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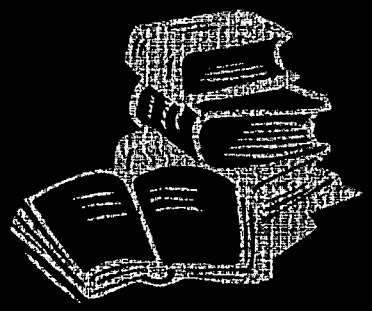
ABSTRACT

The World Bank has been assisting the efforts of developing countries to reform secondary education systems for more than 35 years. During this period, the context and imperatives for education reform have changed considerably due to various factors such as globalization of the world economy and the impact of new technologies. This paper is one of a series which addresses a wide range of topics within secondary education that reflect current challenges. The paper, a country case study, describes the experiences of Hungary in developing secondary education. As a country case study, the paper explores the complexity of secondary education and training systems in Hungary and the correspondingly difficult choices the government faces in reforming them. It is divided into the following sections: "Country Context"; "Development of Secondary Education and Training"; "Quality and Learning"; "Equity"; "Management and Institutional Development"; "Innovations"; "Bank Support to the Country"; and "Issues." Annexed are data giving the percentage share of students in secondary education for the countries of Eastern Europe and Central Asia. (BT)



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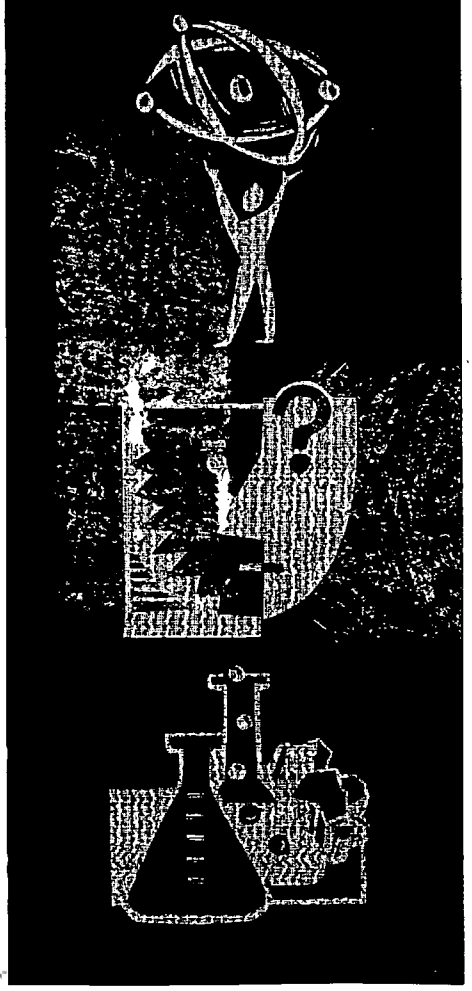
HUNGARY: SECONDARY EDUCATION AND TRAINING

David H. Fretwell
Antony Wheeler



EDUCATION
THE WORLD BANK

World Bank, Human Development Network
Secondary Education Series

Hungary
Secondary Education and Training

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Contents

Foreword

Welcome to the Secondary Education Series of the Human Development Network, Education Group at the World Bank.

The World Bank has been assisting developing countries in their efforts to reform their secondary education systems for more than 35 years. During this period, the context and imperatives for education reform have changed considerably due to various factors such as globalization of the world economy and the impact of new technologies. This new environment requires rethinking the traditional way of providing secondary education and training systems and both industrializing and industrialized countries are grappling how best to prepare their youth to become productive workforce as well as responsible citizens. Thus, this series will address a wide range of topics within secondary education that reflect the challenges that we are facing now.

The publications in this Secondary Education Series might broadly be considered to fall into two categories, though there are clearly overlaps: those papers addressing policy issues and those describing in more detail particular countries' experiences. This paper, "Hungary - Secondary Education and Training", is in this second category. The intention behind these country case studies is to expose the complexity of secondary education and training systems and the correspondingly difficult choices that governments face in reforming them. It is only through a clearer understanding of what is happening in particular countries that fruitful discussion and analysis, and further research, can take place. We hope that these case studies stimulate debate. We welcome your comments.

