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\text { ACCESS TO EDUCATION, } \\
\text { PARTICIPATION AND PROGRESSION }
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## OVERVIEW

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Chapter C looks at access to education, participation and progression, in terms of the expected duration of schooling, overall and at different levels of education as well as entry to and participation in different types of educational programmes and institutions,...
...cross-border movements of students...
.. and learning beyond initial education.

## SCHOOL EXPECTANCY AND ENROLMENT RATES

- In 25 out of 27 OECD countries, individuals participate in formal education for between 15 and 20 years, on average. Most of the variation between countries derives from differences in enrolments in upper secondary education.
- School expectancy increased between 1995 and 2000 in 18 out of 20 OECD countries.
- The majority of primary and secondary students are enrolled in public institutions. However, privately managed schools now enrol, on average, 11 per cent of primary students, 14 per cent of lower secondary students and 19 per cent of upper secondary students.
- In two-fifths of OECD countries, more than 70 per cent of three to four-year-olds are enrolled in either pre-primary or primary programmes. At the other end of the spectrum, a 17-year-old can expect to spend an average of 2.5 years in tertiary education.
- In the majority of OECD countries, women can expect to receive 0.5 more years, on average, of education than men.



## Policy context

A well-educated population is critical for a country's economic and social development, present and future. Societies, therefore, have an intrinsic interest in ensuring broad access to a wide variety of educational opportunities for children and adults. Early childhood programmes prepare children for primary education. They can provide help to combat linguistic and social disadvantages and provide opportunities to enhance and complement home educational experiences. Primary and secondary education lay the foundations for a wide range of competencies and prepare young people to become lifelong learners and productive members of society. Tertiary education provides a range of options for acquiring advanced knowledge and skills, either immediately after school or later.

This indicator presents several measures of participation in education to elucidate levels of access to education in different OECD countries. Enrolment trends at different levels of education are also presented as an indicator of the evolution of access to education.

## Evidence and explanations

## Overall participation in education

One way of looking at participation in education is to estimate the number of years during which a five-year-old child can expect to be in either full or parttime education during his/her lifetime, given current enrolment rates. School expectancy is estimated therefore by taking the sum of enrolment rates for each single year of age, starting at age five (Chart C1.1). In OECD countries, a child in Mexico and Turkey can expect to be in education for 12 years or less compared to more than 18 years in Australia, Belgium, Finland, Sweden and the United Kingdom.

Most of the variation in school expectancy among OECD countries comes from differences in enrolment rates in upper secondary education. Relative differences in participation are large at the tertiary level, but apply to a smaller proportion of the cohort and therefore have less of an effect on school expectancy.

Measures of the average length of schooling like school expectancy are affected by participation rates over the life cycle and therefore underestimate the actual number of years of schooling in systems where access to education is expanding. Nor does this measure distinguish between full-time and part-time participation. OECD countries with relatively large proportions of part-time enrolments will therefore tend to have relatively high values. In Australia, Belgium, New Zealand, Portugal, Sweden and the United Kingdom, part-time education accounts for two or more years of school expectancy (Table C1.1).

This indicator examines enrolments at all levels of education.

In 25 out of 27 OECD countries, individuals participate in formal education for between 15 and 20 years, on average.

## Most of the variation

 comes from differences in enrolment rates in upper secondary education.Long school expectancy does not necessarily imply that all young people have access to higher levels of education...
...but in most $O E C D$ countries, virtually all young people receive at least 11 years of formal education.

In the majority of $O E C D$ countries, women can expect to receive 0.5 more years, on average, of education, than men.

School expectancy increased between 1995 and 2000 in 18 out of 20 OECD countries.

In just under half of the OECD countries, over 70 per cent of three to four-year-olds are enrolled in either pre-primary or primary programmes.

In OECD countries where school expectancy at a given level of education exceeds the number of grades at that level, repeating a level (or, in the case of Australia, the number of adults enrolling in those programmes) has a greater impact on school expectancy than the proportion of students leaving school before completing that level of education.

Enrolment rates are influenced by entry rates to a particular level of education and by the typical duration of studies. A high number of expected years in education, therefore, does not necessarily imply that all young people will participate in education for a long time. Belgium and Sweden, where five-year-olds can expect to be in school for more than 18 years, have nearly full enrolment (rates over 90 per cent) for 15 and 13 years of education, respectively. Conversely, Australia and Finland, which have equally high school expectancy, have nearly full enrolment (rates over 90 per cent) for only 12 and 11 years of education, respectively (Table C1.2).

In most OECD countries, virtually all young people have access to 11 years of formal education. At least 90 per cent of students are enrolled in an age band spanning 14 or more years in Belgium, France, Japan and the Netherlands. Mexico and Turkey, by contrast, have enrolment rates exceeding 90 per cent for a period of seven years or less (Table C1.2).

In the majority of OECD countries, women can expect to receive 0.5 more years, on average, of education than men. The variation in school expectancy is generally greater for women than for men. Some OECD countries show sizeable gender differences. In Korea, Switzerland and Turkey, men can expect to receive between 0.7 and 2.8 years more education than women. The opposite is true in Finland, Iceland, New Zealand, Norway, Sweden and the United Kingdom, where the expected duration of enrolment for women exceeds that of men by more than one year (Table C1.1).

## Trends in participation in education

School expectancy increased between 1995 and 2000 in 18 out of the 20 OECD countries for which comparable trend data are available. In Greece, Hungary, Korea, Poland and the United Kingdom, the increase was 10 per cent or more over this relatively short period.

## Participation in early childhood education

In the majority of OECD countries, universal enrolment, which is defined here as enrolment rates exceeding 90 per cent, starts between the ages of five and six years. However, in Belgium, the Czech Republic, Denmark, France, Hungary, Iceland, Italy, Japan, New Zealand, Norway, Spain, Sweden and the United Kingdom, over 70 per cent of three to four-year-olds are already enrolled in either pre-primary or primary programmes (Table C1.2). Their enrolment rates range from under 21 per cent in Canada, Korea, Switzerland and Turkey, to over 90 per cent in Belgium, France, Iceland, Italy and Spain.

Given the impact of early childhood education and care for building a strong foundation for lifelong learning and for ensuring equitable access to learning opportunities later, pre-primary education is very important. However, institutionally based pre-primary programmes covered by this indicator are not the only form of quality early childhood education and care. Inferences about access to and quality of pre-primary education and care should therefore be made very carefully.

## Participation towards the end of compulsory education and beyond

Several factors, including a higher risk of unemployment and other forms of exclusion for young people with insufficient education, influence the decision to stay enrolled beyond the end of compulsory education. In many OECD countries, the transition from education to employment has become a longer and more complex process which provides the opportunity or the obligation for students to combine learning and work to develop marketable skills (see Indicator C5).

Compulsory education in OECD countries ends between the ages of 14 (Korea, Portugal and Turkey) and 18 (Belgium, Germany and the Netherlands), and in most countries at age 15 or 16 (Table C1.2). However, the statutory age at which compulsory education ends does not always correspond to the age at which enrolment is universal.

While participation rates in most OECD countries are high until the end of compulsory education, they drop below 90 per cent before the age at which students are no longer legally required to be enrolled in school in Mexico, Turkey and the United States. In the United States, this may be due in part to the fact that compulsory education ends at age 17 , which is comparatively high. By contrast, in 22 OECD countries, virtually all children remain in school beyond the age at which compulsory education ends (Table C1.2).

In most OECD countries, enrolment rates gradually decline starting in the last years of upper secondary education. There are several noteworthy exceptions, however where enrolment rates remain relatively high until the age of 20 to 29 . In Australia and the Nordic countries, for example, enrolment rates for 20 to 29 -year-olds still exceed 25 per cent (Table C1.2)

## The transition to post-secondary education

Graduates of upper secondary programmes who decide not to enter the labour market upon graduation and people who are already working and want to upgrade their skills can choose from a wide range of post-secondary programmes. In OECD countries, tertiary programmes vary in the extent to which they are theoretically based and designed to prepare students for advanced research programmes or professions with high skill requirements (tertiary-type A), or focus on occupationally specific skills so that students can directly enter the labour market (tertiary-type B). The institutional location of

Compulsory education ends between the ages of 14 and 18 in OECD countries, and in most countries at age 15 or 16.

Participation in education tends to be high until the end of compulsory education, but in three OECD countries, more than 10 per cent of students never finish compulsory education.

In Australia and the Nordic countries, one out of four 20 to 29-year-olds participates in education.

Post-secondary nontertiary programmes are offered in 26 out of 30 OECD countries.

On average in $O E C D$ countries, a 17-year-old can expect to receive 2.5 years of tertiary
education.

Policies to expand education have, in many OECD countries, increased pressure for greater access to tertiary education.

Data refer to 19992000 and are based on the UOE data collection on education statistics, which is administered annually by the $O E C D$, and the 2001 World Education Indicators Programme.
programmes used to give a relatively clear idea of their nature (e.g., university versus non-university institutions of higher education), but these distinctions have become blurred and are therefore not applied in the OECD indicators.

Upper secondary graduates in many systems can also enrol in relatively short programmes (less than two years) to prepare for trades or specific vocational fields. These programmes are offered as advanced or second cycle upper secondary programmes in some OECD countries (e.g., Austria, Germany, Hungary and Spain); in others they are offered in post-secondary education (e.g., Canada and the United States). From an internationally comparative point of view, these programmes straddle upper secondary and tertiary education and are therefore classified as a different level of education (post-secondary non-tertiary education). In 26 out of 30 OECD countries, these kinds of programmes are offered to upper secondary graduates (see Table C1.1).

## Participation in tertiary education

On average in OECD countries, a 17-year-old can expect to receive 2.5 years of tertiary education. Both tertiary entry rates and the typical duration of study affect the expectancy of tertiary education. In Australia, Finland, Korea, New Zealand, Norway, Spain, Sweden and the United States, the figure is three years or more. In the Czech Republic, Mexico, the Slovak Republic and Turkey, by contrast, the expectancy of tertiary education is 1.5 years or less (see Table C 1.1 and Indicator C2).

Policies to expand education have increased pressure for greater access to tertiary education in many OECD countries. Thus far, this pressure has more than compensated for declines in cohort sizes which had led, until recently, to predictions of stable or declining demand from school leavers in several OECD countries. Whereas some OECD countries are now showing signs of a levelling demand for tertiary education, the overall trend remains upward.

## Definitions and methodologies

Except where otherwise noted, figures are based on head counts, that is, they do not distinguish between full-time and part-time study. A standardised distinction between full-time and part-time participants is very difficult because in several OECD countries, the concept of part-time study is not recognised, although in practice, at least some students would be classified as part-time by other countries. For some OECD countries, part-time education is not completely covered by the reported data.

The average length of time a five-year-old can expect to be formally enrolled in school during his/her lifetime, or school expectancy, is calculated by adding the net enrolment percentages for each single year of age from five onwards. The average duration of schooling for the cohort will reflect any tendency to lengthen (or shorten) studies in subsequent years. When comparing data on school expectancy, however, it must be borne in mind that neither the length
of the school year nor the quality of education is necessarily the same in each country.

Net enrolment rates expressed as percentages in Table C1.2 are calculated by dividing the number of students of a particular age group enrolled in all levels of education by the size of the population of that age group. Table C 1.1 shows the index of change in school expectancy between 1995 and 2000. Enrolment data for 1994-1995 were obtained through a special survey in 2000 and follow the ISCED-97 classification.

