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Chapter

B

FINANCIAL AND HUMAN RESOURCES INVESTED IN EDUCATION



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Classification of educational expenditure

Educational expenditure in this chapter are classified through three dimensions:

- The first dimension – represented by the horizontal axis in the diagram below – relates to the location where spending occurs. Spending on schools and universities, education ministries and other agencies directly involved in providing and supporting education is one component of this dimension. Spending on education outside these institutions is another.
- The second dimension – represented by the vertical axis in the diagram below – classifies the goods and services that are purchased. Not all expenditure on educational institutions can be classified as direct educational or instructional expenditure. Educational institutions in many OECD countries not only offer teaching services but also various ancillary services to support students and their families, such as meals, transport, housing, etc. In addition, at the tertiary level spending on research and development can be significant. Not all spending on educational goods and services occurs within educational institutions. For example, families may purchase textbooks and materials themselves or seek private tutoring for their children.
- The third dimension – represented by the colours in the diagram below – distinguishes between the sources from which the funds originate. These include the public sector and international agencies (indicated by the light blue colour) and households and other private entities (indicated by the mid-blue colour). Where private expenditure on education is subsidised by public funds, this is indicated by cells in dark blue colour. The diagram is reported at the beginning of each indicator to signal its coverage.

	Spending on educational institutions (e.g., schools, universities, educational administration and student welfare services)	Spending on education outside educational institutions (e.g., private purchases of educational goods and services, including private tutoring)
Spending on educational core services	e.g., public spending on instructional services in educational institutions	e.g., subsidised private spending on books
	e.g., subsidised private spending on instructional services in institutions	e.g., private spending on books and other school materials or private tutoring
	e.g., private spending on tuition fees	
Spending on research and development	e.g., public spending on university research	
	e.g., funds from private industry for research and development in educational institutions	
Spending on educational services other than instruction	e.g., public spending on ancillary services such as meals, transport to schools, or housing on the campus	e.g., subsidised private spending on student living costs or reduced prices for transport
	e.g., private spending on fees for ancillary services	e.g., private spending on student living costs or transport

■ Public sources of funds ■ Private sources funds ■ Private funds publicly subsidised

EDUCATIONAL EXPENDITURE PER STUDENT

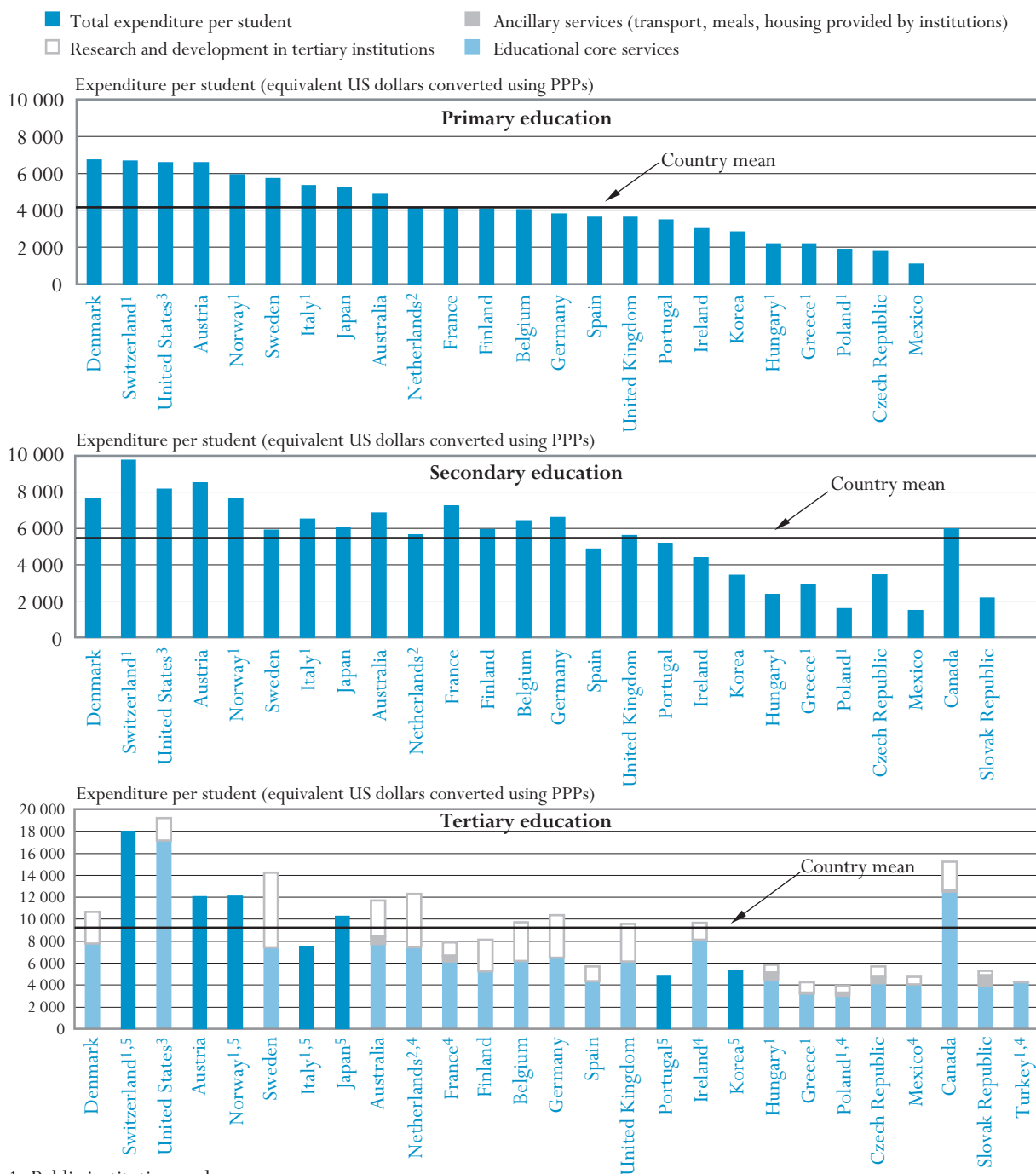
- As a whole, OECD countries spend US\$ 4 229 per primary student, US\$ 5 174 per secondary student and US\$ 11 422 per tertiary student, but these averages mask a broad range of expenditure across countries.
- Lower unit expenditure cannot automatically be equated with a lower quality of educational services. Australia, Finland, Korea and the United Kingdom, for example, which have moderate expenditure on education per student at primary and lower secondary levels, are among the OECD countries with the highest levels of performance by 15-year-olds students in key subject areas.
- On average, OECD countries spend 2.3 times as much per student at the tertiary level than at the primary level.
- In some OECD countries, low annual expenditure per tertiary student still translates into high overall costs of tertiary education because the duration of tertiary studies is long.
- At the tertiary level of education, spending on education has not always kept pace with the rapid expansion of enrolments.

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Chart B1.1.

Expenditure on educational institutions per student (1999)

Annual expenditure on educational institutions per student in US dollars converted using PPPs, by level of education, based on full-time equivalents



1. Public institutions only.

2. Public and government-dependent private institutions only.

3. Public and independent private institutions only.

4. Research and development expenditure at tertiary level and thus total expenditure are underestimated.

5. The bar represents total expenditure at tertiary level and includes research and development expenditure.

Countries are ranked in descending order of expenditure per student in primary education.

Source: OECD. Tables B1.1 and B6.2. See Annex 3 for notes (www.oecd.org/els/education/eqq2002).

Policy context

Effective schools require the right combination of trained and talented personnel, adequate facilities, state-of-the-art equipment and motivated students ready to learn. The demand for high-quality education, which can translate into higher costs per student, needs to be balanced against placing undue burdens on taxpayers.

As a result, the question of whether the resources devoted to education yield adequate returns to the investments made figures prominently in the public debate. Although the optimal volume of resources required to prepare each student for life and work in the modern economy is difficult to assess, international comparisons of spending on education per student can provide a starting point for evaluating the effectiveness of different models of educational provision.

Policy-makers must also balance the importance of improving the quality of educational services with the desirability of expanding access to educational opportunities, notably at the tertiary level. The comparative review in this indicator of how trends in expenditure on education per student have evolved shows how the expansion of enrolments in many OECD countries, particularly in tertiary education, has not always been paralleled by changes in educational investment.

Finally, decisions on the allocation of funds to the various levels of education are also important. For example, some OECD countries emphasise broad access to higher education while others invest in near-universal education for children as young as three or four years of age.

Evidence and explanations

What this indicator covers and what it does not cover

The indicator shows direct public and private expenditure on educational institutions in relation to the number of full-time equivalent students enrolled in these institutions.

Public subsidies for students' living expenses have been excluded to ensure international comparability of the data. Expenditure data for students in private educational institutions are not available for certain OECD countries, and some other countries do not report complete data on independent private institutions. Where this is the case, only the expenditure on public and government-dependent private institutions has been taken into account. Note that variation in expenditure on education per student may reflect not only variation in the material resources provided to students (*e.g.*, variations in the ratio of students to teaching staff) but also variation in relative salary levels.

While educational expenditure is dominated below the tertiary level by spending on instructional services, at the tertiary level, other services,

This indicator shows annual and cumulative expenditure on education per student in absolute terms...

...and relative to GDP per capita.

It also compares trends in the development of expenditure on education per student.

Coverage diagram (see page 144 for explanations)

particularly those related to R&D activities, can account for a significant proportion of educational spending. Indicator B6 provides further information on how spending is distributed by different types of services provided.

Expenditure on education per student in equivalent US dollars

As a whole, OECD countries spend US\$ 4 229 per primary student, US\$ 5 174 per secondary student and US\$ 11 422 per tertiary student...

OECD countries as a whole spend US\$ 4 229 per student at the primary level, US\$ 5 174 per student at the secondary level and US\$ 11 422 per student at the tertiary level. But at the tertiary level, these averages are influenced by high expenditure in a few large OECD countries, most notably the United States. Spending on education per student in the “typical” OECD country, as represented by the simple mean across all OECD countries, amounts to US\$ 4 148 at the primary level, US\$ 5 465 at the secondary level and US\$ 9 210 at the tertiary level of education (Table B1.1).

...but these averages mask a broad range of expenditure across OECD countries.

These averages mask a broad range of expenditure on education per student across OECD countries. At the primary level, expenditure on educational institutions ranges from US\$ 1 096 in Mexico to US\$ 6 721 in Denmark. Differences between OECD countries are even greater at the secondary level, where spending on education per student varies by a factor of 6.6, from US\$ 1 480 in Mexico to US\$ 9 756 in Switzerland. Expenditure on education per tertiary student ranges from US\$ 3 912 in Poland to US\$ 19 220 in the United States (Table B1.1).

These comparisons are based on purchasing power parities, not market exchange rates, and therefore reflect the amount of a national currency that will buy the same basket of goods and services in a given country as that bought by the US dollar in the United States.

R&D expenditure in tertiary institutions amounts to over US\$ 3 000 per student in Australia, Belgium, Germany, the Netherlands, Sweden and the United Kingdom.

On average, expenditure on Research and Development at the tertiary level represents one-quarter of all tertiary expenditure. In five out of 20 OECD countries for which tertiary expenditure are separated by type of services, R&D expenditure in tertiary institutions represents more than 35 per cent of tertiary expenditure. On a per student-basis this can translate into significant amounts, as in Australia, Belgium, Germany, the Netherlands, Sweden and the United Kingdom, where expenditure for R&D in tertiary institutions amounts to over US\$ 3 000 per student (Chart B1.1 and Table B6.2).

R&D spending in tertiary educational institutions not only depends on total R&D expenditure in a country, but also on the national infrastructure for R&D activities. OECD countries in which most R&D is performed by tertiary educational institutions tend to report higher expenditure per tertiary student than countries in which a large part of R&D is performed in other public institutions or by industry.

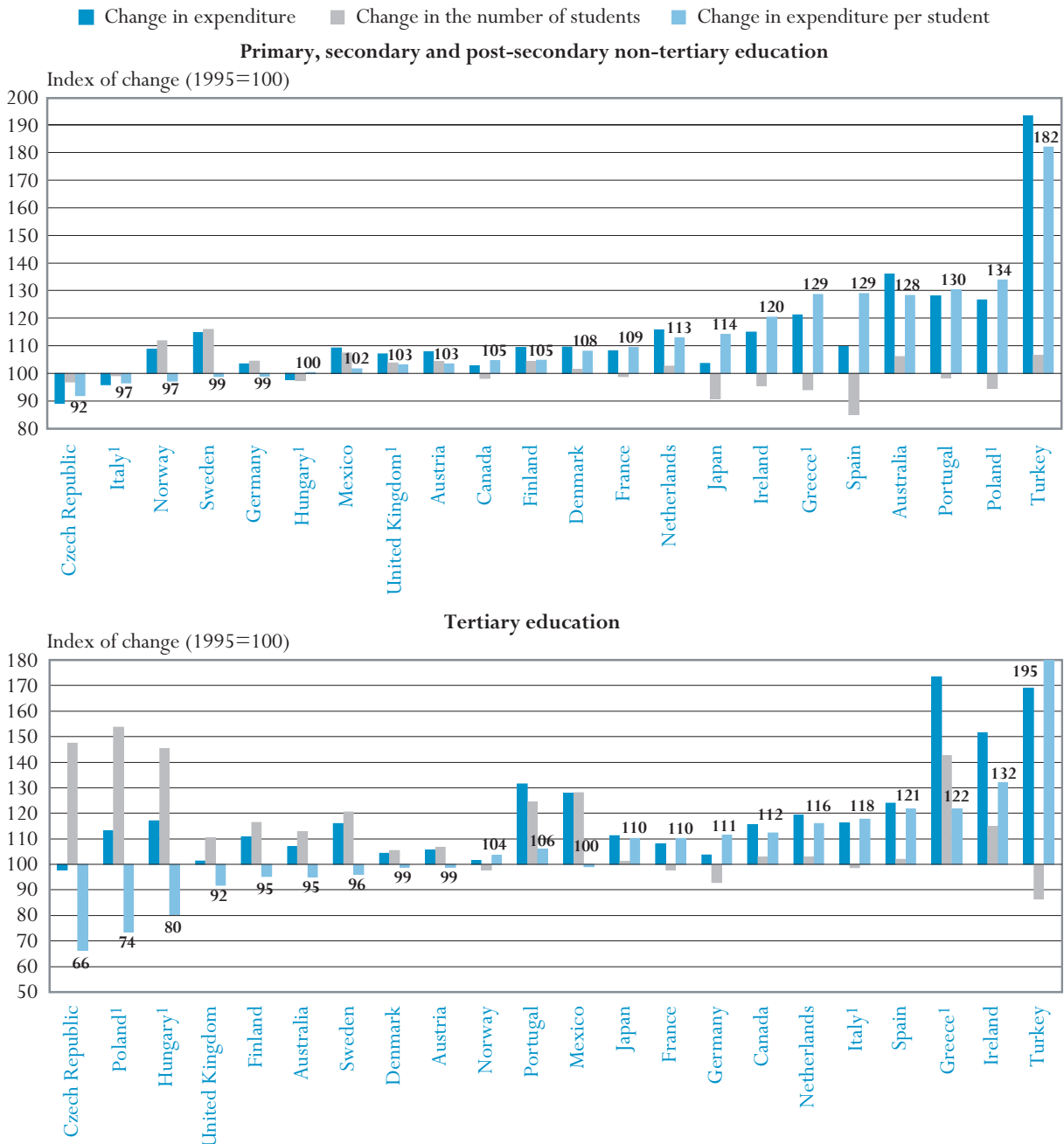
The labour intensiveness of education accounts for the predominance of teachers’ salaries in overall costs.

The labour intensiveness of the traditional model of classroom education accounts for the predominance of teachers’ salaries in overall costs. Differences in the average class size and in the ratio of students to teaching staff (Indicator D2), in staffing patterns, in teachers’ salaries (Indicator D6) and in teaching materials

Chart B1.2.

Change in expenditure on educational institutions per student in comparison to underlying factors, by level of education (1995, 1999)

Indices of change in expenditure on educational institutions, enrolment and expenditure per student between 1995 and 1999 (1995=100)



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1. Public institutions only.

Countries are ranked in ascending order of change in expenditure per student.

Source: OECD, Table B2.2 and Indicator C1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

and facilities influence the differences in cost between levels of education, types of programme and types of school.

Technology may allow some savings to be made.

Future gains in efficiency may be achieved through the use of new information technologies, both to hold down unit costs and to improve learning outcomes. At the tertiary level, unit cost savings may also be available through the expansion of distance education, whether intensive use is made of technology or not.

Lower unit expenditure cannot simply be equated with lower student performance.

It would be misleading to equate lower unit expenditure generally with lower quality of educational services. Australia, Finland, Korea and the United Kingdom, for example, which have moderate expenditure on education per student at primary and lower secondary levels, are among the OECD countries with the highest levels of performance by 15-year-old students in mathematics (see Indicator A6).

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Changes in expenditure on education per student between 1995 and 1999

Expenditure on education per primary, secondary and post-secondary non-tertiary student increased by over 20 per cent in Australia, Greece, Poland, Portugal, Spain and Turkey.

In absolute terms and at 1999 constant prices, expenditure on education per primary, secondary and post-secondary non-tertiary student increased between 1995 and 1999 by over 20 per cent in Australia, Greece, Poland, Portugal, Spain and Turkey. On the other hand, the Czech Republic saw a decline in expenditure on education per primary, secondary and post-secondary non-tertiary student by over 5 per cent. In ten out of the 22 OECD countries, changes remained within plus or minus 5 per cent compared with 1995 (Chart B1.2).

At primary and secondary levels, changes in enrolments were not the main factor driving expenditure...

Although institutional arrangements often adapt to changing demographic conditions only with a considerable time lag, changes in enrolments do not seem to have been the main factor driving changes in expenditure per primary, secondary and post-secondary non-tertiary student. The exceptions to this pattern are Japan and Spain, where a drop of more than 9 per cent in enrolments has led to a significant increase in spending on education per student.

In Norway and Sweden, the two OECD countries with the highest increase in the number of primary, secondary and post-secondary non-tertiary students between 1995 and 1999, increases in expenditure have kept pace with rising enrolments. The parallel increase in both student numbers and expenditure on education in Norway is due to the expansion of primary education from six to seven years, implemented in the school year 1997-1998. In Ireland and Poland, a significant increase in education budgets, coupled with a slight decrease in enrolments, has led to an increase in spending per primary, secondary and post-secondary non-tertiary student of about 20 and 34 per cent, respectively.

... while at the tertiary level, spending on education has not always kept pace with the rapid expansion of enrolments.

The pattern is different at the tertiary level of education. In six out of 22 OECD countries – Australia, the Czech Republic, Finland, Hungary, Poland and the United Kingdom – tertiary expenditure on education per student declined between 1995 and 1999 by 5 per cent or more. In all of these countries, this was mainly the result of the rapid increase in the number of tertiary students

of more than 10 per cent during the same period (Chart B1.2). On the other hand, expenditure per tertiary student rose significantly in Greece and Ireland despite a growth in enrolment of 42 and 15 per cent, respectively. Germany and Turkey were the only OECD countries in which the number of tertiary students actually declined by more than 4 per cent, although in Germany, this decline occurred mainly in the earlier years of this period whereas student numbers have lately begun to increase significantly. All other OECD countries with increases in expenditure per tertiary student of more than 10 per cent saw little or no change in enrolments.

Educational expenditure per student in relation to national GDP

Expenditure on education per student relative to GDP per capita is a spending measure that takes OECD countries' relative wealth into account. Since education is universal at lower levels, spending on education per student relative to GDP per capita at the lower levels of education can be interpreted as the resources spent on young people relative to a country's ability to pay. At higher levels of education, this measure is affected by a combination of national income, spending and enrolment rates.

OECD countries spend an average of 19 per cent of GDP per capita on each primary student, 25 per cent per secondary student and 44 per cent per tertiary student.

At the tertiary level, for example, OECD countries can be relatively high on this measure if a relatively large proportion of their wealth is spent on educating a relatively small number of students. For the OECD as a whole, expenditure on education per student averages 19 per cent of GDP per capita at the primary level, 25 per cent at the secondary level and 44 per cent at the tertiary level (Table B1.2).

As one would expect, there is a clear positive relationship between spending on education per student and GDP per capita (Chart B1.3), showing that poorer OECD countries tend to spend less per student than richer OECD countries. This trend can also be observed when looking at spending as a percentage of GDP per capita (Table B1.2).

Poorer OECD countries tend to spend less per student...

Although the relationship between spending on education per student and GDP per capita is generally positive, there is considerable variation in spending on education per student among both richer and poorer OECD countries. Australia and Austria, for example, are countries with similar levels of GDP per capita which spend very different proportions of their GDP per capita per student. The proportion of national income spent per primary student in Australia, 19 per cent of GDP per capita, is at the level of the OECD average. By contrast, Austria spends 26 per cent of GDP per capita per primary student, which is the highest proportion (Table B1.2).

...but there are many exceptions.

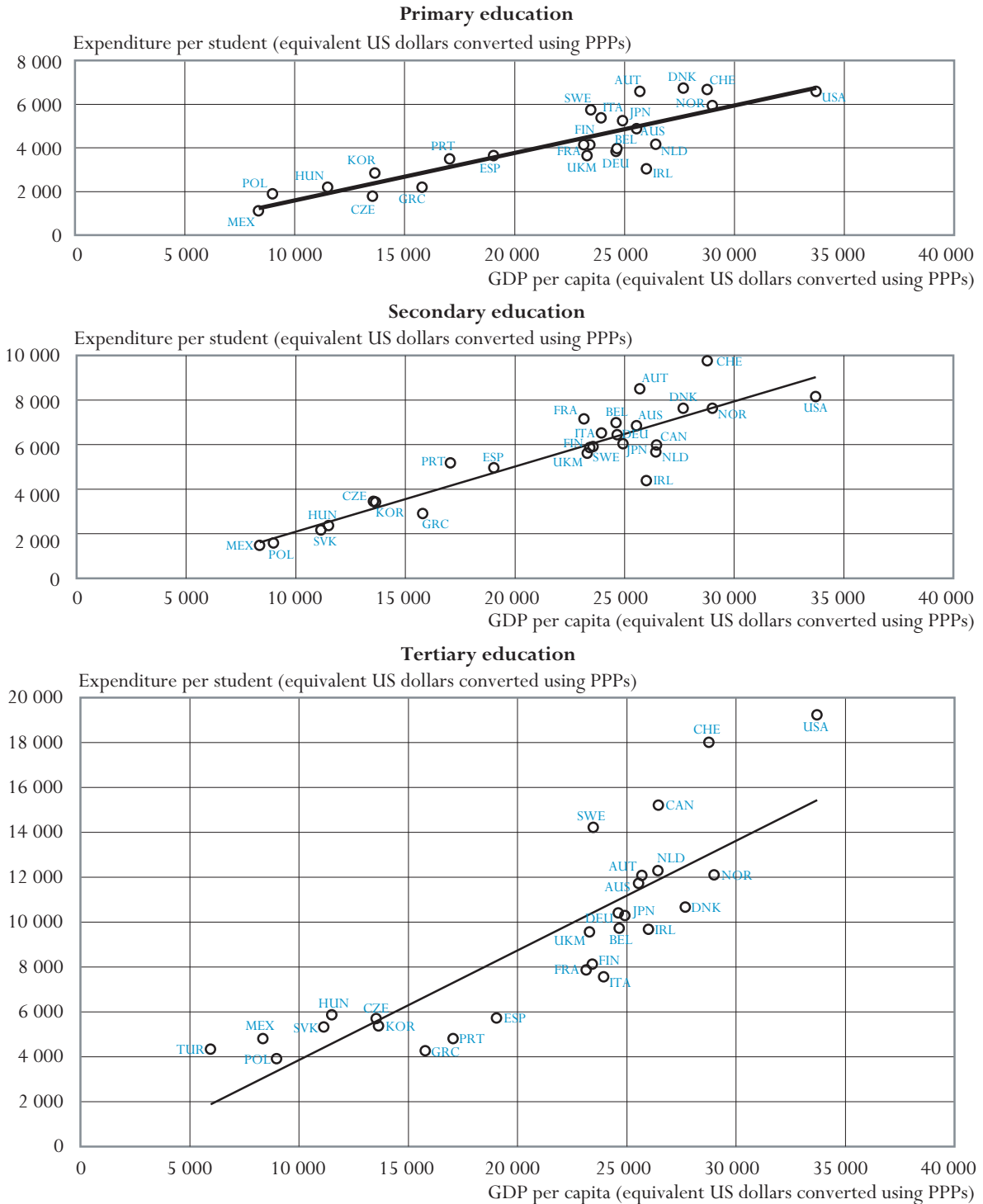
Does growing national income translate into higher spending on education per student? The arrows in Chart B1.4 show, for each OECD country, the changes in expenditure on education per student in relation to the respective changes in GDP per capita in primary, secondary and post-secondary non-tertiary education. The origin of the arrow represents GDP per capita (horizontal axis)

In general, as OECD countries grow richer, expenditure on education per student increases...

Chart B1.3.

Expenditure on educational institutions per student relative to GDP per capita (1999)
 Annual expenditure on educational institutions per student versus GDP per capita
 (equivalent US dollars converted using PPPs), by level of education

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Note: Please refer to the Reader's Guide for list of country codes and country names used in this chart.

Source: OECD. Tables B1.1 and B1.2 and Annex 2. See Annex 3 for notes (www.oecd.org/els/education/eaq2002).

and the expenditure on education per student (vertical axis) in 1995 (at 1999 prices and 1999 purchasing power parities), and the end of each arrow shows the corresponding values for 1999.

In general, changes in expenditure on education per student are correlated with changes in GDP per capita. For example, both primary, secondary and post-secondary non-tertiary expenditure on education per student has risen along with GDP per capita in most of the OECD countries.

