37.7	38.7	—
Ukraine[b]	—	—	58.4	54.5	48.1	42.7	40.4	—
Armenia[i]	—	7.3	12.3	59.5	34.3	22.5	19.4	18.2
Azerbaijan[b]	—	—	46.3	46.1	36.0	19.5	18.9	—
Georgia[h]	—	33.0	39.0	36.0	24.0	12.3	13.9	—
Kazakhstan	31.4	32.9	31.8	25.2	25.9	20.7	18.5	—
Kyrgyzstan[h]	38.3	30.3	33.9	39.1	28.6	30.2	23.4	22.3
Tajikistan	—	49.6	57.8	52.1	55.0	30.5	17.6	—
Turkmenistan	43.6	38.2	42.2	19.2	11.9	14.0	15.7	—
Uzbekistan	46.1	52.7	43.4	38.8	33.3	37.6	36.2	30.0

a. 1990-97: EBRD (1997). 1996: estimates. 1997: projections.
b. Includes state, municipalities, extrabudgetary funds.
c. Excludes privatization receipts.
d. Consolidated central government.
e. D-marks, millions. Sum of Federation and Republika Srpska. Cash basis, including grants. 1996: estimates for first nine months, inconsistent sources.
f. 1996: first six months.
g. 1997: budget law.
h. Includes net lending.
i. Consolidated state government.

10.9 Annual inflation rate[a] (CPI annual average percent change)

	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic	10.8	56.6	11.1	20.8	10.0	9.1	8.8	9.5
Slovakia	10.8	61.2	10.1	23.2	13.4	9.9	5.8	6.5
Poland	585.8	70.3	43.0	35.3	32.2	27.8	19.9	16.0
Hungary	28.9	35.0	23.0	22.5	18.8	28.2	23.6	18.4
Slovenia[b]	549.7	117.7	201.3	32.3	19.8	12.6	9.7	9.0
Croatia[b]	610.0	123.0	666.0	1,518.0	97.6	2.0	3.5	3.7
FYR Macedonia[b]	608.4	114.9	1,690.7	349.8	121.8	16.4	3.1	6.0
Bosnia-Herzegovina[b c]	—	114.0	73,109.0	44,069.0	780.0	-12.0	-20.1	10.0
FR Yugoslavia[d e]	—	120.0	8,990.0	$2.2x10^{14}$	3.0	110.7	90.5	—
Albania[f]	0.0	35.5	226.0	85.0	22.6	7.8	12.7	32.0
Bulgaria	26.3	333.5	82.0	73.0	96.3	62.0	123.0	1,049.0
Romania	5.1	161.1	210.4	256.1	136.7	32.3	38.8	145.0
Estonia	23.1	210.5	1,076.0	89.8	48.0	29.0	23.0	11.0
Latvia	10.5	172.0	951.2	108.0	36.0	25.0	17.6	8.0
Lithuania	8.4	224.7	1,020.5	410.4	72.1	39.5	24.7	9.0
Belarus	—	84.0	969.0	1,186.9	2,221.2	709.3	52.7	78.0
Moldova	4.2	98.0	1,208.0	1,283.0	330.0	30.0	23.5	12.0
Russia	5.6	92.7	1,526.0	875.0	307.4	197.7	47.7	17.0
Ukraine	4.2	91.0	1,210.0	4,700.0	891.0	376.0	80.0	20.0
Armenia	10.3	274.1	1,345.5	3,731.9	5,273.4	176.7	18.5	15.0
Azerbaijan	7.8	106.0	616.0	1,130.0	1,664.0	412.0	19.8	7.0
Georgia	3.3	79.0	887.4	3,125.0	15,606.0	162.7	39.0	9.0
Kazakhstan	—	78.8	1,381.0	1,662.3	1,892.0	176.3	39.1	18.0
Kyrgyzstan	—	85.0	855.0	772.4	228.7	52.5	30.4	27.0
Tajikistan	4.0	112.0	1,157.0	2,195.0	350.0	609.0	418.0	60.0
Turkmenistan	4.6	103.0	493.0	3,102.0	1,748.0	1,005.0	992.0	90.0
Uzbekistan	3.1	82.2	645.0	534.0	1,568.0	305.0	54.0	65.0

a. 1990-97: EBRD (1997). 1996: estimates. 1997: projections.
b. Retail prices.
c. Federation. Republika Srpska: 1991: 114, 1992: 7.461, 1993: $2.2x10^{15}$, 1994: 1,061, 1995: 133, 1996: 60, 1997: -15.
d. 1994: 12.94/2.94. 1995: 12.95/12.94.
e. 1991-93: UNECE (1995b). 1994: UNECE (1995a). 1995-96: UNECE (1997a).
f. 1997: where data collection was possible.

10.10 Real wages (base year = 100)

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic[a b]	100,0	93.6	68.9	76.0	78.8	84.9	92.2	100.4
Slovakia[a b]	100.0	94.2	67.3	72.6	69.2	71.4	75.3	81.9
Poland[c]	100.0	75.6	75.4	73.3	71.2	71.6	73.7	77.9
Hungary[c]	100.0	94.3	87.7	86.5	83.1	89.1	78.2	74.3
Slovenia[d]	100.0	73.8	61.8	61.3	70.4	75.4	79.4	83.1
Croatia[d]	—	—	—	—	—	—	100.0	108.0
FYR Macedonia	—	—	—	—	—	—	—	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia[e]	100.0	78.1	74.0	38.0	—	—	—	—
Albania	—	—	—	—	—	—	—	—
Bulgaria[a f]	100.0	111.5	68.0	76.7	77.6	63.7	60.2	49.6
Romania[b d]	100.0	105.2	88.9	77.3	64.4	64.6	72.7	79.8
Estonia[a b]	100.0	102.5	68.2	45.2	46.3	50.9	54.0	55.2
Latvia[b g]	100.0	105.0	71.9	49.0	51.8	57.9	57.7	54.1
Lithuania[b d]	100.0	108.8	75.3	46.6	28.4	32.5	33.5	34.8
Belarus[a b]	—	—	—	—	100.0	60.6	57.6	60.5
Moldova[a b]	100.0	113.7	105.2	64.4	41.8	33.8	34.3	36.3
Russia[a b]	100.0	109.1	102.4	68.9	69.1	63.7	45.9	52.0
Ukraine	—	—	—	—	—	—	—	—
Armenia	—	—	—	—	—	—	—	—
Azerbaijan[f]	100.0	101.1	80.0	95.0	62.4	24.8	19.8	22.5
Georgia[a b]	100.0	111.2	76.5	50.5	24.1	33.5	28.3	—
Kazakhstan[a b]	—	—	100.0	64.8	49.1	32.9	33.4	34.4
Kyrgyzstan[a b]	—	100.0	70.7	59.4	49.6	42.0	43.5	44.5
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Based on gross wages.
b. Based on CPI in EBRD (1997).
c. Real net index calculated by the central statistical office.
d. Net wages.
e. FSOY (1996).
f. Public sector only.
g. 1990-93: gross wages. 1994-96: net wages. CSBL (1997a).

10.11 Distribution of earnings: Gini coefficient[a]

	1989	1990	1991	1992	1993	1994	1995	1996
Czech Republic	0.204	—	0.212	0.214	0.258	0.260	0.271	—
Slovakia	0.200	—	—	—	—	—	—	—
Poland	0.207	—	0.239	0.247	0.256	0.281	0.290	—
Hungary[b]	0.268	0.293	—	0.305	0.315	0.337	—	—
Slovenia	0.219	0.232	0.273	0.260	0.276	0.275	0.358	0.298
Croatia	—	—	—	—	—	—	—	—
FYR Macedonia		0.223	0.267	0.235	0.272	0.253	0.270	0.250
Bosnia-Herzegovina	—	—	—	—	—	—	—	—
FR Yugoslavia	0.323	0.268	0.294	0.288	0.334	0.321	0.319	0.338
Albania	—	—	—	—	—	—	—	—
Bulgaria	—	0.212	0.262	—	0.251	—	—	0.291
Romania	0.155	—	0.204	—	0.226	0.276	0.278	0.303
Estonia	—	—	—	—	—	—	—	—
Latvia[c]	0.244	—	0.247	0.333	0.283	0.325	0.346	0.349
Lithuania[c]	0.260	—	—	0.372	—	0.349	0.341	0.350
Belarus[c]	0.234	—	—	0.341	0.399	—	—	—
Moldova[c]	0.250	—	—	0.411	0.437	0.379	0.390	—
Russia	0.271	0.269	0.325	0.371	0.461	0.446	0.471	0.483
Ukraine	0.249	—	—	0.251	0.364	—	—	0.413
Armenia[c]	0.258	—	0.296	0.355	0.366	0.321	0.381	—
Azerbaijan	—	—	—	—	—	—	—	—
Georgia	0.301	—	—	0.369	0.400	—	—	—
Kazakhstan	—	—	—	—	—	—	—	—
Kyrgyzstan[c]	0.260	—	—	0.300	0.445	0.443	0.395	0.428
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—

a. Monthly earnings (w/bonuses) for full-time employees as reported by employers. Small employers often excluded. Some data refer to public sector only.
b. 1989 refers to 1988. Atkinson and Micklewright (1992), Table HE1.
c. 1989: Atkinson and Micklewright (1992), Table UE6.