## CHAPTER C Access to education, participation and progression

Table C1.1.
School expectancy (2000)
Expected years of schooling under current conditions, excluding education for children under the age offive

|  | 2000 |  |  |  |  |  |  |  |  | Index of change in school expectancy for all levels of education combined $(1995=100)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full-time and part-time |  |  |  |  |  |  | Full-time | Part-time |  |
|  | All leve | educati | mbined | Primary and lower secondary education | Upper secondary education | Postsecondary non-tertiary education | Tertiary education | All levels of education combined | All levels of education combined |  |
|  | M +F | Males | Females |  |  | +F |  |  | +F | M +F |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 苗 Australia* | 20.7 | 20.1 | 20.1 | 11.8 | 4.7 | 0.6 | 3.0 | 14.6 | 6.2 | 108 |
| ${ }^{2}$ Austria* | 15.9 | 15.9 | 15.9 | 8.2 | 3.8 | 0.5 | 2.4 | 15.7 | 0.2 | 102 |
| \% Belgium* | 18.7 | 18.3 | 19.2 | 9.1 | 5.4 | 0.4 | 2.7 | 16.2 | 2.6 | 104 |
| Canada | 16.5 | 16.2 | 16.8 | 8.8 | 3.1 | 0.8 | 2.8 | 15.5 | 0.9 | 96 |
| U Czech Republic | 15.6 | 15.5 | 15.6 | 9.1 | 3.1 | 0.3 | 1.5 | 15.4 | 0.2 | 109 |
| Denmark | 17.8 | 17.4 | 18.3 | 9.7 | 3.5 | n | 2.6 | 17.8 | n | 105 |
| Finland* | 18.7 | 18.1 | 19.4 | 9.1 | 4.4 | 0.1 | 4.1 | 18.7 | n | 109 |
| France | 16.5 | 16.3 | 16.7 | 9.4 | 3.3 | n | 2.6 | 16.5 | n | 100 |
| Germany* | 17.2 | 17.3 | 17.0 | 10.1 | 3.0 | 0.5 | 2.0 | 17.1 | 0.1 | 105 |
| Greece | 16.1 | 15.9 | 16.3 | 9.2 | 2.8 | 0.5 | 2.8 | 15.9 | 0.2 | 116 |
| Hungary* | 16.4 | 16.2 | 16.6 | 8.2 | 3.8 | 0.6 | 2.0 | 14.9 | 1.5 | 114 |
| Iceland | 18.0 | 17.3 | 18.6 | 9.9 | 4.7 | 0.1 | 2.3 | 16.0 | 1.9 | m |
| Ireland* | 15.9 | 15.5 | 16.4 | 10.8 | 2.3 | 0.6 | 2.3 | 15.3 | 0.6 | 103 |
| Italy* | 15.8 | 15.6 | 15.9 | 8.2 | 4.3 | 0.1 | 2.3 | 15.8 | n | m |
| Japan | m | m | m | 9.2 | 3.0 | m | m | m | m | m |
| Korea | 16.0 | 16.9 | 15.5 | 8.9 | 2.9 | a | 3.7 | 16.0 | n | 111 |
| Luxembourg | m | m | m | 9.2 | 3.6 | 0.1 | m | m | m | m |
| Mexico | 12.6 | 12.7 | 12.6 | 9.4 | 1.4 | a | 1.0 | 12.6 | n | 105 |
| Netherlands | 17.2 | 17.4 | 17.0 | 10.5 | 3.3 | 0.1 | 2.4 | 16.5 | 0.7 | m |
| New Zealand | 17.3 | 16.6 | 18.1 | 10.1 | 3.8 | 0.3 | 3.1 | 15.4 | 2.0 | m |
| Norway | 17.9 | 17.3 | 18.6 | 9.9 | 3.9 | 0.1 | 3.2 | 16.6 | 1.3 | 102 |
| Poland | 16.3 | 15.9 | 16.8 | 8.0 | 4.1 | 0.3 | 2.6 | 14.4 | 1.9 | 113 |
| Portugal | 17.0 | 16.7 | 17.4 | 10.8 | 3.0 | n | 2.4 | 13.9 | 3.1 | 103 |
| Slovak Republic | m | m | m | m | m | 0.1 | 1.5 | m | m | m |
| Spain ${ }^{*}$ | 17.5 | 17.1 | 17.9 | 11.0 | 2.2 | 0.3 | 3.0 | 16.8 | 0.6 | 103 |
| Sweden | 20.2 | 18.6 | 22.0 | 9.8 | 5.4 | 0.1 | 3.1 | 16.1 | 4.1 | m |
| Switzerland | 16.4 | 16.7 | 16.0 | 9.6 | 3.3 | 0.2 | 1.7 | 16.0 | 0.4 | m |
| Turkey* | 10.1 | 11.6 | 8.8 | 7.5 | 1.7 | a | 0.8 | 10.1 | n | 107 |
| United Kingdom | 18.9 | 17.9 | 19.8 | 8.9 | 7.4 | $\mathrm{x}(5)$ | 2.5 | 14.6 | 4.3 | 110 |
| United States | 16.7 | 16.2 | 17.1 | 9.4 | 2.6 | 0.4 | 3.4 | 15.0 | 1.7 | m |
| Country mean | 16.8 | 16.6 | 17.1 | 9.4 | 3.6 | 0.2 | 2.5 | 15.5 | 1.2 | 106 |
| Argentina ${ }^{1}$ | 16.4 | m | m | 10.6 | 2.1 | a | 2.7 | 10.6 | 5.8 | m |
| Brazil ${ }^{1}$ | 15.7 | m | m | 10.9 | 2.6 | a | 0.9 | 10.9 | 4.8 | m |
| Chile ${ }^{1}$ | 14.5 | m | m | 8.4 | 3.5 | a | 1.7 | 14.5 | n | m |
| China | 10.1 | m | m | 8.5 | 1.2 | 0.1 | 0.4 | 10.8 | n | m |
| Egypt | 10.0 | 10.3 | 9.8 | 7.8 | 1.9 | n | 0.2 | 9.8 | n | m |
| Indonesia ${ }^{2}$ | 9.9 | m | m | 7.8 | 1.1 | a | 0.6 | 7.8 | 2.1 | m |
| Israel | 15.5 | m | m | 8.6 | 3.1 | 0.1 | 2.6 | 8.6 | 6.9 | m |
| Jamaica | 14.4 | m | m | 9.3 | 1.6 | 0.1 | 0.7 | 9.3 | 5.2 | m |
| Jordan | 11.9 | 11.7 | 12.0 | 8.8 | 1.4 | a | 1.3 | 8.8 | a | m |
| Malaysia ${ }^{1}$ | 12.8 | m | m | 8.8 | 1.8 | 0.2 | 1.1 | 8.8 | 4.0 | m |
| Paraguay ${ }^{1}$ | 11.8 | 11.8 | 11.9 | 9.2 | 1.4 | a | 0.6 | 11.8 | n | m |
| 关 Peru ${ }^{1}$ | 13.3 | 13.4 | 13.2 | 10.2 | 1.4 | m | 0.9 | 13.2 | n | m |
| Philippines ${ }^{1}$ | 12.0 | m | m | 9.6 | 0.7 | 0.2 | 1.4 | 12.0 | n | m |
| Russian Federation ${ }^{2}$ | 14.5 | 14.5 | 15.2 | $\mathrm{x}(1)$ | $\mathrm{x}(1)$ | 0.7 | 3.1 | 14.5 | n | m |
| Thailand ${ }^{3}$ | 13.1 | 13.0 | 13.1 | 9.5 | 2.2 | n | 1.8 | 9.5 | 5.0 | m |
| Tunisia | 13.2 | m | m | 10.0 | 2.1 | n | 0.9 | 13.2 | n | m |
| ${ }_{2}{ }^{\text {L }}$ Uruguay ${ }^{1}$ | 15.4 | m | m | 9.9 | 2.4 | a | 1.8 | 9.9 | 5.5 | m |
| \% Zimbabwe | 12.0 | 12.4 | 11.6 | 9.2 | 1.3 | n | 0.1 | 11.9 | n | m |

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

1. Year of reference 1999.
2. Year of reference 2001.
3. Full-time participation only. Participation by adults in part-time education accounts for approximately 5 per cent.

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

Source: OECD.

Table C1.2.
Enrolment rates (2000)
Full-time and part-time students in public and private institutions, by age


Note: Ending age of compulsory education is the age at which compulsory schooling ends. For example, an ending age of 18 indicates that all students under 18 are legally obliged to participate in education.
Note: x indicates that data are included in another column. The column reference is shown in brackets after " x ". e.g., $\mathrm{x}(2)$ means that data are included in column 2 .

1. Year of reference 1999.
2. Year of reference 2001.

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

Source: OECD.

## ENTRY TO AND EXPECTED YEARS IN TERTIARY EDUCATION AND PARTICIPATION IN SECONDARY EDUCATION

- Today, four out of ten school leavers are likely to attend tertiary programmes leading to the equivalent of a bachelors' or higher tertiary-type A degree. In some OECD countries, every second school leaver is likely to attend such a programme.
- On average in OECD countries, a 17-year-old can now expect to receive 2.5 years of tertiary-type A education, of which 2 years will be full-time.
- With the exception of France, Germany and Turkey, participation in tertiary education grew in all OECD countries between 1995 and 2000.
- The majority of tertiary students are enrolled in public institutions, but in Belgium, Japan, Korea, the Netherlands and the United Kingdom, most students are enrolled in privately managed institutions.
- In three out of four OECD countries, the majority of upper secondary students are enrolled in programmes that are primarily designed to prepare them for a wide range of tertiary education.


## Chart C2.1.

Entry rates to tertiary education (2000)
Sum of net entry rates over single years of age in tertiary-type $A$ and tertiary-type $B$ education


[^0]
## Policy context

High tertiary entry and participation rates help to ensure the development and maintenance of a highly educated population and labour force. Tertiary education is associated with better access to employment and higher earnings (see Indicator A13). Rates of entry to tertiary education are a partial indication of the degree to which a population is acquiring high-level skills and knowledge that the labour market in knowledge societies values.

As students have become more aware of the economic and social benefits of tertiary education, entry rates into tertiary type A and tertiary-type B education have risen. Continued growth in participation, and a widening diversity of backgrounds and interests of the people aspiring to tertiary studies, will require a new kind of provision. Tertiary institutions will need to meet growing demand by expanding the number of places that they offer and by adapting their programmes, teaching and learning to the diverse needs of new generations of students.

Graduation from upper secondary education is becoming the norm in most OECD countries, but the curricular content in upper secondary programmes can vary, depending on the type of education or occupation for which the programmes are designed. Most upper secondary programmes in OECD countries are designed primarily to prepare students for tertiary studies, and their orientation can be general, pre-vocational or vocational. In addition to preparing students for further education, most OECD countries also have upper secondary programmes which prepare students to enter the labour market directly. Some OECD countries, however, delay vocational training until after graduation from upper secondary education, although these postsecondary programmes often resemble upper secondary level programmes.

## Evidence and explanations

## Overall access to tertiary education

Today, almost every second young person in the OECD area will enter tertiarytype A education during his/her lifetime, assuming that current entry rates continue. In fact, in Finland, Hungary, Iceland, New Zealand, Poland and Sweden, over 60 per cent of young people enter tertiary-type A education (Table C2.1).

In other OECD countries, the rates of first-time entry to tertiary-type A education are considerably lower: the estimated first-time entry rates for the Czech Republic, Denmark, Germany, Mexico, Switzerland and Turkey are 30 per cent or below.