World Bank
Human Development Network
Education Group
March 2001

Country Context

The educational system of Hungary has been well-established at least since the days of the Austro-Hungarian Empire, as reflected by the achievement of a number of Nobel Prizes in different fields earlier in the 20th century. However the system was not elitist in its excellence, as there was broad development of educational access nationwide, with the exception of some ethnic minorities. Earlier German models were generally followed prior to the Second World War. The Communist period from about 1950 produced substantial changes in the system, especially at the secondary level, though it retained its universal character at least through the initial years of secondary education.

After 1950 there was substantial industrial investment under state auspices, and agriculture was also transformed into large-scale units, though still operating in rather labor-intensive ways. By contrast service sectors were relatively neglected. Unlike other countries in the region, Hungary began to modify this structure well before the end of Communist rule, though substantial change only happened after 1990. During the past decade of active transition to the market economy, there was initially significant growth of unemployment as inefficient industries were downsized or closed, and large farms were broken up into smaller private holdings. Conversely, service sector employment grew substantially, and new investment in private industry and agriculture also began to create new employment openings, often at higher skill levels than the jobs that had been terminated. While many older workers have in effect been subject to early retirement through the process of transition, there has been an increase of job opportunities for younger and better-educated labor-market entrants, though the less well educated youth still have difficulty finding jobs.

The secondary education legacy left by the Communist period was a system highly concentrated on vocational and technical (voc/tech) education at the expense of the general education stream. It should be noted that all education described as secondary in Hungary was post-compulsory, the compulsory education being an eight-year program known as basic education. The compulsory period of education is in process of being extended to ten years, which has the effect of running compulsory education into the initial years of secondary, In 1989 some 90% of the age group entered secondary (i.e. then post-compulsory) education, though only 20% of the relevant age group were in the four year general secondary stream, compared with 34% in four or five year professional or technical secondary schools, and 36% in three year vocational training schools. The latter category consisted of narrowly-focused courses designed to produce skilled or semi-skilled workers, often for the specific needs of an enterprise to which a school was linked. This type of institution did not qualify students for an upper secondary school leaving certificate, and hence they were also not eligible to enter higher education. Within general secondary education as well as technical education there was an emphasis on mathematics and science subjects, because the higher education system to which these streams led was itself heavily oriented towards engineering and scientific studies.

By 1996 there had been some change in the structure of secondary education enrollments, with 22% of the age group in general secondary, 41% in technical, and only 25% in the vocational training schools. However, the percentage of secondary education entrants entering the general stream in 1995/6 was 27%, suggesting that the move towards general education is a

continuing phenomenon. The main shift was from shorter vocational to longer technical education, thus increasing the pool of potential entrants to post–secondary education, and to more skilled jobs. But conversely there was also a slight increase in the numbers failing to proceed beyond compulsory education. It has also been noted that 20 to 25% of students in the vocational training schools drop out prior to completion, hence with no further qualification. The total effect of this situation is that the qualification and/or skill structure of the population is tending to become more skewed, with the creation of a growing group of unskilled labor-market entrants, perhaps by now approaching 20% of the age group, as well as an increased supply of the better educated.

Development of Secondary Education and Training

There have been several changes in the content and structure of secondary education in recent years, and as noted above the distribution between different types of institutions has also changed. From 1990 to at least 1996 there was a slight but continuous decline in total enrollment at this level, which may partly be a function of declining population, but also reflects a small fall in participation rates. Another development which has also impacted on secondary education, in common with certain other countries in the region, has been the extreme degree of administrative decentralization introduced since 1990. As a result, even general secondary schools are now administered by local municipalities (see further in Section 5 below). In other respects the system has been resistant to change, in particular as concerns the low intensity of use of staff, and the increase in numbers of institutions in face of declining enrollments. There is only limited private involvement in secondary education so far, covering 3.6% of enrollments in 1994, and concentrated in the general secondary stream, mostly under religious auspices.