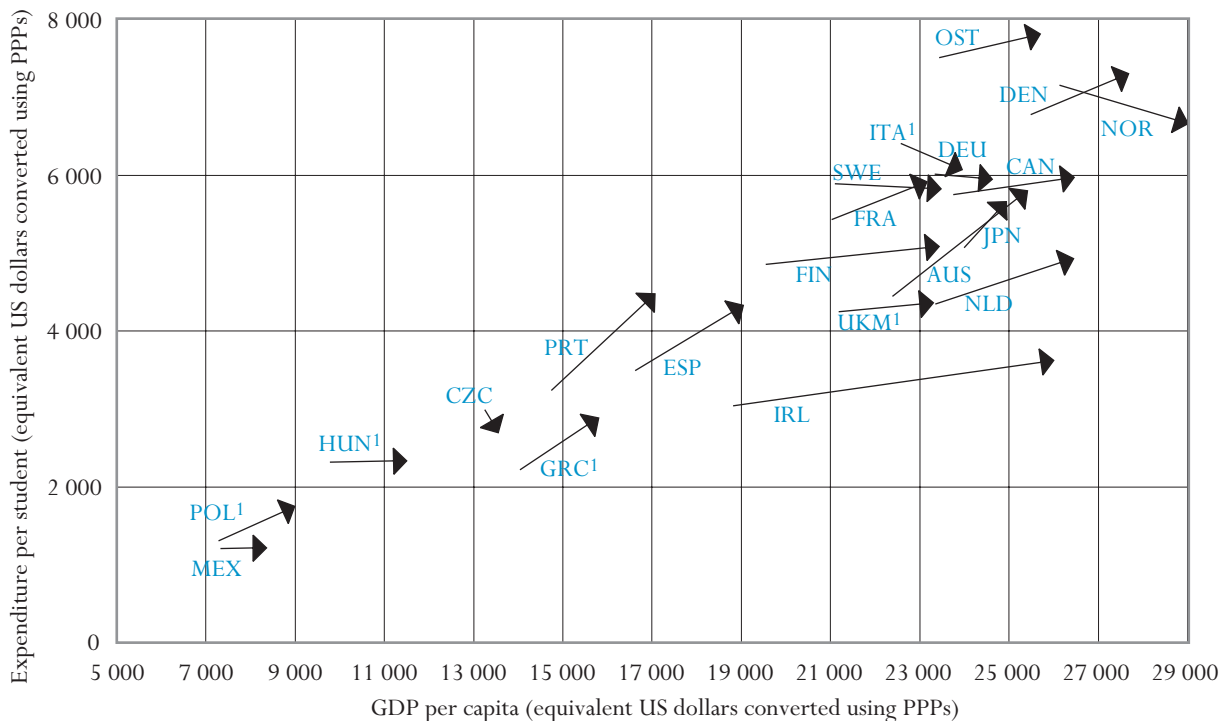
In six out of 21 OECD countries – Australia, Greece, Japan, Poland, Portugal and Spain – expenditure on education per student has grown faster than GDP per capita between 1995 and 1999. By contrast, primary, secondary and post-secondary non-tertiary expenditure on education per student decreased between 1995 and 1999 in the Czech Republic, Germany, Italy, Norway and Sweden at the same time as GDP per capita increased (Chart B1.4).

...but there are exceptions to this pattern.

B1

Chart B1.4.

Changes in expenditure on educational institutions per student and national income
Change between 1995 and 1999 in expenditure on educational institutions per primary, secondary and post-secondary non-tertiary student compared with GDP per capita (1999 constant prices and 1999 constant PPPs)



Note: Please refer to the Reader's Guide for list of country codes and country names used in this chart. The beginning of the arrow indicates spending per student and GDP per capita in 1995. The end of the arrow indicates the corresponding values for 1999.

1. Public institutions only.

Source: OECD. Table B6.1 and Annex 2. See Annex 3 for notes (www.oecd.org/els/education/eq2002).

Differences in educational expenditure per student between levels of education

Expenditure on education per student consistently rises with the level of education.

Expenditure on education per student exhibits a common pattern throughout the OECD: in each OECD country it rises sharply from primary to tertiary education. This pattern can be understood by looking at the main determinants of expenditure, particularly the location and mode of educational provision. The vast majority of education still takes place in traditional school settings with – despite some differences – similar organisation, curriculum, teaching style and management. These shared features are likely to lead to similar patterns of unit expenditure.

Comparisons of the distribution of expenditure between levels of education are an indication of the relative emphasis placed on education at different levels in various OECD countries, as well as of the relative costs of providing education at those levels. Although expenditure on education per student rises with the level of education in almost all OECD countries, the relative sizes of the differences vary markedly between countries (Chart B1.5). At the secondary level, expenditure on education per student is, on average, 1.3 times that at the primary level, although the difference ranges from 0.8 times the expenditure per primary student in Poland to more than 1.7 times in the Czech Republic, France and Germany.

On average, OECD countries spend 2.3 times as much on education per student at the tertiary level as at the primary level.

Although OECD countries spend, on average, 2.3 times as much on education per student at the tertiary level as at the primary level, spending patterns vary widely between countries. For example, whereas Italy and Portugal only spend 1.4 times as much on a tertiary student as on a primary student, Mexico spends 4.4 times as much (Chart B1.5).

Educational expenditure per student over the average duration of tertiary studies

Annual expenditure on education per student does not always reflect the full cost of tertiary studies.

Since both the typical duration and the intensity of tertiary education vary between OECD countries, the differences between countries in annual expenditure on education per student on educational services as shown in Chart B1.1 do not necessarily reflect the variation in the total cost of educating the typical tertiary student.

Students can choose from a range of institutions and enrolment options.

Today, students can choose from a range of institutions and enrolment options in order to find the best fit between their degree objectives, abilities and personal interests. Many students enrol on a part-time basis while others work while studying, or attend more than one institution before graduating. These varying enrolment patterns can affect the interpretability of expenditure on education per student.

Low annual expenditure may translate into high overall costs of tertiary

education. In particular, comparatively low annual expenditure on education per student can result in comparatively high overall costs of tertiary education if the typical duration of tertiary studies is long. Chart B1.6 shows the average expenditure

that is incurred per student throughout the course of tertiary studies. The figures account for all students for whom expenditure is incurred, including those who do not finish their studies. Although the calculations are based on a number of simplified assumptions and therefore should be treated with some caution (see Annex 3 at www.oecd.org/els/education/eag2002), some striking shifts in the rank order of OECD countries between the annual and aggregate expenditure can be noted.

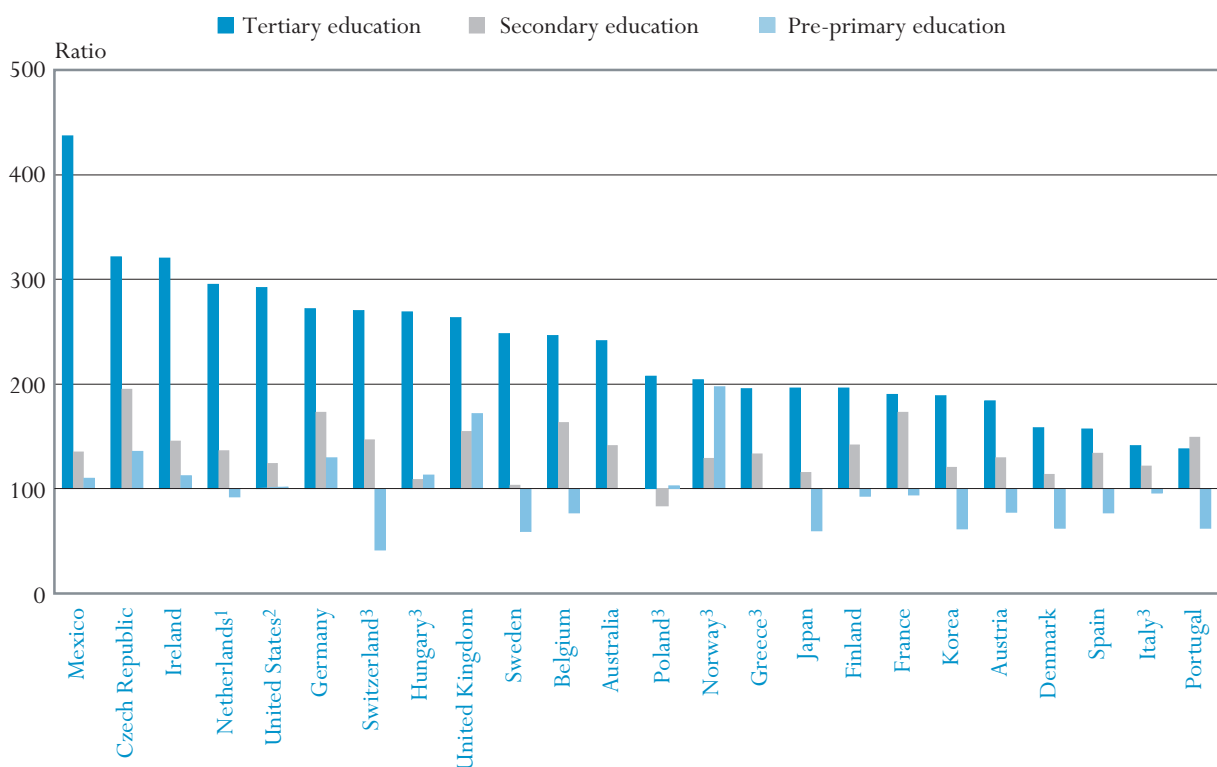
education if the duration of tertiary studies is long.

Chart B1.5.

Differences in expenditure on educational institutions per student relative to primary education (1999)

Ratio of expenditure on educational institutions per student at various levels of education to educational expenditure per student in primary education, multiplied by 100

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1. Public and government-dependent private institutions only.
2. Public and independent private institutions only.
3. Public institutions only.

A ratio of 500 for tertiary education means that expenditure per tertiary student in a particular country is 5 times the expenditure per primary student.

A ratio of 50 for pre-primary education means that expenditure per pre-primary student in a particular country is half the expenditure per primary student.

Countries are ranked in descending order of expenditure per student in tertiary education relative to educational expenditure per student in primary education.

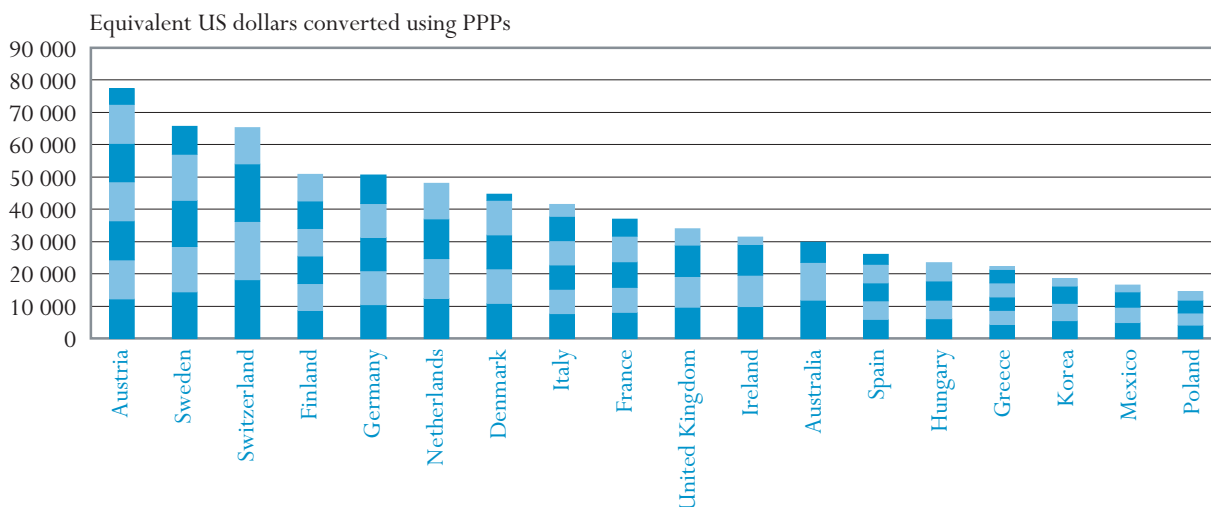
Source: OECD. Table B1.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Chart B1.6.

Cumulative expenditure on educational institutions per student over the average duration of tertiary studies (1999)

Annual expenditure on educational institutions per student multiplied by average duration of studies, in equivalent US dollars converted using PPPs

Each segment of the bar represents the annual expenditure per student. The number of segments represents the number of years a student remains on average in tertiary education.



Countries are ranked in descending order of the total expenditure per student over the average duration of tertiary studies. Source: OECD. Table B1.3. See Annex 3 for notes (www.oecd.org/els/education/eq2002).

For example, annual spending per tertiary student in the Netherlands is about the same as in Austria (US\$ 12 285 in the Netherlands compared with US\$ 12 070 in Austria) (Table B1.1). But because of differences in the tertiary degree structure (Indicator A2), the average duration of tertiary studies is more than one-third longer in Austria than in the Netherlands (6.4 years in Austria, compared with 3.9 years in the Netherlands). As a consequence, the cumulative expenditure for each tertiary student is more than 50 per cent higher in Austria than in the Netherlands (US\$ 77 248 compared with US\$ 47 911) (Chart B1.6 and Table B1.3).

The total cost of tertiary-type A studies in Switzerland (US\$101 334) is more than twice as high as in nine out of ten reporting OECD countries, Germany being the exception (Table B1.3). These differences must, of course, be interpreted in the light of differences in national degree structures as well as possible differences between OECD countries in the academic level of the qualifications of students leaving university. While similar trends are observed in tertiary-type B studies, the total cost of these studies tends to be much lower than those of tertiary type-A programmes, largely because of their shorter duration.

Definitions and methodologies

Data refer to the financial year 1999

Expenditure on education per student on a particular level of education is calculated by dividing the total expenditure on educational institutions at

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that level by the corresponding full-time equivalent enrolment. Only those educational institutions and programmes are taken into account for which both enrolment and expenditure data are available. Expenditure in national currency is converted into equivalent US dollars by dividing the national currency figure by the purchasing power parity (PPP) index. The PPP exchange rate gives the amount of a national currency that will buy the same basket of goods and services in a given OECD country as that bought by the US dollar in the United States. The PPP exchange rate is used because the market exchange rate is affected by many factors (interest rates, trade policies, expectations of economic growth, etc.) that have little to do with current relative domestic purchasing power in different OECD countries. (Annex 2 gives further details.)

and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Charts B1.2 and B1.4 show expenditure on education per student in the financial year 1995. The data on expenditure for 1995 were obtained by a special survey conducted in 2000. OECD countries were asked to collect the 1995 data according to the definitions and the coverage of the UOE 2000 data collection. All expenditure data, as well as the GDP for 1995, are adjusted to 1999 prices using the GDP price deflator.

Data for the financial year 1995 are based on a special survey carried out among OECD countries in 2000.

Expenditure on education per student relative to GDP per capita is calculated by expressing expenditure on education per student in units of national currency as a percentage of GDP per capita, also in national currency. In cases where the educational expenditure data and the GDP data pertain to different reference periods, the expenditure data are adjusted to the same reference period as the GDP data, using inflation rates for the OECD country in question (see Annex 2).

Expected expenditure over the average duration of tertiary studies (Table B1.3) is calculated by multiplying current annual expenditure by the typical duration of tertiary studies. The methodology used for the estimation of the typical duration of tertiary studies is described in Annex 3 at www.oecd.org/els/education/eag2002. For the estimation of the duration of tertiary education, data are based on a special survey carried out in OECD countries in 1997 and 2000.

The ranking of OECD countries by annual expenditure on education per student on educational services is affected by differences in how countries define full-time, part-time and full-time equivalent enrolment. Some OECD countries count every participant at the tertiary level as a full-time student while others determine a student's intensity of participation by the credits which he or she obtains for successful completion of specific course units during a specified reference period. OECD countries that can accurately account for part-time enrolment will have higher expenditure per full-time equivalent student than OECD countries that cannot differentiate between different modes of student attendance.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eag2002 for details on changes).

Table B1.1.

Expenditure on educational institutions per student (1999)

Annual expenditure on educational institutions per student in equivalent US dollars converted using PPPs, by level of education, based on full-time equivalents

	Pre-primary education (for children 3 years and older)	Primary education	Lower secondary education	Upper secondary education	All secondary education	Post-secondary non-tertiary education	Tertiary education		
							All tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD COUNTRIES									
Australia*	m	4 858	6 710	7 066	6 850	7 650	11 725	7 993	12 588
Austria*	5 080	6 568	8 434	8 584	8 504	9 131	12 070	x(7)	x(7)
Belgium*	3 035	3 952	x(5)	x(5)	6 444	x(5)	9 724	x(7)	x(7)
Canada*	4 466	x(5)	x(5)	x(5)	5 981	x(7)	15 211	x(7)	15 470
Czech Republic*	2 404	1 769	2 998	4 043	3 449	832	5 688	1 886	6 679
Denmark*	4 208	6 721	6 904	8 270	7 626	m	10 657	x(7)	x(7)
Finland*	3855	4 138	6 390	5479	5 863	x(5)	8 114	4 500	8 474
France*	3 901	4 139	6 657	7 766	7 152	5 839	7 867	8 458	7 709
Germany*	4937	3 818	4 918	10 107	6 603	11 679	10 393	5 495	11 209
Greece**	x(2)	2 176	x(5)	x(5)	2 904	5 415	4 260	3 439	4 606
Hungary**	2 458	2 179	2 017	2 756	2 368	2 983	5 861	x(7)	x(7)
Iceland	m	m	m	m	m	m	m	m	m
Ireland	3 386	3 018	4 401	4 362	4 383	4 168	9 673	x(7)	x(7)
Italy ¹	5 133	5 354	6 206	6 741	6 518	m	7 552	7 147	7 557
Japan*	3 154	5 240	5612	6 460	6 039	x(4,7)	10 278	7 649	10 749
Korea*	1 752	2 838	3 208	3 597	3 419	a	5 356	3 494	6 612
Luxembourg	m	m	m	m	m	m	m	m	m
Mexico	1 204	1 096	1 129	2 226	1 480	a	4 789	x(7)	x(7)
Netherlands**	3 848	4 162	5 747	5 575	5 670	m	12 285	7 227	12 354
New Zealand	m	m	m	m	m	m	m	m	m
Norway ¹	11 699	5 920	7 387	7 819	7 628	x(5)	12 096	x(7)	x(7)
Poland ¹	1 898	1888	x(2)	1 583	1 583	x(4)	3 912	x(7)	3 912
Portugal*	2 165	3 478	4 958	5 422	5 181	a	4 802	x(7)	x(7)
Slovak Republic	1 880	x(3)	1 811	2 637	2 163	x(4)	5 325	x(9)	5 325
Spain	2 789	3 635	x(5)	x(5)	4 864	x(5)	5 707	5 111	5 760
Sweden	3 396	5 736	5 678	6 077	5 911	6 675	14 222	x(7)	x(7)
Switzerland ^{1,3*}	2 764	6 663	7 824	11 819	9 756	7 960	17 997	13 421	18 584
Turkey ¹	m	m	m	m	m	m	4 328	x(7)	x(7)
United Kingdom*	6 233	3 627	x(5)	x(5)	5 608	x(5)	9 554	x(7)	x(7)
United States**	6 692	6 582	x(5)	x(5)	8 157	x(7)	19 220	x(7)	x(7)
Country mean	3 847	4 148	5 210	5 919	5 465	4 795	9 210	~	~
OECD total	3 746	4 229	~	~	5 174	~	11 422	~	~
NON-OECD COUNTRIES									
Argentina	1409	1629	2198	2 528	2 327	a	5 606	5 137	6 056
Brazil ^{1,5}	1 222	956	1 069	1 172	1 100	m	13 567	m	13 567
Chile	1 431	1 701	1 767	2 041	1 941	a	6 911	3 545	7 652
China	105	372	476	1 768	833	a	5 798	x(7)	x(7)
India ⁵	65	303	297	290	295	a	m	m	m
Indonesia ⁶	53	81	208	295	242	a	1 047	x(7)	x(7)
Israel	3 415	4 240	x(5)	x(5)	5 164	4 115	11 210	7 965	12 088
Jamaica ¹	386	764	1 065	1 114	1 082	908	6 484	2 650	13 194
Jordan ¹	m	775	782	806	789	a	5 082	x(7)	x(7)
Malaysia ¹	437	1 015	x(5)	x(5)	1 813	8 423	7 924	7 677	7 979
Paraguay	x(2)	877	x(5)	x(5)	1 545	a	5 465	2 796	6 750
Peru	442	483	x(5)	x(5)	579	m	1 414	675	2 057
Philippines ^{1,5}	46	474	411	384	406	962	1060	a	1 060
Tunisia ^{1,6}	m	988	x(5)	x(5)	1 868	a	5 008	x(7)	x(7)
Uruguay ¹	1 133	1 000	1 114	1 484	1 275	a	2 239	x(7)	x(7)
Zimbabwe ¹	m	537	x(5)	x(5)	813	x(5)	m	m	m

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Public institutions only.

2. Public and government-dependent private institutions only.

3. Column 9 refers to tertiary-type A education only.

4. Public and independent private institutions only.

5. Year of reference 1998.

6. Year of reference 2000.

 * See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B1.2.

Expenditure on educational institutions per student relative to GDP per capita (1999)*Expenditure on educational institutions per student relative to GDP per capita by level of education, based on full-time equivalents*

	Pre-primary education (for children 3 years and older)	Primary education	Lower secondary education	Upper secondary education	All secondary education	Post- secondary non-tertiary education	Tertiary education		
							All tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD COUNTRIES									
Australia*	m	19	26	28	27	30	46	31	49
Austria*	20	26	33	33	33	36	47	x(7)	x(7)
Belgium*	12	16	x(5)	x(5)	26	x(5)	39	x(7)	x(7)
Canada*	17	x(5)	x(5)	x(5)	23	x(7)	57	x(7)	58
Czech Republic*	18	13	22	30	25	6	42	14	49
Denmark*	15	24	25	30	28	m	39	x(7)	x(7)
Finland*	16	18	27	23	25	x(5)	35	19	36
France*	17	18	29	34	31	25	34	37	33
Germany*	20	16	20	41	27	47	42	22	46
Greece ^{1*}	x(2)	14	x(5)	x(5)	18	34	27	22	29
Hungary ^{1*}	21	19	18	24	21	26	51	x(7)	x(7)
Iceland	m	m	m	m	m	m	m	m	m
Ireland	13	12	17	17	17	16	37	x(7)	x(7)
Italy ¹	21	22	26	28	27	m	32	30	32
Japan*	13	21	23	26	24	x(4,7)	41	31	43
Korea*	13	21	24	26	25	a	39	26	48
Luxembourg	m	m	m	m	m	m	m	m	m
Mexico	14	13	14	27	18	a	57	x(7)	x(7)
Netherlands*	15	16	22	21	21	m	46	27	47
New Zealand	m	m	m	m	m	m	m	m	m
Norway ¹	40	20	25	27	26	x(4)	43	x(7)	x(7)
Poland ¹	21	21	x(2)	18	18	x(4)	44	x(7)	44
Portugal*	13	20	29	32	30	a	28	x(7)	x(7)
Slovak Republic	17	x(3)	16	24	19	x(4)	48	x(9)	48
Spain	15	19	x(5)	x(5)	26	x(5)	30	27	30
Sweden	14	24	24	26	25	28	61	x(7)	x(7)
Switzerland ^{1,3*}	10	23	27	41	34	28	63	47	65
Turkey ¹	m	m	m	m	m	m	73	x(7)	x(7)
United Kingdom*	27	16	x(5)	x(5)	24	x(5)	41	x(7)	x(7)
United States ^{4*}	20	20	x(5)	x(5)	24	x(7)	57	x(7)	x(7)
Country mean	18	19	23	28	25	21	44	28	44
NON-OECD COUNTRIES									
Argentina	11	13	18	21	19	a	46	42	49
Brazil ^{1,5}	18	14	15	17	16	m	195	m	195
Chile	17	20	20	24	22	a	80	41	88
China	3	10	13	49	23	a	161	x(7)	x(7)
India ⁵	2	12	16	20	17	a	m	m	m
Indonesia ⁶	9	3	8	11	9	a	41	x(7)	x(7)
Israel	17	21	x(5)	x(5)	26	21	56	40	61
Jamaica ¹	11	21	30	31	30	25	182	74	371
Jordan ¹	m	20	20	21	20	a	130	x(7)	x(7)
Malaysia ¹	5	12	x(5)	x(5)	22	103	96	93	97
Paraguay	x(2)	20	x(5)	x(5)	35	a	125	64	154
Peru	10	10	x(5)	x(5)	13	m	31	15	45
Philippines ^{1,5}	2	14	15	15	15	35	42	a	84
Tunisia ^{1,6}	m	16	x(5)	x(5)	29	a	79	x(7)	x(7)
Uruguay ¹	13	11	13	17	14	a	25	x(7)	x(7)
Zimbabwe ¹	m	19	x(5)	x(5)	28	x(5)	m	m	m

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Public institutions only.

2. Public and government-dependent private institutions only.

3. Column 9 refers to tertiary-type A education only.

4. Public and independent private institutions only.

5. Year of reference 1998.

6. Year of reference 2000.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B1.3.

Cumulative expenditure on educational institutions per student over the average duration of tertiary studies (1999)
Average duration of tertiary studies and expenditure on educational institutions over the average duration of studies in equivalent US dollars converted using PPPs, by type of programme

	Method ¹	Average duration of tertiary studies (in years)			Cumulative expenditure per student over the average duration of tertiary studies		
		All tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes
		(1)	(2)	(3)	(4)	(5)	(6)
OECD COUNTRIES							
Australia	CM	2.5	1.6	2.6	29 665	12 548	32 226
Austria ²	AF	6.4	2.3	7.4	77 248	x(4)	x(4)
Canada ²	CM	m	m	m	m	m	m
Denmark ²	AF	4.2	2.1	4.4	44 654	x(4)	x(4)
Finland	CM	6.0	a	6.0	50 760	a	50 760
France ²	AF	4.7	2.8	5.3	36 832	23 410	40 901
Germany [*]	CM	4.9	2.4	6.0	50 511	13 408	67 367
Greece ³	AF	5.2	3.0	7.3	22 197	10 419	33 669
Hungary ³	CM	4.1	m	4.1	23 735	x(4)	x(4)
Iceland	CM	2.7	2.0	2.8	m	m	m
Ireland ²	CM	3.2	2.2	4.0	31 341	x(4)	x(4)
Italy ^{3*}	CM	5.5	3.3	5.6	41 458	23 371	42 092
Korea ^{2*}	CM	3.4	2.1	4.2	18 371	7 232	27 904
Mexico ²	AF	3.4	x(3)	3.4	16 390	x(4)	x(4)
Netherlands ^{2,4}	CM	3.9	x(1)	x(1)	47 911	x(4)	x(4)
Norway	CM	m	m	m	m	m	m
Poland ¹	CM	3.7	m	3.7	14 395	m	14 395
Spain ²	AF	4.6	1.5	4.7	25 965	7611	27 113
Sweden	CM	4.6	2.6	4.7	65 529	x(4)	x(4)
Switzerland ^{2,3}	CM	3.6	2.2	5.5	65 225	29 349	101 334
United Kingdom [*]	CM	3.5	x(1)	x(1)	33 835	x(4)	x(4)
<i>Country mean</i>		<i>4.2</i>	<i>2.0</i>	<i>4.8</i>	<i>38 668</i>	<i>~</i>	<i>~</i>

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Either the Chain Method (CM) or an Approximation Formula (AF) was used to estimate the duration of tertiary studies.