The proportion of people who enter tertiary-type B education is generally smaller than the proportion entering tertiary-type A programmes. In 23 OECD countries with available data, 15 per cent of young people, on average, will enter tertiary-type B education. The figures range from 1 per cent in

This indicator shows the percentage of youth that will enter different types of tertiary education during their lives.

Entry and participation rates reflect both the accessibility of tertiary education and the perceived value of attending tertiary programmes.

The indicator also shows patterns of participation at the secondary level of education.

45 per cent of today's young people in OECD countries will enter tertiary-type A programmes.

Fifteen per cent of today's young people will enter tertiary-type $B$ programmes.

In Australia, Finland, Korea, New Zealand, Norway, Sweden and the United States, young people can expect to receive at least three years of tertiary education during their lifetime.

## The longer duration

 tertiary-type A programmes tends to increase the stock of enrolments, and therefore the volume of resources required.Italy, Mexico, the Netherlands and Poland to over 30 per cent in the Flemish Community of Belgium, Denmark, Japan and New Zealand, and 50 per cent in Korea (Table C2.1 and Chart C2.1).

In the Flemish Community of Belgium and Denmark, wide access to tertiarytype B education counterbalances comparatively low rates of entry to tertiarytype A education. Other OECD countries, most notably Korea and the United Kingdom, have entry rates around the OECD average for tertiary-type A education, and comparatively high rates of entry to tertiary-type B education. New Zealand stands out as a country with entry rates at both levels that are the highest among OECD countries.

Net rates of entry to tertiary education should be seen in the light of participation in post-secondary non-tertiary programmes, which are an important alternative to tertiary education in some OECD countries (Indicator C1).

People entering tertiary-type B programmes may also enter tertiary-type A programmes later in their lives. Tertiary-type A and B entry rates cannot be added together to obtain overall tertiary-level entry rates because entrants might be double counted.

## Participation in tertiary education

Enrolment rates provide another perspective on participation in tertiary education. They reflect both the total number of individuals entering tertiary education and the duration of their studies. The sum of net enrolment rates for each single year of age, referred to as the expectancy of tertiary education, gives an overall measure of the amount of tertiary education undertaken by an age cohort rather than by individual participants. In contrast to entry rates, expectancy of tertiary education, which is based on enrolments in tertiary-type A and tertiary-type B education, can be summed.

On average in OECD countries, a 17-year-old can expect to receive 2.5 years of tertiary education, of which two years will probably be full-time. In Australia, Finland, Korea, New Zealand, Norway, Sweden and the United States, 17 -year-olds can expect to receive at least three years of full or part-time tertiary education during their lifetimes. In Finland and Korea, students can expect to receive about four years of full-time studies. By contrast, the expectancy of tertiary education is less than two years in the Czech Republic, Mexico, the Slovak Republic, Switzerland and Turkey (Table C2.2).

On average in OECD countries, expectancy of tertiary-type A education (2 years) is far higher than that of tertiary-type B education ( 0.4 years). Because tertiary-type A programmes tend to be longer, they increase the stock of enrolments and therefore the volume of resources required, all other things being equal (see Indicator B1, Table B1.3). However, the majority of tertiary graduates in Denmark are enrolled in tertiary-type B programmes (see Indicator A2). Higher rates of participation in tertiary-type A programmes relative to tertiary-
type B in Denmark (Table C2.2) result from longer programmes, and not higher entry rates.

In the majority of OECD countries, public institutions provide and manage tertiary-type A programmes. However, in Belgium, the Netherlands and the United Kingdom, the majority of students are enrolled in privately managed institutions that draw predominantly on public funds. In Japan and Korea, over 70 per cent of students are enrolled in institutions that are privately managed and financed predominantly from private sources. In Mexico, Poland and the United States (Table C2.3), over 30 per cent of students are enrolled in such institutions.

## Trends in participation

With the exception of France, Germany and Turkey, participation in tertiary education grew in all OECD countries between 1995 and 2000. In half of the OECD countries with available data, the number of students enrolled in tertiary education increased by over 15 per cent, and in the Czech Republic, Hungary, Korea and Poland, it grew by 50, 80, 48 and 108 per cent, respectively.

At the tertiary level, changes in enrolment rates are less closely tied to changes in the size of the relevant age cohort than is true for primary and secondary education. Chart C2.2 breaks down the change in the number of students enrolled into two components: changes in cohort sizes and changes in enrolment rates. Growing demand, reflected in higher enrolment rates, is the main factor driving expansion in tertiary enrolments. Hungary, Ireland and Poland are the only OECD countries where population increases significantly contributed to higher tertiary enrolments, but in all cases, higher enrolment rates were even more significant. Conversely, the actual increase in tertiary students would have been significantly higher in many OECD countries (in particular Austria, Korea and Spain) had the population not decreased. In France and Germany, these decreases were actually more significant than increases in enrolment rates, meaning that overall, there was a slight drop in tertiary enrolment, despite a 7 per cent increase in enrolment rates.

## Age of entrants

Traditionally, students typically enter tertiary-type A education immediately after having completed upper secondary education, and this remains true in many OECD countries. In the Czech Republic, France, Ireland and the Slovak Republic, for example, more than 80 per cent of all first-time entrants are under 22 years of age (Table C2.1).

In other OECD countries, the transition to the tertiary level is often delayed, in some cases by some time spent in the labour force. In these countries, first-time entrants to tertiary-type A programmes are typically older and show a much wider range of entry ages. In Denmark, Iceland, New Zealand and Sweden, for example, more than half the students enter this level for the first time after the age of 22 (Table C2.1). The proportion of older first-time entrants to tertiary-

The majority of tertiary students are enrolled in public institutions, but in some OECD countries the majority are in privately managed institutions.

Participation in tertiary education grew in most OECD countries between 1995 and 2000.

Growing demand, reflected in higher participation rates, is the main factor driving expansion in tertiary enrolments.

In the Czech Republic, France, Ireland and the Slovak Republic, more than 80 per cent of all entrants to tertiary-type A programmes are under 22 years of age whereas in Denmark, Iceland, New Zealand and Sweden, more than half the students enter this level for the first time after the age of 22 .
type A programmes may, among other factors, reflect the flexibility of these programmes and their suitability to students outside the typical or modal age cohort. It may also reflect a specific view of the value of work experience for higher education studies, which is characteristic of the Nordic countries and common in Australia and New Zealand where a sizeable proportion of new entrants is much older than the typical age of entry. In Australia, Denmark, Iceland, New Zealand, Norway and Sweden, more than 20 per cent of firsttime entrants are 27 years of age or older.

## Chart C2.2.

Change in the number of tertiary students in relation to changing enrolment rates and demography (2000)
Index of change in the number of students at the tertiary level between 1995 and 2000, and the relative contribution of demographic changes and changing enrolment rates $(1995=100)$


Countries are ranked in descending order of the absolute change in number of tertiary students.
Source: OECD. Table C2.2. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

## Participation in upper secondary programmes by programme destination

In most OECD countries, students do not follow a uniform curriculum at the upper secondary level. Different types of curriculum can be distinguished by the type of educational or labour market "career" for which the programme has been designed. The International Standard Classification of Education (ISCED) distinguishes three types of upper secondary programmes by programme destination:

ISCED 3A programmes are designed to allow students direct access to tertiary programmes, thus providing students with sufficient qualifications to enter highly-skilled professions or advanced research programmes (tertiarytype A);

ISCED 3B programmes are designed to provide students with direct access to tertiary programmes focused on occupationally specific skills (tertiary-type B);

ISCED 3C programmes are not designed to lead directly to tertiary-type A or B programmes but to prepare students directly for the labour market, postsecondary non-tertiary programmes (ISCED 4) or other upper secondary programmes.

Direct access refers neither to a strict legal interpretation of programme destination nor to the actual destinations of students (which can be strongly influenced by the current labour market situation). Programmes are designated $\mathrm{A}, \mathrm{B}$, or C according to the orientation of the design of the curriculum, that is, by the type of tertiary programme for which the curriculum of the upper secondary programme is intended to prepare students.

In almost all OECD countries, more than half of the students leave formal education at the end of upper secondary education and enter the labour market. For the remaining students, upper secondary education is mainly preparation for further study at the tertiary level.

In 22 out of 29 OECD countries, the majority of students are enrolled in programmes designed to prepare them for further education at the tertiarytype A level (Table C2.5). In most OECD countries, entry rates to tertiarytype A education are significantly lower than the graduation rates from upper secondary programmes designed to prepare students for entry to tertiary-type A programmes. This implies an underlying need for these programmes to prepare students for the transition to other forms of further education as well as for direct entry into the world of work.

In Germany and Switzerland, around 60 per cent of all students ( 48 per cent in Austria) are enrolled in programmes that provide access to further education at the tertiary-type B level. These are primarily dual-system apprenticeship programmes. After graduating from these programmes, most students enter

Upper secondary
programmes are classified according to the destination for which they have been designed to prepare students.

In 22 out of 29
countries, the majority of students are enrolled in programmes preparing for entry to tertiary-type A programmes...
but in some countries, tertiary-type B is the most common destination.

Programmes can also be classsified based on whether they are...
...general,...
...pre-vocational...
...or vocational.

In more than half of the OECD countries, the majority of upper secondary students attend vocational or apprenticeship programmes.
the labour market since many of these programmes require work experience before entry.

## Participation in and graduation from upper secondary vocational education

Programmes at the upper secondary level, regardless of their destination, can also be subdivided into three categories based on the degree to which they are oriented towards a specific class of occupations or trades and lead to a labourmarket relevant qualification:

Type 1 (general) education programmes are not designed explicitly to prepare participants for specific occupations or trades, or for entry into further vocational or technical education programmes;

Type 2 (pre-vocational or pre-technical) education programmes are mainly designed to introduce participants to the world of work and to prepare them for entry into further vocational or technical education programmes. Successful completion of such programmes does not lead to a labour-market relevant vocational or technical qualification. At least 25 per cent of the programme content should be vocational or technical; and

Type 3 (vocational) education programmes prepare participants for direct entry into specific occupations without further training. Successful completion of such programmes leads to a labour-market relevant vocational qualification.

The degree to which a programme has a vocational or general orientation does not necessarily determine whether participants have access to tertiary education. In several OECD countries, vocationally oriented programmes are designed to prepare for further studies at the tertiary level, while in other countries, many general programmes do not provide direct access to further education.

In all OECD countries, students can choose between vocational, pre-vocational and general programmes. In more than half of the OECD countries, the majority of upper secondary students attend vocational or apprenticeship programmes. In OECD countries with dual-system apprenticeship programmes (Austria, Germany, Luxembourg, the Netherlands and Switzerland), and in Australia, Belgium, the Czech Republic, Poland, the Slovak Republic and the United Kingdom, 60 per cent or more of upper secondary students are enrolled in vocational programmes. The exception is Iceland, where the majority of students are enrolled in general programmes even though dual-system apprenticeship programmes are offered (Table C2.5).

In most OECD countries, vocational education is school-based. In Austria, the Czech Republic, Iceland and the Slovak Republic, however, about half of the vocational programmes have combined school-based and work-based elements. In Denmark, Germany, Hungary and Switzerland, the majority of vocational programmes have both school-based and work-based elements.

