



European Commission

Key Data on Education in Europe 2005

European education systems viewed from all angles

Main trends in Europe:

- Increasing numbers of children benefit from pre-primary education;
- Increasing numbers of students are enrolled in tertiary education;
- The number of graduates in scientific and technological fields is gradually increasing;
- The quality of school education is being increasingly evaluated;
- In the new EU Member States, the organisation and management of education systems are much the same as in the EU-15;
- Inequalities in access to computer facilities and the Internet in schools are diminishing.

This sixth edition of *Key Data on Education in Europe* provides an exceptionally wide-ranging overview of the functioning of education systems and the participation of young people at all levels of education in 30 European countries (the 25 European Union Member States, the three EFTA/EEA countries, Bulgaria and Romania).

It contains 153 indicators in six subject-based chapters on context, organisation, participation in education, resources, educational processes, graduates and qualification levels.

Each topic is discussed using information on methods of management and implementation, combined with statistical data from Eurostat. Certain data obtained from the PISA and PIRLS international surveys provide further insight into the topics examined.

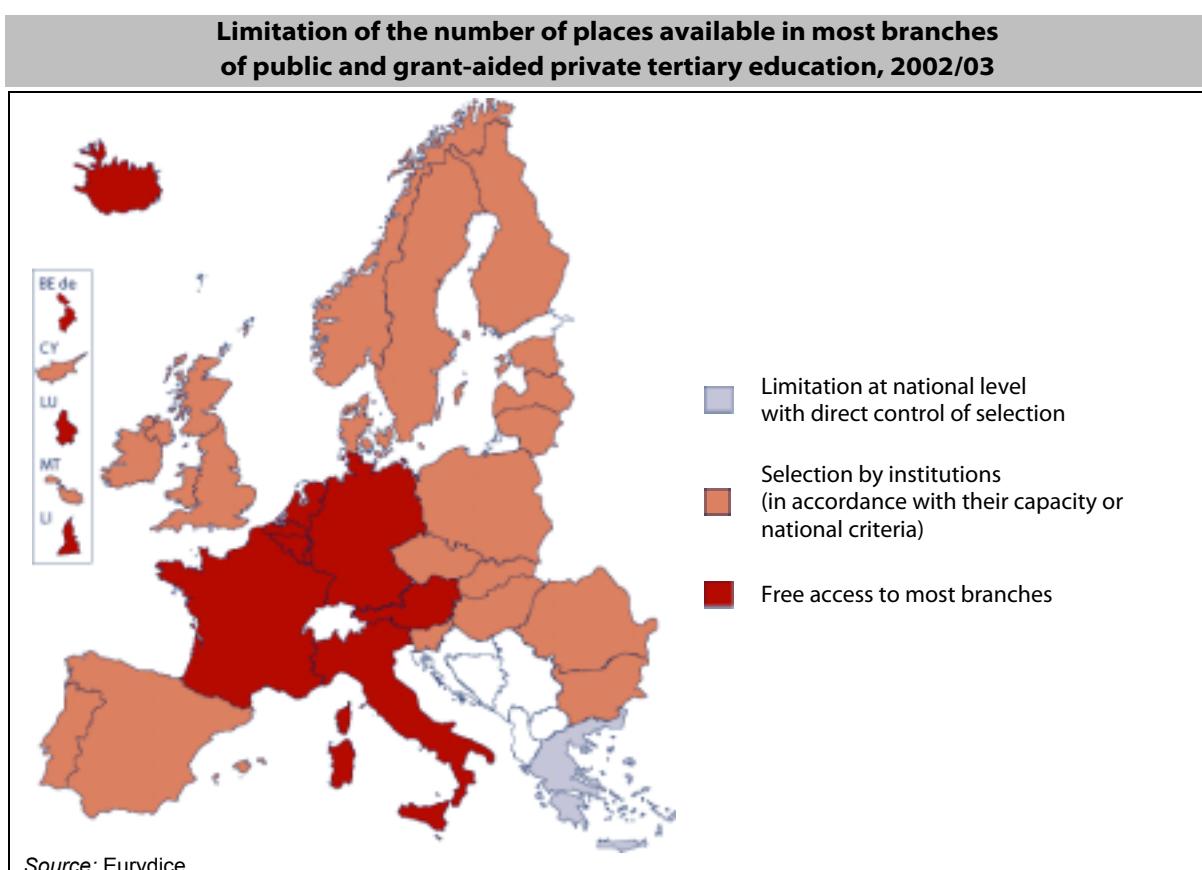


Higher education encouraged to greatly expand while having to control its costs

Student enrolment in tertiary education stands at 16 million and is growing steadily. Between 1998 and 2002, the annual growth rate for the EU-25 was higher than 2 %, in spite of a slight decrease in the overall population of the age group most concerned (students aged 20-29).