Although legally the general secondary school (gymnasium) has a four year duration, in recent years some institutions have extended themselves downwards into the later years of basic education, thus offering selected pupils up to 8 years of academic education, while maintaining the normal intake at the end of basic education. (There has been a parallel development in the Czech Republic, where the practice has been criticized by teachers as creaming off the best students with deleterious effects for the remainder, which could be a factor contributing to the higher subsequent drop-out at the end of basic education.) The growing popularity of the general stream has increased competition for entry, and many schools have introduced entrance examinations. The drop-out rate of some 10% is lower than in other types of secondary education.

Secondary school teachers are university graduates and are subject-specific, hence usually with rather narrow teaching responsibilities. This contributes to the situation whereby in 1995/6 there were only 11 students per teacher in the general stream, but 30 students per class. By international standards teachers are under-utilized, but this is mainly a function of their narrow subject competence, which in turn derives from over-specialized higher education and teacher-training programs during the Communist period. Change in this respect is slow to be realized, because of the vested interests in higher education which resist it. Also teachers with long experience of the former system are reluctant to embrace change in the direction of more intensive teacher utilization, partly out of fear of being made redundant, but also because low

teacher salaries mean many of them have taken second jobs to supplement their income, which would be imperiled if they had to teach more hours.

The voc/tech stream consists of several types of institutions. Secondary vocational schools are four- or five-year schools in technical and professional fields, whose graduates are eligible to apply for entry to higher education. In other words, they are the voc/tech counterpart of the gymnasium in the general education stream. Vocational training schools, of which there are several types, provide a terminal three-year course, or in some instances only two-year courses. Their training is intended to prepare students for specific occupations, with a practical orientation towards jobs at the skilled or more likely semi-skilled level. Special vocational training schools, with courses of one- or two-year duration, were originally for the handicapped, but have subsequently extended their role to serve less academically oriented but able-bodied children in preparation for work and family life.

Secondary vocational schools have undergone many modifications in recent decades, but currently they offer a four-year education during which the mix of general and vocational subjects progressively changes in the direction of vocational, from 85/15 to 60/40. Innovations being introduced with World Bank financing provide for seven new academic core curricula for grades 9 to 12, and 13 job family curricula (of which each school normally selects two) for grades 11 and 12. In some schools an optional fifth year of study allows for further vocational specialization, with each school usually focussing on a particular field. The drop-out rate is 15-18%, higher than in the general stream. Entry examinations are being introduced as competition for entry increases. At least a third of pupils now attempt admission to higher education, of whom about half are successful. Although these are coeducational institutions the more technically-oriented usually have a majority of boys, while the commerce- and service-oriented are likely to have a majority of girls. Increasingly, institutions of this type are developing close relations with local employers, in some cases being in receipt of financial support. There is also a conscious effort to introduce career guidance in the later years. There is a slightly better rate of teacher utilization in these schools, with 13 students per teacher, and 28.5 students per class in 1995/6.

Vocational training schools have no entry examination for their three-year courses, but the drop-out rate is higher, as noted in para. 4 above. Half of the time is spent in practical workshop education, which in the past was mostly given in factories. Now it is more often carried out in school workshops, in many cases using the premises of the secondary vocational schools. Following the decline of involvement of state enterprises after 1990, there has been a trend of increasing interest on the part of private entrepreneurs, who are expected to become more involved in a more diversified pattern of practical training, with an increasing incidence of financial support to schools. Teacher utilization is much more intensive in this type of institution, with 26 students per teacher, and 28 students per class in 1995/6.

The special schools are a small though growing part of the voc/tech system. Now they essentially help children aged 15 or 16 to prepare for work. A number of occupational programs have been developed, consisting of a three-month job orientation and a two-month specialization. In terms of teacher utilization they occupy a median position, with 17.5 students per teacher.

Quality and Learning

In a society undergoing the process of economic transition, it is still the case that a significant part of the community has outdated educational expectations oriented to the former economic system. Parents raised in the previous structure of narrowly specific economic roles are likely to be at least initially uncomfortable with the new goal of educating students to become part of a versatile and adaptable labor force, without a narrowly defined skill but able to learn and practice new techniques as required by changing job opportunities. Thus it will be important that parents are brought into close contact with schools and their teachers in order to further facilitate the implementation of innovations. Under the Communist education system there was no major involvement of parents in the activities of schools, so the development of active parent-teacher associations will be a valuable step in garnering social support for the ongoing educational innovations. Employers, especially those in new private enterprises and in the service sectors, should be the most active supporters of innovative education, and this is facilitated through the provision whereby the 1.5% of wage costs which they have to transfer to the Vocational Education Fund can instead be allocated directly to the support of innovations at a local school, thus increasing their direct involvement.