2. The duration of tertiary studies is obtained by a special survey conducted in 1997 for the academic year 1995.

3. Public institutions only.

4. Public and government-dependent private institutions only.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

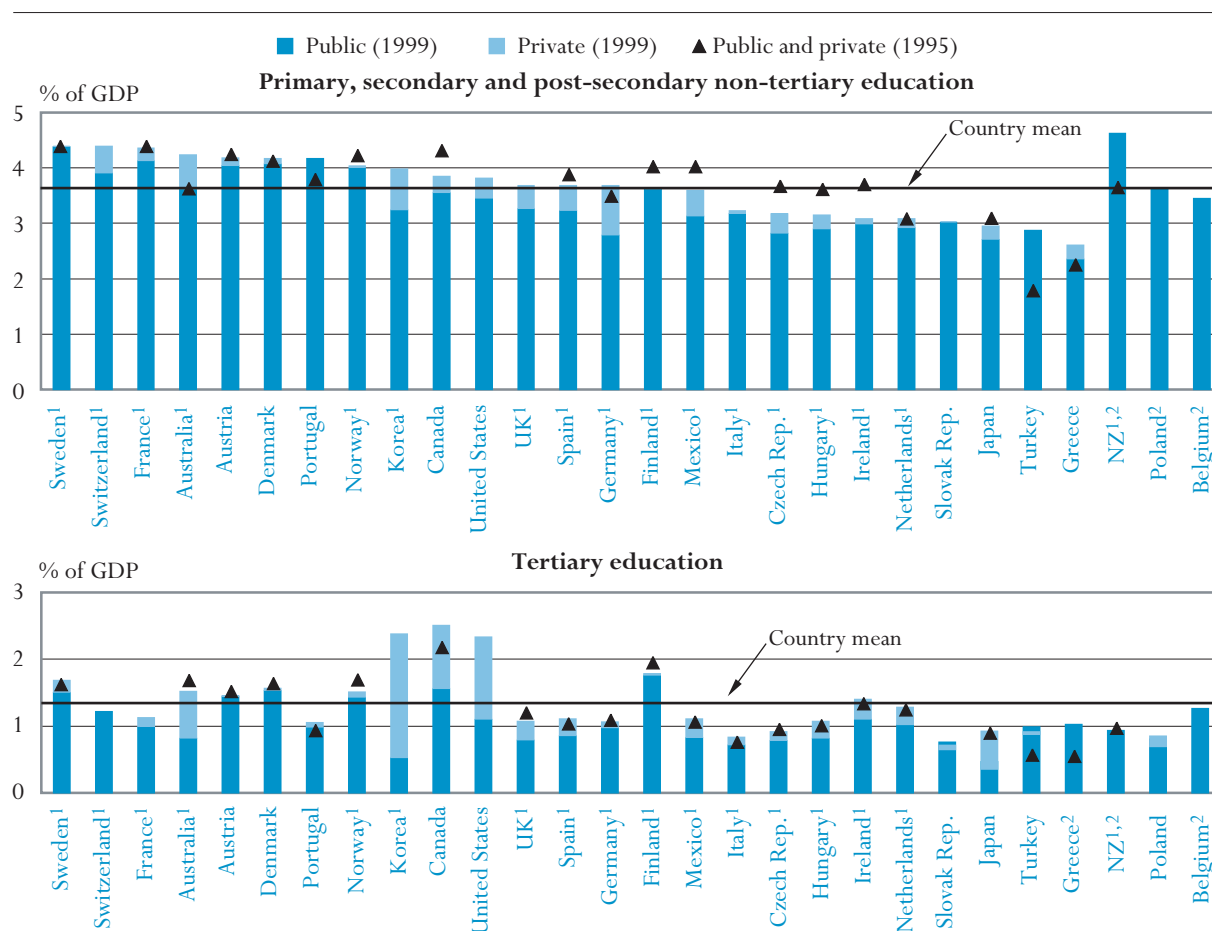
EXPENDITURE ON EDUCATIONAL INSTITUTIONS RELATIVE TO GROSS DOMESTIC PRODUCT

- OECD countries spend 5.8 per cent of their collective GDP on their educational institutions.
- In 14 out of 18 OECD countries, public and private spending on educational institutions increased between 1995 and 1999 by more than 5 per cent but, in contrast to the early 1990s, increases in spending on educational institutions tended to fall behind the growth in national income.
- Two-thirds of expenditure on educational institutions, or 3.7 per cent of combined OECD GDP, is devoted to primary, secondary and post-secondary non-tertiary education, although Canada, Korea and the United States spend more than 2 per cent of their GDP on tertiary education.

Chart B2.1.

Expenditure on educational institutions as a percentage of GDP (1995, 1999)

Direct and indirect expenditure on educational institutions from public and private sources, by level of education, source of fund and year



1. Public subsidies included in private funds.

2. Public expenditure only.

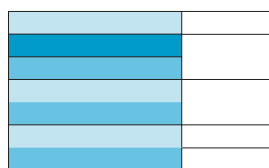
Countries are ranked in descending order of total expenditure from both public and private sources on public and private educational institutions in primary, secondary and post-secondary non-tertiary education. Countries presenting public expenditure only are ranked separately.

Source: OECD. Table B2.1b. See Annex 3 for notes (www.oecd.org/els/education/eq2002).

This indicator provides a measure of the relative proportion of a nation's wealth that is invested in educational institutions.

It also includes a comparative review of changes in educational investment over time.

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Coverage diagram (see page 144 for explanations)

As a whole, OECD countries spend 5.8 per cent of their combined GDP on their educational institutions.

Policy context

Expenditure on education is an investment that can help to foster economic growth, enhance productivity, contribute to personal and social development, and reduce social inequality. The proportion of total financial resources devoted to education is one of the key choices made in each OECD country; and is an aggregate choice made by governments, enterprises, and individual students and their families. If the social and private returns on that investment are sufficiently large, there is an incentive for enrolment to expand and total investment to increase.

In appraising how much is spent on education, governments have to assess demands for increased spending in areas such as teachers' salaries and educational facilities. This indicator can provide a point of reference for this as it shows how the volume of educational spending, relative to the size of national wealth and in absolute terms, has evolved over time in various OECD countries.

Evidence and explanations

What this indicator covers and what it does not cover

This indicator covers expenditure on schools, universities and other public and private institutions involved in delivering or supporting educational services. Expenditure on institutions is not limited to expenditure on instructional services but also includes public and private expenditure on ancillary services for students and families, where these services are provided through educational institutions. At the tertiary level, spending on research and development can also be significant and is included in this indicator, to the extent that the research is performed by educational institutions.

Not all spending on educational goods and services occurs within educational institutions. For example, families may purchase textbooks and materials commercially or seek private tutoring for their children outside educational institutions. At the tertiary level, student living costs and forgone earnings can also account for a significant proportion of the costs of education. All such expenditure outside educational institutions is excluded from this indicator, even if it is publicly subsidised. Public subsidies for educational expenditure outside institutions are discussed in Indicators B4 and B5.

Overall investment relative to GDP

All OECD countries invest a substantial proportion of national resources in education. Taking into account both public and private sources of funds, OECD countries as a whole spend 5.8 per cent of their collective GDP on their educational institutions. Under current conditions of tight constraints on public budgets, such a large spending item is subject to close scrutiny by governments looking for ways to reduce or limit the growth of expenditure.

The highest spending on educational institutions can be observed in Korea, with 6.8 per cent of GDP accounted for by public and private spending on

educational institutions, followed by Canada, Denmark, Norway and Sweden with more than 6.6 per cent. Eight out of 28 OECD countries, however, spend less than 5 per cent of GDP on educational institutions, and in Greece, the Slovak Republic and Turkey this figure is only between 3.9 and 4.4 per cent (Table B2.1a).

Many factors influence the relative position of OECD countries in this indicator. For example, OECD countries with high spending levels may be enrolling larger numbers of students, while countries with low spending levels may either be limiting access to higher levels of education or delivering educational services in a particularly efficient manner. The distribution of enrolments between sectors and fields of study may also differ, as may the duration of studies and the scale and organisation of related educational research. Finally, large differences in GDP between OECD countries imply that similar percentages of GDP spent on education can translate into very different absolute amounts per student (see Indicator B1).

The national resources devoted to education depend on a number of inter-related factors of supply and demand.

Changes in overall educational spending between 1995 and 1999

In 14 out of the 18 OECD countries for which comparable trend data are available, public and private investment in education increased by over 5 per cent between 1995 and 1999 in real terms. Increases in expenditure on educational institutions amounted to between 20 and 30 per cent in Australia, Ireland and Portugal, and to over 40 per cent in Greece. The trend is similar when public investment is considered separately: direct public expenditure on institutions and public subsidies to households designated for institutions rose by over 5 per cent in 19 out of 23 OECD countries between 1995 and 1999. Greece, New Zealand and Turkey, for which no data on private spending are available, show considerable growth in public spending on educational institutions (Table B2.2).

In 14 out of 18 OECD countries, public and private spending on educational institutions increased between 1995 and 1999 by more than 5 per cent...

In absolute terms, spending on educational institutions increased between 1995 and 1999 but tended to lag behind growth in GDP. Around two-thirds of OECD countries showed a decrease in the proportion of GDP devoted to educational institutions. Most notable are the Czech Republic, Finland, Ireland, Mexico and Norway, where the proportion of GDP spent on education decreased by more than 0.35 percentage points (Table B2.1a).

...but increases in spending on education tended to fall behind the growth in national income.

While the strong growth of GDP in Ireland hides significant increases in spending on educational institutions when spending on education is considered as a proportion of GDP, education in the Czech Republic and Mexico did not benefit significantly from growth in GDP. Both countries were already among the OECD countries spending a lower proportion of GDP on education in 1995 and have now fallen further behind (Table B2.1a).

Countries differ markedly in their investment in pre-primary educational institutions.

Expenditure on educational institutions by level of education

High overall spending on education does not necessarily translate into a high level of spending at all levels of education. Differences in spending on educational institutions are most striking at the pre-primary level of education. Here, spending ranges from less than 0.2 per cent of GDP in Australia, Ireland and Korea to 0.7 per cent or more in Denmark, France, Hungary and Norway (Table B2.1c). Differences at the pre-primary level can be explained mainly by participation rates among younger children (see Indicator C1).

Investing in early childhood education is of key importance in order to build a strong foundation for lifelong learning and to ensure equitable access to learning opportunities later in school. However, high-quality early childhood education and care are not only provided by the educational institutions covered by this indicator. Inferences on access to and quality of early childhood education and care should therefore be made with caution.

Two-thirds of expenditure on educational institutions is devoted to primary, secondary and post-secondary non-tertiary education.

Because of the largely universal enrolment at the primary and lower secondary levels of education in OECD countries, and the high participation rates in upper secondary education (see Indicators C1 and C2), these levels account for the bulk of expenditure on educational institutions, namely 3.7 per cent of the combined OECD GDP (Chart B2.1). At the same time, significantly higher spending on education per student at the upper secondary and tertiary levels of education causes the overall investment in these levels to be higher than enrolment numbers alone would suggest. More than one-quarter of combined OECD expenditure on educational institutions is accounted for by tertiary education.

Canada, Korea and the United States spend more than 2 per cent of their GDP on tertiary education.

Canada, Korea and the United States spend 2.5, 2.4 and 2.3 per cent, respectively, of their GDP on tertiary institutions (Chart B2.1). This accounts for more than one-third of all of their expenditure on educational institutions. Denmark, Finland and Sweden also show high spending levels, with 1.6 per cent or more of GDP devoted to tertiary institutions. On the other hand, France, Portugal and Switzerland spend a below-average proportion of GDP on tertiary institutions but are among the OECD countries with the highest proportion of GDP spent on primary, secondary and post-secondary non-tertiary education. In Switzerland, nevertheless, a low proportion of GDP spent on tertiary institutions translates into one of the highest levels of spending per tertiary student, because of a comparatively low tertiary enrolment rate and a high level of GDP (Tables B2.1b and B1.3).

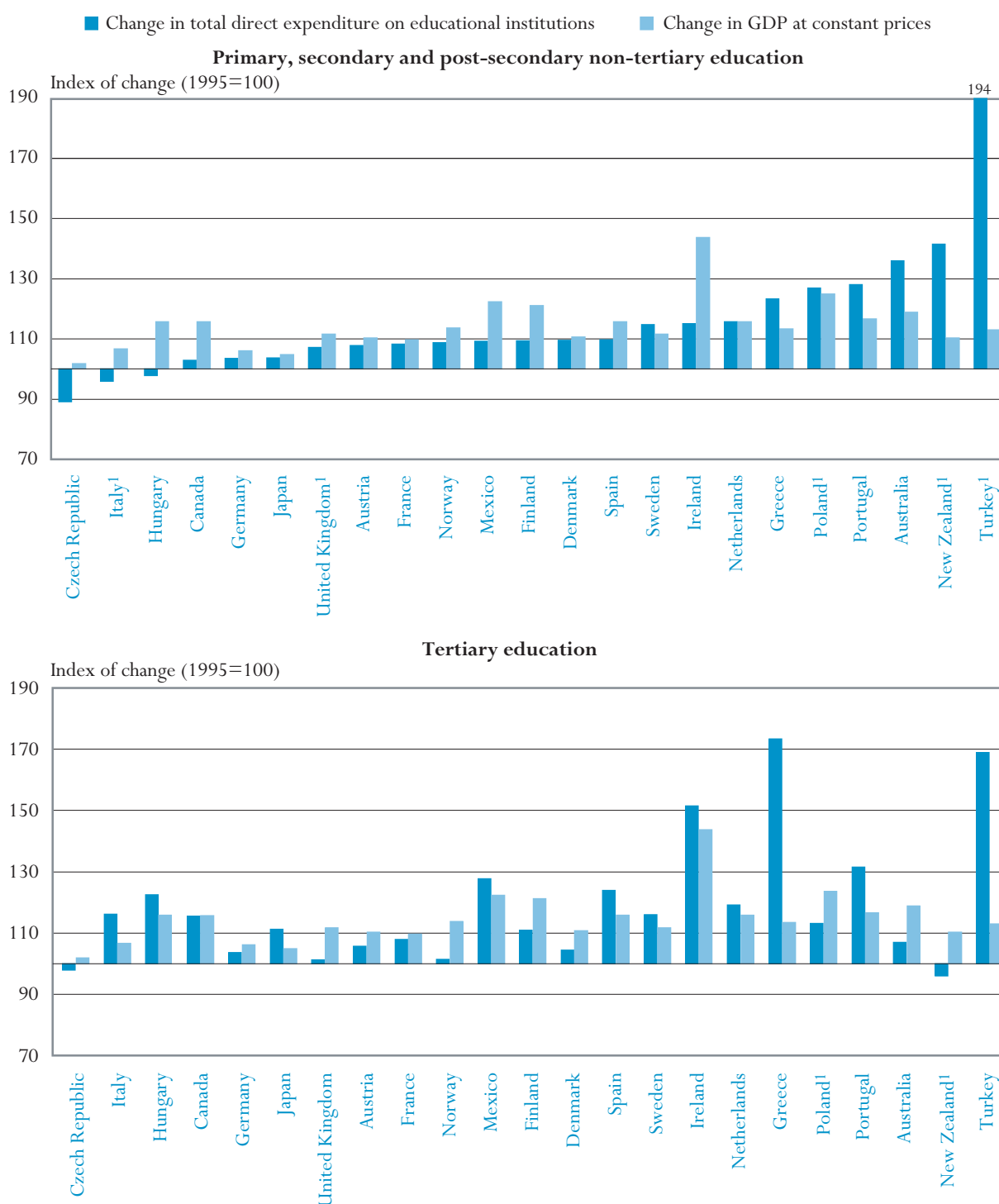
While some OECD countries have increased spending at all levels of education, others have focused spending increases on specific levels.

Countries vary in the levels of education at which spending has increased. Austria, Finland, France, Germany, the Netherlands, Portugal, Sweden and Turkey, OECD countries with a comparably high increase in absolute spending on educational institutions between 1995 and 1999, invested the additional resources in similar proportions in primary, secondary and post-secondary non-tertiary and tertiary education (Chart B2.2). Australia, Denmark, New

Chart B2.2.

Change in expenditure on educational institutions (1995, 1999)

Index of change between 1995 and 1999 in direct expenditure on educational institutions (1995=100)



1. Public expenditure only.

Countries are ranked in ascending order of change in expenditure on educational institutions at primary, secondary and post-secondary non-tertiary education between 1995 and 1999.

Source: OECD. Table B2.2 and Annex 2. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Zealand, Norway and Poland invested most of the increases made between 1995 and 1999 into primary, secondary and post-secondary non-tertiary education. Conversely, in Canada, Greece, Hungary, Ireland, Italy, Japan, Mexico and Spain, spending on tertiary education increased by more than 10 per cent between 1995 and 1999 while spending on lower levels increased much more slowly. In Hungary and Italy, a significant increase in spending on tertiary institutions was matched by a decrease in spending at the primary, secondary and post-secondary non-tertiary level (Chart B2.2).

Important factors influencing national expenditure on education

The national resources devoted to education depend on a number of inter-related factors of supply and demand, such as the demographic structure of the population, enrolment rates, income per capita, national levels of teachers' salaries and the organisation and delivery of instruction.

B₂

The larger the number of young people, the greater the potential demand for educational services.

The size of the school-age population in a particular country (see Indicator A1 in the 2001 edition of *Education at a Glance*) shapes the potential demand for initial education and training. The larger the number of young people, the greater the potential demand for educational services. Among OECD countries of comparable national income, a country with a relatively large youth population will have to spend a higher percentage of its GDP on education so that each young person in that country has the opportunity to receive the same quantity of education as young people in other OECD countries. Conversely, if the youth population is relatively small, the same country will be required to spend less of its wealth on education in order to achieve similar results.

The higher the enrolment rate, the more financial resources will be required.

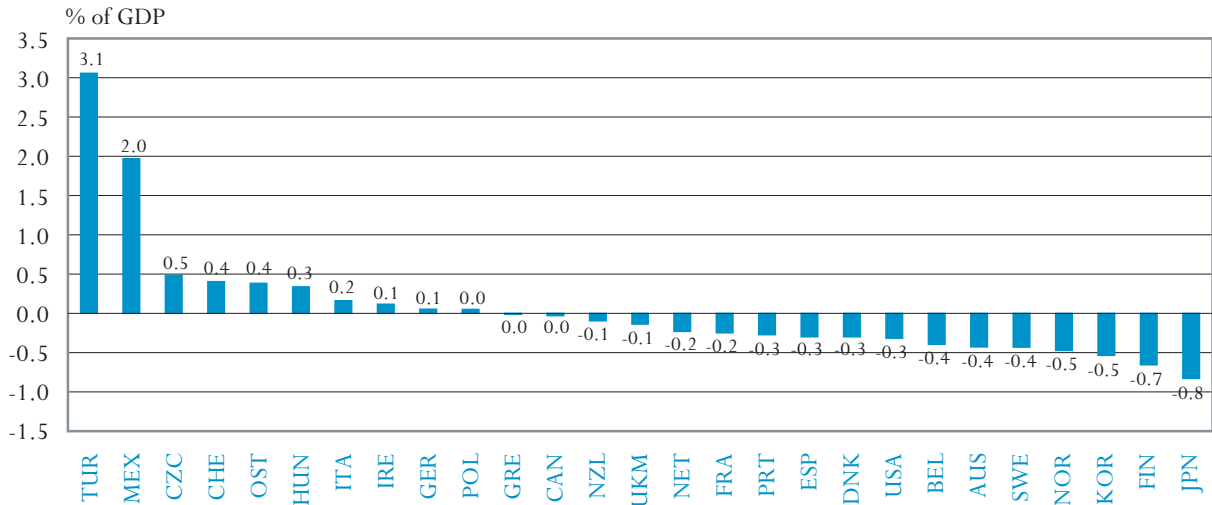
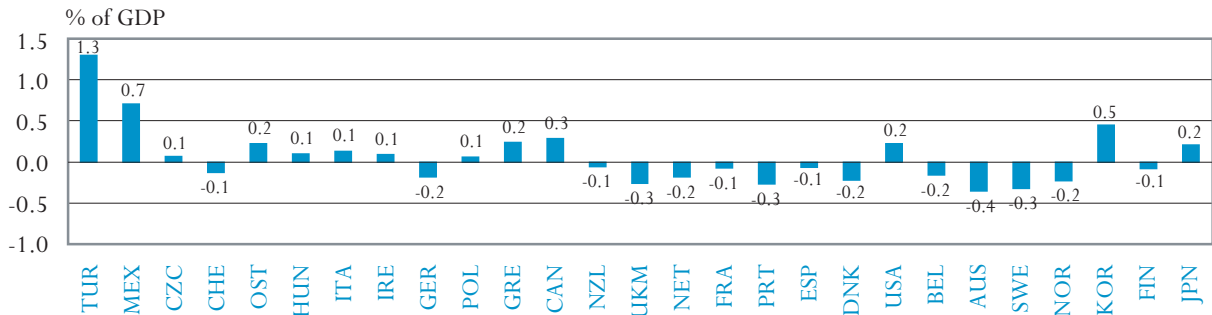
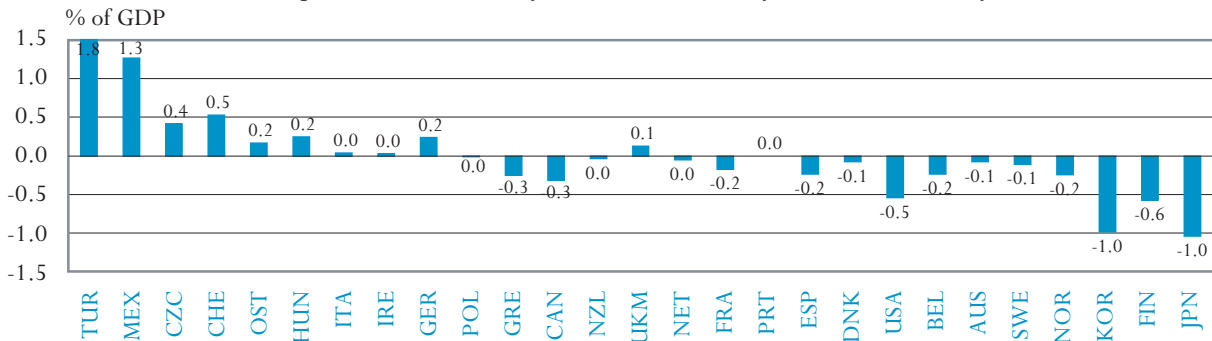
Although OECD countries generally have little control over the size of their youth populations, the proportion of students participating at various levels of education is indeed a central policy issue. Variations in enrolment rates between OECD countries reflect differences in the demand for education, from pre-primary to tertiary education, as well as the supply of programmes at all levels. Indicator C1 shows that the number of years that a five-year-old child can expect to spend in education ranges among OECD countries from ten to 21. The variation in expected years in tertiary education is even wider, from one year in Mexico to over four years in Finland.

Differences in the length of schooling also influence educational spending.

Differences in the length of schooling are reflected in differences in enrolment rates which, in turn, influence educational expenditure. Chart B2.3 shows the change in expenditure on educational institutions as a percentage of GDP that would be expected if enrolment profiles were equal in all OECD countries and other factors remained the same. Generally, OECD countries that have higher than average enrolment rates, such as Australia, Finland, Norway and Sweden, also spend more of their GDP on education, whereas low expenditure in countries such as the Czech Republic, Hungary, Mexico and Turkey can be partially explained by below-average enrolment rates.

Chart B2.3.

Impact of enrolment rates on expenditure on educational institutions as a percentage of GDP (1999)

A. Estimated increase/decrease in expenditure on educational institutions as a percentage of GDP if enrolment patterns in each country (all levels of education combined) were at the country mean**B. Estimated increase/decrease in expenditure on educational institutions as a percentage of GDP if enrolment patterns at the primary and secondary levels in each country were at the country mean****C. Estimated increase/decrease in expenditure on educational institutions as a percentage of GDP if enrolment patterns at the tertiary level in each country were at the country mean**

Note: Please refer to the Reader's Guide for list of country codes and country names used in this chart.

Countries are ranked in descending order of the estimated increase/decrease in expenditure as a percentage of GDP if enrolment patterns in each country (all levels of education combined) were at the country mean.

Source: OECD. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

If enrolment patterns were equal in all OECD countries, expenditure as a percentage of GDP would be expected to be more than 1.8 per cent of GDP higher in Mexico and Turkey, and 0.5 per cent or more lower in Finland, Japan, Korea and Norway, assuming constant expenditure on education per student in each of these countries (Chart B2.3).

In some OECD countries, demographic effects on educational spending are outweighed by the effects of enrolment patterns.

The impact of enrolment rates on educational spending is most clearly visible in tertiary education, where both enrolment rates (see Indicator C1) and expenditure on education per student (Indicator B1) differ widely between OECD countries. If tertiary enrolment patterns in Japan and Korea were at the level of the OECD average, expenditure on tertiary institutions as a percentage of GDP would be expected to be 1.0 percentage points lower, while in Finland and the United States this difference would be 0.6 and 0.5 percentage points, respectively (Chart B2.3). At the other end of the scale are Mexico and Turkey, where expenditure on tertiary institutions as a percentage of GDP would be expected to be 1.3 and 1.8 percentage points higher, respectively, if enrolment patterns were at the OECD average.

B₂

Definitions and methodologies

Data refer to the financial year 1999 and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Expenditure on educational institutions, as covered by this indicator, includes expenditure on instructional educational institutions as well as expenditure on non-instructional educational institutions. Instructional educational institutions are educational institutions which directly provide instructional programmes (*i.e.*, teaching) to individuals in an organised group setting or through distance education. Business enterprises or other institutions providing short-term courses of training or instruction to individuals on a “one-to-one” basis are not included. Non-instructional educational institutions provide administrative, advisory or professional services to other educational institutions, although they do not enrol students themselves. Examples include national, state, and provincial ministries or departments of education; other bodies that administer education at various levels of government or analogous bodies in the private sector; and organisations that provide such education-related services as vocational or psychological counselling, placement, testing, financial aid to students, curriculum development, educational research, building operations and maintenance services, transportation of students, and student meals and housing.

This broad definition of institutions ensures that expenditure on services, which are provided in some OECD countries by schools and universities and in others by agencies other than schools, are covered on a comparable basis.

The distinction by source of funds is based on the initial source of funds and does not reflect subsequent public-to-private or private-to-public transfers. For this reason, subsidies to households and other entities, such as subsidies for tuition fees and other payments to educational institutions, are included in public expenditure in this indicator. Payments from households and other

private entities to educational institutions include tuition and other fees, net of offsetting public subsidies. A detailed discussion of public subsidies can be found in Indicator B5.

Tables B2.1a, B2.1b and B2.2 show expenditure on educational institutions for the financial year 1995. The data on expenditure for 1995 were obtained by a special survey in 2000 in which expenditure for 1995 was adjusted to methods and definitions used in the 1999 UOE data collection.

Data for the financial year 1995 are based on a special survey carried out among OECD countries in 2000.

Chart B2.2 and Table B2.2 present an index of change in expenditure on institutions and GDP between 1995 and 1999. All expenditure, as well as 1995 GDP, is adjusted to 1999 prices using the GDP deflator.

Data for 1995 are expressed in 1999 price levels.

For comparisons over time, the country mean accounts only for those OECD countries for which data are available for all reported reference years.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eag2002 for details on changes).