Clear political determination to increase the student population often runs counter to the need to control financial costs. While the share of GDP earmarked for tertiary education is indeed lower than in the case of primary and secondary education (0.1 % and 1.2 % less respectively), the cost per student is much higher. **A student in tertiary education often costs at least twice as much as a pupil in primary education.**

Only a few Latin and German-speaking countries have maintained open access to all programmes or a major share of them. There are few countries in which an upper secondary school leaving certificate is in itself sufficient to enter tertiary education and **a variety of selection procedures have been introduced to limit the number of entrants.**



A limited but constant increase in the number of graduates in careers in science and technology

In almost all EU countries, over 25 % of graduates in 2002 completed courses in the field of 'social sciences, business and law', which accounts for the greatest share of tertiary education qualifications in Europe. 'Science, mathematics and computing' bring up the rear and almost everywhere represent under 15 % of the qualifications awarded. However, between 1988 and 2002, the increase in graduates in the science and technology sectors remained irreversible. **Its rate of growth per 1 000 inhabitants aged between 20 and 29 ranges between 10 % and, in certain cases, over 50 %.**

Earlier, at the stage of compulsory secondary education, teaching of the exact sciences and mathematics accounts for a very significant share of the curriculum. In cases in which the share of teaching time per subject is fixed, it corresponds to over 20 % of the timetable.

School autonomy and the responsibilities of school heads, from planning timetables to managing human and financial resources

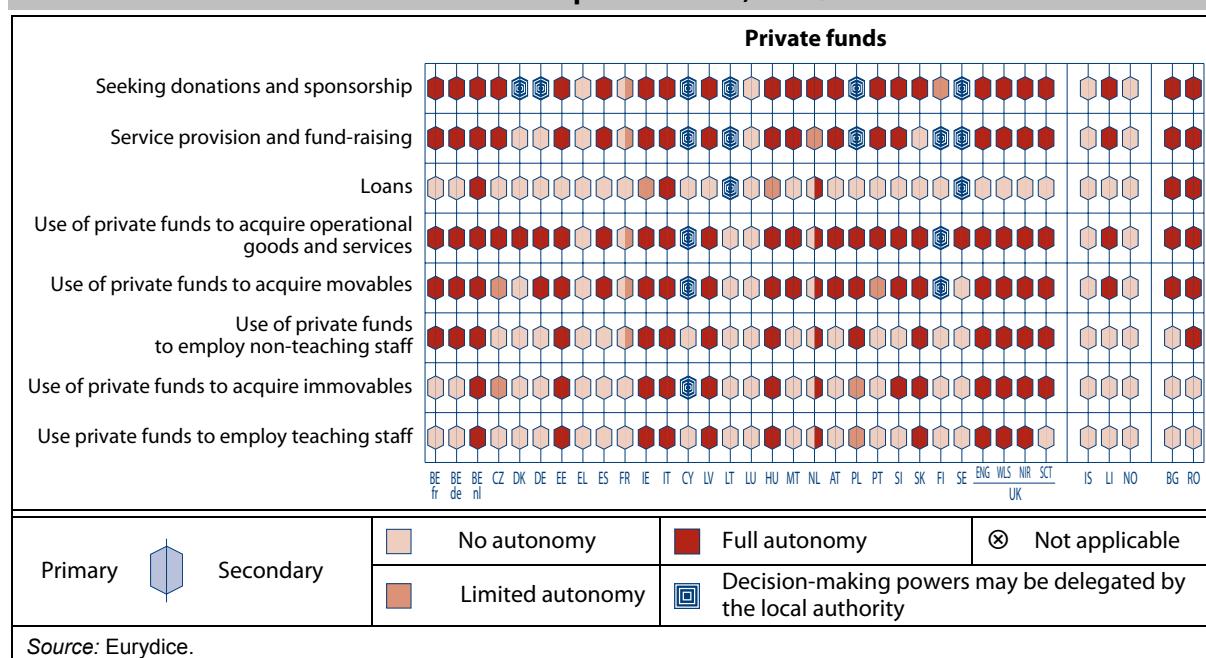
Except in a few countries in which school autonomy in virtually all areas is very limited (Greece, Cyprus and Luxembourg), schools enjoy considerable leeway especially in planning their timetables, grouping pupils together and choosing textbooks and teaching methods.