10.12 Annual registered unemployment rate (percent)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Czech Republic[a]	—	0.3	2.6	3.1	3.0	3.3	3.0	3.1	—
Slovakia	—	0.6	6.6	11.4	12.7	14.4	13.8	12.6	—
Poland	—	6.1	11.8	13.6	16.4	16.0	14.9	13.6	—
Hungary[a b]	0.4	0.8	8.5	12.3	12.1	10.4	10.4	10.5	10.4
Slovenia[b c]	2.9	4.7	8.2	11.5	14.4	14.4	14.1	13.9	13.9
Croatia[d]	8.0	9.3	14.9	15.3	14.8	14.5	14.5	15.9	—
FYR Macedonia	22.6	23.0	24.5	26.0	27.7	30.0	35.6	38.8	—
Bosnia-Herzegovina	—	—	—	—	—	—	—	—	—
FR Yugoslavia	17.9	19.7	21.4	22.8	23.1	23.1	24.6	25.7	—
Albania[a e f]	—	9.5	8.3	24.4	24.8	16.1	13.9	—	—
Bulgaria	—	—	—	13.2	15.8	14.0	11.4	11.1	12.5
Romania	—	—	3.0	8.2	10.4	10.9	9.5	6.3	—
Estonia[e]	—	—	—	—	5.0	5.1	5.1	5.6	—
Latvia	—	—	—	0.9	4.6	6.4	6.4	7.0	—
Lithuania	—	—	—	1.3	4.4	3.8	6.1	7.1	—
Belarus	—	—	0.1	0.5	1.4	2.1	2.7	3.9	—
Moldova	—	—	—	0.1	0.7	1.1	1.4	1.6	—
Russia[a g]	—	—	0.1	0.8	1.1	2.2	3.2	3.4	2.8
Ukraine	—	—	—	—	0.4	0.4	0.5	1.5	—
Armenia	—	—	—	1.6	5.3	6.1	6.6	9.3	—
Azerbaijan[e h]	—	—	0.1	0.2	0.7	0.8	1.0	1.1	—
Georgia	—	—	0.2	2.3	6.1	3.7	2.9	2.8	—
Kazakhstan[e]	—	—	—	0.5	0.6	0.8	1.7	3.6	—
Kyrgyzstan	—	—	—	0.1	0.2	0.7	2.9	4.4	—
Tajikistan[e]	—	—	—	0.3	1.1	1.7	1.8	2.8	—
Turkmenistan[e i]	—	—	—	—	—	—	3.0	—	—
Uzbekistan[e]	—	—	—	0.1	0.3	0.4	0.3	0.6	—

a. End year.
b. ILO concept gives lower rates.
c. 1997: projection, EBRD (1997).
d. 1996: end year.
e. EBRD (1997).
f. 1995: emigrant workers abroad estimated at 18% of total labour force; estimated domestic unemployment: 17%.
g. Estimates based on ILO concept: 1993: 5.5, 1996: 9.3, 1997: 9.0. Goskomstat (1997), (1998).
h. Estimates based on ILO concept: 1992: 15.0, 1996: 20.0.
i. Estimate, household surveys. Officially, unemployment does not exist.

Glossary

Abortion: Includes induced early foetal deaths. Excludes spontaneous abortions (miscarriages).

Cause of death: In this publication, causes of death are cited in keeping with the *International Classification of Diseases and Related Health Problems* (ICD) IXth Revision, 1975: "infectious and parasitic diseases" (I.001-139), "diseases of the respiratory system" (VIII.460-511), "accidents, poisonings and violence" (XVII.800-999), "suicide and self-inflicted injury" (XVII.950-959).

Children in foster care: Children cared for by substitute parents as an alternative to institutionalization. Foster care is provided by either relatives, or non-relatives on a short- or long-term basis, but permanent custody of the child is not awarded to the foster carers. Foster carers usually receive a state-provided allowance for the care of the child; this is normally not the case for informal guardians, who tend to be relatives of the child.

Children in infant homes: Infant homes typically care for very young children (0-3 years) who have been left without parental care, although infants may enter the homes on temporary placement, and children may also sometimes be above 3 years old. The rate of children in infant homes is a useful proxy for indicators of child abandonment and institutional care.

Consumer price index: The most widely used measure of inflation, the CPI is a comparison of the price levels of consumer goods and services recorded in retail trade outlets and service units over two periods. The aggregate index is based on actual consumer expenditure patterns gauged through household surveys.

Crime and sentencing rates: Crime data include reported and registered crime only. Crime and sentencing rates are subject to national legislation, which varies widely across the region. This hinders comparisons among countries and across years.

Current account: A sub-account of a nation's balance of payments, excluding capital flows.

Debt service ratio: A measure of the ability to meet capital and interest payments on a debt.

Enrolment rates: The net enrolment rate is based on the number of children in a specified age group (corresponding to legislated standards) enrolled at a given level of education divided by the total number of children in the same age group in the general population. The gross enrolment rate is based on the number of children, regardless of age, enrolled at a given level of education divided by the total number of children in the general population that corresponds to the age group specified for that level of education.

Enrolment rates by education level: Selected definitions in the International Standard Classification System of Education Levels (ISCED) are given below as a general guideline, though the situation may differ among countries.

- Kindergarten (ISCED 0): Generally covers children in the 3-5 or 3-6 age group and excludes nursery provision for the 0-2 age group.
- Basic education (ISCED 1 and 2): Basic education, often called "compulsory schooling" or "elementary schooling", normally lasts from age 6 or 7 to age 14 or 15. This is often divided into primary (to age 10) and lower secondary levels.
- General secondary (ISCED 3): General secondary schools (gymnasia/lycees) offer a two- to four-year programme of academic study, often leading to higher education, with entry on a selective basis. In CIS countries, general secondary typically comprises the two or three upper classes of the comprehensive school, while in countries in Central and Eastern Europe it involves longer programmes at separate institutions. In a number of countries, gymnasium streams begin in lower secondary grades.
- Technical secondary, four- to five-year programmes (ISCED 3): Technical schools (technical gymnasia/lycees, technikums) offer three- to five-year programmes of technical study leading to a diploma and the opportunity to continue tertiary studies. They include training for medicine, engineering and the arts.
- Vocational secondary, one- to three-year programmes (ISCED 3): Vocational schools (known in the CIS as professional-technical institutions or PTUs) provide vocational courses of one to three years or more. Students train for employment in specific occupations or trades through school- or work-based programmes (that is, apprenticeships). The possibility of going on to tertiary education may be limited, although most countries also offer vocational programmes that can be combined with academic courses, allowing students to complete general secondary school equivalency along with vocational training and thus gain access to tertiary education.
- Degree tertiary level (ISCED 6 and 7): Programmes for students who have successfully completed prerequisite studies at the secondary level and who wish to earn a first university degree or a recognized equivalent qualification. In this publication, non-degree tertiary level (ISCED 5) or post-secondary programmes that do not lead to a university degree or equivalent are excluded, although in certain countries they account for a substantial number of students.

Foreign direct investment: A capital flow from another country that usually takes the form of the establishment of local production facilities or the purchase of existing businesses.

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

Gross domestic product: The most widely used concept of national income defined in the System of National Accounts, GDP represents the total final output of goods and services produced by an economy regardless of the allocation to domestic and foreign claims and is calculated without making deductions for depreciation. (See also *net material product*.)

Infant mortality rate: The annual number of deaths of infants under 1 year of age per 1,000 live births. More specifically, this is the probability of dying between birth and 1 year of age. (See also *live births*.)

Life expectancy at birth: A widely used measure of the general level of mortality, it represents for a given year the sum of mortality rates for all ages combined. It is the theoretical number of years a newborn will live if the mortality rates in the year of birth are taken as constant.

Live births: According to the standard definition of the World Health Organization, this includes all births, with the exception of still-births, regardless of the size, gestation age, or "viability" of the newborn infant, or his or her death soon after birth or before the required birth-registration date. Only a few countries covered in this report employed the concept before the transition; many used the so-called "Soviet concept", while others relied on national concepts. However, most countries have now adopted the WHO definition, and only a few still use the Soviet concept. The Soviet concept excludes infants born with no breath, but with other signs of life ("still-births" in the Soviet concept), and infants born before the end of the 28th week of pregnancy at a weight under 1,000 grammes or a length under 35 centimetres and who die during the first seven days of life ("miscarriages").

Maternal mortality rate: The annual number of deaths of women from pregnancy-related causes per 100,000 live births.

Net material product: A concept of national income widely used in Central and Eastern Europe and the former Soviet Union before the transition. It includes the total final output of goods and productive services, but disregards activities (such as health care, education or public administration) that do not result in material output.

Population data: Refer to de facto population, that is, all people physically present in an area at the time of a population census or population estimate, as opposed to de jure population, that is, all people who are resident in an area, including those who may be temporarily absent. Typically, refugees not permanently settled in the country of asylum are excluded.

- Estimates of population by age cohort: For countries for which population data are not available by age cohort, estimates have been made on the basis of data on five-year age groups by gender in the International Database, US Census Bureau. In cases in which the Census Bureau five-year age-cohort estimates need to be disaggregated to calculate indicators across cohorts, each single-year age group is taken to constitute one-fifth of the five-year cohort estimate.
- Working-age population and dependency ratios: The working-age population refers to individuals above the compulsory education age and below the official retirement age. Most often this includes men aged 15-59 and women aged 15-54, except in Bulgaria and Romania (where it covers ages 16-59/54) and Poland (ages 18-64/59). Certain countries have also introduced a gradual increase in the pension age. The youth dependency ratio calculated in the Statistical Annex represents the population aged 0-17 years divided by the working-age population (18-59 years), and the elderly dependency ratio represents the population aged 60+ years divided by the working-age population. This standardization may differ from country-specific definitions of working age.

Public expenditures on education: Current and capital expenditures on education by national, regional and local governments, including municipalities. Household contributions are normally excluded.

Registered and "ILO" unemployment: The registered unemployment rate refers to the segment of the labour force registered as unemployed at labour offices. This administrative approach reflects national rules and conditions and usually generates figures which are different from those resulting from surveys relying on the so-called "ILO concept" of unemployment. The latter uses three criteria and defines as unemployed those people who (1) have worked less than one hour in the last week, (2) are actively searching for work and (3) are currently available for work.