Chart C2.3.
Percentage of primary and secondary students enrolled in private institutions (2000)


Countries are ranked in descending order of percentage of students enrolled in public institutions
Source: OECD. Table C2.4. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

## Upper secondary enrolment by type of institution

Although the majority of primary and secondary students are enrolled in publicly managed and financed schools, in OECD countries, 20 per cent of upper secondary students on average are now enrolled in privately managed schools (Table C2.4 and Chart C2.3).

The majority of upper secondary students in Belgium, Korea, the Netherlands and the United Kingdom are enrolled in government-dependent private institutions (60,55, 90 and 67 per cent respectively). Private educational institutions that are financed mainly by household payments are far less common at the upper secondary level and below, and are occasionally perceived as imposing barriers to the participation of students from low income families. However, in France, Mexico, Portugal and Spain, between 10 and 20 per cent of upper secondary students are enrolled in private institutions that are financed predominantly by unsubsidised household payments (Table C2.4).

The majority of upper secondary students are enrolled in public institutions...
...but enrolments in privately managed primary and secondary institutions account for the majority of students in Belgium, Kored, the Netherlands and the United Kingdom.

## Definitions and methodologies

Pre-vocational and vocational programmes include both school-based programmes and combined school and work-based programmes that are recognised as part of the education system. Entirely work-based education and training that is not overseen by a formal education authority is not taken into account.

Data refer to the school year 1999-2000 and are based on the VOE data collection on
education statistics, which is administered annually by the OECD (for details, see Annex 3).

Data for 1994-1995 are based on a special survey carried out in OECD member countries in 2000.

Table C2.1 shows, for all ages, the sum of net entry rates. The net entry rate of a specific age is obtained by dividing the number of first-time entrants to each type of tertiary education of that age by the total population in the corresponding age group (multiplied by 100). The sum of net entry rates is calculated by adding the rates for each single year of age. The result represents the proportion of people in a synthetic age-cohort who enter tertiary education, irrespective of changes in population sizes and of differences between OECD countries in the typical entry age. Table C 2.1 shows also the $20^{\text {th }}, 50^{\text {th }}$ and $80^{\text {th }}$ percentiles of the age distribution of first-time entrants, i.e., the age below which 20 per cent, 50 per cent and 80 per cent of first-time entrants are to be found.

New (first-time) entrants are students who are enrolling at the relevant level of education for the first time. Foreign students enrolling for the first time in a post-graduate programme are considered first-time entrants.

Not all OECD countries can distinguish between students entering a tertiary programme for the first time and those transferring between different levels of tertiary education or repeating or re-entering a level after an absence. Thus, first-time entry rates for each level of tertiary education cannot be added up to total tertiary-level entrance rate because it would result in double-counting entrants.

Table C2.2 shows the expected number of years for which 17-year-olds will be enrolled in tertiary education, or the sum of net enrolment rates for people aged 17 and over (divided by 100). This measure is a function of the number of participants in tertiary education and the duration of tertiary studies. Since the denominator also includes those who have never participated in tertiary education, the indicator cannot be interpreted as the average number of years an individual student requires to complete tertiary education.

Data on tertiary enrolment in 1994-1995 were obtained from a special survey carried out in 2000. OECD countries were asked to report according to the ISCED-97 classification.

Table C2.1.
Entry rates to tertiary education and age distribution of new entrants (2000)
Sum of net entry rates for each year of age, by gender and programme destination

|  | $\begin{aligned} & \text { Tertiary-type B } \\ & \hline \text { Net entry rates } \end{aligned}$ |  |  | Tertiary-type A |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Net entry rates |  |  | Age at: |  |  |
|  | $\mathrm{M}+\mathrm{F}$ | Males | Females | M +F | Males | Females | $\begin{gathered} 20^{\text {th }} \\ \text { percentile }{ }^{1} \end{gathered}$ | $50^{\text {th }}$ percentile ${ }^{1}$ | $80^{\text {th }}$ percentile ${ }^{1}$ |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Australia | m | m | m | 59 | 52 | 66 | 18.4 | 19.9 | 27.4 |
| Austria | m | m | m | 33 | 30 | 37 | 19.1 | 20.5 | 23.6 |
| \% Belgium (Fl.) | 34 | 28 | 39 | 36 | 36 | 36 | 18.3 | 18.9 | 22.7 |
| Canada | m | m | m | m | m | m | m | m | m |
| U0 Czech Republic* | 9 | 6 | 12 | 25 | 26 | 24 | 18.7 | 19.7 | 21.8 |
| Denmark | 35 | 26 | 45 | 29 | 27 | 32 | 20.8 | 22.4 | 27.9 |
| Finland | a | a | a | 71 | 62 | 81 | 19.9 | 21.6 | 26.9 |
| France | 21 | 22 | 21 | 37 | 30 | 44 | 18.3 | 18.9 | 20.2 |
| Germany ${ }^{2}$ | 13 | 9 | 18 | 30 | 30 | 30 | 20.1 | 21.4 | 24.3 |
| Greece | m | m | m | m | m | m | m | m | m |
| Hungary* | 2 | 1 | 2 | 65 | 60 | 70 | 19.2 | 21.0 | 26.5 |
| Iceland | 10 | 11 | 9 | 66 | 48 | 84 | 20.9 | 22.7 | 28.5 |
| Ireland | 26 | 23 | 28 | 31 | 29 | 34 | 18.3 | 19.0 | 19.9 |
| Italy ${ }^{3}$ | 1 | 1 | 1 | 43 | 38 | 49 | m | m | m |
| Japan ${ }^{3}$ | 32 | 22 | 43 | 39 | 47 | 30 | m | m | m |
| Korea ${ }^{3}$ | 50 | 51 | 49 | 45 | 48 | 41 | m | m | m |
| Luxembourg | m | m | m | m | m | m | m | m | m |
| Mexico | 1 | 1 | 1 | 26 | 27 | 26 | 18.3 | 19.5 | 25.7 |
| Netherlands | 1 | 1 | 2 | 51 | 48 | 54 | 18.5 | 19.8 | 22.8 |
| New Zealand | 37 | 31 | 42 | 70 | 57 | 84 | 18.9 | 22.7 | <40 |
| Norway | 7 | 9 | 6 | 59 | 45 | 74 | 20.1 | 21.6 | 29.6 |
| Poland ${ }^{3}$ | 1 | n | 2 | 62 | $\mathrm{x}(4)$ | $\mathrm{x}(4)$ | m | m | m |
| Portugal | m | m | m | m | m | m | m | m | m |
| Slovak Republic ${ }^{2}$ | 3 | 1 | 5 | 37 | 38 | 36 | 18.6 | 19.5 | 21.3 |
| Spain | 15 | 15 | 16 | 48 | 42 | 54 | 18.4 | 19.2 | 22.1 |
| Sweden | 7 | 7 | 6 | 67 | 54 | 81 | 20.2 | 22.7 | 32.1 |
| Switzerland | 14 | 15 | 13 | 29 | 32 | 26 | 20.3 | 21.8 | 26.3 |
| Turkey* | 9 | 11 | 8 | 21 | 26 | 17 | 18.3 | 19.6 | 23.2 |
| United Kingdom | 28 | 24 | 32 | 46 | 42 | 49 | 18.4 | 19.4 | 25.4 |
| United States | 14 | 12 | 15 | 43 | 37 | 49 | 18.4 | 19.4 | 26.8 |
| Country mean | 15 | 14 | 17 | 45 | 40 | 48 |  |  |  |
| Argentina ${ }^{4}$ | 30 | 18 | 41 | 50 | 31 | 70 | m | m | m |
| Chile ${ }^{3,4}$ | 14 | 14 | 14 | 38 | 40 | 35 | m | m | m |
| China ${ }^{3,4}$ | 6 | $\mathrm{x}(1)$ | $\mathrm{x}(1)$ | 8 | $\mathrm{x}(4)$ | $\mathrm{x}(4)$ | m | m | m |
| Indonesia ${ }^{5}$ | 8 | 7 | 9 | 14 | 16 | 11 | m | m | m |
| Israel | 31 | 26 | 36 | 49 | 44 | 54 | m | m | m |
| Jamaica | 16 | 10 | 22 | 9 | 6 | 13 | m | m | m |
| Jordan ${ }^{3}$ | 14 | 9 | 20 | 30 | 29 | 30 | m | m | m |
| n Malaysia ${ }^{4}$ | 24 | 24 | 25 | 22 | 19 | 25 | m | m | m |
| Paraguay ${ }^{3,4}$ | 8 | 5 | 12 | m | m | m | m | m | m |
| Philippines ${ }^{4}$ | a | a | a | 41 | 36 | 45 | m | m | m |
| Thailand ${ }^{3}$ | 23 | 25 | 21 | 40 | 36 | 44 | m | m | m |
| Tunisia ${ }^{3}$ | $\mathrm{x}(4)$ | $\mathrm{x}(5)$ | $\mathrm{x}(6)$ | 27 | 27 | 27 | m | m | m |
| ${ }_{5}^{1}$ Uruguay ${ }^{3,4}$ | 17 | 8 | 26 | 26 | 21 | 31 | m | m | m |
| $Z^{\text {Zimbabwe }{ }^{3,5}}$ | 4 | 5 | 3 | 1 | 2 | 1 | m | m | m |

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

1. 20/50/80 per cent of new entrants are below this age.
2. Entry rate for type B programmes calculated as gross entry rate.
3. Entry rate for type A and B programmes calculated as gross entry rate.
4. Year of reference 1999.
5. Year of reference 2001.

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

Source: OECD.

## CHAPTER C Access to education, participation and progression

Table C2.2.
Expected years in tertiary education and changes in total tertiary enrolment (2000)
Expected years of tertiary education under current conditions, by gender and mode of study, and index of change in total enrolment in tertiary education (1995=100)