Differences between countries in terms of school autonomy are most striking in the area of human resources management. **Schools are rarely responsible for the amount of time teachers have to spend giving lessons each week or for the appointment of the school head.** Belgium (the Flemish Community), the Netherlands, Sweden and the United Kingdom (England) are among the countries in which they have most room for manoeuvre in this respect.

As regards financial resources management, the scope for school involvement varies depending on whether the resources concerned are earmarked for operational activity or fixed capital assets (immovables). Current expenditure is very often administered directly by schools, at least in part. By contrast, **they cannot in general take the initiative in acquiring fixed capital assets. Private fund-raising by schools is authorised in the great majority of countries** but only in a few are schools able to borrow money. The use made of funds raised privately is controlled and restricted in many countries, and schools cannot use such resources to recruit teaching staff.

More demanding requirements in terms of special training for newly appointed school heads are no doubt at least partly attributable to their increased responsibilities. In this respect, the programme of training everywhere includes content concerned with teaching and administration as well as human and financial resources management. However, while the internal evaluation of schools is very widespread and mobilises complex skills, this aspect is rarely a compulsory component in the training of school heads.

Scope for public-sector schools offering primary and lower secondary education to raise and make free use of private funds, 2002/03



The quality of the education system is often measured through the evaluation of schools and the results of pupils in external tests

The quality of education is central to the concerns of those who manage education systems, and quality control in this area may take a variety of generally combined forms, including monitoring of the system as a whole, the internal and external evaluation of schools and appraisal of individual teachers.

Very few countries concentrate their evaluation mainly on teachers. By contrast, **the internal and external evaluation of schools occurs now throughout most of Europe**. The two procedures are often interrelated. Standardisation of the external evaluation of schools is also becoming more widespread. In 2002/03, **over 10 European countries provided external evaluators with centralised lists of criteria**.

The routine publication of findings from these evaluations is recent and still not very common. It occurs in the Czech Republic, the Netherlands, Portugal, Sweden, the United Kingdom and Iceland.

As regards overall monitoring of the education system, the results obtained by pupils in examinations or external tests for certified qualifications are very often used in conjunction with reports on the external evaluation of schools. In recent years, an increasing number of countries have introduced external tests designed specifically for monitoring the education system. These tests are often administered at several stages in the path through school and taken by all pupils or a sample.

The organisation and management of education systems in the new Member States and the EU-15 are very similar

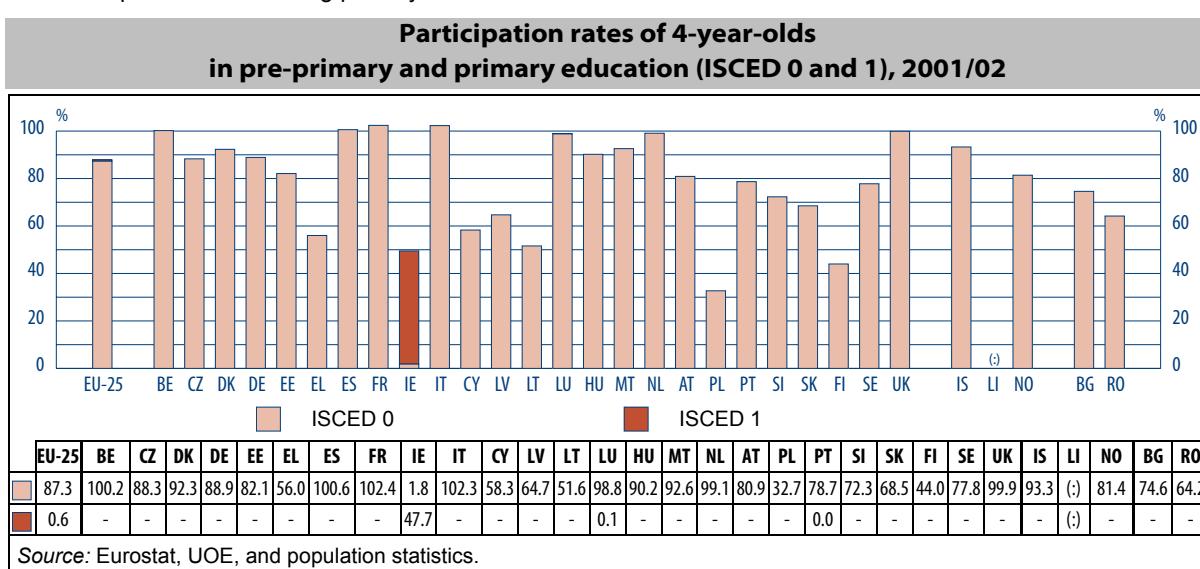
Significant differences between the ten new Member States and the remaining 15 are reflected solely in the scale of expenditure on education and in the proportions of those who graduate or obtain an upper secondary school leaving qualification.