Total fertility rate: An overall measure of fertility representing the sum of age-specific birth rates among all ages of the child-bearing period. It represents the theoretical number of births to a woman during the child-bearing years using the given year's birth rate as a constant.

Under-5 mortality rate: The annual number of deaths of children under age 5 per 1,000 live births. More specifically, this is the probability of dying between birth and age 5. In this publication, the U5MR has been calculated by comparing under-5 deaths to the live births in the current year rather than to the year the deceased children were born.

Bibliographic Notes

Introduction and Overview

A discussion of the purpose of development policy, which may be linked to the aims of the transition process, is given by Stern and Stiglitz (1997). The type of schools corresponding to the vision of the UN Convention on the Rights of the Child is powerfully set out in Thomas Hammarberg's (1998) *Innocenti Lecture*, "A School for Children with Rights". A background document and the final report for the World Conference on Education for All are published as WCEFA (1990a) and (1990b), and the deliberations of a follow-up meeting in Amman in 1996 have appeared as EFA Forum (1996). The full text and a summary of the UN Convention on the Rights of the Child can be found at *http://www.unicef.org/crc/text.htm*, and an Article-by-Article bibliography on the Convention is contained in Dietrick (forthcoming).

Chapter 1

The data on GDP in Figures 1.1 and 1.2 are drawn from the annual *Transition Report* of the European Bank for Reconstruction and Development (EBRD, 1997), where a detailed examination of economic trends in the region can be found. Analysis of earnings and income inequality under communism is given in Atkinson and Micklewright (1992). Inequality during the transition is described in Milanovíc (1998) and in Flemming and Micklewright (forthcoming), which is drawn on in Annex 2.2 of EBRD (1997), where a good summary of welfare changes during the 1990s is offered. The Gini coefficient for earnings, values for which are given in Figure 1.3, is defined as half the expected absolute difference in earnings, relative to average earnings, between any two persons drawn at random from the earnings distribution. The figure for the average value of the Gini coefficient of per capita incomes in OECD countries provided in the discussion of Figure 1.5 has been estimated from decile shares published in Atkinson, Rainwater and Smeeding (1995, Table 4.10).

Amartya Sen's (1995) *Innocenti Lecture*, "Mortality as an Indicator of Economic Success and Failure", provides a good stimulus for interest in mortality as a general welfare measure; see also Sen (1998). Mortality during the transition is a focus of the second Regional Monitoring Report (UNICEF, 1994c). The debate on the causes of the changes in mortality in Russia is summarized in Chen, Wittgenstein and McKeon (1996); see also Nell and Stewart (1994).

The 1994 issue of the annual UNICEF publication *Progress of Nations* gives figures on teenage suicide and murder in Russia and other industrialized countries, and the 1996 issue compares the rates in industrialized countries for accidental deaths among 5-14 year olds (UNICEF, 1994d, 1996a). The figures for suicide in the UK and for suicide and murder among 15-19 year olds in the USA in Box 1.3 are from Williams (1997) and HHS (1996, Table HC 1.2.C).

The figures for births out of wedlock in the UK described before the discussion of Figure 1.14 are taken from CSO-UK (1994, page 9). Data for all European Union countries can be found in Eurostat (1997).

Household welfare in Central Asia during the transition is described in Falkingham et al. (1997). Other important sources on living standards in Central Asia include the *Human Development Reports* produced by the United Nations Development Programme (UNDP, 1996b, 1997).

Birth rates in developing countries that can be compared to those in Central Asia are given in the annual UNICEF publication *State of the World's Children* (for example, UNICEF, 1998). Figures on migration are provided in UNHCR (1996). Health status and health reform in Central Asia are examined in Klugman and Schieber (1996). Survey-based estimates of infant mortality rates in Kazakhstan and Uzbekistan that differ from the official figures based on administrative data are offered in NINK and Macro International (1996) and IOGU and Macro International (1997). (The latter source also gives the higher figures on stunting in Uzbekistan mentioned in the discussion of Figure 1.18.) For Uzbekistan, the estimated average infant mortality rate during 1986-95 was 44 deaths per 1,000 live births.

The poverty rates in Central Asia referred to in the text have been computed from the 1996 Kazakhstan Living Standard Survey (World Bank, 1997a), the 1996 Kyrgyzstan Living Standards and Measurement Survey (NSCKR and RTI, 1996) and the 1995 European University Institute and University of Essex survey in Uzbekistan covering Tashkent city, Fergana Oblast and Karakalpakstan (Coudouel, 1998). Poverty is measured in terms of income per equivalent adult in Uzbekistan, per capita household consumption in Kazakhstan and per equivalent adult household expenditure in Kyrgyzstan. The incidence is reported in terms of households for the urban-rural breakdown and of individuals for the children-pensioners breakdown (where children are defined as under 16 and pensioners are defined as 55 and over for women and 60 and over for men). In Kazakhstan, the figures for children and pensioners are based on the households in the bottom two quintiles. In Kyrgyzstan, the rates for children and pensioners are weighted averages of rates in urban and rural areas.

Immunization rates described in the text are estimates from the Multiple Indicator Cluster Surveys (MICS) carried out in Kyrgyzstan and Turkmenistan by the Ministries of Health in these two countries and the UNICEF Area Office for the Central Asian Republics and Kazakhstan (MOHK and UNICEF, 1995; MOHT and UNICEF, 1995). The information on morbidity draws from publications by the UNICEF Area Office for the Central Asian Republics and Kazakhstan (UNICEF, 1996b, 1997b). More detailed information on the living conditions in the area of the Aral Sea can be found in the special report produced by the UNICEF Area Office for the Central Asian Republics and Kazakhstan (UNICEF, 1996b).

The discussion of the experience of the countries of former Yugoslavia, with the exception of Slovenia, draws heavily on UNICEF (1997c). The situation of children in Slovenia is described in UNICEF (1996c). The description of macro-economic changes draws on UNECE (1996, 1997b)

and EBRD (1997). It should be noted that FR Yugoslavia is not covered in the latter source; the estimate of the private-sector share of output in FR Yugoslavia is taken from information given by the Federal Statistical Office for the MONEE project.

Chapter 2

All three chapters on education draw on the following papers commissioned especially for the Report, and many of the details on particular countries come from these papers: Adamcheska (1997), Ahundov (1997), Baran (1997), Birzea (1997), Bjeloglav (1997), Bosner and Sabljak (1997), CSBL (1997b), Gantcheva (1997), Gasyuk (1997), Gharibjanian (1997), Gheorghiu (1997), Golinowska and Kołaczek (1997), Gomeleva (1997), Grachev (1997), Heinlo (1997), Janák and Lakatos (1997), Lannert (1997), LDS (1997), Libanova and Golovko (1997), MEG (1997), Mockienė, Klepačienė and Jackūnas (1997), Noncheva (1997), Novák (1997), Plačintar (1997), Savelyev (1997), SDSG (1997), Škrbec et al. (1997), SOFYRM (1997), Svoboda et al. (1997), Tafi and DOSRM (1997), and Woleková (1997).

A portrait of parts of the inherited systems of education in the region and some of the challenges during transition is given in Laporte and Schweitzer (1995). Especially for analysis of Russia and the former Soviet Union, see also Heyneman (1991, 1994, 1998a). Mitter (1992) describes aspects of the diversity in the education systems under communism. Katz (1994) refers to literacy campaigns in the Soviet Union and to wage-setting in order to encourage individuals to further their education. Birzea (1996) analyses the revival of educational institutions that pre-dated communism in Romania. OECD reviews of national systems of education, including a forthcoming study of Russia, are a source of detailed information (for example, see OECD, 1995, 1996a). The figures on the over-representation at university of children from professional family backgrounds in Western and communist countries are taken from Anderson (1983, Table 6.1).

The figure for the decline in the number of pre-schools between 1991 and 1995 in the countries of the former Soviet Union (excluding the Baltics) is taken from CIS Stat (1997a).

Vari (1997) contains details and a discussion of the results of the Third International Mathematics and Science Study (TIMSS) for the nine countries in the region that participated in the study. This is the source of the drop-out rates summarized at the end of Section 2.1 (and for Box 2.4). Other subjects covered in this source include teachers, teacher training, the atmosphere in schools, and class sizes compared to pupil-teacher ratios. The basic results for all 41 countries in the study are given in Beaton et al. (1996a), (1996b).

Grant (1964), Noah (1966) and Tomiak (1992) provide rich information on the structure of financing and decision-making in education in the Soviet Union. Horton (1996) discusses education expenditures during the transition in the former Soviet republics.

The National Institute of Public Education Research Centre (NIPERC, 1996) is the source for the information on changes in learning achievement in Hungary offered in Section 2.3. The results of the 1994 International Adult Literacy Survey are given in OECD (1996b). Johanna Crighton supplied the anecdote about the "revision" of a history curriculum in a former Soviet republic.

The Active Learning Interactive Teaching project in FYR Macedonia, summarized in Box 2.5, is described in Sayer (1996). Tye (1985) provides evidence from the USA on the links between learning achievement and liking school. A good discussion of examination methods (not focused on the region) is contained in Greaney and Kellaghan (1996). Some of the problems connected with the use of measurements of student achievement to assess school quality are outlined in Goldstein (1996). The information on examination methods in the region given in Section 2.3 is from Crighton (1997).