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Table B2.1a.
Expenditure on educational institutions as a percentage of GDP (1995, 1999)
Expenditure on educational institutions from public and private sources for all levels of education, by source of fund and year

	1999			1995		
	Public ¹	Private ²	Total	Public ¹	Private ²	Total
OECD COUNTRIES						
Australia*	4.5	1.4	5.8	4.5	1.0	5.5
Austria ^{3*}	6.0	0.3	6.3	6.3	0.3	6.6
Belgium*	5.3	0.3	5.5	m	m	m
Canada*	5.3	1.3	6.6	6.2	0.7	6.9
Czech Republic*	4.2	0.6	4.7	4.9	0.5	5.4
Denmark ^{3*}	6.4	0.3	6.7	6.4	0.3	6.7
Finland*	5.7	0.1	5.8	6.3	x	6.3
France*	5.8	0.4	6.2	5.9	0.4	6.3
Germany*	4.3	1.2	5.6	4.5	1.3	5.8
Greece ^{3*}	3.6	0.3	3.9	2.9	m	m
Hungary	4.5	0.6	5.2	4.9	0.6	5.5
Iceland	m	m	m	m	m	m
Ireland	4.1	0.4	4.6	4.7	0.5	5.3
Italy	4.4	0.4	4.8	4.5	m	m
Japan*	3.5	1.1	4.7	3.6	1.2	4.8
Korea*	4.1	2.7	6.8	m	m	m
Luxembourg	m	m	m	m	m	m
Mexico	4.4	0.8	5.2	4.6	1.0	5.6
Netherlands*	4.3	0.4	4.7	4.6	0.1	4.7
New Zealand	5.9	m	m	4.9	m	m
Norway	6.5	0.1	6.6	7.0	0.2	7.2
Poland	5.1	m	5.3	5.5	m	m
Portugal ^{3*}	5.6	0.1	5.7	5.3	0.0	5.3
Slovak Republic ³	4.3	0.1	4.4	m	m	m
Spain	4.4	0.9	5.3	4.6	1.0	5.5
Sweden	6.5	0.2	6.7	6.3	0.1	6.4
Switzerland	5.4	0.5	5.9	m	m	m
Turkey ^{3*}	3.9	0.0	3.9	2.4	0.1	2.5
United Kingdom*	4.4	0.7	5.2	4.8	m	m
United States*	4.9	1.6	6.5	5.0	1.7	6.4
<i>Country mean</i>	<i>4.9</i>	<i>0.6</i>	<i>5.5</i>	<i>~</i>	<i>~</i>	<i>~</i>
<i>OECD total</i>	<i>4.6</i>	<i>1.1</i>	<i>5.8</i>	<i>~</i>	<i>~</i>	<i>~</i>
<i>Country mean for countries with 1995 and 1999 data (19 countries)</i>	<i>5.1</i>	<i>0.5</i>	<i>5.6</i>	<i>5.2</i>	<i>0.5</i>	<i>5.7</i>
NON-OECD COUNTRIES						
Argentina ⁴	4.5	1.3	5.8	m	m	m
Brazil ^{3,4}	5.1	m	m	m	m	m
Chile	4.1	3.1	7.2	m	m	m
China	2.0	1.6	3.7	m	m	m
India ⁴	3.2	0.1	3.3	m	m	m
Indonesia ^{3,5,6}	0.8	0.4	1.2	m	m	m
Israel	7.0	1.4	8.4	7.0	1.5	8.5
Jamaica	6.3	3.6	9.9	m	m	m
Jordan ⁵	5.0	1.0	6.0	m	m	m
Malaysia ³	5.0	m	m	m	m	m
Paraguay	4.8	3.7	8.5	m	m	m
Peru ^{3,7}	3.3	1.3	4.6	m	m	m
Philippines ⁴	4.2	1.7	5.9	m	m	m
Russian Federation ^{3,6}	3.0	m	m	m	m	m
Thailand ³	4.5	0.3	4.7	m	m	m
Tunisia ^{3,6}	6.8	m	m	m	m	m
Uruguay ^{3,5}	2.9	m	m	m	m	m
Zimbabwe ³	6.9	m	m	m	m	m

1. Including public subsidies to households attributable for educational institutions. Including direct expenditure on educational institutions from international sources.

2. Net of public subsidies attributable for educational institutions.

3. Public subsidies to households not included in public expenditure, but in private expenditure.

4. Year of reference 1998.

5. Direct expenditure on educational institutions from international sources exceeds 1.5 per cent of all public expenditure.

6. Year of reference 2000.

7. Excluding post-secondary non-tertiary education.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B2.1b.
Expenditure on educational institutions as a percentage of GDP (1995, 1999)
Expenditure on educational institutions from public and private sources, by level of education, source of fund and year

	Primary, secondary and post-secondary non-tertiary education				Tertiary education			
	1999			1995	1999			1995
	Public ¹	Private ²	Total	Total	Public ¹	Private ²	Total	Total
OECD COUNTRIES								
Australia*	3.6	0.6	4.2	3.7	0.8	0.7	1.5	1.7
Austria ^{3*}	4.0	0.2	4.2	4.2	1.4	n	1.5	1.5
Belgium*	3.5	m	m	m	1.3	m	m	m
Canada**	3.5	0.3	3.8	4.3	1.6	1.0	2.5	2.2
Czech Republic*	2.8	0.4	3.2	3.7	0.8	0.1	0.9	1.0
Denmark ^{3*}	4.1	0.1	4.2	4.1	1.5	n	1.6	1.6
Finland*	3.6	n	3.6	4.0	1.8	n	1.8	1.9
France*	4.1	0.2	4.4	4.4	1.0	0.1	1.1	1.1
Germany*	2.8	0.9	3.7	3.5	1.0	0.1	1.1	1.1
Greece ^{3*}	2.4	0.3	2.6	2.3	1.0	n	1.0	0.7
Hungary	2.9	0.2	3.1	3.6	0.8	0.2	1.1	1.0
Iceland	m	m	m	m	m	m	m	m
Ireland ⁵	3.0	0.1	3.1	3.7	1.1	0.3	1.4	1.3
Italy	3.2	0.1	3.2	m	0.7	0.1	0.8	0.8
Japan**	2.7	0.2	3.0	3.1	0.5	0.6	1.0	1.0
Korea*	3.2	0.8	4.0	m	0.5	1.9	2.4	m
Luxembourg	m	m	m	m	m	m	m	m
Mexico	3.1	0.5	3.6	4.0	0.8	0.3	1.1	1.1
Netherlands*	2.9	0.2	3.1	3.1	1.0	0.3	1.3	1.2
New Zealand	4.6	m	m	3.7	0.9	m	m	1.1
Norway	4.0	n	4.0	4.2	1.4	0.1	1.5	1.7
Poland	3.6	m	m	m	0.8	0.2	1.0	m
Portugal ^{3*}	4.2	n	4.2	3.8	1.0	0.1	1.1	0.9
Slovak Republic ^{3,5}	3.0	n	3.0	m	0.8	0.1	0.8	m
Spain	3.2	0.4	3.7	3.9	0.9	0.3	1.1	1.0
Sweden ⁵	4.4	n	4.4	4.3	1.5	0.2	1.7	1.6
Switzerland	3.9	0.5	4.4	m	1.2	n	1.2	m
Turkey ^{3*}	2.9	m	2.9	1.8	1.0	n	1.0	0.7
United Kingdom*	3.3	0.4	3.7	m	0.8	0.3	1.1	1.2
United States**	3.5	0.4	3.8	m	1.1	1.2	2.3	m
<i>Country mean</i>	<i>3.4</i>	<i>0.3</i>	<i>3.6</i>	<i>~</i>	<i>1.0</i>	<i>0.3</i>	<i>1.3</i>	<i>~</i>
<i>OECD total</i>	<i>3.3</i>	<i>0.4</i>	<i>3.7</i>	<i>~</i>	<i>0.9</i>	<i>0.7</i>	<i>1.6</i>	<i>~</i>
<i>Country mean for countries with 1995 data only</i>	<i>~</i>	<i>~</i>	<i>3.6</i>	<i>3.7</i>	<i>~</i>	<i>~</i>	<i>1.3</i>	<i>1.2</i>
NON-OECD COUNTRIES								
Argentina ³	3.3	0.4	3.7	m	0.8	0.4	1.1	m
Brazil ^{3,7}	3.7	m	m	m	1.1	m	m	m
Chile	3.1	1.4	4.5	m	0.6	1.6	2.2	m
China	1.4	1.1	2.6	m	0.5	0.4	0.8	m
India ^{6,7}	2.5	0.1	2.6	m	0.6	n	0.6	m
Indonesia ^{3,5,8}	0.6	0.2	0.8	m	0.2	0.2	0.4	m
Israel	4.6	0.2	4.8	5.0	1.3	0.7	2.0	1.8
Jamaica	4.7	2.4	7.2	m	1.2	0.5	1.7	m
Jordan ⁵	4.1	0.1	4.1	m	1.0	0.9	1.9	m
Malaysia ³	3.7	m	m	m	1.2	0.1	1.3	m
Paraguay	4.0	2.7	6.8	m	0.8	0.7	1.5	m
Peru ^{3,9}	2.3	0.7	2.9	m	0.7	0.6	1.2	m
Philippines ⁷	3.4	1.7	5.1	m	0.7	m	m	m
Thailand ³	2.8	0.1	2.9	m	0.9	0.2	1.1	m
Tunisia ^{3,8}	5.4	m	m	m	1.5	m	m	m
Uruguay ^{3,5}	2.0	0.1	2.1	m	0.6	m	m	m
Zimbabwe ⁶	5.9	m	m	m	1.0	m	m	m

1. Including public subsidies to households attributable for educational institutions. Including direct expenditure on educational institutions from international sources.

2. Net of public subsidies attributable for educational institutions.

3. Public subsidies to households not included in public expenditure, but in private expenditure.

4. Post-secondary non-tertiary included in tertiary education.

5. Direct expenditure on tertiary-level educational institutions from international sources exceeds 1.5 per cent of all public expenditure.

International sources at primary and secondary level exceed 1.5 per cent in Uruguay.

6. Post-secondary non-tertiary included in both upper secondary and tertiary education.

7. Year of reference 1998.

8. Year of reference 2000.

9. Excluding post-secondary non-tertiary education.

* See Annex 3 for notes (www.oecd.org/els/education/eq2002).

Source: OECD.

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Table B2.1c.
Expenditure on educational institutions as a percentage of GDP (1999)
Expenditure on educational institutions from public and private sources¹, by level of education

	Pre-primary education (for children 3 years and older)	Primary, secondary and post-secondary non-tertiary education			Tertiary education			All levels of education combined (including undistributed and advanced research programmes)	
		All primary, secondary and post- secondary non-tertiary education	Primary and lower secondary education	Upper secondary education	Post- secondary non-tertiary education	All tertiary education	Tertiary-type B education		Tertiary-type A education
OECD COUNTRIES									
Australia*	0.1	4.2	3.2	0.9	0.1	1.5	0.2	1.3	5.8
Austria	0.5	4.2	2.8	1.3	n	1.5	0.3	1.2	6.3
Belgium*	0.5	3.5	1.2	2.3	x(4)	1.3	x(6)	x(6)	5.3
Canada*	0.2	3.8	x(2)	x(2)	x(7)	2.5	1.1	1.4	6.6
Czech Republic*	0.5	3.2	2.0	1.2	n	0.9	0.1	0.9	4.7
Denmark*	0.8	4.2	2.7	1.4	m	1.6	x(6)	x(6)	6.7
Finland*	0.4	3.6	2.4	1.3	x(4)	1.8	0.1	1.7	5.8
France*	0.7	4.4	2.8	1.5	n	1.1	0.3	0.9	6.2
Germany*	0.6	3.7	2.1	1.3	0.3	1.1	0.1	1.0	5.6
Greece ^{2*}	x(2)	2.6	1.1	1.4	0.2	1.0	0.2	0.8	3.9
Hungary	0.8	3.1	1.8	1.1	0.2	1.1	n	1.1	5.2
Iceland	m	m	m	m	m	m	m	m	m
Ireland	n	3.1	2.3	0.7	0.1	1.4	x(6)	x(6)	4.6
Italy	0.4	3.2	1.8	1.3	0.1	0.8	n	0.8	4.8
Japan*	0.2	3.0	2.0	0.9	x(4,6)	1.0	0.1	0.9	4.7
Korea*	0.1	4.0	2.7	1.3	a	2.4	0.6	1.8	6.8
Luxembourg	m	m	m	m	m	m	m	m	m
Mexico	0.5	3.6	2.8	0.8	a	1.1	x(6)	x(6)	5.2
Netherlands*	0.4	3.1	2.3	0.8	n	1.3	n	1.3	4.7
New Zealand ³	0.2	4.6	3.3	1.2	0.1	0.9	0.1	0.8	5.9
Norway	0.8	4.0	2.8	1.3	x(4)	1.5	n	1.5	6.6
Poland	0.5	3.7	2.5	1.2	m	1.0	n	1.0	5.3
Portugal*	0.3	4.2	2.8	1.2	a	1.1	x(6)	x(6)	5.7
Slovak Republic	0.5	3.0	1.8	1.2	x(4)	0.8	x(8)	0.8	4.4
Spain	0.4	3.7	3.7	x(3)	x(3)	1.1	0.1	1.0	5.3
Sweden	0.6	4.4	3.0	1.4	n	1.7	x(6)	x(6)	6.7
Switzerland	0.2	4.4	2.8	1.6	0.1	1.2	0.1	1.1	5.9
Turkey*	m	2.9	2.1	0.8	a	1.0	x(8)	1.0	3.9
United Kingdom ⁴	0.4	3.7	1.2	2.4	x(4)	1.1	x(6)	x(6)	5.2
United States*	0.4	3.8	x(2)	x(2)	x(6)	2.3	x(6)	x(6)	6.5
Country mean	0.4	3.6	2.3	1.3	0.1	1.3	0.2	1.1	5.5
OECD total	0.4	3.7	2.3	1.3	0.1	1.6	x	x	5.8
NON-OECD COUNTRIES									
Argentina	0.3	3.7	2.9	0.8	a	1.1	0.5	0.7	5.8
Brazil ^{3,4}	0.4	3.7	3.0	0.6	m	1.1	m	1.1	5.1
Chile	0.5	4.5	3.1	1.4	a	2.2	0.2	2.0	7.2
China	0.1	2.6	1.7	0.9	a	0.8	x(6)	x(6)	3.7
India ⁴	n	2.6	2.4	0.2	x(4,6)	0.6	0.1	0.5	3.3
Indonesia ⁵	n	0.8	0.6	0.2	a	0.4	x(6)	x(6)	1.2
Israel	0.8	4.8	2.5	2.3	n.	2.0	x(6)	x(6)	8.4
Jamaica	1.1	7.2	5.7	1.4	0.1	1.7	0.4	1.2	9.9
Jordan	n	4.1	3.5	0.6	a	1.9	x(6)	x(6)	6.0
Malaysia ²	0.1	3.7	1.6	2.0	0.2	1.3	0.2	1.1	5.1
Paraguay ²	x(2)	6.8	4.0	2.8	a	1.5	0.3	1.3	8.5
Peru	0.4	2.9	2.6	0.4	m	1.2	0.3	1.0	4.6
Philippines ⁴	n	5.0	4.1	0.3	n	m	a	m	m
Russian Federation ⁵	x(9)	x(9)	x(9)	x(9)	x(9)	x(9)	x(9)	x(9)	3.0
Thailand	0.2	2.9	2.4	0.5	m	1.1	0.2	0.9	4.7
Tunisia ^{3,5}	m	5.4	x(2)	x(2)	a	1.5	x(6)	x(6)	6.8
Uruguay	0.3	2.1	1.6	0.5	a	0.6	m	0.6	3.0
Zimbabwe	n	5.9	3.9	2.0	x(4,6)	1.0	0.4	0.6	6.9

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Including international sources.

2. Column 3 only refers to primary education and column 4 refers to all secondary education.

3. Including only direct public expenditure on educational institutions.

4. Year of reference 1998.

5. Year of reference 2000.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B2.2.

Change of expenditure on educational institutions (1995, 1999)*Index of change between 1995 and 1999 in public and private expenditure on educational institutions, by level of education (1995=100)*

	All levels of education			Primary, secondary and post-secondary non-tertiary education			Tertiary education		
	Direct public expenditure for educational institutions	Direct private expenditure for educational institutions	Total direct expenditure from both public and private sources for educational institutions	Direct public expenditure for educational institutions	Direct private expenditure for educational institutions	Total direct expenditure from both public and private sources for educational institutions	Direct public expenditure for educational institutions	Direct private expenditure for educational institutions	Total direct expenditure from both public and private sources for educational institutions
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD COUNTRIES									
Australia	123	140	126	136	137	136	88	143	107
Austria	107	80	105	108	101	108	107	54	106
Canada ¹	106	116	108	101	124	103	117	113	116
Czech Republic	92	75	90	85	78	89	116	51	98
Denmark ²	110	103	109	110	114	110	102	406	104
Finland	109	x(1)	111	109	x(4)	109	108	x(7)	111
France	109	102	108	109	104	108	110	99	108
Germany	102	102	102	103	103	104	102	119	104
Greece	143	x(1)	149	121	x(4)	123	182	x(7)	173
Hungary	107	120	109	101	95	98	117	145	123
Ireland	124	128	124	115	110	115	160	134	151
Italy	103	m	m	96	m	m	112	133	116
Japan ³	106	106	106	104	103	104	116	108	111
Mexico	114	114	114	111	100	109	119	159	128
Netherlands	113	163	116	116	116	116	105	229	119
New Zealand	134	m	m	142	m	m	96	m	m
Norway	104	88	104	109	88	109	102	88	101
Poland	116	m	m	127	m	m	113	m	m
Portugal	124	262	125	128	187	128	127	265	132
Spain	112	110	111	111	99	110	123	125	124
Sweden	114	201	116	115	119	115	108	206	116
Switzerland	m	m	m	m	m	m	m	m	m
Turkey	186	m	m	194	m	m	167	231	169
United Kingdom	106	m	m	107	m	m	100	103	101

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Post-secondary non-tertiary included in tertiary education.

2. Post-secondary non-tertiary data are missing.

3. Post-secondary non-tertiary included in both upper secondary and tertiary education.

Source: OECD.

TOTAL PUBLIC EXPENDITURE ON EDUCATION

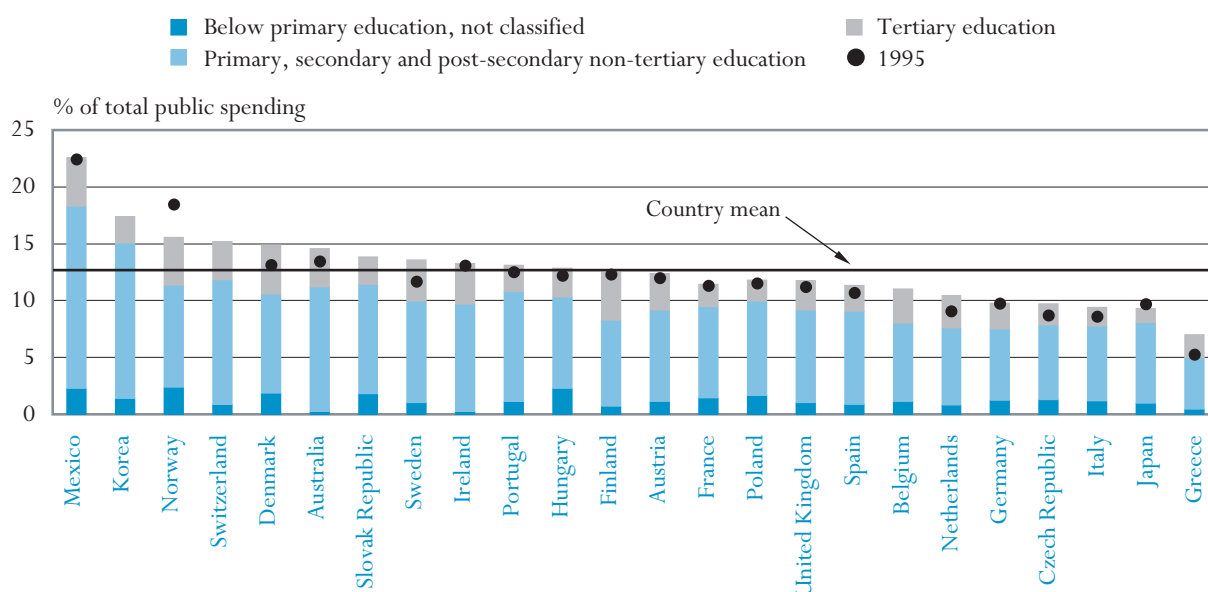
- On average, OECD countries devote 12.7 per cent of total public expenditure to educational institutions.
- Public funding of education is a social priority, even in OECD countries with little public involvement in other areas.
- In real terms, public expenditure on education increased by more than 5 per cent in four out of five OECD countries between 1995 and 1999.
- Public expenditure on education tended to grow faster than total public spending, but not as fast as GDP. In Italy, the Netherlands, Sweden and the United Kingdom, public expenditure on education increased between 1995 and 1999 despite public budgets falling in real terms.

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Chart B3.1.

Public expenditure on education as a percentage of total public expenditure (1999)

Direct public expenditure on educational institutions plus public subsidies to households (including subsidies for living costs, and public subsidies for other private entities) as a percentage of total public expenditure, by level of education and year



Countries are ranked in descending order of total expenditure from both public and private sources on educational institutions. Source: OECD. Table B3.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Policy context

Governments become involved in providing services to the public for different reasons. If the public benefit from a particular service is greater than the private benefit, then markets alone may fail to provide these services adequately. Education is one area where all governments intervene to fund or direct the provision of services. As there is no guarantee that markets will provide equal access to educational opportunities, government funding of educational services ensures that education is not beyond the reach of some members of society. Public expenditure on education as a percentage of total public expenditure indicates the value of education relative to that of other public investments such as health care, social security, defence and security.

Since the second half of the 1990s, most OECD countries made serious efforts to consolidate public budgets. Education had to compete for public financial support against a wide range of other areas covered in government budgets. To portray this, this indicator also evaluates the change in educational expenditure in absolute terms and relative to changes in the size of public budgets.

This indicator focuses on public expenditure on education.

It also evaluates how public expenditure has changed over time in absolute terms and relative to total governmental spending.

Evidence and explanations

What this indicator covers and what it does not cover

This indicator shows total public expenditure on education. This expenditure includes direct public expenditure on educational institutions as well as public subsidies to households (*e.g.*, scholarships and loans to students for tuition fees and student living costs) and to other private entities for education (*e.g.*, subsidies to companies or labour organisations that operate apprenticeship programmes). Unlike the preceding indicators, this indicator also includes public subsidies that are not attributable to household payments for educational institutions, such as subsidies for student living costs.

OECD countries differ in the ways in which they use public money for education. Public funds may flow directly to schools or be channelled to institutions via households; they may also be restricted to the purchase of educational services or be used to support student living costs.

It is important to examine public investment in education in conjunction with private investment, as shown in Indicator B4.

Overall level of public resources invested in education

On average, OECD countries devote 12.7 per cent of total public expenditure to education. However, the values for individual countries range between 7 and 23 per cent. Korea and Mexico allocate 17 and 23 per cent, respectively, of total public spending to education (Chart B3.1). By contrast, in the Czech Republic, Germany, Greece, Italy and Japan, the proportion of public expenditure on education is less than 10 per cent. As in the case of spending on education in

Coverage diagram (see page 144 for explanations)

On average, OECD countries devote 12.7 per cent of total public expenditure to education.

relation to GDP per capita, these values need to be interpreted in the light of student demography and enrolment rates.

Between 4.5 and 16.0 per cent of total public expenditure in OECD countries is allocated to primary, secondary and post-secondary non-tertiary education.

The public-sector proportion of the funding of the different levels of education varies widely between OECD countries. In 1999, OECD countries spent between 4.5 and 16.0 per cent of total public expenditure on primary, secondary and post-secondary non-tertiary education, and between 1.2 and 4.3 per cent on tertiary education. Australia, Korea, Portugal and Switzerland spend between about 10 and 15 per cent or more of total public expenditure on primary, secondary, and post-secondary non-tertiary education, and Mexico over 15 per cent. By contrast, Belgium, the Czech Republic, Germany, Greece, Italy, Japan and the Netherlands spend about 7 per cent or less on education below the tertiary level (Table B3.1).

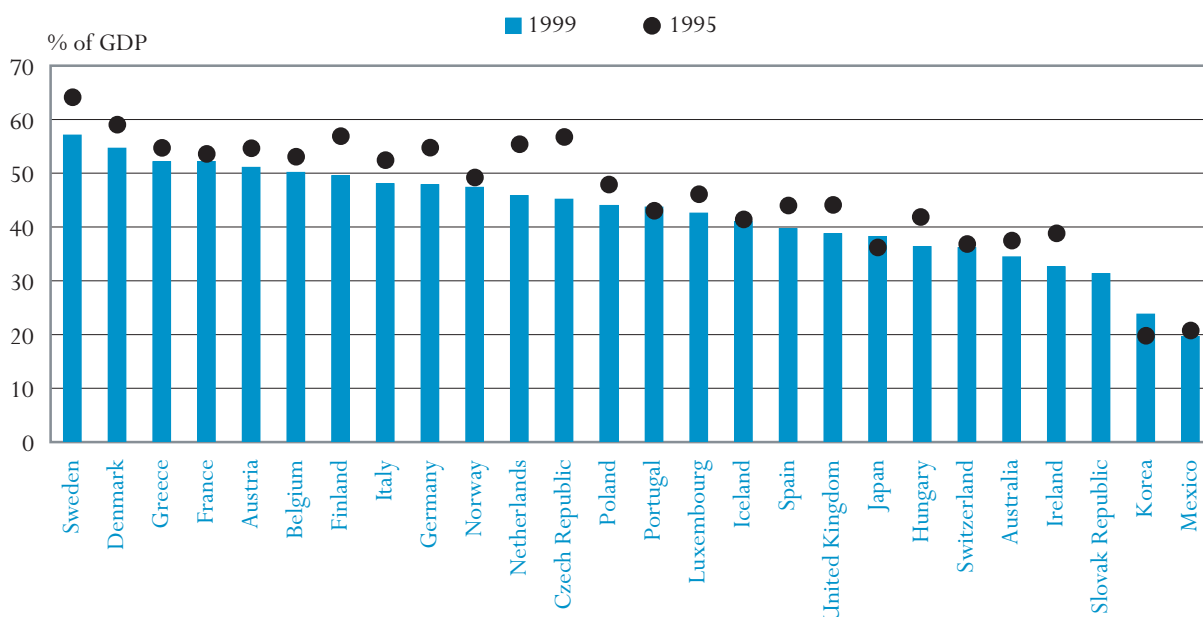
Public funding of education is a social priority, even in OECD countries with little public involvement in other areas.

When public expenditure on education is examined as a proportion of total public spending, the relative sizes of public budgets (as measured by public spending in relation to GDP) need to be taken into account.