Compared to GDP, public investment is broadly similar, but expenditure per pupil or student (all levels combined) and teacher salaries are lower in the ten new member countries.

A higher proportion of young people in these countries (including a higher proportion of women) obtain an upper secondary school leaving certificate but not all these qualifications give access to tertiary education. Yet it is in these same countries that the growth rate in enrolment for tertiary education is highest.

Increasing enrolment in pre-primary education that complies with quality standards

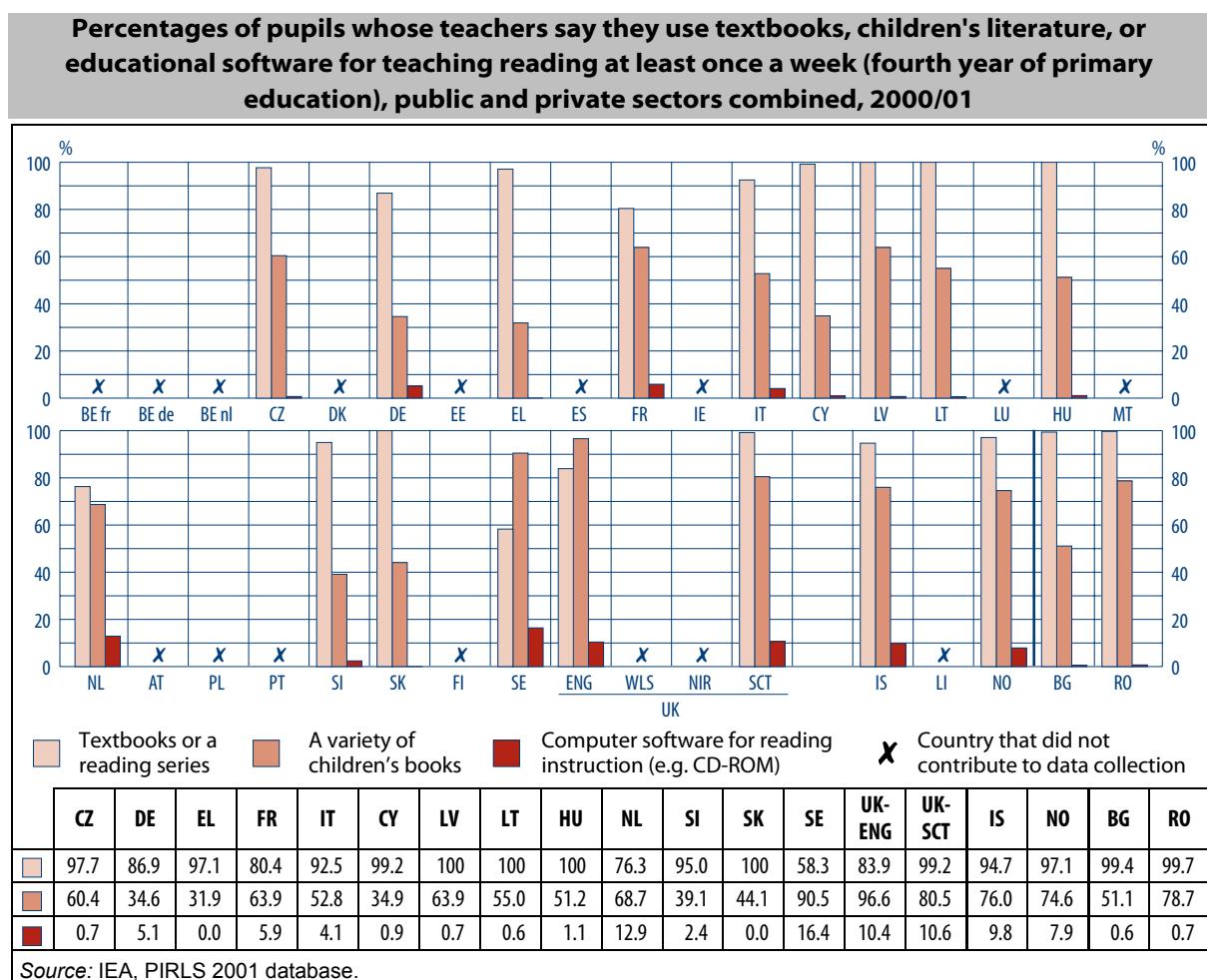
Education-oriented centres, whether school or non-school settings, are increasingly attended by very young children. In 2002, **organised provision of this kind catered for over 60 % of 4-year-olds** almost everywhere. In Ireland they are enrolled in primary education. The distinction between school and non-school settings has become far more blurred. **Tertiary education qualifications are required by supervisory and teaching staff in these centres** and are obtained after a minimum three years of study. **Educational objectives are everywhere clearly defined**. Most countries have devised recommendations regarding the teaching approaches that should be adopted to meet the needs of these very young children. Two-thirds of all countries offer teachers guidance in monitoring the progress of children and specify the kinds of competence the latter should acquire before entering primary school.