Assessment and examinations have hitherto been a weak aspect of the system, because even where national examinations have been developed they are still marked by teachers from the school. Thus it is difficult to establish national standards of performance, and the possibility of partiality is present. This is particularly true for academic subjects. In vocational examinations employers and other outside interests are also involved, so the situation is slightly better. The need is for national examinations to be linked to a centrally-administered marking system adhering to closely regulated guidelines, so that results are comparable nationally and can be a guide to potential employers seeking to evaluate job applicants.

It was mentioned earlier that teachers are poorly remunerated, so that many have taken second jobs to supplement their income. Among secondary teachers this increasingly takes the form of private tuition for students preparing to sit the entrance examination for higher education. This is a potentially pernicious situation where teachers' second source of income could be increased by neglecting their basic teaching duties. Poorer families could also be deprived of access to higher education through their inability to afford extra tuition.

Equity

With one exception, equity of access has not been a major issue in Hungarian secondary education. But in addition there are growing signs that equity considerations may become more of an issue in the future. The exception concerns the lack of access of the Roma or gypsy community to secondary education. During the process of transition this community, which represents perhaps 6% of the population but a higher share of the school-age group because of their appreciably higher birth rate, has become progressively more disadvantaged. In particular, very few of their children complete basic education, so are precluded from entering secondary schools. Recently one or two initiatives have been taken to open secondary schools for Roma children, and the government has recently committed itself to extend this effort, but it

will take considerable time and a whole range of other policy initiatives to arrive at a situation where the Roma minority is not disadvantaged with respect to secondary education.

One or two recent developments suggest that secondary education may be becoming more stratified, so in some respects elitist. It was noted that some general secondary schools have introduced earlier entry for talented children, and there are fears that this acts adversely on the performance in completing basic education of those children unable to make the early transition. Also, the greater prevalence of private tuition for university entry may make it harder for children of poorer families unable to afford this to enter higher education.

Management and Institutional Development

Hungary is characterized by having a very decentralized administrative system, with educational administration integrated into general public administration at the local level. There is wide-ranging local and institutional independence. At the national level, although the Ministry of Culture and Education takes general responsibility for education, several other ministries have educational roles, e.g., Finance is responsible for the total budget allocation for education, but Interior then allocates the education grants to local authorities who are responsible for school operation. Although the Ministry of Culture and Education has broad responsibility in areas such as culture, youth, and higher education, its authority over school education is limited to general guidance, e.g., legal regulations, establishment of the National Core Curriculum, setting the requirements for school-leaving examinations, and setting professional standards for teachers.

During the 1990s there was a substantial decentralization of public administration, including the administration of education, to the extent that by 1995 there were 3,147 local authorities in Hungary, 2,443 of which operated educational institutions. Since, in 1997, Hungary had a total population of 10.1 million with a trend of slow decline, this implies that the great majority of local authorities had very small populations in the age group for education. Given that local authorities have been given a wide range of responsibilities for educational institutions which they oversee, including programs and budgets, evaluation of operations, maintenance, appointments of principals, and opening and closure of institutions, the capacity of smaller authorities to discharge this list of tasks effectively in the absence of professionally qualified staff must be open to question. Only the larger towns typically have separate organizational units responsible for education. Although there is a higher level of county authorities, they have a limited role, and do not control the local authorities within their territory.

Principals have also greatly increased their role in recent years. They act as employer of the teachers, and are responsible for the development and coordination of the education program, for the organization and operation of the institution, for the school budget, and for relations with outside partners. Thus effectively they are the manager of the school.