Concern about insufficient rates of return in the Soviet Union can be found in various sources, for example, Scherbakov (1987). Information about gender segregation and evidence about returns to education during the Soviet period are given in Katz (1994), which is drawn on in Box 2.9, and McAuley (1982). The study of rates of return to education in the region described in Section 2.4 is Newell and Reilly (1997); see also Newell and Reilly (1996). Heyneman (1997a) discusses issues relating to vocational education. The different mechanisms by which unemployment may affect educational enrolment are given in Micklewright, Pearson and Smith (1990).

Chapter 3

Investigations of educational inequalities under communism include the work by Simkus and Andorka (1982), Andorka and Harcsa (1992) and Szelènyi and Aschaffenburg (1993) on Hungary, Heyns and Białecki (1993) on Poland, and Mateju (1993) on Slovakia. The latter three studies confirming the persistence in the effect of social background on educational opportunity are contained in Shavit and Blossfeld (1993). Titma and Saar (1995) analyse the problem of educational inequalities in several countries and regions of the former Soviet Union using the longitudinal survey, "Life Paths of a Generation", starting in the early 1980s. An example of a relevant survey from the transition period is one carried out in Russia in 1991 by the Russian Institute of Sociology, together with a team of US researchers, and reported in Gerber and Hout (1995), which also gives a good review of earlier investigations by sociologists in the Soviet period.

Boyden (1994), Boyden, Ling and Myers (1998), Dustmann et al. (1996), Golinowska et al. (1996), Mansurov (1993), Micklewright, Rajah and Smith (1994), Patrinos and Lakshmanan Ariasingham (1997), Salvati Copiii (1997), and Schiefelbein (1997) are the sources for the information in Box 3.2, on child labour.

The education of children with special needs in the region is discussed further in Ainscow and Haile-Giorgis (forthcoming), which has been written as a background paper for this Report. Some key references on special needs education are Booth and Ainscow (1998), Daunt (1993), Fulcher (1989), Peters (1993), Sebba and Ainscow (1996), and UNESCO (1994, 1995, 1996).

The importance of education for social cohesion and its potential for easing ethnic differences are argued in Heyneman (1998b), which has been drawn on in Section 3.4. Issues revolving around ethnicity and education in Bulgaria are described in MEST (1996). The survey in Georgia mentioned in Box 3.4 is outlined in Stancliffe and Kharashvili (1995). The quotation of the UN Special Rapporteur to former Yugoslavia given in the main text is taken from UN (1996).

Chapter 4

The discussion of social rates of return to education in Box 4.1 draws on Newell and Reilly (1997). The need for a broad definition of social returns in transition economies is implied in Heyneman (1998a, 1998b).

Reviews of the links between health and nutrition and

educational outcomes are provided by Behrman (1996) and Del Rosso and Marek (1996), the latter, in particular, arguing that the links are very strong; see also UNICEF (1998). A recent study that reveals a big impact and that overcomes methodological problems in earlier work is Alderman et al. (1997). Evidence on the impact of nutrition on mental development is found in many sources, including Landers (1990). The World Bank estimate for the impact on GDP of micronutrient deficiency and the costs of its treatment is taken from Psacharopoulos (1995). Box 4.2 draws on Ismail and Micklewright (1997). The sub-section on iodine deficiency is based almost entirely on McLoughney (1997). Tiwari et al. (1996) is a recent example of research on the impact of iodine deficiency, and Hetzel and Pandav (1994) provide an overview of the issues.

A comprehensive study of different aspects of early childhood development and of the variety of schemes that can be implemented is found in Myers (1992), while a briefer review is supplied in Young (1996). (The second of these sources gives the examples from Mexico and Colombia in Box 4.5.) A succinct examination of the economic arguments for public intervention in childcare and the forms that this might take is provided by Duncan and Giles (1996); see also Verry (1990). The debate on the impact of pre-schooling (or other formal programmes of early childhood development) on later life involves some difficult measurement issues; a good contribution to the literature on this subject is the work on Head Start in the USA by Currie and Thomas (1995). The figures for enrolment rates among 4 year olds in pre-schools in OECD countries have been taken from OECD (1990), which contains a good discussion of pre-schools in the OECD area and their link with the labour force participation of mothers.

Kindergartens in the former USSR are described in Foteeva (1993); the quotations early in Section 4.2 on teacher conduct and curricula in kindergartens are taken from Young (1996), Vilien (1995) and UNICEF (1996d). The 1990 survey of women's attitudes towards kindergartens in the USSR is reported in Goskomstat (1992). The 1997 survey in Croatia is discussed in MES, UNICEF and UZ (1997). The information on the national household survey in Kazakhstan referred to in Box 4.4 and in the main text is taken from Klugman et al. (1997). The description of the Save the Children (US) scheme of early childhood development in Croatia and Bosnia-Herzegovina draws on Evans (1996) and Save the Children (1997). A useful source on early childhood development (where the Evans (1996) paper can also be found) is the website of the Consultative Group on Early Childhood Care and Development, *http://www.ecdgroup.com*.

Section 4.3, on decentralization, relies principally on Barrow (1997), Klugman (1997a) and Stewart (1997a), which are the sources used if not indicated otherwise below. Several of the issues concerning decentralization in education are reviewed succinctly in Fiske (1996), who gives a range of examples of the experience in various countries and who emphasizes the political economy of the debate. Klugman (1997b) reviews issues in decentralization from a child welfare perspective, with special attention to education, and is drawn on at several points. (Bird, Ebel and Wallich (1995) focus on decentralization in transition economies, notably in the area of finance.)

Box 4.9 on the relationship between financial inputs and learning achievement in the USA draws on the "Introduction" in Burtless (1996), who also supplies the figures on disparities in expenditures at the state level used in the discussion of Table 4.5. (See also Becker and Baumol (1996) and the symposium on education in *The Journal of Economic Perspectives*, Fall 1996, for other contributions to the debate in the USA.) Hanushek (1995) and Kremer (1995) offer a stimulating interchange on the subject of what determines the effectiveness of schooling in developing countries, including financial inputs.

The system of transfers in Russia from the central government to regional governments and from regional governments to municipalities is described and analysed in detail in Stewart (1997a, 1997b, 1998), who examines in particular the redistributive impact of the transfers.

The community organization and financing of local schools are described by Bray (1997), who gives a good summary of the implications for both efficiency and equity, as well as numerous examples from the developing world (although none from Eastern Europe or the former Soviet Union).

The arguments for greater choice in schooling in the region are put forward in Glenn (1995), and a critique of his views is offered by Heyneman (1997b). The results from the World Bank survey in Armenia, with information on school costs, referred to towards the end of Section 4.4 are taken from Gomart (1996); see also World Bank (1997b). Voucher systems for financing education are debated by West (1997) and Carnoy (1997).

■

Bibliography

ADAMCHESKA, S. (1997), "Education in Transition in the Republic of Macedonia, 1989-1997". Florence: UNICEF International Child Development Centre. Mimeo (June).

ADB AND UNESCO (1995), "Technical Assistance for the Education and Training Sector Study: Synthesis Report". *Technical Assistance Report*, No. 2308-KAZ (December). Almaty, Kazakhstan: Asian Development Bank and UNESCO.

AHUNDOV, V. (1997), "Azerbaijan: Education in the Transition Period". Florence: UNICEF International Child Development Centre. Mimeo. -In Russian.-

AINSCOW, M. AND M. HAILE-GIORGIS (forthcoming), "The Education of Children with Special Needs in Central and Eastern Europe: Barriers and Opportunities". *Innocenti Occasional Papers*. Florence: UNICEF International Child Development Centre.

ALDERMAN, H., J.R. BEHRMAN, V. LAVY, AND R. MENON (1997), "Child Nutrition, Child Health and School Enrolment". *Policy Research Working Papers*, No. 1,700 (January). Washington, DC: Policy Research Department, Poverty and Human Resources Division, World Bank.

ANDERSON, C.A. (1983), *Social Selection in Education and Economics*. Washington, DC: Education Department, World Bank.

ANDORKA, R. AND I. HARCSA (1992), "Education". In R. Andorka, T. Kolosi and Gy. Vukovich (eds), *Social Report*. Budapest: Tárki.

ATKINSON, A.B. AND J. MICKLEWRIGHT (1992), *Economic Transformation in Eastern Europe and the Distribution of Income*. Cambridge, UK: Cambridge University Press.

ATKINSON, A.B., L. RAINWATER AND T.M. SMEEDING (1995), "Income Distribution in OECD Countries: Evidence from the Luxembourg Income Study". *Social Policy Studies*, No. 18. Paris: Organization for Economic Co-operation and Development.

BARAN, A. (1997), "Education in Poland in Transition: New Trends and Challenges". Florence: UNICEF International Child Development Centre. Mimeo.

BARROW, M. (1997), "Structure, Governance and Finance of Education in Central Europe". Florence: UNICEF International Child Development Centre. Mimeo.

BEATON, A.E., I.V.S. MULLIS, M.O. MARTIN, E.J. GONZALEZ, D.L. KELLY, AND T.A. SMITH (1996a), *Mathematics Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study*. Chestnut Hill, MA: Centre for the Study of Testing, Evaluation and Educational Policy, Boston College.

BEATON, A.E., M.O. MARTIN, I.V.S. MULLIS, E.J. GONZALEZ, T.A. SMITH, AND D.L. KELLY (1996b), *Science Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study*. Chestnut Hill, MA: Centre for the Study of Testing, Evaluation and Educational Policy, Boston College.

BECKER, W.E. AND W.J. BAUMOL (eds) (1996), *Assessing Educational Practices: The Contribution of Economics*. Cambridge, MA: MIT Press.

BEHRMAN, J.R. (1996), "The Impact of Health and Nutrition on Education". *World Bank Research Observer*, Vol. 11, No. 1, pages 23-38.

BIRD, R., R. EBEL AND C. WALLICH (eds) (1995), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies*. Washington, DC: World Bank.