Little use is made of educational software for teaching reading in primary school and teaching methods are fairly conventional

While almost all pupils in the fourth year of primary school (PIRLS 2001) have access to a library, half of them visit it with their teacher at least once a week. **Textbooks or a reading series are the most frequently used main resource for teaching reading.** Books for children constitute an additional aid that most countries use on a less regular basis. Frequent reliance on educational software is rare and applies to a little over one pupil in ten in three countries (the Netherlands, Sweden and the United Kingdom).

Three-quarters of all pupils in Europe spend at least 5 hours a week in the classroom learning their mother tongue, and the great majority of teachers in the fourth year of primary education regularly give them homework on this subject. **Whole-class teaching is the most common approach used to teach reading.** Teachers attach most importance to communicating with all pupils at the same time and then rounding this off with exercises for them on an individual basis. Teachers in Scotland and Sweden adopt a markedly different approach, above all in their preference for subdividing classes into small groups.



Pupils do not have the same access to school infrastructure and facilities, including the Internet

While schools in general are developing their computer facilities and above all improving their Internet connections, differences between them remain considerable. In the majority of countries, there are less than 10 pupils aged 15 per computer. In others, there are over 20. **Between 2000 and 2003, the number of school computers with Internet connections rose markedly everywhere.** Nearly all computers had connections in the Nordic countries and Luxembourg, but in a few countries less than two-thirds of computers were connected.

In primary school, the pupil/teacher ratio is everywhere under 20 but it is far lower still in a few countries. It is around 10-11 pupils per teacher in Italy, Hungary, Portugal and Norway. According to PIRLS 2001 data, primary education class sizes are in general much smaller than the officially recommended maximum. However, some pupils aged 9 found themselves in groups of over 30 children, while others spent the day at school in classes of around 15.



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Background note

Title of the book	Key Data on Education in Europe 2005 (sixth edition)
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Publisher	Office for Official Publications of the European Communities (EUR-OP)
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Printed version	On sale at EUR-OP for EUR 30

This report is the outcome of cooperation between the European Commission Directorate-General for Education and Culture, Eurostat, the Statistical Office of the European Communities, and Eurydice, the information network on education in Europe (Action 6 in the Socrates programme). It covers 30 European countries.

The Eurostat statistical data have been derived from the UOE and Demography databases, and from the Community Labour Force Survey and the European System of National and Regional Accounts. Depending on the data collection concerned, their year of reference is 2001 or 2002.

Information from Eurydice was gathered from National Units in the Eurydice Network and relates to the 2002/03 school and academic year.

The present edition has been rounded off with empirical data taken from two international surveys, namely PISA (2002/03 school year) conducted under the auspices of the Organisation for Economic Cooperation and Development (OECD) and PIRLS (2000/01 school year) carried out under the auspices of the International Association for the Evaluation of Educational Achievement (IEA).

The report has been drafted by the Eurydice European Unit with the support of the European Commission Directorate-General for Education and Culture.

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