|  |  | Tertiary-type B education |  |  | Tertiary-type A education |  |  | Total tertiary education (type A, B and advanced research programmes) |  |  | Change in enrolment (1995 = 100) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-time and part-time |  | Full-time | Full-t part | me and time | Full-time | Full-t part | me and time | Full-time |  | Attribu | able to: |
|  |  | M + F | Females | M + F | M + F | Females | M + F | M + F | Females | M + F | Total tertiary education | Change in population | Change in enrolment rates |
|  |  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| \% | Australia | 0.7 | 0.7 | 0.2 | 2.2 | 2.5 | 1.4 | 3.0 | 3.3 | 1.7 | 108 | 102 | 106 |
|  | Austria | 0.2 | 0.3 | 0.1 | 2.0 | 2.0 | 2.0 | 2.3 | 2.4 | 2.3 | 109 | 69 | 144 |
| O | Belgium | 1.4 | 1.6 | 1.1 | 1.3 | 1.3 | 1.3 | 2.7 | 2.9 | 2.3 | 111 | 94 | 117 |
| 8 | Canada | 0.7 | 0.8 | 0.6 | 2.0 | 2.4 | 1.4 | 2.8 | 3.2 | 2.1 | 101 | m | m |
| \% | Czech Republic | 0.2 | 0.3 | 0.2 | 1.2 | 1.2 | 1.1 | 1.5 | 1.6 | 1.4 | 150 | 102 | 147 |
|  | Denmark | 1.1 | 1.5 | 1.1 | 1.4 | 1.4 | 1.4 | 2.6 | 3.0 | 2.6 | 115 | 95 | 121 |
|  | Finland | 0.2 | 0.3 | 0.2 | 3.6 | 3.9 | 3.6 | 4.1 | 4.4 | 4.1 | 116 | 100 | 116 |
|  | France | 0.6 | 0.7 | 0.6 | 1.8 | 2.0 | 1.8 | 2.6 | 2.8 | 2.6 | 98 | 91 | 107 |
|  | Germany* | 0.3 | 0.4 | 0.3 | 1.7 | 1.6 | 1.7 | 2.0 | 2.0 | 2.0 | 95 | 89 | 107 |
|  | Greece | 0.9 | 0.9 | 0.9 | 1.9 | 2.0 | 1.9 | 2.8 | 2.9 | 2.8 | 143 | 96 | 151 |
|  | Hungary* | n | n | n | 1.9 | 2.1 | 1.1 | 2.0 | 2.2 | 1.1 | 180 | 110 | 164 |
|  | Iceland | 0.2 | 0.2 | 0.1 | 2.1 | 2.7 | 1.7 | 2.3 | 2.9 | 1.9 | 133 | 101 | 131 |
|  | Ireland | x (7) | x (8) | x(9) | x (7) | x(8) | x(9) | 2.3 | 2.4 | 1.8 | 125 | 109 | 116 |
|  | Italy | n | n | n | 2.2 | 2.4 | 2.2 | 2.2 | 2.5 | 2.2 | 103 | m | m |
|  | Japan | m | m | m | m | m | m | m | m | m | m | m | m |
|  | Korea | 1.5 | 1.1 | 1.5 | 2.2 | 1.6 | 2.2 | 3.7 | 2.7 | 3.7 | 148 | 87 | 161 |
|  | Luxembourg | m | m | m | m | m | m | m | m | m | m | m | m |
|  | Mexico | n | n | n | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 128 | 106 | 121 |
|  | Netherlands | n | n | n | 2.4 | 2.4 | 2.0 | 2.4 | 2.5 | 2.1 | m | m | m |
|  | New Zealand | 0.8 | 0.9 | 0.4 | 2.3 | 2.7 | 1.6 | 3.1 | 3.6 | 2.0 | m | m | m |
|  | Norway | 0.3 | 0.2 | 0.2 | 2.9 | 3.5 | 2.1 | 3.2 | 3.7 | 2.4 | 105 | 94 | 112 |
|  | Poland ${ }^{1}$ | n | n | n | 2.6 | 3.0 | 1.3 | 2.6 | 3.1 | 1.4 | 208 | 119 | 173 |
|  | Portugal | 0.6 | 0.6 | 0.6 | 1.7 | 2.0 | 1.7 | 2.4 | 2.7 | 2.4 | 124 | 98 | 127 |
|  | Slovak Republic | 0.1 | 0.1 | n | 1.3 | 1.4 | 1.0 | 1.5 | 1.5 | 1.0 | m | m | m |
|  | Spain | 0.3 | 0.3 | 0.3 | 2.6 | 2.8 | 2.4 | 2.9 | 3.2 | 2.7 | 120 | 93 | 129 |
|  | Sweden | 0.1 | 0.1 | 0.1 | 2.8 | 3.4 | 1.6 | 3.1 | 3.6 | 1.7 | 122 | 95 | 129 |
|  | Switzerland | 0.4 | 0.3 | 0.1 | 1.2 | 1.1 | 1.2 | 1.7 | 1.5 | 1.4 | m | m | m |
|  | Turkey | 0.2 | 0.1 | 0.2 | 0.6 | 0.5 | 0.6 | 0.8 | 0.6 | 0.8 | 86 | 110 | 79 |
|  | United Kingdom | 0.7 | 0.8 | 0.2 | 1.7 | 1.9 | 1.4 | 2.5 | 2.8 | 1.7 | 112 | 97 | 115 |
|  | United States | 0.7 | 0.8 | 0.3 | 2.6 | 3.0 | 1.7 | 3.4 | 3.8 | 2.1 | m | m | m |
|  | Country mean | 0.4 | 0.5 | 0.3 | 2.0 | 2.1 | 1.6 | 2.5 | 2.7 | 2.0 | 124 | 98 | 127 |
|  | Argentina ${ }^{2}$ | 0.7 | 1.0 | m | 2.0 | 2.4 | m | 2.7 | 3.4 | m | m | m | m |
|  | Brazil ${ }^{2}$ | $\mathrm{x}(4)$ | $\mathrm{x}(5)$ | $\mathrm{x}(6)$ | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | m | m | m |
|  | Indonesia ${ }^{3}$ | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.4 | 0.6 | 0.5 | 0.6 | m | m | m |
|  | Israel | 0.5 | 0.6 | 0.5 | 2.1 | 2.4 | 1.6 | 2.6 | 3.0 | 2.2 | m | m | m |
| 寿 | Malaysia ${ }^{2}$ | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 1.1 | 1.2 | 1.0 | m | m | m |
| 砍 | Paraguay ${ }^{2}$ | 0.2 | 0.3 | 0.2 | m | m | m | m | m | m | m | m | m |
| O | Peru ${ }^{2}$ | 1.0 | 1.1 | 1.0 | m | m | m | m | m | m | m | m | m |
| O | Philippines ${ }^{2}$ | a | a | a | 1.4 | 1.6 | 1.4 | 1.4 | 1.6 | 1.4 | m | m | m |
| $\begin{aligned} & \bar{i} \\ & \vdots \end{aligned}$ | Russian Federation ${ }^{1,3}$ | 1.0 | 1.1 | 3.3 | 2.1 | 2.4 | 5.4 | 3.2 | 3.6 | 7.7 | m | m | m |
| O | Uruguay ${ }^{1,2}$ | 0.5 | 0.7 | 0.5 | 1.3 | 1.6 | 1.3 | 1.8 | 2.2 | 1.8 | m | m | m |

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

1. Excludes advanced research programmes.
2. Year of reference 1999.
3. Year of reference 2001.

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

Source: OECD.

Table C2.3.
Students enrolled in public and private institutions and full-time and part-time programmes in tertiary education (2000)
Distribution of students, by mode of study, type of institution and programme destination

|  | Type of institution |  |  |  |  |  | Mode of study |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tertiary-type B education |  |  | Tertiary-type A and advanced research programmes |  |  | Tertiary-type B education |  | Tertiary-type A and advanced research programmes |  |
|  | Public | Governmentdependent private | Independent private | Public | Governmentdependent private | Independent private | Full-time | Part-time | Full-time | Part-time |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 笏 Australia | 98.9 | 1.1 | a | 100.0 | a | a | 32.3 | 67.7 | 62.1 | 37.9 |
| \% Austria | 64.4 | 35.6 | n | 95.8 | 4.2 | n | 66.1 | 33.9 | 100.0 | a |
| Belgium | 48.7 | 51.3 | n | 38.7 | 61.3 | n | 74.4 | 25.6 | 94.9 | 5.1 |
| Canada | 100.0 | n | n | 100.0 | n | n | 85.2 | 14.8 | 68.2 | 31.8 |
| O Czech Republic | 66.3 | 33.7 | a | 100.0 | a | a | 100.0 | n | 92.4 | 7.6 |
| Denmark | 99.6 | 0.4 | a | 100.0 | a | a | 100.0 | a | 100.0 | a |
| Finland | 81.3 | 18.7 | a | 89.7 | 10.3 | a | 100.0 | a | 100.0 | a |
| France | 73.2 | 9.1 | 17.7 | 89.4 | 0.8 | 9.8 | 100.0 | a | 100.0 | a |
| Germany | 63.2 | 36.8 | $\mathrm{x}(2)$ | 100.0 | a | a | 84.9 | 15.1 | 100.0 | a |
| Greece | 100.0 | a | a | 100.0 | a | a | 100.0 | a | 100.0 | a |
| Hungary | 100.0 | n | a | 87.0 | 13.0 | a | 87.7 | 12.3 | 58.0 | 42.0 |
| Iceland | 43.8 | 56.2 | n | 95.4 | 4.6 | n | 71.2 | 28.8 | 80.9 | 19.1 |
| Ireland | 94.2 | n | 5.8 | 95.3 | n | 4.7 | 60.7 | 39.3 | 86.8 | 13.2 |
| Italy | 85.3 | a | 14.7 | 93.8 | a | 6.2 | 100.0 | a | 100.0 | a |
| Japan | 9.4 | a | 90.6 | 27.3 | a | 72.7 | 96.7 | 3.3 | 90.6 | 9.4 |
| Korea | 14.0 | a | 86.0 | 23.2 | a | 76.8 | 100.0 | , | 100.0 | a |
| Luxembourg | 100.0 | a | a | 100.0 | a | a | 99.3 | 0.7 | 100.0 | a |
| Mexico | 100.0 | a | a | 69.0 | a | 31.0 | 100.0 | a | 100.0 | a |
| Netherlands | 8.9 | 91.1 | m | 31.3 | 68.7 | m | 69.3 | 30.7 | 82.6 | 17.4 |
| New Zealand | 81.3 | 18.2 | 0.5 | 99.0 | 1.0 | n | 45.0 | 55.0 | 69.7 | 30.3 |
| Norway | 74.9 | 25.1 | $\mathrm{x}(2)$ | 88.6 | 11.4 | x (5) | 87.2 | 12.8 | 72.8 | 27.2 |
| Poland | 89.0 | 10.2 | 0.7 | 72.2 | a | 27.8 | 78.0 | 22.0 | 53.9 | 46.1 |
| Portugal | 80.0 | a | 20.0 | 64.3 | a | 35.7 | m | m | m | m |
| Slovak Republic | 94.9 | 5.1 | n | 100.0 | n | n | 64.8 | 35.2 | 71.9 | 28.1 |
| Spain | 77.3 | 16.3 | 6.3 | 88.7 | n | 11.3 | 99.6 | 0.4 | 91.5 | 8.5 |
| Sweden | 71.4 | 1.6 | 27.0 | 94.6 | 5.4 | a | 93.0 | 7.0 | 54.0 | 46.0 |
| Switzerland | 37.7 | 39.2 | 23.1 | 92.4 | 6.1 | 1.5 | 32.9 | 67.1 | 94.5 | 5.5 |
| Turkey* | 97.6 | a | 2.4 | 95.7 | a | 4.3 | 100.0 | a | 100.0 | a |
| United Kingdom | a | 100.0 | n | a | 100.0 | n | 30.5 | 69.5 | 76.0 | 24.0 |
| United States | 92.5 | a | 7.5 | 68.7 | a | 31.3 | 44.2 | 55.8 | 64.7 | 35.3 |
| Country mean | 71.6 | 18.3 | 10.1 | 80.0 | 9.6 | 10.4 | 79.4 | 20.6 | 85.0 | 15.0 |
| Argentina ${ }^{1}$ | m | m | m | 85.2 | a | 14.8 | m | m | m | m |
| Brazil ${ }^{1}$ | m | a | m | 36.9 | a | 63.1 | m | m | 100.0 | a |
| Chile ${ }^{1}$ | 7.2 | 6.8 | 86.0 | 33.0 | 23.3 | 43.7 | 100.0 | n | 100.0 | n |
| China | m | m | m | m | m | m | 59.4 | 40.6 | 89.4 | 10.6 |
| Egypt | 31.1 | m | 68.9 | m | m | m | 68.9 | 31.1 | m | m |
| Indonesia ${ }^{2}$ | 37.1 | a | 62.9 | 31.4 | a | 68.6 | 100.0 | a | 100.0 | a |
| Israel | 22.0 | 78.0 | $\mathrm{x}(2)$ | 12.8 | 79.6 | 7.9 | 100.0 | a | 83.6 | 19.1 |
| Jamaica | 97.7 | a | 2.3 | 81.4 | a | 18.6 | 71.6 | 28.4 | m | m |
| Jordan | 44.7 | a | 55.3 | 69.2 | a | 30.8 | 100.0 | a | 100.0 | a |
| Malaysia ${ }^{1}$ | 56.4 | a | 43.6 | 77.0 | a | 23.0 | 89.8 | 10.2 | 85.5 | 14.5 |
| Paraguay ${ }^{1}$ | 51.7 | 1.7 | 46.5 | m | a | m | 100.0 | a | m | m |
| 衡 Peru ${ }^{1}$ | 56.2 | m | 43.8 | 62.3 | a | 37.7 | 100.0 | a | m | m |
| Philippines ${ }^{1}$ | a | , | a | 26.9 | a | 73.1 | a | a | 100.0 | a |
| Russian Federation ${ }^{2}$ | 97.8 | a | 2.2 | 90.3 | a | 9.7 | m | m | m | m |
| Thailand | 56.7 |  | 43.3 | 88.3 | a | 11.7 | 100.0 | a | m | m |
| OTunisia | 100.0 | , | a | 100.0 | a | a | 100.0 | a | 100.0 | a |
| ${ }_{2}^{1}$ Uruguay ${ }^{1}$ | 91.0 | a | 9.0 | 88.4 | a | 11.6 | 100.0 |  | 100.0 | a |
| Z Zimbabwe ${ }^{2}$ | 91.0 | 9.0 | a | 76.0 | 24.0 | a | m | m | m | m |

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

1. Year of reference 1999.
2. Year of reference 2001.

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

Source: OECD.