In OECD countries where public spending is low relative to overall GDP, such as Australia, Ireland, Korea, Mexico and the Slovak Republic, the proportion of public expenditure devoted to education is relatively high. However, in the remaining OECD countries, where public spending accounts for over 35 per cent of GDP, there seems to be no relation between the size of the public budget and how much of it is spent on education (Charts B3.1 and B3.2).

Chart B3.2.

Total public expenditure as a percentage of GDP (1995, 1999)



Countries are ranked in descending order of total public expenditure as a percentage of GDP in 1999.

Source: OECD, Annex 2.

Sweden, the OECD country with the highest proportion of GDP spent by government, spends the same high proportion of public budgets on education, as does Portugal, an OECD country with a relatively small public sector. Norway spends the third highest proportion of public budgets of all OECD countries on education, and Italy the third lowest, but in these two OECD countries, public spending accounts for 47 and 48 per cent, respectively, of GDP (Chart B3.2).

The process of budget consolidation puts pressure on education as on every other service. Nevertheless, with the exception of Japan and Norway, spending on education grew faster than spending in other public areas; the proportion of public budgets spent on education growing, on average, from 12.0 per cent in 1995 to 12.7 per cent in 1999. Public spending in Greece increased by nearly one-third, from 5.2 per cent to 7.0 per cent. In Denmark, the education share of public spending increased from 13.1 per cent in 1995 to 14.9 per cent in 1999, in Sweden from 11.6 to 13.6 per cent and in the Netherlands, from 9.1 to 10.4 per cent.

Typically, public expenditure on education grew faster than total public spending, but not as fast as national income.

Definitions and methodologies

Educational expenditure is expressed as a percentage of a country's total public sector expenditure and as a percentage of GDP. Public educational expenditure includes expenditure on educational institutions and subsidies for students' living costs and for other private expenditure outside institutions. Public expenditure on education includes expenditure by all public entities, including ministries other than the ministry of education, local and regional governments and other public agencies.

Data refer to the financial year 1999 and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Total public expenditure, also referred to as total government spending, corresponds to the non-repayable current and capital expenditure of all levels of government: central, regional and local. Current expenditure includes final consumption expenditure, property income paid, subsidies and other current transfers (*e.g.*, social security, social assistance, pensions and other welfare benefits). Figures for total public expenditure have been taken from the OECD National Accounts Database (see Annex 2) and use the System of National Accounts 1993. In previous editions of *Education at a Glance*, total public expenditure was based on the System of National Accounts 1968. The change in the system of national accounts may explain differences in this indicator in comparison with previous editions of this publication.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eag2002 for details on changes).

Table B3.1.

Total public expenditure on education (1995, 1999)

Public expenditure on educational institutions plus public subsidies to households (which include subsidies for living costs, and other private entities) as a percentage of GDP and as a percentage of total public expenditure, by level of education and year

	Public expenditure on education as a percentage of total public expenditure				Public expenditure ¹ on education as a percentage of GDP			
	1999			1995	1999			1995
	Primary, secondary and post-secondary non-tertiary education	Tertiary education	All levels of education combined	All levels of education combined	Primary, secondary and post-secondary non-tertiary education	Tertiary education	All levels of education combined	All levels of education combined
OECD COUNTRIES								
Australia*	11.0	3.4	14.6	13.4	3.8	1.2	5.0	5.0
Austria*	8.0	3.2	12.4	12.0	4.1	1.7	6.3	6.5
Belgium*	6.9	3.0	11.0	m	3.5	1.5	5.5	m
Canada ^{2*}	m	m	m	12.9	3.5	1.9	5.7	6.5
Czech Republic*	6.6	1.9	9.7	8.7	3.0	0.8	4.4	4.9
Denmark*	8.7	4.3	14.9	13.1	4.8	2.4	8.1	7.7
Finland*	7.6	4.2	12.5	12.3	3.8	2.1	6.2	7.0
France*	8.0	2.0	11.5	11.3	4.2	1.1	6.0	6.0
Germany*	6.2	2.3	9.7	9.7	3.0	1.1	4.7	4.7
Greece*	4.5	2.0	7.0	5.2	2.4	1.1	3.6	2.9
Hungary	8.0	2.6	12.8	12.2	2.9	0.9	4.7	5.0
Iceland	m	m	m	m	m	m	m	m
Ireland	9.4	3.6	13.2	13.0	3.1	1.2	4.3	5.1
Italy	6.6	1.7	9.4	8.6	3.2	0.8	4.5	4.6
Japan ^{3*}	7.1	1.2	9.3	9.7	2.7	0.5	3.5	3.6
Korea*	13.7	2.4	17.4	m	3.2	0.6	4.1	m
Luxembourg	m	m	m	m	m	m	m	m
Mexico	16.0	4.3	22.6	22.4	3.1	0.8	4.4	4.6
Netherlands*	6.8	2.9	10.4	9.1	3.1	1.3	4.8	5.0
New Zealand	m	m	m	14.4	4.8	1.2	6.3	5.7
Norway	9.0	4.2	15.6	18.4	4.3	2.0	7.4	9.1
Poland	8.3	1.9	11.8	11.5	3.6	0.8	5.2	5.5
Portugal*	9.7	2.4	13.1	12.5	4.2	1.0	5.7	5.4
Slovak Republic	9.6	2.5	13.8	m	3.0	0.8	4.3	m
Spain	8.2	2.3	11.3	10.6	3.3	0.9	4.5	4.7
Sweden	8.9	3.7	13.6	11.6	5.1	2.1	7.7	7.5
Switzerland	11.0	3.4	15.2	m	4.0	1.2	5.5	m
Turkey*	m	m	m	m	2.9	1.1	4.0	2.4
United Kingdom*	8.1	2.6	11.8	11.2	3.3	1.1	4.7	5.2
United States ^{4*}	m	m	m	m	3.5	1.4	5.2	m
Country mean	8.7	2.8	12.7	12.0	3.5	1.2	5.2	5.4
NON-OECD COUNTRIES								
Argentina	9.7	2.3	13.3	m	3.3	0.8	4.5	m
Brazil [†]	8.6	2.6	12.3	m	3.7	1.1	5.2	m
Chile	12.8	2.7	17.0	m	3.1	0.7	4.2	m
China	9.1	3.1	13.0	m	1.5	0.5	2.1	m
India ^{2,4}	9.8	2.4	12.6	m	2.5	0.6	3.2	m
Indonesia ⁵	4.0	1.2	5.2	m	0.6	0.2	0.8	m
Israel	9.1	2.5	13.8	13.3	4.6	1.3	7.0	7.0
Jamaica	8.1	2.0	10.8	m	4.7	1.2	6.3	m
Jordan	16.7	3.8	20.6	m	4.1	0.9	5.0	m
Malaysia	16.5	8.3	25.2	m	3.7	1.9	5.7	m
Paraguay	7.3	1.5	8.8	m	4.0	0.8	4.8	m
Peru ⁶	14.3	4.3	21.1	m	2.3	0.7	3.3	m
Philippines ⁴	16.8	3.4	20.6	m	3.4	0.7	4.2	m
Russian Federation ⁵	x	x	10.4	m	x	x	3.0	m
Thailand	16.9	6.7	28.0	m	3.0	1.2	4.9	m
Tunisia ⁵	13.6	3.8	17.4	m	5.4	1.5	6.8	m
Uruguay	9.1	2.7	13.0	m	1.9	0.6	2.8	m
Zimbabwe ²	m	m	m	m	5.8	1.2	7.0	m

1. Public expenditure presented in this table include public subsidies to households for living costs, which are not spent on educational institutions.

Thus the figures presented here exceed those on public spending on institutions found in Table B2.1b.

2. Post-secondary non-tertiary is included in tertiary education and excluded from primary, secondary and post-secondary non-tertiary education.

3. Excluding public subsidies to the private sector. Post-secondary non-tertiary included in both upper secondary and tertiary education.

4. Year of reference 1998.

5. Year of reference 2000.

6. Excluding post-secondary non-tertiary education.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

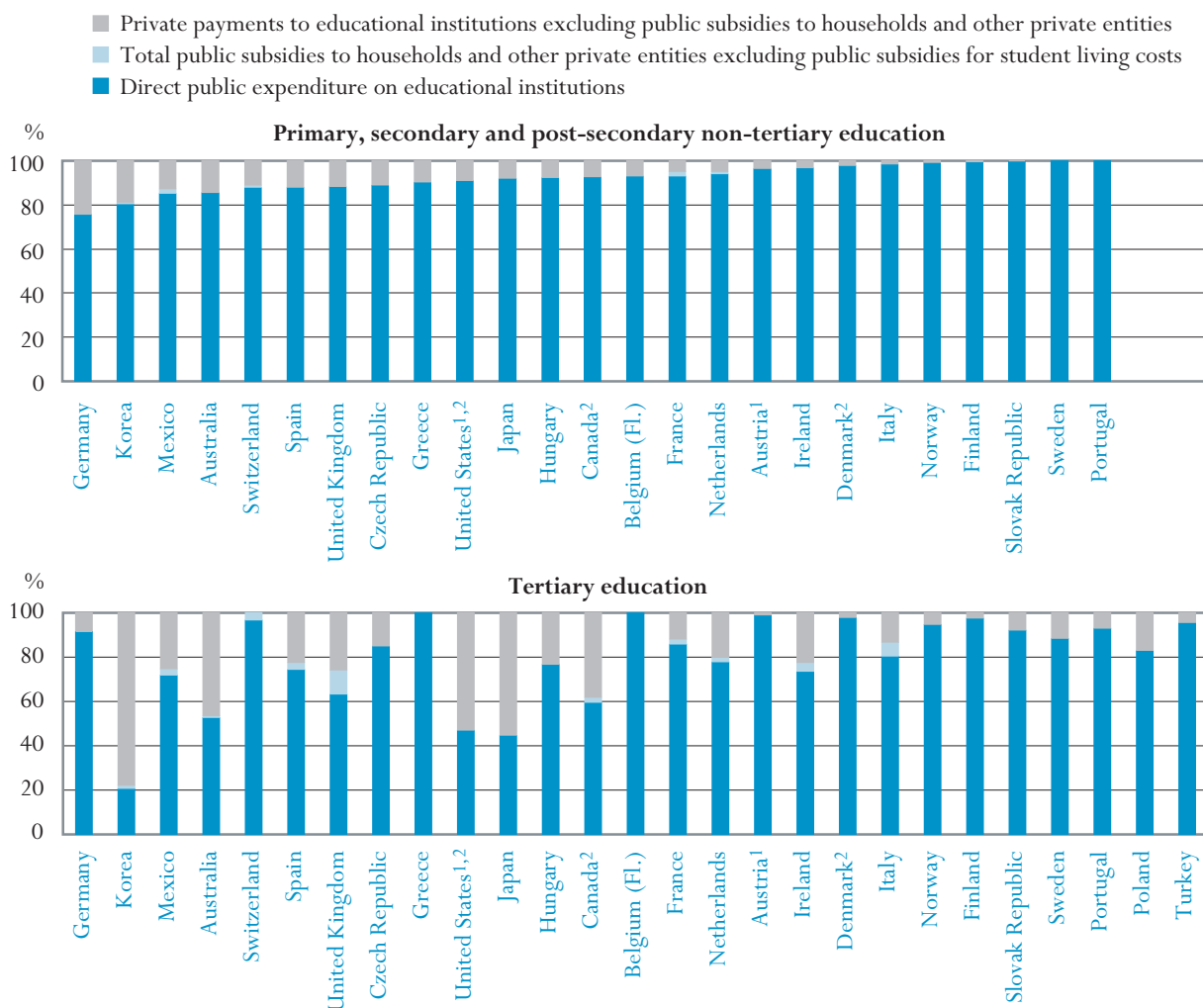
RELATIVE PROPORTIONS OF PUBLIC AND PRIVATE INVESTMENT IN EDUCATIONAL INSTITUTIONS

- The private share of total payments to educational institutions ranges from about 3 per cent or less in Finland, Norway, Portugal, the Slovak Republic, Sweden and Turkey to as much as 40 per cent in Korea.
- In a number of OECD countries, governments pay most of the costs of primary, secondary and post-secondary non-tertiary education but leave the management of educational institutions to the private sector, to provide a wider range of learning opportunities without creating barriers to the participation of students from low-income families.
- Private institutions that are predominantly financed by households are far less common at the primary, secondary and post-secondary non-tertiary levels than government-funded institutions.
- Tertiary institutions tend to mobilise a much higher proportion of their funds from private sources than primary, secondary and post-secondary non-tertiary institutions. The private share includes private payments that are subsidies ranging from about 3 per cent or less in Austria, the Flemish Community of Belgium, Denmark, Finland, Greece and Switzerland to 78 per cent in Korea.
- In ten out of 19 OECD countries, private expenditure on tertiary education grew by more than 30 per cent between 1995 and 1999, but in most countries this did not lead to a decrease in public-sector spending on tertiary education.

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Chart B4.1.

Distribution of public and private expenditure on educational institutions, by level of education (1999)



1. Total public subsidies to households partially included in private payments.

2. Post-secondary non-tertiary data are included in tertiary education or are missing.

Countries are ranked in ascending order of the proportion of direct public expenditure in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B4.2. See Annex 3 for notes (www.oecd.org/els/education/eaq2002).

Policy context

Cost-sharing between participants in the education system and society as a whole is an issue that is under discussion in many OECD countries. This question is especially relevant at the beginning and ending stages of initial education – pre-primary and tertiary education – where full or nearly full public funding is less common.

As new client groups participate increasingly in a wide range of educational programmes and have more opportunities made available by increasing numbers of providers, governments are forging new partnerships to mobilise the necessary resources to pay for education. New policies are designed to allow the different actors and stakeholders to participate more fully and to share costs and benefits more equitably.

As a result, public funding is now seen increasingly as providing only a part, although a very important part, of investment in education. The role of private sources is becoming more and more important in the funding of education. Some stakeholders are concerned that this balance should not become so tilted as to lead potential learners away from learning, instead of towards it.

Evidence and explanations

What this indicator covers and what it does not cover

Governments can spend public funds directly on educational institutions or use them to provide subsidies to private entities for the purpose of education. When reporting on the public and private proportions of educational expenditure, it is therefore important to distinguish between the initial sources of funds and the final direct purchasers of educational goods and services.

Initial public spending includes both direct public expenditure on educational institutions and transfers to the private sector. To gauge the level of public expenditure, the components showing direct public expenditure on educational institutions and public subsidies for education therefore need to be added together. Initial private spending includes tuition fees and other student or household payments to educational institutions, less the portion of such payments offset by public subsidies.

The final public and private proportions are the percentages of educational funds spent directly by public and private purchasers of educational services. Final public spending includes direct public purchases of educational resources and payments to educational institutions and other private entities. Final private spending includes tuition fees and other private payments to educational institutions (whether offset or not by public subsidies).

Not all spending on instructional goods and services occurs within educational institutions. For example, families may purchase textbooks and materials commercially or seek private tutoring for their children outside educational institutions. At the tertiary level, student living costs and forgone earnings

This indicator shows the relative proportions of public and private spending on educational institutions...

...and how these proportions have changed since 1995.

Coverage diagram (see page 144 for explanations)

Educational institutions are still mainly funded by public sources...

...but OECD countries vary significantly in the extent to which they draw on private funds.

In pre-primary education, the private share of total payments to educational institutions represents on average 18 per cent and exceeds 50 per cent in Ireland, Japan and Korea.

The way in which education is financed differs between the primary/secondary and tertiary levels.

In some OECD countries, governments pay most of the costs of primary, secondary and post-secondary non-tertiary education but leave the management of educational institutions to the private sector...

can also account for a significant proportion of the costs of education. All such expenditure outside educational institutions, even if it is publicly subsidised, is excluded from this indicator. Public subsidies for educational expenditure outside institutions are discussed in Indicators B3 and B5.

Public and private proportions of expenditure on educational institutions

Schools, universities and other educational institutions are still mainly publicly funded, although there is a substantial and growing degree of private funding. On average across OECD countries, 88 per cent of all funds for educational institutions come directly from public sources. In addition, 0.7 per cent are channelled to institutions via public subsidies to households (Table B4.1).

Among the OECD countries reporting data, the proportion of private payments to educational institutions, including private payments that are subsidies, ranges from about 3 per cent or less in Finland, Norway, Portugal, the Slovak Republic, Sweden and Turkey to between 22 and 40 per cent in Australia, Germany, Japan, Korea and the United States (Table B4.1).

Investment in early childhood education is of key importance in order to build a strong foundation for lifelong learning and to ensure equitable access to learning opportunities later in school. In pre-primary education, the private share of total payments to educational institutions ranges from 5 per cent or less in the Flemish Community of Belgium, France, Italy, the Netherlands, the Slovak Republic, Switzerland and the United Kingdom, to more than 37 per cent in Australia and Germany and more than 50 per cent in Ireland, Japan and Korea (Table B4.2).

At the primary, secondary and post-secondary non-tertiary levels of education, between 10 and 18 per cent of funding comes from private sources in Australia, the Czech Republic, Mexico, Spain, Switzerland and the United Kingdom, and more than 18 per cent in Germany and Korea (Chart B4.1).

In most OECD countries, private expenditure is comprised mainly of household expenditure on tuition and other fees at tertiary institutions, while in Germany and Switzerland nearly all private expenditure is accounted for by contributions from the business sector to the dual system of apprenticeship at the upper secondary and post-secondary non-tertiary levels.

New funding strategies aim not only at mobilising the required resources from a wider range of public and private sources, but also at providing a broader range of learning opportunities and improving the efficiency of schooling. In the majority of OECD countries, publicly funded primary, secondary and post-secondary non-tertiary education is also organised and delivered by public institutions, but in a fair number of OECD countries the public funds are finally transferred to private institutions or given directly to households to spend in the institution of their choice. In the former case, the final spending and delivery of education can be regarded as subcontracted by governments

to non-governmental institutions, whereas in the latter instance, students and their families are left to decide which type of institution best meets their requirements.

On average across OECD countries, more than 10 per cent of primary, secondary and post-secondary non-tertiary students combined are enrolled in privately managed educational institutions that are predominantly publicly funded. In Belgium and the Netherlands, the majority of primary, secondary and post-secondary non-tertiary students are in fact enrolled in government-dependent private institutions, and in Australia, France, Korea, Spain and the United Kingdom the proportion is still more than 20 per cent (Chart B4.2). Although these institutions are privately managed, the financial support from governments can have attendant conditions. For example, teachers may be required to meet some minimum level of qualification, and students may be required to pass a government-regulated examination in order to graduate.

...thus seeking to provide a wider range of learning opportunities without creating barriers to the participation of students from low-income families.

On average across OECD countries, 10 per cent of the public funds designated for educational institutions are spent in institutions that are privately managed (Table B4.3). In the Netherlands, where the central government is the major final source of funds, 71 per cent of public money for primary, secondary and post-secondary non-tertiary educational institutions and 36 per cent of public money for tertiary institutions are transferred from the government to private institutions. In Belgium, 55 per cent of the funds for educational institutions are transferred to private institutions at the primary, secondary and post-secondary non-tertiary levels (Chart B4.2).

An alternative form of final spending is the transfer of public money to private institutions.

In Australia, France, Korea, Spain and the United Kingdom, the share of public funds transferred to private institutions ranges at the primary/secondary and post-secondary level of education from 10 to 21 per cent.

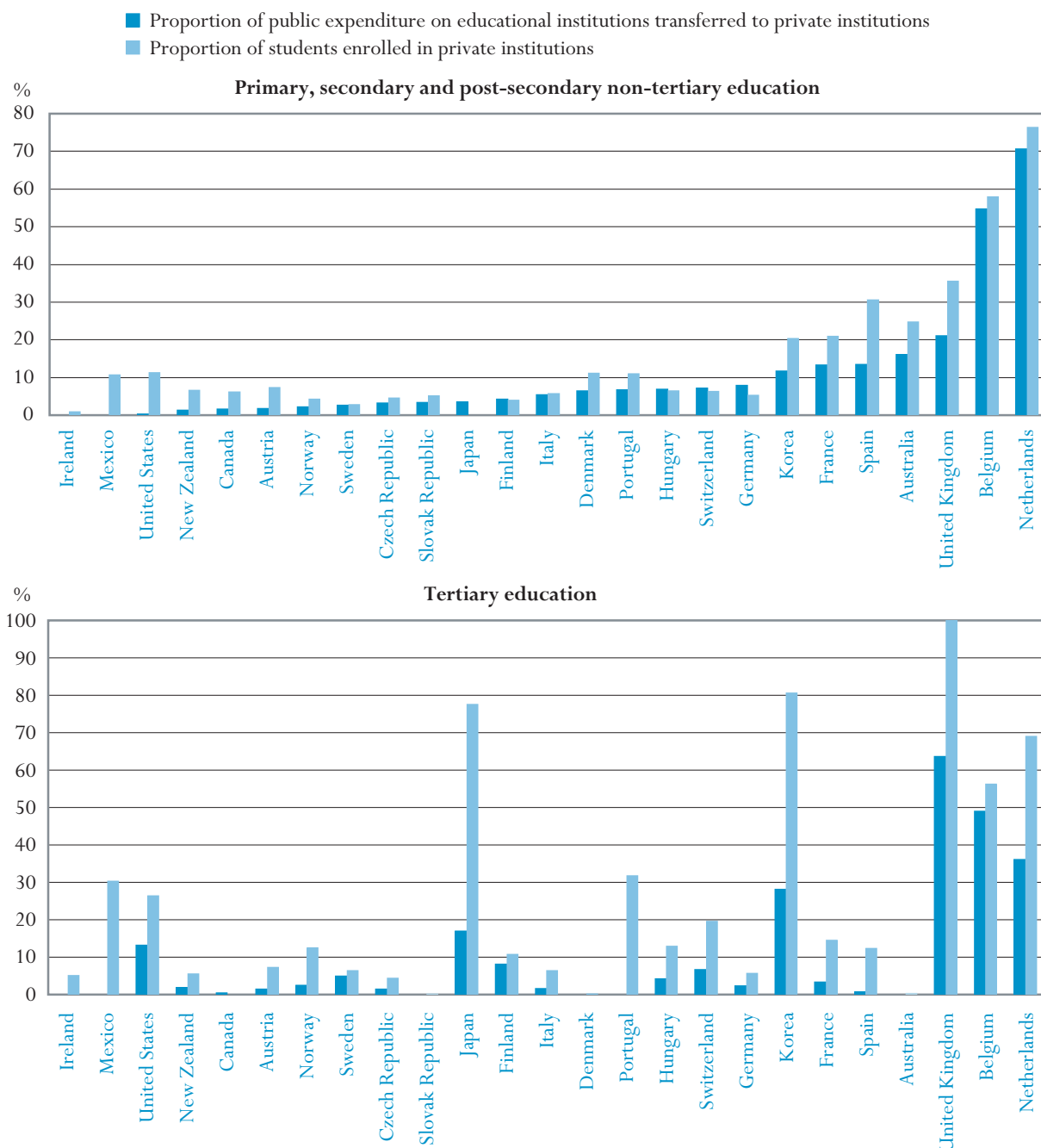
At the primary, secondary and post-secondary non-tertiary levels of education, private educational institutions that are financed mainly by household payments are far less common and sometimes seen as thwarting the participation of students from low-income families. Only in Mexico and the United States are around 10 per cent of students enrolled in private institutions that are predominantly financed through unsubsidised household payments (Chart B4.2).

Private institutions that are predominantly financed by households are far less common at the primary, secondary and post-secondary non-tertiary levels.

Thus, at the primary, secondary and post-secondary non-tertiary levels of education, government funding transferred to the private sector (see Table B4.3 and Indicator B5) represents, on average, 3.5 per cent in OECD countries and exceeds 10 per cent only in Denmark and Sweden. It is more usual for households/students to receive some public funding at the tertiary level. Twenty per cent or more of public funds designated for tertiary educational institutions are transferred to the private sector in Australia, Canada, Denmark, the Netherlands, New Zealand, Norway, Sweden and the United Kingdom.

Chart B4.2.

Public support to private educational institutions (1999)



Countries are ranked in ascending order of the proportion of direct public expenditure transferred to private institutions in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Tables B4.3, C2.3 and C2.4. See Annex 3 for notes (www.oecd.org/els/education/eaq2002).

With four countries constituting exceptions, the private proportion of educational expenditure is far higher at the tertiary level than at the primary, secondary and post-secondary non-tertiary levels. While primary, secondary and post-secondary non-tertiary education are usually perceived as a public good with mainly public returns, at the tertiary level the high private returns in the form of better employment and income opportunities (see Indicators A3 and A13) suggest that a greater contribution by individuals to the costs of tertiary education may be justified, provided of course, that governments can ensure that funding is accessible to students irrespective of their economic background (see also Indicator B5).

Tertiary institutions tend to mobilise a much higher proportion of their funds from private sources...

The proportion of expenditure on tertiary institutions covered by individuals, businesses and other private sources including private payments that are subsidies, ranges from about 3 per cent or less in Austria, the Flemish Community of Belgium, Denmark, Finland, Greece and Switzerland, to over one-third in Australia, Canada, Japan, Korea, the United Kingdom and the United States. In Japan and the United States, more than half of all final funds originate from private sources, and in Korea the figure exceeds 78 per cent (Chart B4.1). In Korea, over 80 per cent of students are enrolled in private universities, where more than 95 per cent of budgets are derived from tuition fees.

...but the private share, including private payments that are subsidies, ranges from about 3 per cent or less in Austria, the Flemish Community of Belgium, Denmark, Finland, Greece and Switzerland, to 78 per cent in Korea.

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The amounts paid by students and their families to cover tuition fees and other education-related expenditure differ between OECD countries according to taxation and spending policies, and the willingness of governments to support students. This willingness, in turn, is influenced by students' enrolment status (full-time or part-time), age and residency (whether they are living at home). To some extent, however, the guidelines used in establishing eligibility for these subsidies are breaking down. Mature students, whose numbers are increasing, are more likely to have established their own households and to prefer part-time or distance learning to full-time, on-campus study.

Changes in public and private investment in education

Direct private expenditure on educational institutions increased by over 10 per cent in absolute terms between 1995 and 1999 in nine out of 16 OECD countries with comparable data. Increases range from about 2 per cent in France and Germany to 100 per cent or more in Portugal and Sweden. Only three OECD countries – Austria, the Czech Republic and Norway – saw a decline in the private proportion of more than 5 per cent (Chart B4.3).

The scale of private-sector funding of education has increased.