As mentioned earlier, there is important and growing participation from employers in voc/tech education. Any school may also establish a board including teacher, parent and student representatives, which may express an opinion on any school-related issue. One risk attaching to

the highly decentralized nature of education in Hungary is that it does facilitate the manifestation of prejudice against local minorities, and there have been cases of principals acting prejudicially towards pupils from the Roma community, e.g., by segregating them from the non-Roma majority. A second risk is that the core curricula is not defined in great detail therefore the Government is moving to develop a more specific framework curriculum to ensure common standards between counties.

Innovations

During the past decade, Hungary has seen a stream of changes introduced into the education system at all levels. Indeed, it can be argued that the pace of change has been too rapid, with many new initiatives not given time to demonstrate their advantages before being replaced by something supposedly better. Major Acts affecting education were passed in 1990 (end of state monopoly, decentralization of administration), 1992 (status and broad service conditions of teachers), 1993 (3 concerning respectively public education, vocational education, and higher education), and in 1996 major amendments of some of the preceding Acts, especially concerning pedagogical issues and establishing the National Core Curriculum, which is now in process of introduction. In short this is an education system with no shortage of innovation, and with responsibility for the implementation of new initiatives devolved down to the institutional level.

Bank Support to the Country

The Human Resource Project, which closed in 1997, covered a variety of activities in areas such as higher education reform, technology development, and labor redeployment, geared towards the general objective of reorienting the development and use of human resources. One component of this project was concerned specifically with the reform of secondary vocational education. In a group of 79 schools the project introduced seven new core curricula, and 13 consolidated vocational orientation curricula which are taught at grades 11 and 12, in place of more than 100 narrow occupational specialization offered previously at grade 9. Linked to this were the development of career counseling for students, and the introduction of a network of Regional Human Resource Development Centers to provide skill upgrading and initial training, and to support occupational mobility for youth and adults beyond compulsory school age. A related EU PHARE project has extended the broader and more flexible voc/tech education to a further 79 schools. A new Youth Training Project, financed by the Bank and being implemented by the Ministry of Education, is in the process of extending the same reforms to the rest of the voc/tech system, and also extending flexible post-compulsory and post-secondary training for young adults through the above-mentioned Regional Centers. A Higher Education Reform Project has also been prepared and is being implemented by the Ministry of Education.

Issues

As explained in the preceding sections, Hungary has a well-developed secondary education system which has been undergoing wide-ranging reforms, especially during the last decade. Thus the major educational problems raised by economic transition are being tackled. But the impact of reform has raised several issues of concern which need to be further addressed.

- Decentralization. The extent of decentralization of educational administration raises some concern as to the efficacy of the smaller local authorities in administering schools, especially secondary schools, given their lack of trained and/or specialized staff, and their ability to maintain standards. It would seem more logical to put secondary schools in direct linkage with the county-level authorities, which are larger and better able to address the regional significance of some schools. (Some general secondary schools are already linked directly to county authorities.)

- Discrimination. The degree of decentralization which has been introduced also makes it easier for ethnic discrimination to occur at the local level, in particular towards the Roma community. The Government is concerned about this issue, and one of the requirements for EU accession is an absence of such discrimination.

- Elitism. Several developments have been noted which together suggest that the secondary education system is tending to become more elitist. In particular the early entry of gifted children to the academic stream is thought to impact adversely on the other children remaining behind to complete basic education, and the growing practice of teachers offering private coaching for university entrance militates against children from poorer families who cannot afford this.

- Wastage. The wastage rates in voc/tech education are quite high, up to 25%. One result of this is that there is a growing proportion of the population which is leaving formal education without significant qualifications, which makes their entry to the labor market more difficult. This problem needs to be investigated, the causes identified, and remedial measures proposed and implemented.