Table C2.4.
Students enrolled in public and private institutions and full-time and part-time programmes in primary and secondary education (2000)
Distribution of students, by mode of study and type of institution

|  | Type of institution |  |  |  |  |  |  |  |  | Mode of study <br> Primary and secondary <br> education |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Primary education |  |  | Lower secondary education |  |  | Upper secondary education |  |  |  |  |
|  | Public | Govern-mentdependent private | Independent private | Public | Govern-mentdependent private | Independent private | Public | Govern-mentdependent private | Independent private | Full-time | Part-time |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| \% Australia | 72.8 | 27.2 | a | 69.1 | 30.9 | a | 82.9 | 17.1 | a | 74.0 | 26.0 |
| Austria | 95.8 | 4.2 | $\mathrm{x}(2)$ | 92.6 | 7.4 | $\mathrm{x}(5)$ | 90.6 | 9.4 | $\mathrm{x}(9)$ | 99.4 | 0.6 |
| Belgium | 45.6 | 54.4 | n | 41.9 | 58.1 | n | 39.9 | 60.1 | n | 84.1 | 15.9 |
| Canada | 93.5 | 1.4 | 5.1 | 92.1 | 1.1 | 6.7 | 94.4 | 0.7 | 4.9 | 99.2 | 0.8 |
| Czech Republic | 99.1 | 0.9 | a | 98.3 | 1.7 | a | 89.5 | 10.5 | a | 99.7 | 0.3 |
| - Denmark | 89.2 | 10.8 | a | 78.4 | 21.6 | a | 98.0 | 2.0 | a | 100.0 | a |
| Finland | 98.9 | 1.1 | a | 96.0 | 4.0 | a | 89.8 | 10.2 | a | 100.0 | a |
| France | 85.4 | 14.3 | 0.2 | 79.2 | 19.8 | 1.0 | 69.7 | 16.6 | 13.7 | 100.0 | a |
| Germany | 97.8 | 2.2 | $\mathrm{x}(2)$ | 93.3 | 6.7 | x(5) | 93.2 | 6.8 | x(9) | 99.8 | 0.2 |
| Greece | 93.0 | a | 7.0 | 95.0 | a | 5.0 | 93.9 | a | 6.1 | 98.3 | 1.7 |
| Hungary | 94.9 | 5.1 | a | 95.0 | 5.0 | a | 90.6 | 9.4 | a | 97.0 | 3.0 |
| Iceland | 98.6 | 1.4 | n | 99.0 | 1.0 | n | 94.2 | 5.8 | n | 92.9 | 7.1 |
| Ireland | 98.8 | n | 1.2 | 100.0 | n | n | 98.8 | n | 1.2 | 99.9 | 0.1 |
| Italy | 93.4 | a | 6.6 | 96.5 | a | 3.5 | 93.7 | 0.9 | 5.4 | 100.0 | a |
| Japan | 99.1 | a | 0.9 | 94.4 | a | 5.6 | 69.4 | a | 30.6 | 99.0 | 1.0 |
| Korea | 98.5 | a | 1.5 | 77.6 | 22.4 | a | 45.0 | 55.0 | a | 100.0 | a |
| Luxembourg | 93.2 | 1.0 | 5.8 | 79.0 | 14.0 | 7.0 | 85.0 | 7.7 | 7.4 | 100.0 | n |
| Mexico | 92.6 | a | 7.4 | 86.6 | a | 13.4 | 78.6 | a | 21.4 | 100.0 | a |
| Netherlands | 31.4 | 68.6 | a | 24.6 | 75.3 | 0.2 | 7.8 | 90.0 | 2.2 | 97.6 | 2.4 |
| New Zealand | 98.0 | a | 2.0 | 95.9 | a | 4.1 | 83.0 | 7.9 | 9.1 | 95.2 | 4.8 |
| Norway | 98.5 | 1.5 | $\mathrm{x}(2)$ | 98.1 | 1.9 | $\mathrm{x}(5)$ | 89.1 | 10.9 | $\mathrm{x}(9)$ | 98.6 | 1.4 |
| Poland | 99.2 | 0.8 | a | 99.0 | 1.0 | a | 93.9 | 6.1 | 0.1 | 95.5 | 4.5 |
| Portugal | 90.4 | a | 9.6 | 90.1 | a | 9.9 | 85.0 | a | 15.0 | 93.5 | 6.5 |
| Slovak Republic | 96.1 | 3.9 | n | 95.2 | 4.8 | n | 93.3 | 6.7 | n | 98.8 | 1.2 |
| Spain | 66.6 | 30.2 | 3.2 | 67.1 | 29.8 | 3.2 | 78.9 | 10.0 | 11.1 | 96.2 | 3.8 |
| Sweden | 96.6 | 3.4 | a | 97.3 | 2.7 | a | 98.0 | 2.0 | a | 84.8 | 15.2 |
| Switzerland | 96.7 | 1.2 | 2.2 | 93.2 | 2.5 | 4.3 | 91.4 | 3.6 | 5.0 | 99.7 | 0.3 |
| Turkey | 98.2 | a | 1.8 | a | a | a | 97.5 | a | 2.5 | 100.0 | a |
| United Kingdom | 95.3 | a | 4.7 | 93.6 | 0.3 | 6.1 | 29.6 | 67.4 | 3.0 | 77.0 | 23.0 |
| United States | 88.4 | a | 11.6 | 90.1 | a | 9.9 | 90.6 | a | 9.4 | 100.0 | n |
| Country mean | 89.9 | 7.8 | 2.7 | 83.6 | 10.4 | 3.1 | 81.2 | 13.9 | 5.7 | 96.0 | 4.0 |
| Argentina ${ }^{1}$ | 80.5 | 19.5 | $\mathrm{x}(2)$ | 77.5 | 22.5 | $\mathrm{x}(5)$ | 72.2 | 27.8 | x (8) | 100.0 | a |
| Brazil ${ }^{1}$ | 91.9 | a | 8.1 | 89.9 | a | 10.1 | 83.2 | a | 16.8 | 100.0 | a |
| Chile ${ }^{1}$ | 56.8 | 35.7 | 7.5 | 57.8 | 34.1 | 8.1 | 51.4 | 32.4 | 16.1 | 100.0 | a |
| China | m | m | m | m | m | m | m | m | m | 96.7 | 3.3 |
| Egypt | 92.4 | 1.1 | 7.6 | 95.8 | 1.2 | 4.2 | 93.8 | 0.2 | 6.2 | 100.0 | a |
| India ${ }^{1}$ | 75.6 | 9.9 | 8.0 | 57.0 | 30.4 | 10.8 | 42.5 | 44.5 | 8.7 | 95.3 | 4.7 |
| Indonesia ${ }^{2}$ | 92.7 | a | 7.3 | 72.1 | a | 27.9 | 47.2 | a | 52.8 | 100.0 | a |
| Israel | 100.0 | n | n | 100.0 | n | n | 100.0 | n | n | 98.9 | 1.1 |
| Jamaica | 96.0 | , | 4.0 | 97.0 | a | 3.0 | 97.0 | , | 3.0 | - | a |
| Jordan | 70.0 | a | 30.0 | 80.5 | a | 19.5 | 91.3 | a | 8.7 | 100.0 | a |
| Malaysia ${ }^{1}$ | 94.3 | a | 5.7 | 92.6 | , | 7.4 | 92.1 | a | 7.9 | 100.0 | a |
| Paraguay ${ }^{1}$ | 85.0 | 9.3 | 5.7 | 72.5 | 10.9 | 16.7 | 67.4 | 7.4 | 25.2 | 100.0 | a |
| \% Peru ${ }^{1}$ | 87.4 | 3.2 | 9.4 | 84.9 | 4.7 | 10.4 | 82.2 | 5.1 | 12.7 | 100.0 | a |
| Philippines ${ }^{1}$ | 92.5 | a | 7.5 | 74.8 | a | 25.2 | 69.5 | a | 30.5 | 100.0 | a |
| Russian Federation ${ }^{2}$ | 99.6 | a | 0.4 | 99.7 | a | 0.3 | 99.6 | a | 0.4 | m | m |
| Thailand | 86.9 | 13.1 | n | 93.6 | 6.4 | n | 87.7 | 3.0 | 9.3 | m | m |
| Tunisia | 99.3 | a | 0.7 | 94.5 | a | 5.5 | 88.8 | a | 11.2 | 100.0 | a |
| ${ }_{2}^{\text {i }}$ Uruguay ${ }^{1}$ | 85.8 | a | 14.2 | 86.1 | a | 13.9 | 88.3 | a | 11.7 | 100.0 | a |
| \% Zimbabwe | 12.0 | 88.0 | a | 27.6 | 72.4 | a | 42.6 | 57.4 | a | 100.0 | a |