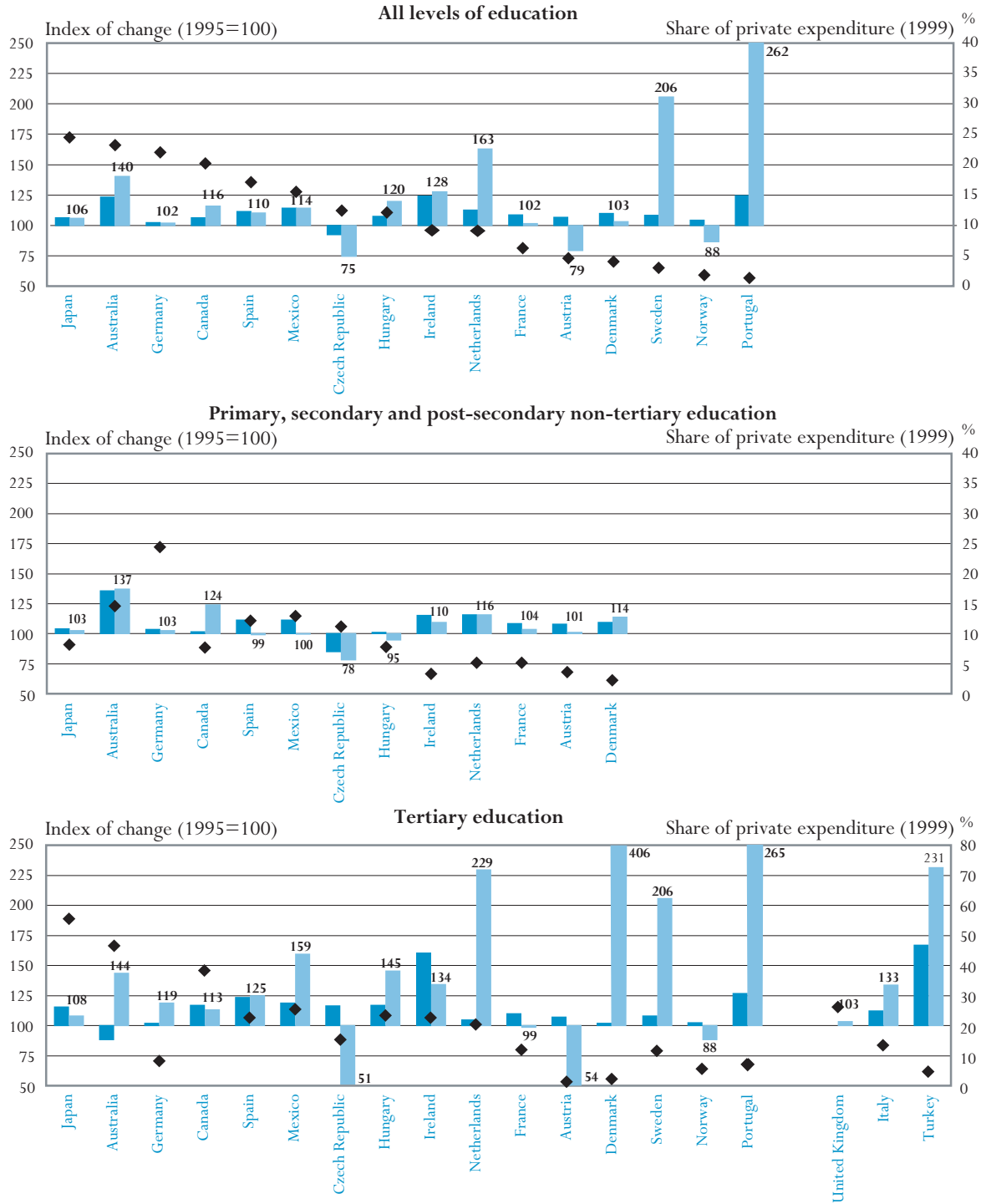
Four OECD countries – Australia, Denmark, Canada and the Netherlands – saw a significant growth in private spending in primary, secondary and post-secondary non-tertiary education between 1995 and 1999. In Australia, Canada and the Netherlands, private funds grew by between 16 and 37 per cent, with private funds now representing more than 5 per cent of total spending on educational institutions in these three countries (Chart B4.3 and Table B4.2).

In Australia, Canada and Denmark, private spending on primary, secondary and post-secondary non-tertiary education increased faster than public spending...

Chart B4.3.

Index of change in public and private expenditure on educational institutions between 1995 and 1999 (1995=100)

■ Public expenditure (left scale) ■ Private expenditure (left scale) ◆ Share of private expenditure (right scale)



Note: Countries with a share of total funding from private sources of 1 per cent or less are not represented in the chart. Countries are ranked in descending order of the share of private expenditure in 1999 for all levels of education. Source: OECD. Tables B2.2, B4.1 and B4.2. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

In many OECD countries, the growth in tertiary participation (Indicator C2) represents a response to heavy demand, both individual and social. But, just as many tertiary structures and programmes were designed for a different era, so too were its funding mechanisms. As demand for tertiary education has increased in many OECD countries, so has the share of the financial burden borne by families. With the exception of Canada and France, in every OECD country with available data, the change in private expenditure on educational institutions is much greater with respect to tertiary institutions than with respect to primary, secondary and post-secondary non-tertiary institutions.

...but changes are most striking in tertiary education, where a dramatic growth in participation is accompanied by a growing share of private expenditure...

The increase in private household spending at the tertiary level is explained by one or more of four factors: *i*) an increase in enrolments, *ii*) increased or newly imposed fees, charges or contributions, *iii*) a rise in the costs of education-related goods and services other than institutions, and *iv*) growth in enrolment in private institutions with higher fees.

...which is explained by four main factors.

Ten out of 19 OECD countries reported an increase in private spending on tertiary educational institutions of more than 30 per cent between 1995 and 1999. Some OECD countries, most notably Australia, Hungary, Mexico and the Netherlands, saw a clear shift in the relative proportions of public and private investment in tertiary education institutions between 1995 and 1999. In Australia, the private-sector proportion increased from 36 to 48 per cent, in Hungary from 20 to 23 per cent, in Mexico from 23 to 28 per cent and in the Netherlands, from 12 per cent in 1995 to 22 per cent in 1999. However, there are exceptions to this pattern: in Ireland, an increase of 34 per cent in private-sector funding of tertiary institutions between 1995 and 1999 was outpaced by an increase in public funds of 60 per cent. In Austria and the Czech Republic, private funding of tertiary education decreased by around half between 1995 and 1999. As a consequence, the proportion of private funding of educational institutions relative to total spending on education decreased from almost 29 per cent in 1995 to less than 15 per cent in the Czech Republic, and from 2.4 to 1.3 per cent in Austria (Chart B4.3 and Table B4.2).

In 10 out of 19 OECD countries, the private proportion of tertiary education funding grew by more than 30 per cent between 1995 and 1999...

It is important to note that rises in private educational expenditure have not generally been accompanied by falls in public expenditure on education, either in primary, secondary and post-secondary non-tertiary education or at the tertiary level. On the contrary, Chart B4.3 shows that public investment in education has increased in most of the OECD countries for which 1995 to 1999 data are available, regardless of changes in private spending. In fact, some of the OECD countries with the highest growth in private spending have also shown the highest increase in public funding of education. This indicates that increasing private spending on tertiary education tends to complement, rather than replace, public investment.

...but in most OECD countries, this did not lead to a decrease in public-sector spending on tertiary education.

New funding strategies aim not only at mobilising the required resources from a wider range of public and private sources, but also at influencing

Many OECD countries in which students or their

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families contribute to the funding of tertiary education show some of the highest participation rates...

...while several OECD countries with predominantly public funding show only low levels of participation.

Data refer to the financial year 1999 and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Data for the financial year 1995 are based on a special survey carried out among OECD countries in 2000.

student behaviour in ways that make education more cost-effective. It is hard to determine the precise impact of tuition fees on learners' behaviour, partly because fees cannot be seen in isolation from grants, taxation and implicit subsidies through loans. But many OECD countries in which students and their families spend more on tertiary education show some of the highest tertiary participation and completion rates (Indicators A2 and C2).

Conversely, in the six OECD countries with the lowest entry rates to tertiary-type A education – the Czech Republic, Denmark, Germany, Mexico, Switzerland and Turkey – private sources of funds account for between 2 and 28 per cent of total educational spending on tertiary institutions (Tables B4.2 and C2.1). It is therefore not obvious that the participation of the beneficiaries of tertiary studies in the financing of their education creates economic barriers – provided, of course, that governments develop appropriate strategies to make funding accessible to students from all income groups.

Definitions and methodologies

The public and private proportions of expenditure on educational institutions are the percentages of total spending originating in, or generated by, the public and private sectors. Private spending includes all direct expenditure on educational institutions, whether partially covered by public subsidies or not. Public subsidies attributable to households, included in private spending, are shown separately.

Parts of the budgets of educational institutions are related to ancillary services offered to students, which are usually student welfare services, such as student meals, housing and transportation. Some of the costs for these services are covered by fees collected from students, which are included.

The change in private and public spending on educational institutions is shown as an index and compares the proportion of private spending in 1995 with that in 1999. The data on expenditure for 1995 were obtained by a special survey in 2000 in which expenditure for 1995 was adjusted to methods and definitions used in the 1999 UOE data collection.

Note that a large increase or decrease in private spending (Chart B4.3) in OECD countries where private spending is small in relation to total spending may only represent a small additional burden on households, while a comparatively small change in spending applied to a high level of private funding can translate into substantial additional funds for educational institutions.

The glossary at the end of this volume gives a definition of public, government-dependent private and independent private institutions.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eqg2002 for details on changes).

Table B4.1.

Relative proportions of public and private expenditure on educational institutions for all levels of education (1995, 1999)
Distribution of public and private sources of funds for educational institutions after transfers from public sources, by year

	1999			1995		
	Public sources	Private sources ¹	Private: of which subsidised	Public sources	Private sources ¹	Private: of which subsidised
OECD COUNTRIES						
Australia*	76.5	23.5	0.3	78.7	21.3	3.0
Austria*	95.4	4.6	x	93.9	6.1	1.4
Belgium*	95.0	5.0	m	m	m	m
Canada ^{2*}	79.8	20.2	m	82.3	17.7	a
Czech Republic*	87.6	12.4	n	85.0	15.0	6.2
Denmark ^{2*}	96.0	4.0	m	95.7	4.3	n
Finland*	97.8	2.2	n	m	m	m
France*	91.9	8.1	1.8	91.4	8.6	2.6
Germany*	77.9	22.1	0.1	77.8	22.2	0.1
Greece*	93.4	6.6	m	m	m	n
Hungary	87.9	12.1	n	89.0	11.0	n
Iceland	m	m	m	m	m	m
Ireland	89.6	10.4	1.2	89.8	10.2	m
Italy	90.3	9.7	1.1	m	m	m
Japan ^{3*}	75.6	24.4	a	75.5	24.5	a
Korea*	58.7	41.3	1.1	m	m	m
Luxembourg	m	m	m	m	m	m
Mexico	82.6	17.4	1.9	82.6	17.4	m
Netherlands*	89.7	10.3	1.2	92.6	7.4	4.8
New Zealand	m	m	a	m	m	m
Norway	98.2	1.8	n	97.9	2.1	m
Poland	m	m	m	m	m	m
Portugal*	98.7	1.3	m	99.4	0.6	m
Slovak Republic	97.8	2.2	m	m	m	m
Spain	82.3	17.7	0.7	82.1	17.9	0.4
Sweden	97.0	3.0	a	98.3	1.7	m
Switzerland	90.0	10.0	1.7	m	m	m
Turkey*	98.8	1.2	m	94.7	5.3	1.2
United Kingdom*	83.7	16.3	2.2	m	m	m
United States ^{2*}	75.0	25.0	x	m	m	m
Country mean	88.0	12.0	0.7	~	~	~
NON-OECD COUNTRIES						
Argentina	77.2	22.8	0.1	m	m	m
Chile	55.1	44.9	1.9	m	m	m
China	55.8	44.2	n	m	m	m
India ^{2,4}	96.2	3.8	x	m	m	m
Indonesia ⁵	64.5	35.5	m	m	m	m
Israel	80.9	19.1	2.0	80.5	19.5	1.4
Jamaica	62.3	37.7	1.0	m	m	m
Jordan	83.7	16.3	x	m	m	m
Paraguay	56.4	43.6	x	m	m	m
Peru ²	71.6	28.4	m	m	m	m
Thailand	94.6	5.4	m	m	m	m

1. Including subsidies attributable to payments to educational institutions received from public sources.

2. Post-secondary non-tertiary included in tertiary education or missing.

3. Post-secondary non-tertiary included in both upper secondary and tertiary education.

4. Year of reference 1998.

5. Year of reference 2000.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

B4

Table B4.2.

Relative proportions of public and private expenditure on educational institutions (1995, 1999)
 Distribution of public and private sources of funds for educational institutions after transfers from public sources, by level of education and year

	Pre-primary education (for children 3 years and older)			Primary, secondary and post-secondary non-tertiary education						Tertiary education					
	1999			1999			1995			1999			1995		
	Public sources	Private sources ¹	Private: of which subsidised	Public sources	Private sources ¹	Private: of which subsidised	Public sources	Private sources ¹	Private: of which subsidised	Public sources	Private sources ¹	Private: of which subsidised	Public sources	Private sources ¹	Private: of which subsidised
OECD COUNTRIES															
Australia*	62.9	37.1	n	85.4	14.6	n	85.6	14.4	0.7	52.4	47.6	1.1	64.2	35.8	8.1
Austria*	86.5	13.5	0.2	96.4	3.6	x	96.1	3.9	x	98.7	1.3	x	97.6	2.4	x
Belgium	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Belgium (Fl.)*	95.2	4.8	m	92.7	7.3	m	m	m	m	100.0	n	m	m	m	m
Canada ^{2*}	92.3	7.7	x	92.3	7.7	m	93.7	6.3	a	59.3	40.7	2.4	59.1	40.9	a
Czech Republic*	89.3	10.7	n	88.8	11.2	n	88.6	11.4	6.8	84.7	15.3	n	71.0	29.0	8.6
Denmark ^{2*}	81.9	18.1	m	97.8	2.2	m	97.8	2.2	n	97.7	2.3	m	m	m	n
Finland*	84.8	15.2	n	99.4	0.6	n	m	m	m	97.4	2.6	n	m	m	m
France*	95.8	4.2	n	92.8	7.2	2.0	92.5	7.5	2.4	85.7	14.3	2.3	84.3	15.7	5.0
Germany*	62.2	37.8	n	75.6	24.4	n	75.5	24.5	n	91.5	8.5	0.3	92.7	7.3	0.7
Greece*	x	x	m	90.2	9.8	m	m	m	n	99.9	0.1	m	m	m	n
Hungary	89.1	10.9	n	92.2	7.8	n	91.7	8.3	n	76.6	23.4	n	80.3	19.7	n
Iceland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Ireland	32.3	67.7	m	96.7	3.3	m	96.5	3.5	m	73.4	26.6	4.0	69.7	30.3	x
Italy	98.7	1.3	n	98.3	1.7	n	m	m	m	80.3	19.7	6.2	82.8	17.2	0.1
Japan ^{3*}	48.6	51.4	a	91.8	8.2	a	91.7	8.3	a	44.5	55.5	a	42.8	57.2	a
Korea*	23.2	76.8	0.5	80.2	19.8	1.0	m	m	m	20.7	79.3	1.3	m	m	m
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Mexico	87.5	12.5	0.2	85.2	14.8	1.9	83.8	16.2	m	71.8	28.2	2.7	77.4	22.6	m
Netherlands ⁴	96.9	3.1	a	93.9	6.1	1.0	93.9	6.1	3.0	77.6	22.4	2.1	88.3	11.7	10.2
New Zealand	m	m	m	m	m	a	m	m	m	m	m	a	m	m	m
Norway	100.0	n	n	99.1	0.9	x	98.9	1.1	m	94.4	5.6	n	93.6	6.4	m
Poland ⁴	m	m	m	m	m	m	m	m	m	82.8	17.2	m	m	m	m
Portugal*	m	m	m	99.9	0.1	m	100.0	0.0	m	92.9	7.1	m	96.5	3.5	m
Slovak Republic	98.6	1.4	m	99.6	0.4	m	m	m	m	91.9	8.1	m	m	m	m
Spain	77.9	22.1	n	87.9	12.1	n	86.6	13.4	n	74.2	25.8	3.2	74.4	25.6	2.0
Sweden	100.0	a	m	99.8	0.2	m	99.8	0.2	m	88.4	11.6	a	93.6	6.4	m
Switzerland	99.9	0.1	0.1	87.7	12.3	1.2	m	m	m	96.7	3.3	3.3	m	m	m
Turkey*	m	m	m	m	m	m	94.0	6.0	n	95.3	4.7	m	96.6	3.4	4.2
United Kingdom*	95.6	4.4	a	88.2	11.8	0.0	m	m	m	63.2	36.8	10.7	63.9	36.1	16.0
United States ^{2*}	90.3	9.7	m	90.7	9.3	x	m	m	m	46.9	53.1	x	m	m	m
Country mean	82.2	17.8	0.1	92.1	7.9	0.5	~	~	~	79.2	20.8	2.1	~	~	~
NON-OECD COUNTRIES															
Argentina	m	m	m	88.6	11.4	m	m	m	m	67.4	32.6	0.6	m	m	m
Chile	70.2	29.8	n	69.2	30.8	a	m	m	m	22.8	77.2	6.3	m	m	m
China	54.6	45.4	n	55.8	44.2	a	m	m	m	56.8	43.2	n	m	m	m
India ⁵	95.3	4.7	m	95.3	4.7	x	m	m	m	99.7	0.3	x	m	m	m
Indonesia ⁶	5.3	94.7	m	76.6	23.4	m	m	m	m	43.8	56.2	m	m	m	m
Israel	75.5	24.5	n	94.9	5.1	1.0	m	m	m	58.1	41.9	5.2	m	m	m
Jamaica	33.9	66.1	n	64.7	35.3	1.2	m	m	m	70.4	29.6	1.0	m	m	m
Jordan	m	m	m	98.4	1.6	a	m	m	m	48.1	51.9	x	m	m	m
Malaysia	m	m	m	m	m	m	m	m	m	92.7	7.3	m	m	m	m
Paraguay	m	m	m	59.5	40.5	x	m	m	m	51.2	48.8	x	m	m	m
Peru ²	80.3	19.7	a	76.8	23.2	a	m	m	m	54.5	45.5	m	m	m	m
Philippines ⁵	m	m	m	66.8	33.2	x	m	m	m	m	m	m	m	m	m
Thailand	92.6	7.4	m	97.8	2.2	m	m	m	m	83.3	16.7	m	m	m	m
Uruguay	87.4	12.6	m	93.6	6.4	m	m	m	m	m	m	m	m	m	m

1. Including subsidies attributable to payments to educational institutions received from public sources.

To calculate private funds net of subsidies, subtract public subsidies (columns 3,6,9) from private funds (columns 2,5,8).

To calculate total public funds, including public subsidies, add public subsidies (columns 3,6,9) to direct public funds (columns 1,4,7).

2. Post-secondary non-tertiary included in tertiary education or missing.

3. Post-secondary non-tertiary included in both upper secondary and tertiary education.

4. Public institutions only.

5. Year of reference 1998.

6. Year of reference 2000.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B4.3.

Distribution of total public expenditure on education (1999)

Public expenditure on education transferred to educational institutions and public transfers to the private sector as a percentage of total public expenditure on education, by level of education

	Primary, secondary and post-secondary non-tertiary education			Tertiary education			All level of education combined		
	Direct public expenditure on public institutions	Direct public expenditure on private institutions	Indirect public transfers and payments to the private sector	Direct public expenditure on public institutions	Direct public expenditure on private institutions	Indirect public transfers and payments to the private sector	Direct public expenditure on public institutions	Direct public expenditure on private institutions	Indirect public transfers and payments to the private sector
OECD COUNTRIES									
Australia*	79.6	16.1	4.3	67.7	n	32.3	75.9	12.1	10.8
Austria*	96.7	1.8	1.5	85.5	1.5	13.1	92.5	2.7	4.7
Belgium*	44.9	54.7	0.4	35.0	49.0	15.9	43.3	52.1	4.6
Canada**	98.3	1.7	x	77.7	0.4	21.8	91.5	1.2	7.3
Czech Republic*	91.5	3.2	5.3	91.1	1.4	7.6	92.3	2.6	5.1
Denmark**	78.9	6.5	14.6	64.8	n	35.2	75.3	4.1	20.6
Finland*	91.8	4.2	3.9	74.9	8.1	17.1	86.1	5.8	8.2
France*	83.0	13.3	3.7	88.7	3.3	8.0	85.2	10.9	4.0
Germany*	85.4	7.9	6.7	85.4	2.4	12.3	82.1	10.7	7.2
Greece*	99.9	a	0.1	96.6	a	3.4	98.9	a	1.1
Hungary	92.5	6.9	0.6	83.2	4.3	12.6	91.3	5.7	2.9
Iceland	m	m	m	m	m	m	m	m	m
Ireland	96.9	n	3.1	85.2	n	14.8	93.7	n	6.3
Italy	93.7	5.4	0.9	81.3	1.6	17.1	91.6	4.4	4.0
Japan**	96.5	3.5	m	83.0	17.0	m	93.6	6.4	m
Korea*	86.6	11.7	1.7	59.8	28.1	12.1	83.7	13.0	3.2
Luxembourg	m	m	m	m	m	m	m	m	m
Mexico	97.2	0.1	2.7	94.3	m	5.7	96.9	0.1	3.1
Netherlands*	21.9	70.7	7.4	39.3	36.1	24.6	27.4	61.0	11.6
New Zealand	95.5	1.4	3.2	75.9	1.9	22.2	90.9	2.1	7.0
Norway	91.9	2.2	5.9	69.0	2.4	28.6	83.3	4.6	12.2
Poland	m	m	m	m	m	m	m	m	m
Portugal*	92.0	6.7	1.3	94.0	n	6.0	91.8	6.2	2.1
Slovak Republic	96.6	3.4	0.0	95.6	m	4.4	96.7	2.5	0.9
Spain	85.5	13.5	1.0	89.9	0.7	9.3	86.9	10.4	2.7
Sweden	83.7	2.7	13.6	64.7	4.9	30.4	78.9	3.9	17.1
Switzerland	90.0	7.1	2.8	89.3	6.6	4.1	89.6	6.8	3.6
Turkey*	99.8	a	0.2	87.8	0.4	11.8	96.5	0.1	3.4
United Kingdom*	78.7	21.1	0.2	a	73.3	26.7	64.7	29.8	5.5
United States**	99.7	0.3	x	67.6	13.2	19.2	90.5	4.5	5.0
Country mean	87.0	9.9	3.5	75.1	9.9	16.4	84.0	9.7	6.4
NON-OECD COUNTRIES									
Argentina	85.7	12.5	1.8	96.2	2.5	1.3	88.1	10.4	1.6
Brazil ³	98.2	1.8	n	93.1	0.8	6.1	97.2	1.5	1.3
Chile	67.8	31.8	0.4	42.2	33.9	23.9	63.8	32.0	4.1
China	99.2	a	0.8	93.7	a	6.3	97.9	a	2.1
India ^{1, 3}	70.7	29.1	0.2	78.2	21.5	0.3	72.2	27.6	0.2
Indonesia ⁴	90.0	6.6	3.5	m	m	m	m	m	m
Israel	75.0	24.0	1.1	6.9	83.4	9.6	64.1	33.1	2.7
Jamaica	98.2	n	1.8	98.3	n	1.7	95.6	2.7	1.7
Jordan	100.0	a	a	88.1	a	11.9	97.8	a	2.2
Malaysia	98.9	0.6	0.5	66.1	n	33.9	88.2	0.4	11.5
Paraguay	92.5	7.4	0.1	m	m	m	m	m	m
Philippines ³	98.7	a	1.3	97.5	a	2.5	98.5	a	1.5
Thailand	93.3	2.2	4.5	74.9	n	25.1	88.9	2.0	9.1
Uruguay	99.9	a	0.1	100.0	a	n	100.0	a	n

1. Post-secondary non-tertiary included in tertiary education or missing.

2. Post-secondary non-tertiary included in both upper secondary and tertiary education.

3. Year of reference 1998.

4. Year of reference 2000.

* See Annex 3 for notes (www.oecd.org/els/education/eaq2002).

Source: OECD.

B4

SUPPORT FOR STUDENTS AND HOUSEHOLDS THROUGH PUBLIC SUBSIDIES

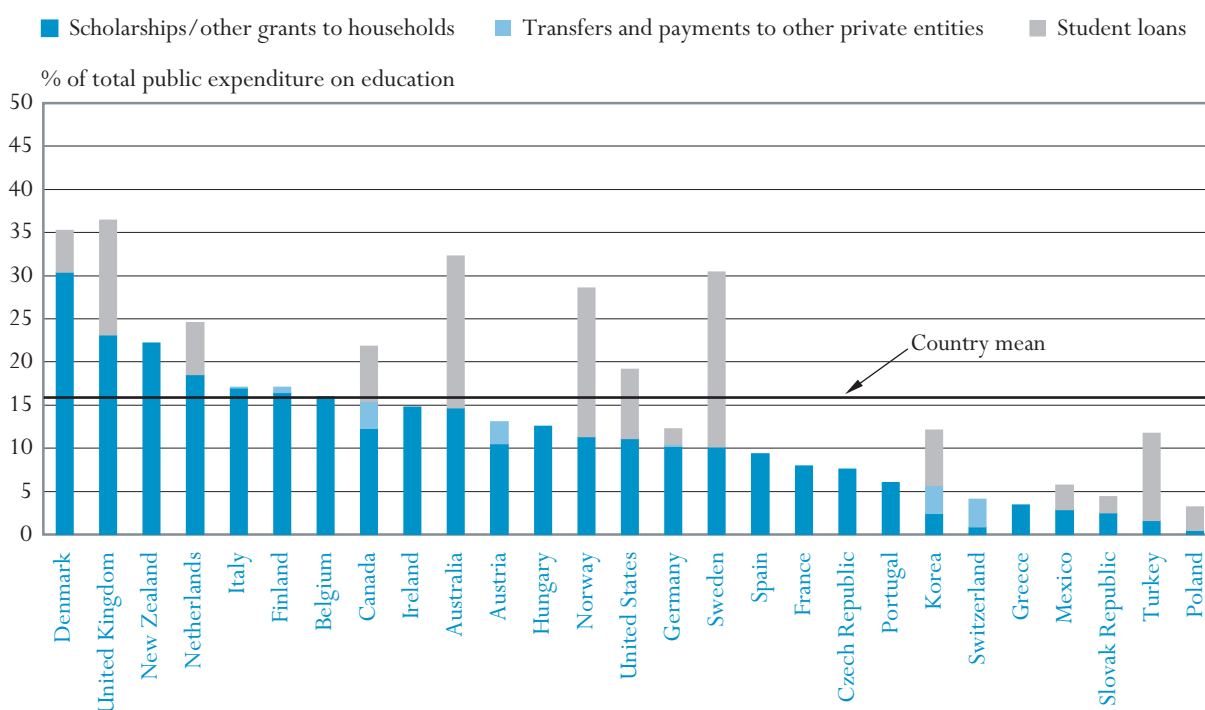
- An average of 16 per cent of public spending on tertiary education is devoted to supporting students, households and other private entities. In Australia, Denmark and the United Kingdom, public subsidies account for about one-third or more of public tertiary education budgets.
- Subsidies are particularly important in systems where students are expected to pay for at least part of the cost of their education.
- In most OECD countries, the beneficiaries of public subsidies have considerable discretion regarding the spending of subsidies. In all reporting OECD countries, subsidies are spent mainly outside educational institutions, and in one out of three countries exclusively outside.