Annex

Share of Students in Secondary Education in Eastern Europe and Central Asia

(percentage of total)

Country	Education Level	1989	1990	1991	1992	1993	1994	1995	1996	1997
Albania	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	31.1	29.4	49.4	63.0	70.9	78.0	79.4	82.1	84.2
	Vocational/Technical	68.9	70.6	50.6	37.0	29.1	22.0	20.6	17.9	15.8
Armenia	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	53.2	54.2	55.8	57.9	63.1	67.3	72.0	71.7	73.7
	Vocational/Technical	46.8	45.8	44.2	42.1	36.9	32.7	28.0	28.3	26.3
Azerbaijan	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	54.2	56.3	57.4	61.0	63.8	66.8	69.7	72.4	76.0
	Vocational/Technical	45.8	43.7	42.6	39.0	36.2	33.2	30.3	27.6	24.0
Belarus	TOTAL	100	100	100	100	100	100	100	100	-
	General secondary	35.0	35.4	35.4	34.9	34.3	36.0	37.1	39.4	-
	Vocational/Technical	65.0	64.6	64.6	65.1	65.7	64.0	62.9	60.6	-
Bosnia-Herzegovina	TOTAL	-	-	-	-	-	-	-	-	-
	General secondary	-	-	-	-	-	-	-	-	-
	Vocational/Technical	-	-	-	-	-	-	-	-	-
Bulgaria	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	39.5	38.7	38.9	40.5	41.6	42.3	42.7	42.6	41.9
	Vocational/Technical	60.5	61.3	61.1	59.5	58.4	57.7	57.3	57.4	58.1
Croatia	TOTAL	-	-	100	100	100	100	100	100	100
	General secondary	-	-	13.0	18.8	23.6	25.3	24.7	24.6	24.7
	Vocational/Technical	-	-	87.0	81.2	76.4	74.7	75.3	75.4	75.3
Czech Republic	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	17.8	18.9	17.7	17.4	15.8	13.1	13.2	14.5	15.2
	Vocational/Technical	82.2	81.1	82.3	82.6	84.2	86.9	86.8	85.5	84.8
Estonia	TOTAL	-	100	-	100	100	100	100	100	-
	General secondary	64.8	49.0	67.5	50.2	52.4	55.0	54.7	53.5	-
	Vocational/Technical	-	51.0	-	49.8	47.6	45.0	45.3	46.5	-
FYR Macedonia	TOTAL	-	-	-	-	-	-	-	-	100
	General secondary	-	-	-	-	-	-	-	-	31.2
	Vocational/Technical	-	-	-	-	-	-	-	-	68.8
Georgia	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	67.6	70.4	70.6	69.4	62.8	63.3	61.7	64.6	63.5
	Vocational/Technical	32.4	29.6	29.4	30.6	37.2	36.7	38.3	35.4	36.5
Hungary	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	23.9	24.0	24.6	25.6	26.1	26.8	27.0	27.1	27.6
	Vocational/Technical	76.1	76.0	75.4	74.4	73.9	73.2	73.0	72.9	72.4
Kazakhstan	TOTAL	100	100	100	100	100	100	100	100	-
	General secondary	42.9	44.8	45.5	44.6	44.9	45.5	45.9	52.5	-
	Vocational/Technical	57.1	55.2	54.5	55.4	55.1	54.5	54.1	47.5	-
Kyrgyz Republic	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	61.7	62.8	62.8	62.3	61.7	62.0	64.0	67.8	71.0
	Vocational/Technical	38.3	37.2	37.2	37.7	38.3	38.0	36.0	32.2	29.0