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

1. Year of reference 1999.
2. Year of reference 2001.

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

Table C2.5.
Upper secondary enrolment patterns (2000)
Enrolment in public and private upper secondary institutions by programme destination and type of programme

|  | Distribution of enrolment by programme destination |  |  | Distribution of enrolment by type of programme |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ISCED 3A | ISCED 3B | ISCED 3C | General | Pre-vocational | Vocational | of which: combined school and work-based |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Australia | 34.3 | a | 65.7 | 34.3 | a | 65.7 | $\mathrm{x}(6)$ |
| Austria | 43.5 | 48.1 | 8.5 | 21.7 | 7.2 | 71.1 | 36.4 |
| Belgium | 53.7 | a | 46.3 | 33.2 | a | 66.8 | 2.8 |
| Canada | 90.9 | a | 9.1 | 90.9 | 9.1 | a | a |
| Czech Republic | 63.5 | 0.5 | 36.0 | 18.6 | 1.1 | 80.2 | 40.5 |
| Denmark | 45.3 | a | 54.7 | 45.1 | 0.2 | 54.7 | 54.1 |
| Finland | 100.0 | a | a | 44.7 | a | 55.3 | 10.7 |
| France | 67.0 | a | 33.0 | 42.6 | a | 57.4 | 11.7 |
| Germany | 36.8 | 63.2 | a | 36.8 | a | 63.2 | 48.7 |
| Greece | 67.9 | a | 32.1 | 67.9 | a | 32.1 | a |
| Hungary | 74.6 | 1.7 | 23.6 | 36.0 | 53.7 | 10.3 | 10.3 |
| Iceland | 66.8 | 0.5 | 32.7 | 66.6 | 1.1 | 32.3 | 14.4 |
| Ireland | 78.1 | a | 21.9 | 76.6 | 23.4 | a | a |
| Italy | 80.8 | 1.3 | 17.9 | 35.7 | 39.8 | 24.6 | m |
| Japan | 73.9 | 0.8 | 25.3 | 73.9 | 0.8 | 25.3 | a |
| Korea | 63.9 | a | 36.1 | 63.9 | a | 36.1 | a |
| Luxembourg | 61.2 | 14.4 | 24.3 | 36.5 | a | 63.5 | 13.7 |
| Mexico | 87.0 | a | 13.0 | 87.0 | a | 13.0 | a |
| Netherlands | 64.8 | a | 35.2 | 31.7 | a | 68.3 | 20.4 |
| New Zealand | 65.0 | 17.4 | 17.6 | m | m | m | m |
| Norway | 42.7 | a | 57.3 | 42.7 | a | 57.3 | m |
| Poland | 78.0 | a | 22.0 | 35.7 | a | 64.3 | a |
| Portugal | 75.9 | 17.0 | 7.0 | 72.2 | a | 27.8 | m |
| Slovak Republic | 78.1 | a | 21.9 | 21.4 | a | 78.6 | 39.7 |
| Spain | 66.5 | n | 33.5 | 66.5 | n | 33.5 | 5.8 |
| Sweden* | 49.0 | a | 0.4 | 51.2 | a | 48.8 | m |
| Switzerland | 30.0 | 60.0 | 10.0 | 34.3 | a | 65.7 | 57.9 |
| Turkey | 90.1 | a | 9.9 | 51.0 | a | 49.0 | 9.9 |
| United Kingdom | 24.3 | a | 75.7 | 32.7 | $\mathrm{x}(6)$ | 67.3 | $\mathrm{x}(6)$ |
| United States | m | m | m | m | m | m | m |
| Country mean | 63.9 | 7.8 | 26.6 | 48.3 | 5.1 | 46.9 | 17.1 |
| Argentina ${ }^{1}$ | 100.0 | a | a | 41.6 | a | 58.4 | $\mathrm{x}(6)$ |
| Brazil ${ }^{\text { }}$ | m | m | a | 82.3 | a | 17.7 | m |
| Chile ${ }^{1}$ | 58.2 | 41.8 | a | 58.2 | a | 41.8 | a |
| China | 47.0 | a | 53.0 | 47.0 | x (6) | 53.0 | m |
| Egypt | 35.2 | 64.8 | a | 35.2 | a | 64.8 | a |
| India ${ }^{1}$ | m | a | m | 95.8 | a | 4.2 | m |
| Indonesia ${ }^{2}$ | 60.3 | 39.7 | a | m | a | m | m |
| Israel | 95.8 | $\mathrm{x}(1)$ | 4.2 | 67.1 | a | 32.9 | m |
| Jamaica | 99.1 | 0.9 | a | 99.1 | a | 0.9 | a |
| Jordan | 93.9 | a | 6.1 | 74.9 | a | 25.1 | n |
| Malaysia ${ }^{1}$ | 14.9 | a | 85.1 | 84.9 | a | 15.1 | x (6) |
| Paraguay ${ }^{1}$ | m | a | m | 81.5 | a | 18.5 | a |
| Peru ${ }^{1}$ | m | m | a | 75.1 | a | 24.9 | a |
| Philippines ${ }^{1}$ | 100.0 | a | a | 100.0 | a | a | a |
| Thailand | 70.0 | 30.0 | a | 70.0 | a | 30.0 | x (6) |
| Tunisia | 94.1 | 3.7 | 2.2 | 94.1 | 3.7 | 2.2 | a |
| Uruguay ${ }^{1}$ | 90.3 | a | 9.7 | 81.3 | a | 18.7 | a |
| Zimbabwe ${ }^{2}$ | 54.9 | 45.1 | $\mathrm{x}(2)$ | m | m | m | m |

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

1. Year of reference 1999.
2. Year of reference 2001.

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

Source: OECD.

## FOREIGN STUDENTS IN TERTIARY EDUCATION

- Five countries (Australia, France, Germany, the United Kingdom and the United States) receive 70 per cent of all foreign students studying in the OECD area.
- In absolute numbers, students from Greece, Japan and Korea represent the largest sources of intakes from OECD countries. Students from China and Southeast Asia comprise the largest numbers of foreign students from non-OECD countries.
- In relative terms, the percentage of foreign students enrolled in OECD countries ranges from below 1 to almost 17 per cent. Proportional to their size, Australia, Austria, Belgium, Switzerland and the United Kingdom take in the most foreign students, when measured as a percentage of their tertiary enrolments.

Chart C3.1.
Percentage of tertiary students enrolled who are not citizens of the country of study (2000)


Countries are ranked in descending order of the percentage of students enrolled who are not citizens of the country of study.
Source: OECD. Table C3.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

## Policy context

The international dimension of higher education is receiving increasing attention. The general trend towards freely circulating capital, goods and people coupled with changes in the openness of labour markets have increased the demand for new kinds of skills and knowledge in OECD countries. Governments are looking increasingly to higher education to play a role in broadening the horizons of students and allowing them to develop a deeper understanding of the multiplicity of languages, cultures and business methods in the world.

One way for students to expand their knowledge of other cultures and societies is to study in tertiary education institutions in countries other than their own. International student mobility involves costs and benefits to students and institutions in sending and host countries alike. While the direct short-term monetary costs and benefits of this mobility are relatively easy to measure, the long-term social and economic benefits to students, institutions and countries are more difficult to quantify. The number of students studying in other countries, however, provides some idea at least of the extent of student mobility.

It is worth noting that in addition to student flows across borders, cross-border electronic delivery of highly flexible educational programmes is also relevant for capturing the internationalisation of higher education. Today, we see crossborder mobility among participants in and providers of education. In the future, it will be important to develop ways to quantify and measure these components of the internationalisation of education.

## Evidence and explanations

## Proportion of foreign students studying abroad, by host countries

A relatively small number of countries enrols the vast majority of foreign students studying in the OECD area and in other non-OECD countries reporting such data. The United States receives the most foreign students (in absolute terms) with 28 per cent of the total, followed by the United Kingdom and Germany (14 and 12 per cent respectively), France and Australia (8 and 7 per cent, respectively) (Chart C3.2). These five host countries account for about 70 per cent of all foreign students studying abroad.

This indicator defines a foreign student as someone who is not a citizen of the country of study. In most countries, it has not been possible to distinguish between foreign students who are residents in the country but who have immigrated (or whose parents have immigrated), and students who came to the country expressly to pursue their education. This leads to a potential overestimation of the foreign student body in countries with comparatively stringent naturalisation policies.

For example, Germany is a high-ranking destination for foreign students but the actual number of non-resident students registered in German tertiary education

This indicator shows the mobility of students between countries.

Five OECD countries attract seven out of ten foreign students.

Not all non-national students came to the host country to study.

Distribution of students who are not citizens of the country of study, by host country (2000)


Source: OECD

Language of instruction is a critical factor in selecting a country in which to study.
institutions accounts for only two-thirds of all foreign students. This is because a significant number of "domestic foreigners", that is mainly children of migrant workers, are considered foreign for the purposes of this indicator, despite having grown up in Germany.

The language of instruction is critical for selecting a foreign country in which to study. Countries whose language of instruction is widely spoken and read (English, French, German) dominate in hosting foreign students in absolute and relative terms. The dominance of English-speaking countries such as Australia, the United Kingdom and the United States may be largely attributable to the fact that students intending to study abroad are most likely to have learned English in their home country. An increasing number of institutions in non-Englishspeaking countries now offer courses in English to attract overseas students.

## Proportion of foreign students studying in OECD countries by sending countries

In 2000, 1.62 million foreign students were enrolled outside their country of origin, of which 1.52 million (or 94 per cent) studied in the OECD area. This represented a 14 per cent increase in student mobility towards the OECD compared to 1998 . This increase was balanced between students coming from OECD and non-OECD countries, that is the geographic composition of the intake remained stable: 44 per cent of the foreign students originate from the OECD area and 56 per cent come from non-OECD countries.

Asian students represent the largest group of foreign students studying in OECD countries, with 41 per cent of the total, followed by Europeans ( 33 per cent).

The predominance of students from Asia and Europe among foreign intakes is also observed when focusing on OECD countries. Students from Japan and Korea comprise the largest groups, at 4.6 and 3.9 per cent respectively, of all foreign students, followed by students from Greece ( 3.6 per cent), Germany ( 3.5 per cent), France ( 3.4 per cent) and Italy ( 2.7 per cent). Together, these countries account for nearly 20 per cent of all foreign students in OECD countries.

With respect to non-OECD countries with students studying abroad, students from China represent 7.1 per cent of all foreign students studying in OECD countries, followed by students from India (3.4 per cent), Morocco (2.7 per cent) and Malaysia ( 2.4 per cent). 4.2 per cent of all foreign students originate from Southeast Asia - Indonesia, Singapore and Thailand.

International trade, finance and economic issues are likely to be important factors underlying student mobility. For example, the promotion of regional economic integration by organisations and treaties such as the EU, NAFTA, ASEAN and APEC may provide incentives for students to develop their understanding of partner countries' cultures and languages, and to build bilateral or multilateral networks. Some national governments have made international student mobility an explicit part of their socio-economic development strategies. For example, several governments in the Asia-Pacific region, such as Australia, Japan and New Zealand, have initiated policies to attract foreign students to study in their higher education institutions, often on a revenue-generating or at least self-financing basis.

## Foreign student intakes as a proportion of total enrolments

The foregoing analysis is focused on the distribution of absolute numbers of foreign students by countries of destination and origin. This leads to larger countries receiving the most importance, ceteris paribus. One way to take this into account is to examine the intake of tertiary students in a particular country with the number of students studying abroad, relative to its tertiary enrolments.

In 2000, 1.62 million
foreign students were enrolled outside their country of origin, of which 1.52 million (or 94 per cent) studied in the OECD area.

Students from Greece, Japan and Korea represent the largest intakes from other OECD countries...
...while students from China and Southeast Asia make up the largest proportion of foreign students from nonOECD countries.

## The percentage of foreign students enrolled in OECD countries ranges from below 1 to almost 17 per cent.

Greece, Iceland, Ireland and Luxembourg send a large proportion of their students abroad, while Australia, Mexico and the United States send relatively few.

Proportional to their size, Australia, Switzerland and the United Kingdom show the largest net intake of foreign students.

Australia, Austria and Switzerland receive the largest proportion of foreign students relative to total tertiary enrolment (between 12 and 17 per cent), followed by Belgium, Germany and the United Kingdom (see Chart C3.1). By contrast, in Italy, Japan, Korea, Mexico, Poland, the Slovak Republic and Turkey, the proportion of foreign students remains below 2 per cent in tertiary enrolment (see Chart C3.1).

In comparison with OECD countries, non-OECD countries participating in the World Education Indicators project receive marginal numbers of foreign students relative to their size, with the exception of Jordan ( 9 per cent), which reflects the presence of a large Palestinian refugee community, and to a lesser extent Jamaica ( 2 per cent), due to the presence of one of the three campuses of the regional University of West Indies.