B5

Chart B5.1.

Public subsidies for education at the tertiary level (1999)

Public subsidies for education to the private sector as a percentage of total government expenditure on education, by type of subsidy



Countries are ranked in descending order of scholarships/other grants to households and transfers and payments to other private entities in tertiary education.

Source: OECD. Table B5.2. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Policy context

Through subsidies to students and their families, governments can encourage participation in education, particularly among students from low-income families, by covering part of the cost of education and related expenses. Furthermore, public subsidies play an important role in indirectly financing educational institutions.

Channelling funding for institutions through students may also help to increase competition between institutions and result in greater efficiency in the financing of education. Since aid for student living costs can serve as a substitute for work as a financial resource, public subsidies may enhance educational attainment by enabling students to study full-time and to work fewer hours or not at all.

Public subsidies come in many forms: as means-based subsidies, as family allowances for all students, as tax allowances for students or their parents, or as other household transfers. Unconditional subsidies such as tax reductions or family allowances may provide less of an incentive for low-income students to participate in education than means-tested subsidies. However, they may still help to reduce disparities between households with and without children in education.

A key question is whether financial subsidies for households should be provided in the form of grants or loans. Are loans an effective means to help increase the efficiency of financial resources invested in education and shift some of the cost of education to the beneficiaries of educational investment? Or are student loans less appropriate than grants in encouraging low-income students to pursue their education? This indicator cannot answer this question but portray the policies for subsidies that the different OECD countries pursue.

Evidence and explanations

What this indicator covers and what it does not cover

This indicator shows the proportion of public spending on education that is transferred to students, families and other private entities. Some of these funds are spent indirectly on educational institutions, for example, when subsidies are used to cover tuition fees. Other subsidies for education do not relate to educational institutions, such as subsidies for student living costs.

The indicator distinguishes between scholarships and grants, which are non-repayable subsidies, on the one hand, and loans on the other. The indicator does not, however, distinguish between different types of grants or loans, such as scholarships versus family allowances and subsidies in kind.

Governments can also support students and their families by providing tax reductions and tax credits. These types of subsidy are not covered by this indicator.

This indicator examines direct and indirect public spending on educational institutions as well as public subsidies to households for student living costs.

*Coverage diagram
(see page 144 for
explanations)*

It is also common for governments to guarantee the repayment of loans to students made by private lenders. In some OECD countries, this indirect form of subsidy is as significant as, or more significant than, direct financial aid to students. However, for reasons of comparability, the indicator only takes into account public transfers to private entities relating to private loans, not the total value of loans generated.

In the case of student loans, the indicator reports the full volume of loans in order to provide information on the level of support which current students receive. The indicator does not take repayments into account, even though these can reduce the real costs of loans substantially. Some OECD countries also have difficulties quantifying the amount of loans attributable to students. Therefore data on student loans should be treated with some caution.

Public subsidies to households and other private entities

OECD countries spend an average of 0.4 per cent of their GDP on public subsidies to households and other private entities.

OECD countries spend an average of 0.4 per cent of their GDP on public subsidies to households and other private entities. In Denmark and Sweden, this figure is more than 1 per cent of GDP. Furthermore, on average across OECD countries, 7.0 per cent of public budgets for education is spent on transfers to the private sector (Tables B3.1, B5.1 and B5.2). Most of these amounts are devoted to the tertiary level of education, except in the Czech Republic, France, Germany, Mexico, Sweden and Switzerland, where more than 50 per cent of transfers to the private sector are devoted to primary, secondary and post-secondary non-tertiary education.

At the primary, secondary and post-secondary non-tertiary levels, public subsidies account for a comparatively small proportion of public spending on education.

Most OECD countries offer public subsidies to households from upper secondary education onwards. There are usually few subsidies available before the upper secondary level, since in most OECD countries education up to that level is compulsory, free of charge, predominantly provided by the public sector and largely provided at the point of residence of students and their families. In 10 out of 26 OECD countries, subsidies to households and private entities therefore account for 1 per cent or less of total public spending on primary, secondary and post-secondary non-tertiary education. However, in Australia, the Czech Republic, Germany, the Netherlands and Norway, public subsidies account for between 4 and 8 per cent of public expenditure on primary, secondary and post-secondary non-tertiary education; and in Denmark and Sweden for 15 and 14 per cent respectively (Chart B5.2). In most of the OECD countries with high proportions of subsidies at the primary, secondary and post-secondary non-tertiary levels of education, these subsidies are directed at adults re-entering secondary education.

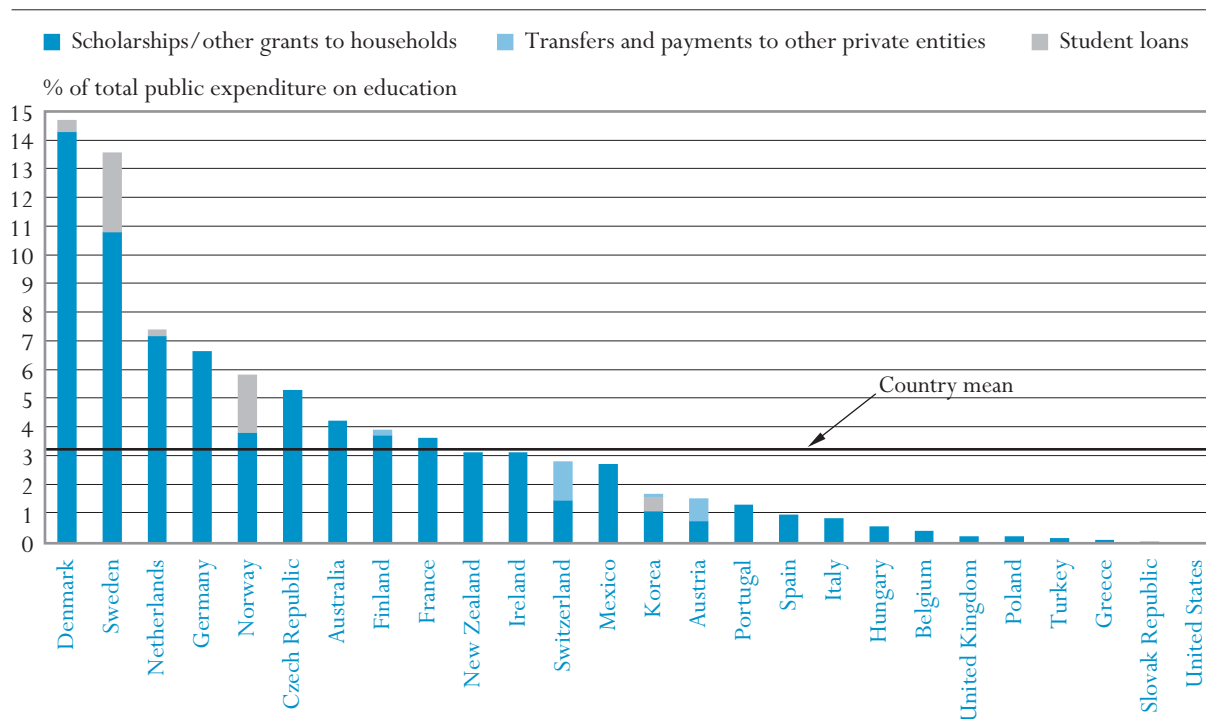
Australia, Denmark and the United Kingdom spend about one-third or more of their public education budget at the

The proportion of educational budgets spent on subsidies to households and private entities is much higher at the tertiary level. OECD countries spend, on average, 16 per cent of their public budgets for tertiary education on subsidies to households and other private entities (Chart B5.1). In Australia, Denmark and the United Kingdom, public subsidies account for about one-third or

Chart B5.2.

Public subsidies for education in primary, secondary and post-secondary non-tertiary education (1999)

Public subsidies for education to the private sector as a percentage of total government expenditure on education, by type of subsidy



Countries are ranked in descending order of total public subsidies for primary, secondary and post-secondary non-tertiary education. Source: OECD. Table B5.1. See Annex 3 for notes (www.oecd.org/els/education/eq2002).

more of public spending on tertiary education. Only Greece, Poland, the Slovak Republic and Switzerland spend less than 5 per cent of their total public spending on tertiary education on subsidies (Table B5.1).

A key question in many OECD countries is whether financial subsidies for households should primarily be provided in the form of grants or loans. Governments choose to subsidise students' living costs or educational costs through different mixtures of grants and loans. Advocates of student loans argue that money spent on loans goes further, that is, if the amount spent on grants were used to guarantee or subsidise loans instead, more aid would be available to students in total, and overall access would be increased. Loans also shift some of the cost of education to those who benefit most from educational investment. Opponents of loans argue that student loans will be less effective than grants in encouraging low-income students to pursue their education. They also argue that loans may be less efficient than anticipated because of the various subsidies provided to borrowers or lenders, and of the costs of administration and servicing.

tertiary level on subsidies to the private sector.

OECD countries use different mixtures of grants and loans to subsidise students' educational costs.

B5

Chart B5.1 presents the proportion of public educational expenditure spent on loans, grants and scholarships and other subsidies to households. Grants and scholarships include family allowances and other specific subsidies, but exclude tax reductions. Thirteen out of 27 reporting OECD countries rely exclusively on grants or scholarships and transfers and payments to other private entities. The remaining OECD countries provide both grants or scholarships and loans to students. With two exceptions, the highest subsidies to students are provided by those OECD countries which also offer student loans. Most of them spend an above-average proportion of their budgets on grants and scholarships (Chart B5.1 and Table B5.2).

B₅ *Repayments of loans reduce the real cost of loan programmes to the public budget; at the same time they increase the burden on households for education.*

Repayments of public loans can be a substantial source of income for governments and can decrease the costs of loan programmes significantly. The current reporting of household expenditure on education (Indicator B4) does not take into account the repayment by previous recipients of public loans. These repayments can be a substantial burden to individuals and have an impact on the decision to participate in tertiary education. However, many OECD countries make the repayment of loans dependent on the later level of income of graduates.

Given that repayments to loan programmes are made by former students who took out loans several years previously, it is difficult to estimate the real costs of loan programmes; net of repayments and loans are therefore reported on a gross basis only. International comparisons of total repayments in the same reference period cannot be made, since they are heavily influenced by changes in schemes for the distribution of loans and by changes in the numbers of students receiving loans.

How subsidies are used: student living costs and tuition fees

In most OECD countries, the beneficiaries of subsidies have considerable discretion about how they spend public subsidies.

In most OECD countries, the bulk of public payments to households for education are not earmarked, that is, their use is determined by the beneficiaries, namely the students and their families. In a few OECD countries, however, public subsidies are earmarked for payments to educational institutions. Australia, New Zealand and the United Kingdom, for example, earmark public subsidies for tuition fees. In Australia, loans and tuition fees are closely related through the Higher Education Contribution Scheme (HECS). Under HECS, students can elect to pay their contributions for their university education in advance, semester by semester, and receive a 25 per cent discount, or, they can repay their accumulated contribution through the tax system when their annual income exceeds a minimum threshold. For the purpose of the OECD education indicators, HECS is counted as a loan scheme, although students may not see the delayed payments as a loan. In OECD countries where tuition fees are substantial, a proportion of the public subsidy to households is effectively earmarked for payments to educational institutions, even without an official policy.

Scholarships and other grants attributable to students are largely spent outside educational institutions. They support educational expenses other than tuition fees. In Finland and the Netherlands, scholarships and other grants not attributable for tuition fees to educational institutions account for more than 15 per cent of the total public spending on tertiary education. Korea, Poland and Switzerland are the only OECD countries where scholarships and other grants attributable for expenditure outside institutions amount to less than 1 per cent of total public spending on education (Table B5.2).

In all reporting OECD countries subsidies are spent mainly outside educational institutions, and in one out of three OECD countries exclusively outside.

In OECD countries where students are required to pay tuition fees, access to public subsidies is of particular importance in order to provide students with access to educational opportunities, regardless of their financial situation. Indicator B4 shows what proportion of funding of educational institutions originates from private sources.

Subsidies are particularly important in systems where students are expected to pay at least part of the cost of their education.

In OECD countries with low levels of private involvement in the funding of educational institutions, the level of public subsidies tends to be lower also (Tables B5.2 and B4.2). On the other hand, in the United Kingdom, more than 10 per cent of public expenditure on subsidies at tertiary level is designated to help students and households to pay for tuition fees. An exception is Korea, where despite the fact that more than 80 per cent of all expenditure on tertiary institutions originates from private sources, the level of subsidies to support tuition payments to institutions is, at 2 per cent, comparatively low (Tables B5.2 and B4.2).

Definitions and methodologies

Public subsidies to households include the following categories: *i)* grants/scholarships; *ii)* public student loans; *iii)* family or child allowances contingent on student status; *iv)* public subsidies in cash or kind specifically for housing, transportation, medical expenses, books and supplies, social, recreational and other purposes; *v)* interest-related subsidies for private loans.

Data refer to the financial year 1999 and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Expenditure on student loans is reported on a gross basis, that is, without subtracting or netting out repayments or interest payments from the borrowers (students or households). This is because the gross amount of loans including scholarships and grants is the relevant variable for measuring financial aid to current participants in education.

Public costs related to private loans guaranteed by governments are included as subsidies to other private entities. Unlike public loans, only the net cost of these loans is included.

The value of tax reductions or credits to households and students is not included.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eag2002 for details on changes).

Table B5.1.

Public subsidies to the private sector as a percentage of total public expenditure on education and GDP for primary, secondary and post-secondary non-tertiary education (1999)
Direct public expenditure on educational institutions and subsidies for households and other private entities as a percentage of total public expenditure on education and GDP

	Direct expenditure for institutions	Subsidies for education to private entities					Transfers for education to private entities as percentage of GDP
		Financial aid to students			Transfers and payments to other private entities		
		Scholarships/ other grants to households	Student loans	Total	Total	Total	
OECD COUNTRIES							
Australia	95.7	4.3	n	4.3	n	4.3	0.16
Austria	98.5	0.7	a	0.7	0.8	1.5	0.06
Belgium	99.6	0.4	n	0.4	n	0.4	0.01
Canada ^{1*}	m	m	m	m	m	m	m
Czech Republic [*]	94.7	5.3	a	5.3	n	5.3	0.16
Denmark ^{1*}	85.3	14.3	0.4	14.7	n	14.7	0.70
Finland	96.1	3.7	n	3.7	0.2	3.9	0.15
France	96.3	3.7	a	3.7	a	3.7	0.15
Germany [*]	93.3	6.7	n	6.7	n	6.7	0.20
Greece	99.9	0.1	m	0.1	a	0.1	0.00
Hungary	99.4	0.6	a	0.6	n	0.6	0.02
Iceland	m	m	m	m	m	m	m
Ireland [*]	96.9	3.1	n	3.1	n	3.1	0.10
Italy	99.1	0.9	a	0.9	n	0.9	0.03
Japan	m	a	m	m	n	m	m
Korea	98.3	1.1	0.5	1.6	0.1	1.7	0.06
Luxembourg	m	m	m	m	m	m	m
Mexico	97.3	2.7	a	2.7	n	2.7	0.09
Netherlands	92.6	7.2	0.2	7.4	n	7.4	0.23
New Zealand	96.8	3.2	a	3.2	n	3.2	0.15
Norway	94.1	3.8	2.0	5.9	n	5.9	0.25
Poland	99.8	0.2	x	0.2	m	0.2	0.01
Portugal	98.7	1.3	m	1.3	m	1.3	0.06
Slovak Republic	100.0	n	a	n	a	n	n
Spain	99.0	1.0	n	1.0	n	1.0	0.03
Sweden	86.4	10.8	2.8	13.6	a	13.6	0.69
Switzerland [*]	97.2	1.5	n	1.5	1.3	2.8	0.11
Turkey	99.8	0.2	a	0.2	a	0.2	0.00
United Kingdom	99.8	0.2	n	0.2	n	0.2	0.01
United States ¹	100.0	n	a	n	n	n	x
Country mean	96.7	3.0	0.3	3.2	0.1	3.3	0.14
NON-OECD COUNTRIES							
Argentina	98.2	1.8	n	1.8	n	1.8	0.06
Brazil ²	100.0	n	n	n	n	n	n
Chile	99.6	n	a	n	a	n	n
China	99.2	0.8	x	0.8	a	0.8	n
India ^{1,2}	99.8	0.2	n	0.2	x	0.2	n
Indonesia ³	96.5	3.5	m	3.5	x	3.5	n
Israel	98.9	1.1	n	1.1	n	1.1	n
Jamaica	98.2	1.8	n	1.8	n	1.8	0.08
Jordan	100.0	a	a	a	a	a	a
Malaysia	99.5	0.5	a	0.5	a	0.5	n
Paraguay	99.9	n	a	n	a	n	n
Peru ¹	99.9	0.1	n	0.1	n	0.1	n
Philippines ²	98.7	1.3	a	1.3	a	1.3	n
Thailand	95.5	n	4.4	4.5	m	4.5	0.13
Uruguay	99.9	n	a	n	a	n	n

1. Excluding post-secondary non-tertiary education or missing.

2. Year of reference 1998.

3. Year of reference 2000.

 * See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B5.2.
Public subsidies to the private sector as a percentage of total public expenditure on education and GDP for tertiary education (1999)

Direct public expenditure on educational institutions and subsidies for households and other private entities as a percentage of total public expenditure on education and GDP

	Direct expenditure for institutions	Subsidies for education to private entities						Transfers for education to private entities as percentage of GDP
		Financial aid to students			Scholarships/ other grants to households attributable to educational institutions	Transfers and payments to other private entities	Total	
		Scholarships/ other grants to households	Student loans	Total				
OECD COUNTRIES								
Australia	67.7	14.6	17.7	32.3	1.4	n	32.3	0.38
Austria	86.9	10.4	a	10.4	x	2.6	13.1	0.22
Belgium	84.1	15.9	n	15.9	m	n	15.9	0.24
Canada ^{1*}	78.2	12.2	6.4	18.6	m	3.2	21.8	0.41
Czech Republic [*]	92.4	7.6	a	7.6	n	n	7.6	0.06
Denmark [*]	64.8	30.3	4.9	35.2	m	n	35.2	0.83
Finland	82.9	16.4	n	16.4	n	0.7	17.1	0.36
France	92.0	8.0	a	8.0	2.4	a	8.0	0.08
Germany [*]	87.7	10.1	1.9	12.0	n	0.3	12.3	0.13
Greece	96.6	3.4	m	3.4	m	a	3.4	0.04
Hungary	87.4	12.6	a	12.6	n	n	12.6	0.12
Iceland	m	m	m	m	m	m	m	m
Ireland [*]	85.2	14.8	n	14.8	4.7	n	14.8	0.17
Italy	82.9	16.9	n	16.9	6.3	0.1	17.1	0.14
Japan	m	m	m	m	m	n	m	m
Korea	87.9	2.4	6.4	8.8	2.4	3.3	12.1	0.07
Luxembourg	m	m	m	m	m	m	m	m
Mexico	94.3	2.8	2.9	5.7	m	n	5.7	0.05
Netherlands	75.4	18.4	6.2	24.6	2.0	n	24.6	0.32
New Zealand	77.8	22.2	a	22.2	x	n	22.2	0.27
Norway	71.4	11.3	17.3	28.6	n	n	28.6	0.57
Poland	96.8	0.4	2.7	3.2	n	m	3.2	0.03
Portugal	94.0	6.0	m	6.0	m	m	6.0	0.06
Slovak Republic	95.6	2.5	1.9	4.4	m	a	4.4	0.03
Spain	90.7	9.3	n	9.3	3.9	n	9.3	0.08
Sweden	69.6	10.1	20.3	30.4	x	a	30.4	0.63
Switzerland [*]	95.9	0.8	n	0.8	n	3.3	4.1	0.05
Turkey	88.2	1.5	10.2	11.8	m	n	11.8	0.14
United Kingdom	63.6	23.1	13.3	36.4	10.7	n	36.4	0.39
United States ¹	80.8	11.1	8.1	19.2	x	m	19.2	0.26
Country mean	84.1	10.9	4.7	15.4	2.0	0.6	15.9	0.23
NON-OECD COUNTRIES								
Argentina	98.7	n	n	n	x	0.9	1.3	n
Brazil ²	93.9	4.3	1.8	6.1	x	n	6.1	0.07
Chile	76.1	10.8	13.1	23.9	21.0	a	23.9	0.16
China	93.7	6.3	x	6.3	n	a	6.3	n
India ²	99.7	0.3	x	0.3	x	x	0.3	n
Israel	90.4	8.1	1.6	9.6	8.1	n	9.6	0.12
Jamaica	98.3	1.7	m	1.7	1.3	n	1.7	n
Jordan	88.1	11.9	a	11.9	x	a	11.9	0.11
Malaysia	66.1	13.2	20.7	33.9	x	a	33.9	0.63
Paraguay	98.0	2.0	m	2.0	x	a	2.0	n
Peru	98.9	n	0.9	1.1	x	n	1.1	n
Philippines ²	97.5	1.0	1.6	2.5	x	a	2.5	n
Thailand	74.9	m	25.1	25.1	m	m	25.1	0.29
Uruguay	100.0	n	a	n	x	a	n	n
Zimbabwe ¹	87.3	4.0	8.7	12.7	x	a	12.7	0.15

1. Including post-secondary non-tertiary education.

2. Year of reference 1998.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

B5

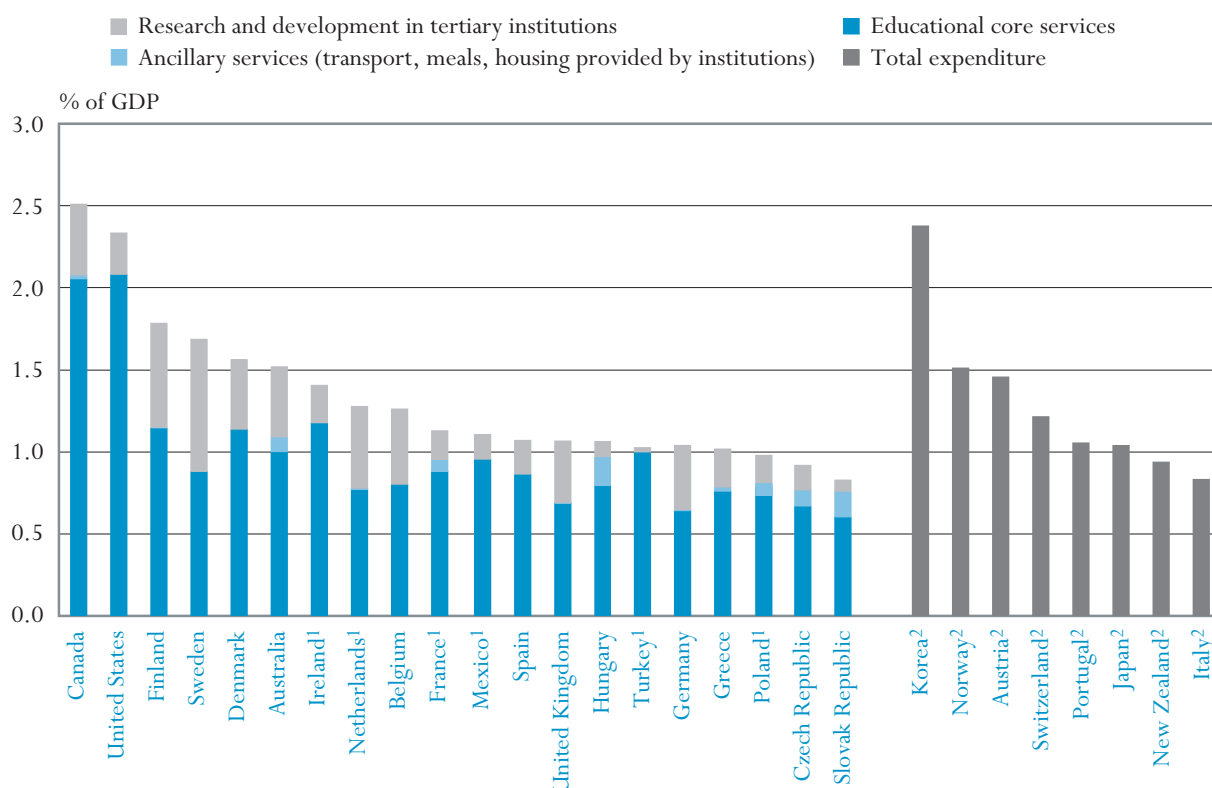
EXPENDITURE ON INSTITUTIONS BY SERVICE CATEGORY AND BY RESOURCE CATEGORY

- On average, one quarter of expenditure on tertiary education is attributable to R&D at tertiary educational institutions. Significant differences between OECD countries in the emphasis on R&D in tertiary institutions explain part of the large differences in expenditure per tertiary student.
- In primary, secondary, and post-secondary non-tertiary education combined, current expenditure accounts, on average across all OECD countries, for 92 per cent of total spending. In all but four OECD countries, 70 per cent or more of primary, secondary and post-secondary non-tertiary current expenditure is spent on staff salaries.

B₆

Chart B6.1.

Expenditure on instruction, research and development (R&D) and ancillary services in tertiary educational institutions as a percentage of GDP (1999)



Countries are ranked in descending order of expenditure on instruction, research and development (R&D) and ancillary services in tertiary educational institutions.

1. Research and development expenditure at tertiary level and thus total expenditure are underestimated.

2. The bar represents total expenditure at tertiary level and includes research and development expenditure.

Source: OECD. Table B6.1. See Annex 3 for notes (www.oecd.org/els/education/eq2002).

Policy context

How spending is apportioned between different categories of expenditure can affect the quality of services (*e.g.*, through teachers' salaries), the condition of educational facilities (*e.g.*, school maintenance) and the ability of the education system to adjust to changing demographic and enrolment trends (as in the construction of new schools).

Comparisons of how different OECD countries apportion educational expenditure between the various resource categories can provide some insight into variation in the organisation and operation of educational institutions. Decisions on the allocation of resources made at the system level, both budgetary and structural, eventually feed through to the classroom and affect the nature of instruction and the conditions under which it is provided.

Educational institutions offer a range of educational services besides instruction. At the primary, secondary and post-secondary non-tertiary levels of education, institutions may offer meals, free transport to and from school or boarding facilities. At the tertiary level, institutions may offer housing and often perform a wide range of research activities as an integral part of tertiary education.

Evidence and explanations

What this indicator covers and what it does not cover

This indicator breaks down educational expenditure by current and capital expenditure and the three main functions which educational institutions typically fulfil. This includes, first, costs directly attributable to instruction, such as teachers' salaries or school materials, and costs indirectly related to the provision of instruction, such as expenditure on administration, instructional support services, development of teacher, student counselling, or on the construction and/or provision of school facilities. Second, it includes spending on ancillary services, such as student welfare services provided by educational institutions. Third, it includes spending attributable to research and development (R&D) performed at tertiary educational institutions, either in the form of separately funded R&D activities or in the form of those proportions of salaries and current expenditure in general education budgets that are attributable to the research activities of staff.