Latvia	TOTAL	100	100	100	100	100	100	100	100	-
	General secondary	32.0	31.4	31.6	33.6	40.4	44.2	47.2	53.1	-
	Vocational/Technical	68.0	68.6	68.4	66.4	59.6	55.8	52.8	46.9	-
Lithuania	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	36.7	38.6	40.5	46.9	46.1	48.7	49.5	52.9	54.2
	Vocational/Technical	63.3	61.4	59.5	53.1	53.9	51.3	50.5	47.1	45.8
Moldova	TOTAL	-	-	100	100	100	100	100	100	-
	General secondary	-	-	38.8	39.3	41.3	43.2	44.6	46.0	-
	Vocational/Technical	-	-	61.2	60.7	58.7	56.8	55.4	54.0	-
Poland	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	22.5	23.4	25.2	26.9	28.1	29.2	30.5	31.1	32.4
	Vocational/Technical	77.5	76.6	74.8	73.1	71.9	70.8	69.5	68.9	67.6
Romania	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	3.5	12.8	21.6	26.5	29.0	29.4	29.0	30.0	30.4
	Vocational/Technical	96.5	87.2	78.4	73.5	71.0	70.6	71.0	70.0	69.6
Russian Federation	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	31.3	33.0	32.8	33.1	33.9	36.2	37.1	38.3	39.8
	Vocational/Technical	68.7	67.0	67.2	66.9	66.1	63.8	62.9	61.7	60.2
Slovak Republic	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	18.1	19.2	20.1	20.9	21.7	22.4	23.2	24.1	25.0
	Vocational/Technical	81.9	80.8	79.9	79.1	78.3	77.6	76.8	75.9	75.0
Slovenia	TOTAL	-	-	-	-	100	100	100	100	-
	General secondary	-	-	-	-	24.3	24.4	24.4	24.8	-
	Vocational/Technical	-	-	-	-	75.7	75.6	75.6	75.2	-
Tajikistan	TOTAL	100	100	-	100	-	-	100	-	-
	General secondary	67.3	76.7	80.4	64.8	76.0	77.0	65.6	-	-
	Vocational/Technical	32.7	23.3	-	35.2	-	-	34.4	-	-
Turkmenistan	TOTAL	100	100	100	100	100	100	100	100	100
	General secondary	62.5	63.9	62.9	62.6	64.9	70.7	76.1	69.4	77.1
	Vocational/Technical	37.5	36.1	37.1	37.4	35.1	29.3	23.9	30.6	22.9
Ukraine	TOTAL	-	-	100	100	100	100	100	100	100
	General secondary	-	-	38.3	37.5	37.6	39.9	41.6	43.9	47.6
	Vocational/Technical	-	-	61.7	62.5	62.4	60.1	58.4	56.1	52.4
Uzbekistan	TOTAL	100	100	100	100	100	-	-	-	-
	General secondary	53.7	56.2	56.8	53.7	51.4	-	-	-	-
	Vocational/Technical	46.3	43.8	43.2	46.3	48.6	-	-	-	-
Yugoslav Republic	TOTAL	-	100	100	100	100	100	100	100	-
	General secondary	-	27.1	35.1	44.3	55.4	56.2	53.7	55.7	-
	Vocational/Technical	-	72.9	64.9	55.7	44.6	43.8	46.3	44.3	-

— Not available

Notes: Definition of title - percentage of students enrolled by type of upper secondary education in the total number enrolled in upper secondary education

Sources: World Bank staff estimates based on data supplied by UNICEF ICDC

Titles in the Secondary Education Series

Fretwell, David H. 2001 "Hungary Secondary Education and Training". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/secondary/documents/Fretwell1.pdf

Fretwell, David H. 2001 "Poland Secondary Education and Training". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/secondary/documents/Fretwell2.pdf

Fretwell, David H. 2001 "Romania Secondary Education and Training". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/secondary/documents/Fretwell3.pdf

Fretwell, David H. 2001 "Turkey Secondary Education and Training". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/secondary/documents/Fretwell4.pdf

Fretwell, David H. 2001 "Russia Secondary Education and Training". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/eduation/secondary/documents/Fretwell5.pdf

Lewin, Keith M. 2000. "Mapping Science Education Policy in Developing Countries." Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/scied/documents/Lewin-Mapping.pdf

Lewin, Keith M. 2000. "Linking Science Education to Labour Markets: Issues and Strategies." Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C.
Online version:
http://www1.worldbank.org/education/scied/documents/Lewin-Labor.pdf

Larach, Linda, 2001 "Brazil Secondary Education Profile a Summary of Secondary Education: Time to Move Forward". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C. Online version: http://www1.worldbank.org/education/secondary/documents/larach.pdf

Linden, Toby. 2001 "Double-shift Secondary Schools: Possibilities and Issues". Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C. Online version: http://www1.worldbank.org/education/secondary/documents/Linden.pdf

Ware, Sylvia, ed. 1999. "Science and Environment Education: Views from Developing Countries." Secondary Education Series. World Bank, Human Development Network, Education Group, Washington, D.C. Online version: http://www1.worldbank.org/education/secondary/documents/Ware.pdf

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