BIRZEA, C. (1996), "Educational Reforms and Power Struggles in Romania". *European Journal of Education*, Vol. 31, No. 1, pages 97-107.

BIRZEA, C. (1997), "Romania: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (August).

BJELOGLAV, D. (1997), "Analytical Reports: FR Yugoslavia". Florence: UNICEF International Child Development Centre. Mimeo (June).

BOOTH, T. AND M. AINSCOW (eds) (1998), *From Them to Us: An International Study of Inclusion in Education*. London: Routledge.

BOSNER, S. AND V. SABLJAK (1997), "The Croatian School System in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

BOYDEN, J. (1994), "The Relationship between Education and Child Work". *Innocenti Occasional Papers*, No. CRS 9 (September). Florence: UNICEF International Child Development Centre.

BOYDEN, J., B. LING AND W. MYERS (1998), *What Works for Working Children*. Stockholm: UNICEF and Rädda Barnen.

BRAY, M. (1997), "Decentralization of Education: Community Financing". *Directions in Development*. Washington, DC: World Bank.

BURTLESS, G. (ed.) (1996), *Does Money Matter?: The Effect of School Resources on Student Achievement and Adult Success*. Washington, DC: Brookings Institution Press.

CARNOY, M. (1997), "Is Privatization through Education Vouchers Really the Answer?: A Comment on West". *World Bank Research Observer*, Vol. 12, No. 1, pages 105-116.

CBSC (1996), *Statistical Yearbook, 1996*. Zagreb, Croatia: Central Bureau of Statistics of the Republic of Croatia.

CE (1993), *Recent Demographic Developments in Europe and North America, 1992*. Strasbourg: Council of Europe Press.

CE (1997), "Education Programme in Albania". *Europe40plus*, No. 8 (October). *http://www.coe.fr*: Council of Europe.

CE (website), "Education for Democratic Citizenship". *http://culture.coe.fr*: Council of Europe.

CERD (COMMITTEE ON THE ELIMINATION OF RACIAL DISCRIMINATION) (1997), "Concluding Observations of the Committee on the Elimination of Racial Discrimination: Belarus". CERD/C/304/Add.22 (23 April). Geneva: United Nations.

CHEASTY, A. AND J.M. DAVIS (1996), "Fiscal Transition in Countries of the Former Soviet Union: An Interim Assessment". *IMF Working Papers*, No. WP/96/61 (June).

CHEN, L.C., F. WITTGENSTEIN AND E. MCKEON (1996), "The Upsurge of Mortality in Russia: Causes and Policy Implications". *Population and Development Review*, Vol. 22, No. 3 (September), pages 517-30.

CIA (1998), "The World Factbook 1996". *http://www.odci.gov/cia* (31 January): Central Intelligence Agency.

CIS STAT (1995a), *Demographic Yearbook, 1994*. Moscow: Interstate Statistical Committee of the Commonwealth of Independent States.

CIS STAT (1995b), *Demographic Yearbook, 1993*. Moscow: Interstate Statistical Committee of the Commonwealth of Independent States.

CIS STAT (1997a), *Official Statistics of the Countries of the Commonwealth of Independent States, 1997-2*. Moscow: Interstate Statistical Committee of the Commonwealth of Independent States. -CD Rom.-

CIS STAT (1997b), *Statistical Bulletin*, No. 5. Moscow: Interstate Statistical Committee of the Commonwealth of Independent States.

COMMITTEE ON THE RIGHTS OF THE CHILD (1995), "Information Submitted by UNESCO on the Rights of the Child: Croatia" (8 October). *http://www.unhchr.ch*: United Nations High Commissioner for Human Rights.

COUDOUEL, A. (1998), "Living Standards in Transition: The Case of Uzbekistan". Florence: European University Institute. Ph.D. Thesis.

CRIGHTON, J. (1997), "Assessing Quality in Learning: Issues and Trends in Central and Eastern Europe". Florence: UNICEF International Child Development Centre. Mimeo.

CSBL (1997a), *Statistical Yearbook of Latvia, 1997*. Riga, Latvia: Central Statistical Bureau of Latvia.

CSBL (CENTRAL STATISTICAL BUREAU OF LATVIA) (1997b), "Latvia: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

CSO-UK (CENTRAL STATISTICAL OFFICE, UK) (1994), *Social Focus on Children*. London: Her Majesty's Stationary Office.

CURRIE, J. AND D. THOMAS (1995), "Does Head Start Make a Difference?". *American Economic Review*, Vol. 85, No. 3, pages 341-64.

DAUNT, P. (1993), "The 'New Democracies' of Central and Eastern Europe". Chapter 8 in P. Mittler, R. Brouillette and D. Harris (eds), *World Yearbook of Education: Special Education*. London: Kegan Paul.

DEL ROSSO, J.M. AND T. MAREK (1996), "Class Action: Improving School Performance in the Developing World through Better Health and Nutrition". *Directions in Development*. Washington, DC: World Bank.

DIETRICK, S. (forthcoming), *A Bibliography on the Convention on the Rights of the Child*. Florence: UNICEF International Child Development Centre.

DUNCAN, A. AND C. GILES (1996), "Should We Subsidize Pre-school Childcare, and, If So, How?". *Fiscal Studies*, Vol. 17, No. 3, pages 39-62.

DUSTMANN, C., J. MICKLEWRIGHT, N. RAJAH, AND S. SMITH (1996), "Earning and Learning: Educational Policy and the Growth of Part-time Work by Full-time Pupils". *Fiscal Studies*, Vol. 17, No. 1.

EBRD (1997), *Transition Report 1997: Enterprise Performance and Growth*. London: European Bank for Reconstruction and Development.

ECOSOC (1996), "Implementation of the Plan of Action for the United Nations Decade for Human Rights Education (1995-2004)", E/CN.4/1996/51. Geneva: Commission on Human Rights, United Nations Economic and Social Council.

EFA FORUM (INTERNATIONAL CONSULTATIVE FORUM ON EDUCATION FOR ALL) (1996), "Education for All: Achieving the Goal". Paris: UNESCO.

EIU (1997), "Country Report: Macedonia, Serbia-Montenegro, 1997 Q3". London: Economist Intelligence Unit.

EUROSTAT (1997), *Demographic Statistics, 1997*. Luxembourg: Office for Official Publications of the European Communities.

EVANS, J.L. (1996), "Early Childhood Programmes in Bosnia-Herzegovina: Report Prepared for UNICEF Bosnia", October. *http://www.ecdgroup.com/archive/bosniarp.html:* Consultative Group on Early Childhood Care and Development.

FALKINGHAM, J., J. KLUGMAN, S. MARNIE, AND J. MICKLEWRIGHT (eds) (1997), *Household Welfare in Central Asia*. Basingstoke, UK: Macmillan.

FISKE, E. (1996), "Decentralization of Education: Politics and Consensus". *Directions in Development*. Washington, DC: World Bank.

FLEMMING, J. AND J. MICKLEWRIGHT (forthcoming), "Income Distribution, Economic Systems and Transition". *Innocenti Occasional Papers*. Florence: UNICEF International Child Development Centre.

FOTEEVA, Y. (1993), "The Commonwealth of Independent States". In M. Cochran (ed.), *Internatonal Handbook of Childcare Policies and Programmes*. Westport, CT: Greenwood Press.

FSOY (1996), *Statistical Yearbook of Yugoslavia, 1996*. Belgrade: Federal Statistical Office.

FULCHER, G. (1989), *Disabling Policies?: A Comparative Approach to Education Policy and Disability*. London: Falmer.

GANTCHEVA, R. (1997), "Will Educaiton in Bulgaria Lose its High Value and Prestige?". Florence: UNICEF International Child Development Centre. Mimeo (July).

GASYUK, G. (1997), "The Education System in Transition in Belarus". Florence: UNICEF International Child Development Centre. Mimeo (June). -In Russian.-

GERBER, T.P. AND M. HOUT (1995), "Educational Stratification in Russia during the Soviet Period". *American Journal of Sociology*, Vol. 101, No. 3 (November), pages 611-60.

GHARIBJANIAN, G.T. (1997), "Report: The Education System in Armenia in the Transition Period". Florence: UNICEF International Child Development Centre. Mimeo (July).

GHEORGHIU, D. (1997), "Romania: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

GLENN, C.L. (1995), *Educational Freedom in Eastern Europe*. Washington, DC: The Cato Institute.

GOLDSTEIN, H. (1996), "Relegate the Leagues". *New Economy*, Vol. 3, No. 4 (Winter), pages 199-204.

GOLINOWSKA, S., B. BALCERZAK-PARADOWSKA, B. KOŁACZEK, AND D. GŁOGOSZ (1996), "Children in Difficult Circumstances in Poland". *Innocenti Occasional Papers*, No. EPS 57. Florence: UNICEF International Child Development Centre.

GOLINOWSKA, S. AND B. KOŁACZEK (1997), "The Main Changes and Issues in Education Policy in Poland". Florence: UNICEF International Child Development Centre. Mimeo (August).

GOMART, E. (1996), "Social Assessment Report on the Education and Health Sectors in Armenia". Washington, DC: World Bank. Mimeo (15 December).

GOMELEVA, O. (1997), "Education in Transition: Republic of Kazakhstan". Florence: UNICEF International Child Development Centre. Mimeo (October).