The indicator does not include public and private R&D spending outside educational institutions, such as R&D spending in industry. A comparative review of R&D spending in sectors other than education is provided in the OECD Science and Technology Indicators. Expenditure on student welfare services at educational institutions only includes public subsidies for those services. Expenditure by students and their families on services that are provided by institutions on a self-funding basis are not included.

This indicator compares OECD countries with respect to the division of spending between current and capital expenditure and the distribution of current expenditure by resource category.

It also compares how OECD countries' spending is distributed by different functions of educational institutions.

*Coverage diagram
(see page 144 for
explanations)*

Expenditure on instruction, R&D and ancillary services

Significant differences among OECD countries in the emphasis on R&D in tertiary institutions explain part of the large variation in expenditure per tertiary student.

Below the tertiary level, educational expenditure is dominated by spending on educational core services. At the tertiary level other services, particularly those related to R&D activities, can account for a significant proportion of educational spending. Differences between OECD countries in expenditure on R&D activities can therefore explain a significant part of the differences between OECD countries in overall educational expenditure per tertiary student (Chart B6.1). High levels of R&D spending in tertiary educational institutions in Australia, Belgium, Canada, Denmark, Finland, Germany, the Netherlands and Sweden (between 0.40 and 0.80 of GDP), for example, imply that spending on education per student in these OECD countries would be considerably lower if the R&D component were excluded (Table B6.1).

Student welfare services are integral functions of schools and universities.

Student welfare services and, sometimes, services for the general public, are integral functions of schools and universities in many OECD countries. Countries finance these ancillary services with different combinations of public expenditure, public subsidies and fees paid by students and their families.

Expenditure on ancillary services at primary, secondary, and post-secondary non-tertiary levels represents 5 per cent of total spending on educational institutions.

On average, OECD countries spend 0.2 per cent of their GDP on subsidies for ancillary services provided by primary, secondary and post-secondary non-tertiary institutions. This represents 5 per cent of total spending on these institutions. At the high end, the Czech Republic, Finland, France, Hungary and the Slovak Republic spend about 10 per cent or more of total spending on educational institutions on ancillary services, which translates into more than US\$ 500 (PPP) per student in Finland and France and more than US\$ 250 (PPP) per student in Canada, the Czech Republic, Hungary, Sweden and the United States (Tables B6.1 and B6.2).

In more than two-thirds of OECD countries, the amount spent on ancillary services is higher than the amount spent on subsidies to households at the primary, secondary and post-secondary non-tertiary levels. Exceptions to this pattern are Australia, Ireland, the Netherlands and Sweden, where expenditure on subsidies to households is higher (Tables B5.1 and B6.1).

On average, expenditure on subsidies for ancillary services at the tertiary level amounts to just 0.04 per cent of GDP. Nevertheless, on a per student basis this can translate into significant amounts, as in Australia, the Czech Republic, France, Hungary and the Slovak Republic, where subsidies for ancillary services amount to over US\$ 450 (PPP). At the tertiary level, ancillary services are more often provided on a self-financed basis (Tables B6.1 and B6.2).

Current and capital expenditure, and the distribution of current expenditure by resource category

Educational expenditure can first be divided into current and capital expenditure. Capital expenditure comprises spending on assets that last longer than one year and includes spending on the construction, renovation and

major repair of buildings. Current expenditure comprises spending on school resources used each year for the operation of schools.

Current expenditure can be further sub-divided into three broad functional categories: compensation of teachers, compensation of other staff, and other current expenditure (on, for example, teaching materials and supplies, maintenance of school buildings, preparation of student meals and renting of school facilities). The amount allocated to each of these functional categories will depend in part on current and projected changes in enrolment, on the salaries of educational personnel and on costs of maintenance and construction of educational facilities.

Education takes place mostly in school and university settings. The labour-intensive technology of education explains the large proportion of current spending within total educational expenditure. In primary, secondary, and post-secondary non-tertiary education combined, current expenditure accounts, on average across all OECD countries, for 92 per cent of total spending.

There is some noticeable variation between OECD countries with respect to the relative proportions of current and capital expenditure: at the primary, secondary and post-secondary non-tertiary levels combined, the proportion of current expenditure ranges from less than 86 per cent in Greece, Korea and Turkey, to 96 per cent or more in Canada, the Flemish Community of Belgium, Mexico and the Slovak Republic (Chart B6.2).

The salaries of teachers and other staff employed in education account for the largest proportion of current expenditure in OECD countries. On average across OECD countries, expenditure on the compensation of educational personnel accounts for 80 per cent of current expenditure at the primary, secondary and post-secondary non-tertiary levels of education combined. Although 70 per cent or less of expenditure in the Czech Republic, Finland, Sweden and the United Kingdom is devoted to the compensation of educational personnel, the proportion is 90 per cent or more in Greece, Mexico, Portugal and Turkey (Chart B6.2).

OECD countries with relatively small education budgets (Mexico, Portugal and Turkey, for example) tend to devote a larger proportion of current educational expenditure to the compensation of personnel and a smaller proportion to services which are sub-contracted or bought in, such as support services (*e.g.*, maintenance of school buildings), ancillary services (*e.g.*, preparation of meals for students) and renting of school buildings and other facilities.

In Denmark and the United States, around one quarter of staff expenditure in primary, secondary and post-secondary non-tertiary education combined goes towards compensation of non-teaching staff, while in Austria, Ireland, Korea and Spain this figure is 10 per cent or less. These differences are likely to reflect the degree to which educational personnel specialise in non-teaching activities

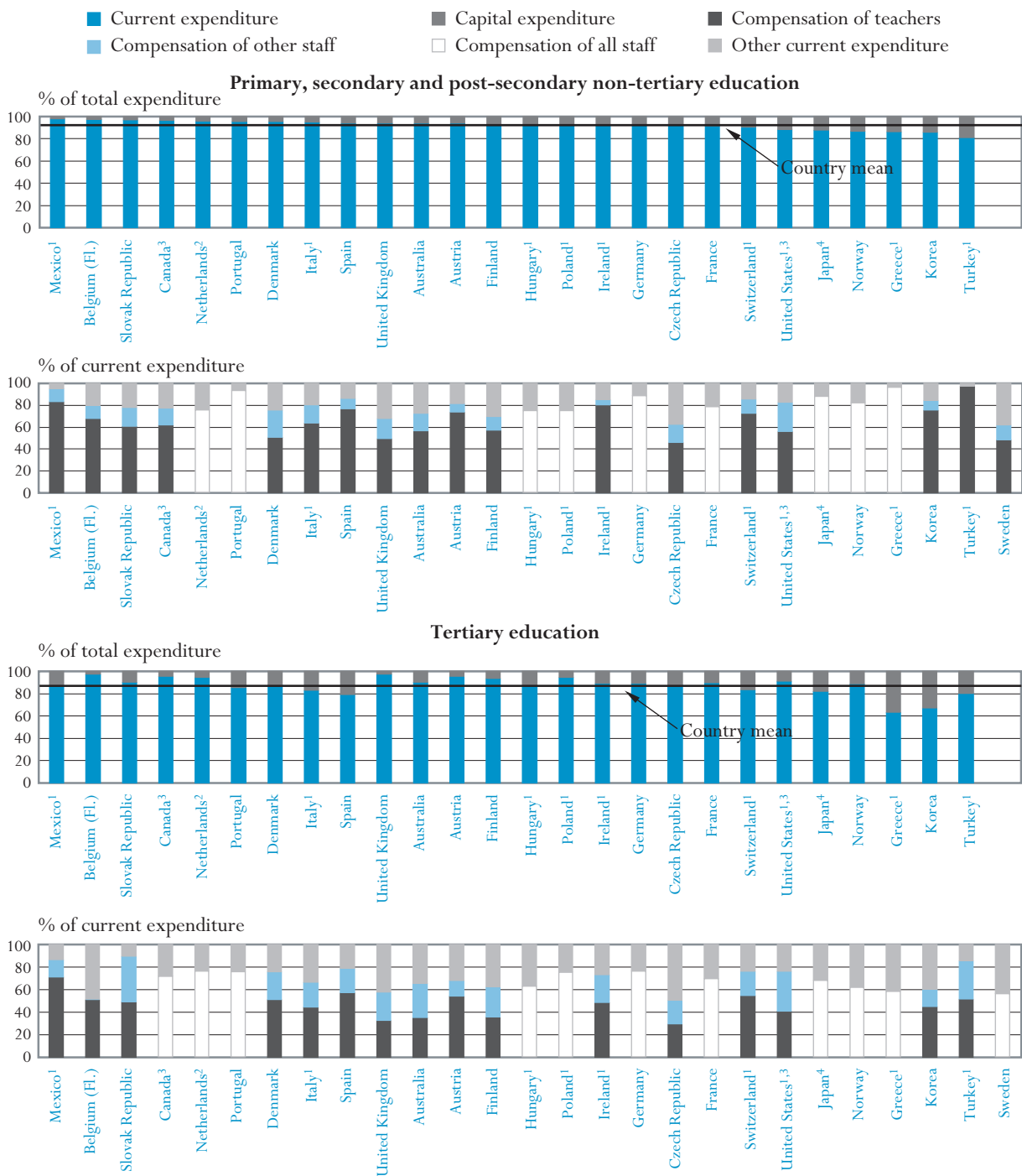
In all except four OECD countries, 70 per cent or more of current expenditure at the primary, secondary and post-secondary non-tertiary levels is spent on staff salaries.

OECD countries with smaller education budgets invest relatively more in personnel and less in other services.

OECD countries vary in the proportions of current expenditure which they allocate to the compensation of teachers and other staff.

Chart B6.2.

Distribution of total and current expenditure on educational institutions, by resource category and level of education (1999)



1. Public institutions only.

2. Public and government-dependent private institutions only.

3. Excluding post-secondary non-tertiary education.

4. Post-secondary non-tertiary included in both upper secondary and tertiary education.

Countries are ranked in ascending order of current expenditure on primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B6.3. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

in a particular country (for example, principals who do not teach, guidance counsellors, bus drivers, school nurses, janitors and maintenance workers) (Table B6.3).

At the tertiary level, the proportion of total expenditure spent on capital outlays is larger than at the primary, secondary and post-secondary non-tertiary levels, generally because of more differentiated and advanced teaching facilities. In 18 out of 26 OECD countries, the proportion spent on capital expenditure at the tertiary level is 10 per cent or more, and in Greece, Korea, Spain and Turkey it is above 20 per cent (Chart B6.2).

At the tertiary level, the proportion of capital expenditure is generally larger because of differentiated and advanced teaching facilities.

Differences are likely to reflect how tertiary education is organised in each OECD country, as well as the degree to which expansion in enrolments requires the construction of new buildings.

OECD countries, on average, spend 31 per cent of current expenditure at the tertiary level on purposes other than the compensation of educational personnel. This is explained by the higher cost of facilities and equipment in higher education (Chart B6.2).

Definitions and methodologies

The distinction between current and capital expenditure is the standard one used in national income accounting. Current expenditure refers to goods and services consumed within the current year, and must be made recurrently in order to sustain the production of educational services. Capital expenditure refers to assets which last longer than one year, including spending on construction, renovation or major repair of buildings and on new or replacement equipment. The capital expenditure reported here represents the value of educational capital acquired or created during the year in question – that is, the amount of capital formation – regardless of whether the capital expenditure was financed from current revenue or by borrowing. Neither current nor capital expenditure includes debt servicing.

Data refer to the financial year 1999 and are based on the UOE data collection on educational statistics administered by the OECD in 2001 (for details see Annex 3).

Calculations cover expenditure by public institutions or, where available, that of public and private institutions combined.

Current expenditure other than on the compensation of personnel includes expenditure on services which are sub-contracted or bought in, such as support services (*e.g.*, maintenance of school buildings), ancillary services (*e.g.*, preparation of meals for students) and renting of school buildings and other facilities. These services are obtained from outside providers (unlike the services provided by the education authorities or educational institutions themselves using their own personnel).

Expenditure on R&D includes all expenditure on research performed at universities and other tertiary education institutions, regardless of whether the research is financed from general institutional funds or through separate grants

or contracts from public or private sponsors. The classification of expenditure is based on data collected from the institutions carrying out R&D rather than on the sources of funds.

“Ancillary services” are services provided by educational institutions that are peripheral to the main educational mission. The two main components of ancillary services are student welfare services and services for the general public. At primary, secondary, and post-secondary non-tertiary levels, student welfare services include meals, school health services, and transportation to and from school. At the tertiary level, it includes halls of residence (dormitories), dining halls and health care. Services for the general public include museums, radio and television broadcasting, sports, and recreational and cultural programmes. Expenditure on ancillary services including fees from students or households are excluded.

Educational core services are estimated as the residual of all expenditure, *i.e.* total expenditure on educational institutions net of expenditure on R&D and ancillary services.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2002 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at www.oecd.org/els/education/eqg2002 for details on changes).

Table B6.1.

Expenditure on instruction, research and development (R&D) and ancillary services in educational institutions as a percentage of GDP and private expenditure on educational goods purchased outside educational institutions as a percentage of GDP (1999)

	Primary, secondary and post-secondary non-tertiary education				Tertiary education					
	Expenditure on educational institutions			Private payments on instructional services/goods outside educational institutions	Expenditure on educational institutions				Private payments on instructional services/goods outside educational institutions	
	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Total		Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Research and development at tertiary institutions	Total		
				(1)					(2)	(3)
OECD COUNTRIES										
Australia	4.07	0.16	4.23	0.16	1.00	0.09	0.43	1.52	0.16	
Austria	x(3)	x(3)	4.18	m	x(8)	x(8)	x(8)	1.45	m	
Belgium	x(3)	x(3)	3.45	m	x(8)	x(8)	0.46	1.26	m	
Canada ^{1*}	3.66	0.19	3.84	m	2.05	0.02	0.43	2.51	0.40	
Czech Republic	2.68	0.48	3.17	m	0.67	0.10	0.15	0.92	m	
Denmark	x(3)	x(3)	4.17	0.07	1.14	x(5)	0.43	1.56	0.83	
Finland	3.25	0.38	3.63	m	1.14	0.01	0.63	1.78	m	
France ^{2*}	3.76	0.60	4.35	0.14	0.88	0.07	0.18	1.13	0.08	
Germany	3.68	n	3.68	0.20	0.65	n	0.40	1.06	0.13	
Greece ³	2.41	0.04	2.45	0.00	0.77	0.02	0.23	1.02	n	
Hungary ³	2.61	0.37	2.97	m	0.80	0.13	0.13	1.07	m	
Iceland	m	m	m	m	m	m	m	m	m	
Ireland ^{2*}	3.02	0.07	3.08	m	1.17	n	0.23	1.40	m	
Italy	3.08	0.09	3.17	0.07	0.80	0.03	x(6)	0.83	0.40	
Japan ⁴	x(3)	x(3)	2.95	0.80	x(8)	x(8)	x(8)	1.04	m	
Korea	x(3)	x(3)	3.98	m	x(8)	x(8)	x(8)	2.38	m	
Luxembourg	m	m	m	m	m	m	m	m	m	
Mexico ^{2*}	x(3)	x(3)	3.59	0.22	0.93	m	0.18	1.11	0.07	
Netherlands ^{2*}	3.05	0.03	3.08	0.18	0.77	0.01	0.50	1.28	0.06	
New Zealand	x(3)	x(3)	4.63	m	x(8)	x(8)	x(8)	0.94	m	
Norway	x(3)	x(3)	4.04	m	x(8)	x(8)	x(8)	1.51	n	
Poland ^{2,3}	3.45	0.19	3.63	m	0.74	0.07	0.15	0.97	m	
Portugal	x(3)	x(3)	4.17	0.06	x(8)	x(8)	x(8)	1.05	0.06	
Slovak Republic	2.68	0.35	3.03	m	0.60	0.16	0.07	0.83	m	
Spain	3.60	0.08	3.68	m	0.84	x(5)	0.27	1.10	m	
Sweden	4.18	0.21	4.39	0.69	0.88	a	0.81	1.69	0.63	
Switzerland	x(3)	x(3)	4.39	m	x(8)	x(8)	x(8)	1.21	m	
Turkey ^{2,3}	2.82	0.06	2.88	m	1.00	0.01	0.02	1.03	m	
United Kingdom	3.55	0.14	3.68	m	0.68	n	0.38	1.07	0.09	
United States ¹	3.67	0.14	3.81	0.02	2.08	n	0.26	2.33	0.10	
Country mean	3.29	0.20	3.65	0.22	0.97	0.04	0.32	1.32	0.22	

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Post-secondary non-tertiary included in both upper secondary and tertiary education.

2. Ancillary services in public institutions only. Other ancillary services included in instructional services.

3. Research and development expenditure and thus total expenditure are underestimated.

4. Post-secondary non-tertiary is included in tertiary education and excluded from primary, secondary and post-secondary non-tertiary education.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

B6

Table B6.2.

Expenditure per student on instruction, ancillary services and research and development (R&D) (1999)

Expenditure per student on educational institutions in US dollars converted using PPPs from public and private sources, by type of service and level of education

	Primary, secondary and post-secondary non-tertiary education			Tertiary education			
	Expenditure on educational institutions			Expenditure on educational institutions			
	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Total	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Research and development	Total
		(1)			(2)		
Australia	5 592	217	5 809	7 714	674	3 338	11 725
Austria	x(3)	x(3)	7 818	x(7)	x(7)	x(7)	12 070
Belgium	x(3)	x(3)	5 329	x(7)	x(7)	3 565	9 724
Canada ^{1*}	5 691	289	5 981	12 443	146	2 622	15 211
Czech Republic	2 286	413	2 699	4 124	606	958	5 688
Denmark	x(3)	x(3)	7 226	7 753	x(4)	2 904	10 657
Finland	4 559	535	5 093	5 196	30	2 888	8 114
France [*]	5 129	815	5 944	6 123	514	1 231	7 867
Germany	5 955	n	5 955	6 438	n	3 955	10 393
Greece ²	2 837	49	2 886	3 199	93	968	4 260
Hungary ²	2 046	288	2 334	4 398	726	736	5 861
Iceland	m	m	m	m	m	m	m
Ireland [*]	3 550	76	3 626	8 089	n	1 585	9 673
Italy ²	5 905	173	6 078	7 292	260	x(4)	7 552
Japan ³	x(3)	x(3)	5 668	x(7)	x(7)	x(7)	10 278
Korea	x(3)	x(3)	3 137	x(7)	x(7)	x(7)	5 356
Luxembourg	m	m	m	m	m	m	m
Mexico [*]	x(3)	x(3)	1 240	4 018	n	771	4 789
Netherlands ^{4*}	4 890	45	4 934	7 383	77	4 825	12 285
New Zealand	x(3)	x(3)	m	x(7)	x(7)	x(7)	m
Norway ²	x(3)	x(3)	6 665	x(7)	x(7)	x(7)	12 096
Poland ^{2,5}	1 685	92	1 778	2 993	301	618	3 912
Portugal	x(3)	x(3)	4 483	x(7)	x(7)	x(7)	4 802
Slovak Republic	1 639	212	1 852	3 854	1003	468	5 325
Spain	4 241	90	4 331	4 331	x(4)	1 376	5 707
Sweden	553	278	5 832	7 395	a	6 828	14 222
Switzerland ²	x(3)	x(3)	8 192	x(7)	x(7)	x(7)	17 997
Turkey ²	m	m	m	4 206	21	100	4 328
United Kingdom	4 354	208	4 563	6 120	n	3 434	9 554
United States ^{1,6}	7 131	266	7 397	17 115	n	2 105	19 220
Country mean	4 297	238	4 879	6 493	247	2 264	9 210

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Public and government-dependent private institutions only.
2. Post-secondary non-tertiary included in tertiary education.
3. Primary, secondary and post-secondary education includes tertiary-type B education.
4. Public institutions only.
5. Public and independent private institutions only.
6. Post-secondary non-tertiary included in both upper secondary and tertiary education.

 * See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Source: OECD.

Table B6.3.

Expenditure on educational institutions by resource category (1999)

Distribution of total and current expenditure on educational institutions from public and private sources, by resource category and level of education

	Primary, secondary and post-secondary non-tertiary education						Tertiary education					
	Percentage of total expenditure		Percentage of current expenditure				Percentage of total expenditure		Percentage of current expenditure			
	Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current	Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD COUNTRIES												
Australia	93.7	6.3	56.3	15.6	71.9	28.1	89.9	10.1	35.1	30.2	65.3	34.7
Austria	93.5	6.5	73.3	7.9	81.2	18.8	95.4	4.6	53.6	14.2	67.8	32.2
Belgium	m	m	m	m	m	m	m	m	m	m	m	m
Belgium (Fl.)	97.2	2.8	67.4	11.7	79.1	20.9	97.3	2.7	50.6	0.7	51.4	48.6
Canada ^{1*}	96.4	3.6	61.7	15.1	76.8	23.2	95.4	4.6	x(11)	x(11)	71.7	28.3
Czech Republic	91.9	8.1	45.5	16.5	62.1	37.9	87.6	12.4	29.2	21.1	50.3	49.7
Denmark	95.1	4.9	50.3	25.0	75.3	24.7	87.3	12.7	50.8	24.8	75.6	24.4
Finland	92.9	7.1	56.8	12.1	68.9	31.1	93.2	6.8	35.4	26.4	61.8	38.2
France	91.4	8.6	x(5)	x(5)	78.6	21.4	89.2	10.8	x(11)	x(11)	70.0	30.0
Germany	92.3	7.7	x(5)	x(5)	88.8	11.2	88.9	11.1	x(11)	x(11)	76.2	23.8
Greece ²	85.8	14.2	x(5)	x(5)	96.4	3.6	62.9	37.1	x(11)	x(11)	58.4	41.6
Hungary ^{2*}	92.6	7.4	x(5)	x(5)	75.2	24.8	86.9	13.1	x(11)	x(11)	63.2	36.8
Iceland	m	m	m	m	m	m	m	m	m	m	m	m
Ireland ²	92.2	7.8	80.0	4.8	84.9	15.1	88.9	11.1	48.1	24.6	72.7	27.3
Italy ^{2*}	94.8	5.2	63.6	16.6	80.2	19.8	82.7	17.3	43.8	22.5	66.3	33.7
Japan ^{1*}	87.6	12.4	x(5)	x(5)	88.1	11.9	81.5	18.5	x(11)	x(11)	68.4	31.6
Korea	85.6	14.4	75.3	8.5	83.8	16.2	66.9	33.1	44.8	15.0	59.8	40.2
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	m
Mexico ²	97.6	2.4	82.9	12.0	94.9	5.1	86.7	13.3	71.0	15.3	86.3	13.7
Netherlands ⁴	95.7	4.3	x(5)	x(5)	75.9	24.1	94.0	6.0	m	m	76.2	23.8
New Zealand	m	m	m	m	m	m	m	m	m	m	m	m
Norway	86.3	13.7	x(5)	x(5)	82.3	17.7	88.7	11.3	x(11)	x(11)	62.1	37.9
Poland ²	92.7	7.3	x(5)	x(5)	74.9	25.1	94.4	5.6	x(11)	x(11)	75.2	24.8
Portugal	95.4	4.6	x(5)	x(5)	93.7	6.3	85.1	14.9	x(11)	x(11)	75.9	24.1
Slovak Republic	96.8	3.2	60.6	16.8	77.4	22.6	89.9	10.1	48.8	40.4	89.3	10.8
Spain	93.9	6.1	76.1	9.5	85.6	14.4	79.1	20.9	57.1	21.1	78.2	21.8
Sweden ⁵	m	m	47.8	13.7	61.8	38.2	m	m	x(11)	x(11)	56.6	43.4
Switzerland ²	90.4	9.6	72.4	12.9	85.3	14.7	83.2	16.8	54.4	21.5	75.8	24.2
Turkey ²	80.6	19.4	96.8	m	96.8	3.2	79.7	20.3	51.1	34.1	85.2	14.8
United Kingdom	93.9	6.1	49.0	18.1	67.2	32.8	97.2	2.8	32.5	25.0	57.6	42.4
United States ^{1,2}	88.1	11.9	55.9	26.4	82.3	17.7	90.7	9.3	40.4	35.5	75.9	24.1
Country mean	92.1	7.9	65.1	14.3	80.3	19.7	87.0	13.0	46.7	23.3	69.4	30.6
NON-OECD COUNTRIES												
Argentina ²	93.4	6.6	67.1	24.9	92.0	8.0	97.9	2.1	56.2	34.9	91.1	8.9
Brazil ^{2,5}	94.8	5.2	x(5)	x(5)	81.9	18.1	97.6	2.4	x(11)	x(11)	86.3	13.7
Chile ²	91.2	8.8	x(5)	x(5)	57.9	42.1	91.8	8.2	x(11)	x(11)	69.4	30.6
China	91.2	8.8	x(5)	x(5)	64.3	35.7	77.6	22.4	x(11)	x(11)	46.0	54.0
India ^{1,2,5}	97.2	2.8	79.5	8.4	87.8	12.2	96.9	3.1	x(11)	x(11)	99.6	0.4
Indonesia ^{2,6}	93.9	6.1	78.0	7.6	85.6	14.4	82.0	18.0	87.2	11.8	99.0	1.0
Israel	91.0	9.0	x(5)	x(5)	76.9	23.1	89.7	10.3	x(11)	x(11)	76.5	23.5
Jamaica ²	90.9	9.1	57.4	10.0	67.3	32.7	92.3	7.7	53.6	29.2	82.7	17.3
Jordan ²	89.0	11.0	77.8	14.7	92.5	7.5	76.5	23.5	x(11)	x(11)	67.6	32.4
Malaysia ²	77.3	22.7	65.8	14.8	80.6	19.4	61.7	38.3	42.1	9.2	51.4	48.6
Paraguay ²	90.7	9.3	59.6	11.3	70.9	29.1	87.0	13.0	m	m	m	m
Peru ^{2,7}	89.2	10.9	89.3	2.0	91.3	8.7	88.8	11.2	46.0	9.0	55.0	45.0
Tunisia ^{2,6}	88.7	11.3	x(5)	x(5)	95.1	4.9	74.1	25.9	x(11)	x(11)	70.0	30.0
Uruguay ²	92.7	7.3	72.9	12.3	85.2	14.8	94.2	5.8	64.0	21.6	85.6	14.4

Note: x indicates that data are included in another column. The column reference is shown in brackets after "x". e.g., x(2) means that data are included in column 2.

1. Post-secondary non-tertiary education included in tertiary education.

2. Public institutions only.

3. Post-secondary non-tertiary included in both upper secondary and tertiary education.

4. Public and government-dependent private institutions only.

5. Year of reference 1998.

6. Year of reference 2000.

7. Excluding post-secondary non tertiary education.

* See Annex 3 for notes (www.oecd.org/els/education/eag2002).

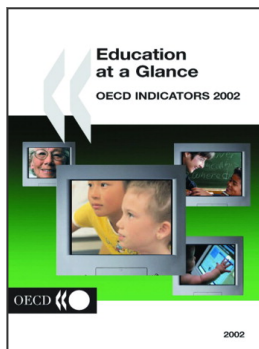
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