GOSKOMSTAT (1988), *Population of the USSR, 1987*. Moscow: Finansy i Statistika. -In Russian.-

GOSKOMSTAT (1989), *National Education and Culture in the USSR*. Moscow: Finansy i Statistika. -In Russian.-

GOSKOMSTAT (1990), *Demographic Yearbook of the USSR, 1990*. Moscow: Finansy i Statistika. -In Russian.-

GOSKOMSTAT (1991a), *Social Development of the USSR, 1989*. Moscow: Finansy i Statistika. -In Russian.-

GOSKOMSTAT (1991b), *National Economy of the USSR in 1990*. Moscow: Finansy i Statistika. -In Russian.-

GOSKOMSTAT (1992), *Work Conditions and the Daily Lives of Women*. Moscow: Goskomstat. -In Russian.-

GOSKOMSTAT (1997), *The Social Situation and Living Standards in Russia*. Moscow: Goskomstat. -In Russian.-

GOSKOMSTAT (1998), *Information on the Socio-economic Situation in Russia, 1997*. Moscow: Goskomstat. -In Russian.-

GRACHEV, V. (1997), "Education in Russia in the Transitional Period". Florence: UNICEF International Child Development Centre. Mimeo (September).

GRANT, N. (1964), *Soviet Education*. London: University of London Press.

GREANEY, V. AND T. KELLAGHAN (1996), "Monitoring the Learning Outcomes of Education Systems". *Directions in Development*. Washington, DC: World Bank.

HAMMARBERG, T. (1998), "A School for Children with Rights". *Innocenti Lectures*. Florence: UNICEF International Child Development Centre.

HANUSHEK, E.A. (1995), "Interpreting Recent Research on Schooling in Developing Countries". *World Bank Research Observer*, Vol. 10, No. 2, pages 227-46.

HEINLO, A. (1997), "Estonia: Changes and Trends in Education". Florence: UNICEF International Child Development Centre. Mimeo (June).

HETZEL, B.S. AND C.S. PANDAV (eds) (1994), *SOS for a Billion: The Conquest of Iodine Deficiency Disorders*. New York: Oxford University Press.

HEYNEMAN, S.P. (1991), "Revolution in the East: The Educational Lessons". Pages 35-47 in K. Alexander and V. Williams (eds), *Reforming Education in a Changing World: International Perspectives*. Oxford: Oxford Roundtable on Educational Policy.

HEYNEMAN, S.P. (1994), "Education in the Europe and Central Asia Region: Policies of Adjustment and Excellence". Washington, DC: World Bank.

HEYNEMAN, S.P. (1997a), "Russian Vocational and Technical Education in the Transition: Tradition, Adaptation, Unresolved Problems". *Institute for the Study of Russian Education Newsletter*, May, pages 22-34.

HEYNEMAN, S.P. (1997b), "Educational Choice in Eastern Europe and the Former Soviet Union: A Review Essay". *Education Economics*, Vol. 5, No. 3 (December), pages 333-39.

HEYNEMAN, S.P. (1998a), "Transition from Party/State to Open Democracy: The Role of Education". *International Journal of Educational Development*, Vol. 18, No. 1.

HEYNEMAN, S.P. (1998b), "From the Party/State to Multi-ethnic Democracy: Education and its Influence on Social Cohesion in the Europe and Central Asia Region". Florence: UNICEF International Child Development Centre. Mimeo.

HEYNS, B. AND I. BIAŁECKI (1993), "Educational Inequalities in Postwar Poland". Pages 303-35 in Y. Shavit and H.-P. Blossfeld (eds), *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder, CO: Westview Press.

HHS (1996), *Trends in the Well-being of America's Children and Youth: 1996*. Washington, DC: US Department of Health and Human Services.

HORTON, M. (1996), "Health and Education Expenditures in Russia, the Baltics and Other Countries of the Former Soviet Union". *IMF Working Papers*, No. WP/96/126.

IMF (1995), *Government Finance Statistics Yearbook, 1995*. Washington, DC: International Monetary Fund.

IOGU and Macro International (1997), *Uzbekistan: Demographic and Health Survey, 1996*. Calverton, MD: Institute of Obstetrics and Gynaecology (Uzbekistan) and Macro International.

ISMAIL, S. AND J. MICKLEWRIGHT (1997), "Living Standards and Public Policy in Central Asia: What Can Be Learned from Child Anthropometry?". *Innocenti Occasional Papers*, No. EPS 62 (November). Florence: UNICEF International Child Development Centre.

JANÁK, K. AND J. LAKATOS (1997), "Hungary: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

KATZ, K. (1994), "Gender Differentiation and Discrimination. A Study of Soviet Wages". *Ekonomiska Studier*, No. 54. Göteborg, Sweden: University of Göteborg.

KING, A., B. WOLD, C. TUDOR-SMITH, AND Y. HAREL (1996), "The Health of Youth: A Cross-national Survey". *WHO Regional Publications, European Series*, No. 69. Copenhagen: World Health Organization.

KLUGMAN, J. (1997a), "Education and Equity in the Former Soviet Republics: Disruption and Opportunities in Financing and Governance". Florence: UNICEF International Child Development Centre. Mimeo.

KLUGMAN, J. (1997b), "Decentralization: A Survey from a Child Welfare Perspective". *Innocenti Occasional Papers*, No. EPS 61 (September). Florence: UNICEF International Child Development Centre.

KLUGMAN, J., S. MARNIE, J. MICKLEWRIGHT, AND P. O'KEEFE (1997), "The Impact of Kindergarten Divestiture on Household Welfare in Central Asia". In J. Falkingham, J. Klugman, S. Marnie, and J. Micklewright (eds), *Household Welfare in Central Asia*. Basingstoke, UK: Macmillan.

KLUGMAN, J. AND G. SCHIEBER (1996), "A Survey of Health Reform in Central Asia". *World Bank Technical Papers (Social Challenges of Transition Series)*, No. 344.

KREMER, M.R. (1995), "Research on Schooling, What We Know and What We Don't: A Comment on Hanushek". *World Bank Research Observer*, Vol. 10, No. 2, pages 247-54.

LANDERS, C. (1990), "Early Childhood Development: Innocenti Global Seminar, Summary Report". Florence: UNICEF International Child Development Centre.

LANNERT, J. (1997), "Questionnaire on Education Funding and Governance in Hungary". Florence: UNICEF International Child Development Centre. Mimeo (June).

LAPORTE, B. AND D. RINGOLD (1997), "Trends in Education Access and Financing during the Transtiion in Central and Eastern Europe". *World Bank Technical Papers (Social Challenges of Transition Series)*, No. 361.

LAPORTE, B. AND J. SCHWEITZER (1995), "Education and Training". Pages 260-87 in N. Barr (ed.), *Labour Markets and Social Policy in Central and Eastern Europe: The Transition and Beyond*. New York: Oxford University Press.

LDS (LITHUANIAN DEPARTMENT OF STATISTICS) (1997), "Lithuania". Florence: UNICEF International Child Development Centre. Mimeo.

LIBANOVA, E. AND V. GOLOVKO (1997), "Ukraine: Some Problems in the Transformation of Education". Florence: UNICEF International Child Development Centre. Mimeo (August).

MANSUROV, V.A. (1993), "Child Work in Russia". Geneva: International Labour Organization.

MATEJU, P. (1993), "Who Won and Who Lost in a Socialist Redistribution in Czechoslovakia?". Pages 251-72 in Y. Shavit and H.-P. Blossfeld (eds), *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder, CO: Westview Press.

MCAULEY, A. (1982), *Women's Work and Wages in the Soviet Union*. London: George Allen and Unwin.

MCLOUGHNEY, E. (1997), "The Brain Drain: How Iodine Deficiency is Constraining Education and Development in Countries in Transition". New York: Programme Division, UNICEF. Mimeo.

MEG (MINISTRY OF ECONOMY, GEORGIA) (1997), "Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

MES, UNICEF AND UZ (1997), "Needs of the Croatian Family for an Organized Out-of-family Pre-school Education". Zagreb: Ministry of Education and Sports, UNICEF and Faculty of Philiosphy-Pedagogical Sciences, University of Zagreb.

MEST (1996), *Development of Education in 1994-1996*. Sofia: Ministry of Education, Science and Technology.

MICKLEWRIGHT, J., M. PEARSON AND S. SMITH (1990), "Unemployment and Early School Leaving". *The Economic Journal*, Vol. 100 (Supplement), pages 163-69.

MICKLEWRIGHT, J., N. RAJAH AND S. SMITH (1994), "Labouring and Learning: Part-time Work and Full-time Education". *National Institute Economic Review*, May.

MILANOVÍC, B. (1998), "Income, Inequality and Poverty during the Transition from Planned to Market Economy". *World Bank Regional and Sectoral Studies*. Washington, DC: World Bank.

MITTER, W. (1992), "Education in Eastern Europe and the Former Soviet Union in a Period of Revolutionary Change: An Approach to Comparative Analysis". In M. Kaser and R. Phillips (eds), "Education and Economic Change in Eastern Europe and the Former Soviet Union". *Oxford Studies in Comparative Education*, Vol. 2, No. 1.

MOCKIENĖ, B., R. KLEPAČIENĖ AND Ž. JACKŪNAS (1997), "Lithuania: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (September).

MOHK AND UNICEF (1995), "MICS, Multiple Indicator Cluster Survey: Kyrgyz Republic, 1995". Bishkek, Kyrgyz Republic: Ministry of Health (Kyrgyz Republic) and UNICEF.

MOHT and UNICEF (1995), "MICS, Multiple Indicator Cluster Survey: Turkmenistan, 1995". Ashgabat, Turkmenistan: Ministry of Health (Turkmenistan) and UNICEF.

MÜLLER, W. (1996), "Class Inequalities in Educational Outcomes: Sweden in Comparative Perspective". In R. Erikson and J.O. Jonsson (eds), *Can Education be Equalized?: The Swedish Case in Comparative Perspective*. Boulder, CO: Westview Press.

MYERS, R. (1992), *The Twelve who Survive: Strengthening Programmes of Early Childhood Development in the Third World*. New York: Routledge.

NELL, J. AND K. STEWART (1994), "Death in Transition: The Rise in the Death Rate in Russia since 1992". *Innocenti Occasional Papers*, No. EPS 45 (December). Florence: UNICEF International Child Development Centre.

NEWELL, A. AND B. REILLY (1996), "The Gender Wage Gap in Russia: Some Empirical Evidence". *Labour Economics*, Vol. 3, No. 3 (October), pages 337-56.

NEWELL, A. AND B. REILLY (1997), "Rates of Return to Educational Qualifications in the Transitional Economies". Florence: UNICEF International Child Development Centre. Mimeo (October).

NINK AND MACRO INTERNATIONAL (1996), *Kazakhstan: Demographic and Health Survey, 1995*. Calverton, MD: National Institute of Nutrition (Kazakhstan) and Macro International.

NIPERC (1996), *The Quality of Education and Local Educational Administration in Hungary: Final Report*. Budapest: National Institute of Public Education Research Centre.

NOAH, H.J. (1966), *Financing Soviet Schools*. New York: Teachers College Press, Columbia University.

NONCHEVA, T. (1997), "Education in Transition: Bulgaria 1997". Florence: UNICEF International Child Development Centre. Mimeo (June).

NOVÁK, J. (1997), "Czech Republic: The Structure of the Education System and Changes after 1989". Florence: UNICEF International Child Development Centre. Mimeo (June).

NSCKR AND RTI (1996), "Analysis of the Data of the Statistical Survey, Spring 1996: Measurement of the Living Standards of the Population". Bishkek, Kyrgyz Republic: National Statistical Committee of the Kyrgyz Republic and Research Triangle Institute (North Carolina). -In Russian.-

OECD (1990), *Employment Outlook*. Paris: Organization for Economic Co-operation and Development.

OECD (1995), *Review of National Policies for Education in Hungary*. Paris: Organization for Economic Co-operation and Development.

OECD (1996a), *Reviews of National Policies for Education: Czech Republic*. Paris: Organization for Economic Co-operation and Development.

OECD (1996b), *Education at a Glance*. Paris: Organization for Economic Co-operation and Development.

ORIVEL, F. (1996), "The Education Sector in Georgia: Previous Achievements, Present Problems and Perspectives". Washington, DC: World Bank. Mimeo (January).

PATRINOS, H.A. AND D. LAKSHMANAN ARIASINGHAM (1997), "Decentralization of Education: Demand-side Financing". *Directions in Development*. Washington, DC: World Bank.

PETERS, S.J. (ed.) (1993), *Education and Disability in Cross-cultural Perspective*. London: Garland.

PLAČINTAR, E. (1997), "The Slovak Republic: A Commentary". Florence: UNICEF International Child Development Centre. Mimeo (June).

PSACHAROPOULOS, G. (1995), "Building Human Capital for Better Lives". *Directions in Development*. Washington, DC: World Bank.

REMY, R.C. AND J. STRZEMIECZNY (1997), "Education for Democratic Citizenship in Poland". *CivNet Journal*, Vol. 1, No. 3 (August-September). *http://civnet.org*: Civitas.

"RUSSIA LONGITUDINAL MONITORING SURVEY" (1996), Round 7 (Autumn). *http://www.cpc.unc.edu*: University of North Carolina.

SAAR, E. (1997), "Transitions to Tertiary Education in Belarus and the Baltic Countries". *European Sociological Review*, Vol. 13, No. 2, pages 139-58.

SALVATI COPIII (1997), "Inquiry on Child Labour and Child Work in Romania". Bucharest:: Salvati Copiii. Mimeo (November).

SAVELYEV, A. (1997), "Education in Russia: Transition Period". Florence: UNICEF International Child Development Centre. Mimeo (June).

SAVE THE CHILDREN (1997), "Pre-school/Playroom Programme: Programme Quality and Impact Evaluation". Westport, CT: Save the Children Federation (US) and Ex-Yugoslavia Field Office (Croatia and Bosnia-Herzegovina).

SAYER, B. (1996), "An Evaluation of the Interactive Learning Project in the Former Yugoslav Republic of Macedonia", March. Skopje, FYR Macedonia: UNICEF.

SCHERBAKOV, V.I. (1987), "The Wholesale Restructuring of Wages". *Problems of Economics*, Vol. XXX, No. 6, pages 72-89.

SCHIEFELBEIN, E. (1997), "School-related Economic Incentives in Latin America: Reducing Drop-out and Repetition and Combating Child Labour". *Innocenti Occasional Papers*, No. CRS 12 (January). Florence: UNICEF International Child Development Centre.

SDSG (STATE DEPARTMENT FOR STATISTICS OF GEORGIA) (1997), "Georgia: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

SEBBA, J. AND M. AINSCOW (1996), "International Developments in Inclusive Education: Mapping the Issues". *Cambridge Journal of Education*, Vol. 26, No. 1, pages 5-18.

SEN, A. (1995), "Mortality as an Indicator of Economic Success and Failure". *Innocenti Lectures*. Florence: UNICEF International Child Development Centre.

SEN, A. (1998), "Mortality as an Indicator of Economic Success and Failure". *The Economic Journal*, Vol. 108, January, pages 1-25.

SIMKUS, A. AND R. ANDORKA (1982), "Inequalities in Educational Attainment in Hungary, 1923-1973". *American Sociological Review*, No. 47, pages 740-51.

ŠKRBEC, T., T. SMREKAR, P. VERTOT, E. ŽNIDARŠIČ, AND T. PLEVNIK (1997), "Education System in Transition: Slovenia". Florence: UNICEF International Child Development Centre. Mimeo (June).

SOFYRM (STATISTICAL OFFICE, FYR MACEDONIA) (1997), "Analytical Report: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo.

STANCLIFFE, R. AND J. KHARASHVILI (1995), *Survey on Internally Displaced People in Georgia: Report and Recommendations*. Oslo: Norwegian Refugee Council.

State Report on the Situation of Children in the Russian Federation, 1995 (1996). -Annual state report (Russia).- -In Russian.-

STERN, N. AND J. STIGLITZ (1997), "A Framework for a Development Strategy in a Market Economy: Objectives, Scope, Institutions, and Instruments". *Working Papers*, No. 20 (April). London: European Bank for Reconstruction and Development.

STEWART, K. (1997a), "Financing Education at the Local Level: A Study of the Russian Region of Novgorod". *EUI Working Papers*, No. ECO 98/6. Florence: European University Institute.

STEWART, K. (1997b), "Are Intergovernmental Transfers in Russia Equalizing?". *Innocenti Occasional Papers*, No. EPS 59 (September). Florence: UNICEF International Child Development Centre.

STEWART, K. (1998), "Decentralization and Regional Equity in Russia: Three Essays on Intergovernmental Transfers and the Financing of Education". Florence: European University Institute. Ph.D. Thesis.

SVOBODA, L., J. HENDRICHOVÁ, J. KAŠTÁNKOVÁ, AND R. RYŠKA (1997), "Education in Transition: The Czech Republic". Florence: UNICEF International Child Development Centre. Mimeo (June).

SZELÈNYI, SZ. AND K. ASCHAFFENBURG (1993), "Inequalities in Educational Opportunities in Hungary". Pages 273-302 in Y. Shavit and H.-P. Blossfeld (eds), *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder, CO: Westview Press.

TAFI, J. AND DOSRM (DEPARTMENT OF STATISTICS, REPUBLIC OF MOLDOVA) (1997), "Moldova: Education in Transition". Florence: UNICEF International Child Development Centre. Mimeo (June).

TITMA, M. AND E. SAAR (1995), "Regional Differences in Soviet Secondary Education". *European Sociological Review*, Vol. 11, No. 1 (May).

TIWARI, B.D. ET AL. (1996), "Learning Disabilities and Poor Motivation to Achieve Due to Prolonged Iodine Deficiency". *American Journal of Clinical Nutrition*, No. 63, pages 782-86.

TOMIAK, J. (1992), "Education in the Baltic States, Ukraine, Belarus and Russia". *Comparative Education*, Vol. 28, No. 1.

TYE, B.B. (1985), *Multiple Realities: A Study of 13 American High Schools*. Lanham, MD: University Press of America.

UN (1986), *Demographic Yearbook, 1984*. New York: United Nations.

UN (1992), *Demographic Yearbook, 1990*. New York: United Nations.

UN (1996), "Situation of Human Rights in the Former Yugoslavia". No. A51/663 S/1996/927 (12 November). New York: United Nations.

UNDP (1996a), *Human Development Report 1996*. New York: United Nations Development Programme.

UNDP (1996b), *Human Development Report: Tajikistan, 1996*. Dushanbe, Tajikistan: United Nations Development Programme.

UNDP (1997), *Human Development Report: Uzbekistan, 1997*. Tashkent, Uzbekistan: United Nations Development Programme.

UNECE (1993), *Economic Survey of Europe in 1992-1993*. Geneva: United Nations Economic Commission for Europe.

UNECE (1994), "Economic Bulletin for Europe", Vol. 46. Geneva: United Nations Economic Commission for Europe.

UNECE (1995a), "Economic Bulletin for Europe", Vol. 47. Geneva: United Nations Economic Commission for Europe.

UNECE (1995b), *Economic Survey of Europe in 1994-1995*. Geneva: United Nations Economic Commission for Europe.

UNECE (1996), *Economic Survey of Europe in 1995-1996*. Geneva: United Nations Economic Commission for Europe.

UNECE (1997a), *Economic Survey of Europe in 1996-1997*. Geneva: United Nations Economic Commission for Europe.

UNECE (1997b), "Economic Bulletin for Europe", Vol. 49. Geneva: United Nations Economic Commission for Europe.

UNESCO (1994), *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: UNESCO.

UNESCO (1995), *Review of the Present Situation in Special Needs Education*. Paris: UNESCO.

UNESCO (1996), *Legislation Pertaining to Special Needs Education*. Paris: UNESCO.

UNESCO (1997), *Statistical Yearbook 1996*. Lanham, MD: UNESCO and Bernan Press.

UNHCR (1996), "Displacement in the Commonwealth of Independent States". *http://www.unhcr.ch/pubs/cis96/cis9603.htm:* UN High Commissioner for Refugees.

UNICEF (1994a), "Opening Doors to Gypsy Children". *UNICEF Annual Report, 1994*, pages 73-74. New York: UNICEF.

UNICEF (1994b), "A Situation Analysis: Children and Women in Former Yugoslav Republic of Macedonia". Skopje, FYR Macedonia: UNICEF.

UNICEF (1994c), "Crisis in Mortality, Health and Nutrition". *Economies in Transition Studies*, Regional Monitoring Report, No. 2. Florence: UNICEF International Child Development Centre.

UNICEF (1994d), "The Progress of Nations, 1994". New York: UNICEF.

UNICEF (1995), "Croatia: Annual Report, 1995". Zagreb: UNICEF.

UNICEF (1996a), "The Progress of Nations, 1996". New York: UNICEF.

UNICEF (1996b), "ASPERA: Protecting Children and Women in the Aral Sea Disaster Zone". Islamabad: UNICEF.

UNICEF (1996c), *Situation Analysis of the Position of Children and Families in Slovenia*. Ljubljana: Slovenian Committee for UNICEF.

UNICEF (1996d), "UNICEF and the Children of Romania: USAID Grant #EUR-0032-G-00-3039-00, Final Evaluation". Bucharest: UNICEF.

UNICEF (1997a), "FR Yugoslavia 1996: Multiple Indicator Cluster Survey". Belgrade: UNICEF.

UNICEF (1997b), "Signs of Hope: Current Issues in Child Rights in the Central Asian Republics". Islamabad: UNICEF.

UNICEF (1997c), *Children and Women in Bosnia and Herzegovina, Croatia, Federal Republic of Yugoslavia, and Former Yugoslav Republic of Macedonia: A Situation Analysis, 1995-1997*. Sarajevo: UNICEF.

UNICEF (1998), *State of the World's Children, 1998*. New York: Oxford University Press.

US CENSUS BUREAU (1997), *International Data Base (IDB). http://www.census.gov/ftp/pub/ipc/www:* International Programmes Centre, US Bureau of the Census.

VARI, P. (1997), *Are We Similar in Math and Science?: A Study of Grade 8 in Nine Central and Eastern European Countries*. Amsterdam: International Association for the Evaluation of Educational Achievement.

VERRY, D. (1990), "An Economic Framework for the Evaluation of Childcare Policy". *Labour Market and Social Policy Occasional Papers*, No. 1. Paris: Organization for Economic Co-operation and Development.

VILIEN, K. (1995), "Report on the Current Role and Effectiveness of Kindergartens in Uzbekistan". London: Save the Children Fund (UK). Mimeo.

WCEFA (1990a), *Meeting Basic Learning Needs, a Vision for the 1990s: Background Document, World Conference on Education for All*. New York: Inter-Agency Commission (United Nations Development Programme, UNESCO, UNICEF, World Bank).

WCEFA (1990b), *Final Report, World Conference on Education for All: Meeting Basic Learning Needs*. New York: Inter-Agency Commission (United Nations Development Programme, UNESCO, UNICEF, World Bank).

WEST, E.G. (1997), "Education Vouchers in Principle and Practice: A Survey". *World Bank Research Observer*, Vol. 12, No. 1, pages 83-103.

WHO (1975), *International Classification of Diseases and Related Health Problems*. Geneva: World Health Organization.

WILLIAMS, K. (1997), "Preventing Suicide in Young People: What is Known and What is Needed". *Child: Care, Health and Development*, Vol. 23, No. 2 (March), pages 173-85.

WOLEKOVÁ, H. (1997), "Education in Transition: Slovak National Monitoring Report". Florence: UNICEF International Child Development Centre. Mimeo (July).

WORLD BANK (1997a), "Kazakhstan: Living Standards during the Transition". Report No. KZ-SR-19398. Washington, DC: Human Development Sector Unit, Europe and Central Asia Region, World Bank.

WORLD BANK (1997b), "Staff Appraisal Report: Republic of Armenia, Education Financing and Management Reform Project". Report No. 16474 AM (28 October). Washington, DC: Human Development Sector Unit, Europe and Central Asia Region, World Bank.

WORLD BANK (1997c), "Azerbaijan: Poverty Assessment". Report No. 15601-AZ (24 February). Washington, DC: Human Resources Division, Country Department III, Europe and Central Asia Region, World Bank.

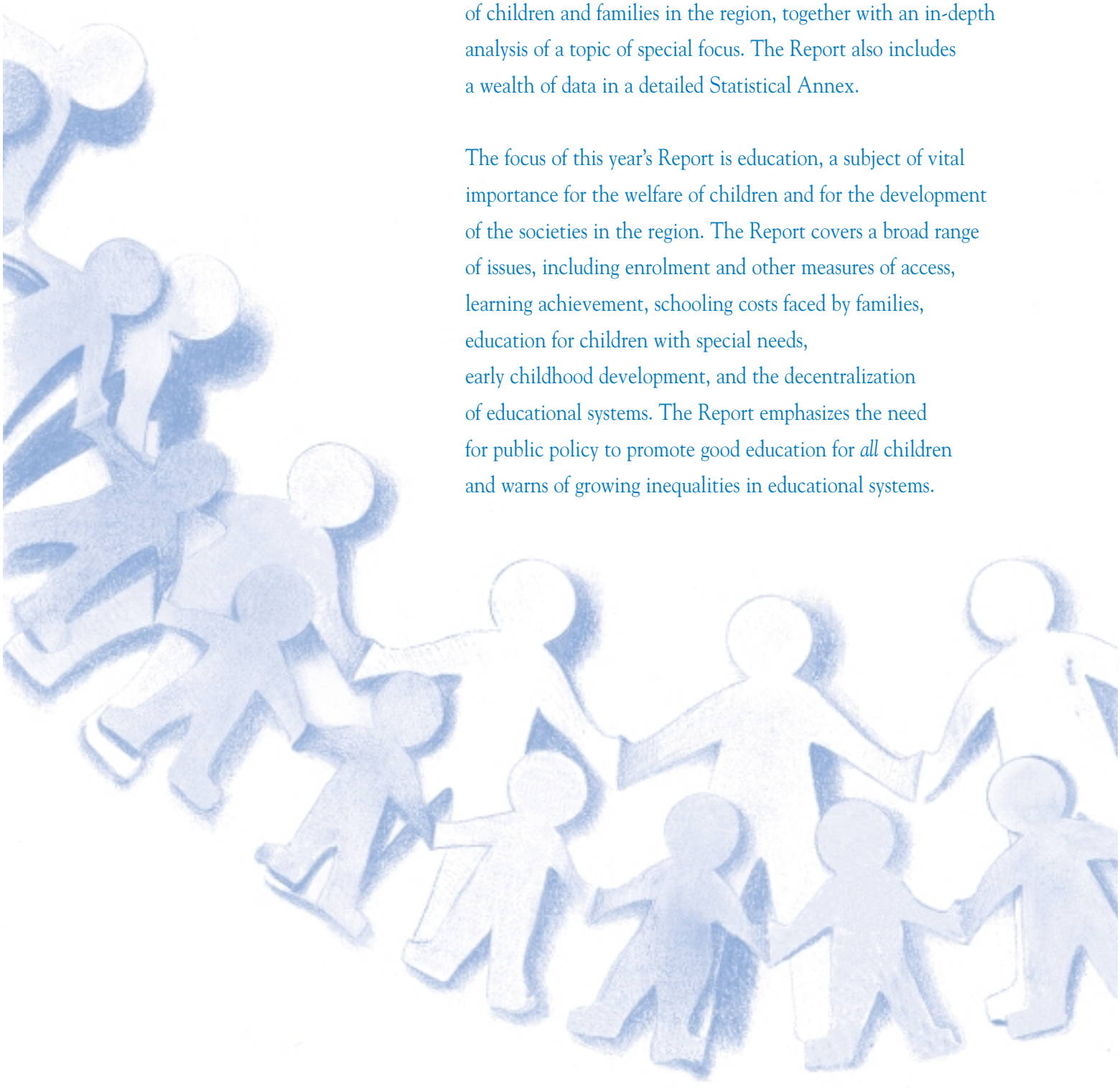
WORLD BANK (1997d), "Romania: Poverty and Social Policy". Report No. 16462-RO (April). Washington, DC: Human Resources Sector Operations Division, Country Department I, Europe and Central Asia Region, World Bank.

YOUNG, M.E. (1996), "Early Childhood Development: Investing in the Future". *Directions in Development*. Washington, DC: World Bank.

Education for All?

The MONEE project *Regional Monitoring Report* of UNICEF International Child Development Centre is a unique source of information on the social side of the transition taking place in Central and Eastern Europe, the Commonwealth of Independent States and the Baltic republics. Each year's Report contains an update on the welfare of children and families in the region, together with an in-depth analysis of a topic of special focus. The Report also includes a wealth of data in a detailed Statistical Annex.

The focus of this year's Report is education, a subject of vital importance for the welfare of children and for the development of the societies in the region. The Report covers a broad range of issues, including enrolment and other measures of access, learning achievement, schooling costs faced by families, education for children with special needs, early childhood development, and the decentralization of educational systems. The Report emphasizes the need for public policy to promote good education for *all* children and warns of growing inequalities in educational systems.



ISBN: 88-85401-38-4
ISSN: 1020-6728