## Students studying abroad relative to total enrolments

It is also possible to estimate the extent to which students leave their country and study abroad by comparing the proportion of students studying abroad to national tertiary enrolments. The measure used here only covers students leaving their country to study in OECD and non-OECD countries that report data; it does not cover students who study abroad in countries other than those reporting their intakes in Table C3.1. The indicator is thus likely to underestimate the proportion of students studying abroad. Another potential source of underestimation may be that the indicator is calculated on a full-year basis whereas many students study abroad for less than a full academic year. For example, more than half of the students from the United States who study abroad leave for half a year or less, and only 14 per cent stay in the host country for a full academic year.

The ratio of students studying abroad to total enrolment in the country of origin varies widely, from below 1 per cent in Australia ( 0.6 per cent), Mexico ( 0.7 per cent) and the United States ( 0.3 per cent), to as much as 25 per cent in Iceland and 226 per cent in Luxembourg. The latter case is specific, however, because Luxembourg only offers post-secondary non-university programmes or the first year of university at the tertiary level. Since students in Luxembourg must continue their studies abroad, a large number of students are enrolled outside the country.

## Net balance of international student exchange

Although the United States receives over 441000 students more than the total number of American students going abroad for study, other countries have much larger net intakes of students in proportion to their size. In Australia, Switzerland and the United Kingdom, the net intake is between 4.6 and 6.5 per cent of their tertiary enrolment (see Table C3.1, column 4). Conversely, Iceland, Ireland, Norway and Turkey show the highest relative net outflow of students, at 22, 7,5 and 4 per cent of total tertiary enrolments, respectively. The balances of student flows take only students to and from
reporting OECD and non-OECD countries into account. The absolute balance of countries that accept a significant number of students from non-reporting countries or that send students to non-reporting countries may differ from these figures.

For non-OECD countries, the balance of incoming and outgoing students is negative in all cases except the Russian Federation (2 per cent), Tunisia (3 per cent) and Uruguay (1 per cent).

Given the numerous benefits that foreign students may bring to their host countries, it is important to identify the factors likely to enhance student mobility.

Student mobility patterns can be attributed to a variety of push-pull factors, such as language barriers, the academic reputation of particular institutions or programmes, the flexibility of programmes with respect to counting time spent abroad toward degree requirements, the limitations of higher education provision in the home country, restrictive university admission policies at home, financial incentives and tuition costs.

These patterns also reflect geographical and historical links between countries, future job opportunities, cultural aspirations, and government policies to facilitate credit transfer between home and host institutions. The transparency and flexibility of courses and degree requirements also count.

## Trade effects and economic benefits of the internationalisation of higher education

A first direct benefit of the intake of foreign students is the tuition fee revenue that is generated and the related domestic consumption by foreign students, which appear in the balance of current accounts as exports of educational services. The magnitude of this gain is further increased when host countries adopt a full-fee tuition policy for overseas students. Exports of educational services were estimated at US\$ 30 billion in 1998, or 3 per cent of total OECD trade in services. In a top receiving country such as Australia, exports of education services were the third largest service sector export earner in 20002001, representing nearly 12 per cent of total service exports.

In addition to the direct benefits of internationalised higher education, a higher client-base of tertiary education may result in indirect gains, whereby net receiving countries generate economies of scale in tertiary education, and can therefore diversify their range of programmes or reduce their unit costs. This can be particularly important for host countries with a relatively small population.

The presence of a foreign student client-base also compels higher education institutions to offer quality programmes that stand out among competitors, which contributes to the development of a highly reactive, client-driven higher education.

Various push-pull
factors help to explain student mobility patterns

The net intake of foreign students indicates the magnitude of the benefits countries can potentially reap from the international exchange of tertiary students.

Data refer to the academic year 19992000 and are based on the UOE data collection on education statistics, which is administered annually by the $O E C D$.

Finally, the intake of foreign students can to some extent involve technology transfers (especially in advanced research programmes), foster intercultural contacts and help to build social networks for the future.

## Definitions and methodologies

Students are classified as foreign students if they are not citizens of the country in which the data are collected. While pragmatic and operational, this classification may create inconsistencies resulting from national policies regarding naturalisation of immigrants and the inability of several countries to report separately foreign students net of permanent resident students. Countries that naturalise immigrants stringently and which cannot identify non-resident foreign students therefore over-estimate the size of their foreign student body, compared to more lenient countries. Bilateral comparisons of the data on foreign students should therefore be made with caution, since some countries differ in the definition and coverage of their foreign students (see Annex 3 at www.oecd.org/els/education/eag2002).

Foreign student data are collected by host countries and therefore relate to students that are coming in rather than to students going from that country to study abroad. Host countries covered by this indicator are OECD countries, with the exception of Luxembourg and the Slovak Republic, and the following non-OECD countries: Argentina, Chile, India, Indonesia, Jamaica, Jordan, Malaysia, the Philippines, the Russian Federation, Tunisia and Uruguay. This indicator does not include students studying in OECD countries which did not report to the OECD, or non-OECD countries other than those mentioned above. All statements on students studying abroad therefore underestimate the real number of students abroad.

The method of obtaining data on the number of foreign students is the same as that used for collecting data on total enrolments, that is to say, records of regularly enrolled students in an educational programme were used. Domestic and foreign students are usually counted on a specific day or period of the year. This procedure measures the proportion of foreign enrolments in an education system, but the actual number of individuals involved in foreign exchange may be much higher, since many students study abroad for less than a full academic year, or participate in exchange programmes that do not require enrolment (e.g., inter-university exchange or advanced research short-term mobility).

Tables C3.1, C3.2 and C3.3 show foreign enrolment as a proportion of the total enrolment in the host country or country of origin (the sending country). Total enrolment, used as a denominator, includes all foreign students in the country and excludes all students from that country studying abroad. The proportions of students abroad given in Table C3.2 do not include the proportion of all students of a certain nationality studying abroad, but expresses the numbers of students of a given nationality as a proportion of the total domestic and foreign enrolment at the tertiary level, excluding students who are nationals of that country who are not studying in their home country.

Table C3.1.
Exchange of students in tertiary education (2000)
Foreign students enrolled as a percentage of all students (foreign plus domestic), and exchange of students as a percentage of total tertiary enrolment
Reading the first column: 2.2 per cent of all students in tertiary education in the Czech Republic are foreign students (from OECD and non-OECD countries).
Reading the second column: Foreign tertiary students from other countries, which report foreign students, represent 1.0 per cent of all tertiary students in the Czech Republic.
Reading the third column: 1.2 per cent of all tertiary students in the Czech Republic study in other countries, which report foreign students.
Column 4 represents the difference between column 2 and column 3 .

|  | Foreign students as a percentage of all students (foreign and domestic students) | Exchange of students ${ }^{1}$ |  |  | Foreign enro | by gender |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Students from other countries relative to total tertiary enrolment | Students studying abroad relative to total tertiary enrolment | Net intake of foreign students relative to total tertiary enrolment | \% males | \% females |
| Australia | 12.5 | $6.1^{2}$ | $0.6{ }^{2}$ | $5.5{ }^{2}$ | 52.9 | 47.1 |
| Austria | 11.6 | $7.6^{2}$ | $4.4{ }^{2}$ | $3.2{ }^{2}$ | 49.9 | 50.1 |
| Belgium | 10.9 | 5.8 | 2.8 | 3.1 | 52.4 | 47.6 |
| Canada | 3.3 | $1.5^{2}$ | $2.4{ }^{2}$ | $-0.9{ }^{2}$ | 55.8 | 44.2 |
| Czech Republic | 2.2 | 1.0 | 1.2 | -0.2 | 58.8 | 41.2 |
| Denmark | 6.8 | 2.6 | 3.5 | -0.9 | 44.5 | 55.5 |
| Finland | 2.1 | 0.7 | 3.6 | -2.9 | 57.5 | 42.5 |
| France | 6.8 | 1.9 | 2.6 | -0.6 | m | m |
| Germany | 9.1 | 4.5 | 2.6 | 1.9 | 53.1 | 46.9 |
| Greece | m | m | 13.1 | m | m | m |
| Hungary | 3.2 | m | 2.2 | m | 46.7 | 53.3 |
| Iceland | 4.2 | 3.5 | 25.4 | -21.9 | 35.5 | 64.5 |
| Ireland | 4.6 | 3.9 | 11.0 | -7.2 | 47.8 | 52.2 |
| Italy | 1.4 | 0.2 | 2.3 | -2.1 | 48.8 | 51.2 |
| Japan | 1.5 | 0.6 | 1.5 | -0.9 | 55.6 | 44.4 |
| Korea | 0.1 | n | 2.3 | -2.3 | 57.6 | 42.4 |
| Luxembourg | m | m | 225.6 | m | m | m |
| Mexico | 0.1 | m | 0.7 | m | m | m |
| Netherlands | 2.9 | 1.7 | 2.6 | -0.8 | 52.9 | 47.1 |
| New Zealand | 4.8 | 2.4 | 3.5 | -1.0 | 49.3 | 50.7 |
| Norway | 3.7 | 2.2 | 7.0 | -4.8 | 44.7 | 55.3 |
| Poland | 0.4 | 0.1 | 1.1 | -1.0 | 47.2 | 51.2 |
| Portugal | 3.0 | 0.8 | 2.8 | -2.0 | 49.7 | 50.3 |
| Slovak Republic | 1.2 | 0.3 | 2.9 | -2.6 | 62.8 | 37.2 |
| Spain | 2.2 | 1.4 | 1.5 | -0.1 | 49.3 | 50.7 |
| Sweden | 6.0 | 4.3 | 4.4 | -0.1 | 44.1 | 55.9 |
| Switzerland | 16.6 | 11.8 | 5.3 | 6.5 | 56.0 | 44.0 |
| Turkey | 1.7 | 0.1 | 4.3 | -4.3 | 73.7 | 26.3 |
| United Kingdom | 11.0 | 6.0 | 1.4 | 4.6 | 52.8 | 47.2 |
| United States | 3.6 | 1.8 | 0.3 | 1.5 | 58.1 | 41.9 |
| Country mean ${ }^{3}$ | 4.9 | 2.9 | 4.1 | -1.2 | 52.2 | 47.7 |
| Argentina ${ }^{4}$ | 0.2 | n | 0.4 | -0.4 | m | m |
| Brazil | m | m | 0.6 | m | m | m |
| Chile ${ }^{4}$ | 0.4 | 0.1 | 1.1 | $-1.0$ | m | m |
| China | m | m | 1.5 | m | m | m |
| Egypt | m | m | 2.2 | m | m | m |
| Indonesia ${ }^{5}$ | n | n | 1.1 | -1.0 | m | m |
| Jamaica | 2.2 | 6.3 | 12.0 | -5.7 | m | m |
| Jordan | 8.5 | 1.1 | 3.6 | -2.5 | m | m |
| Malaysia ${ }^{4}$ | 0.7 | 0.3 | 8.0 | -7.7 | m | m |
| Paraguay | m | m | 0.8 | m | m | m |
| Peru | m | m | 0.6 | m | m | m |
| Philippines ${ }^{4}$ | 0.2 | 0.1 | 0.2 | -0.1 | m | m |
| Russian Federation ${ }^{5}$ | 0.9 | 2.4 | 0.3 | 2.1 | m | m |
| Thailand | m | m | 0.9 | m | m | m |
| Tunisia | 1.5 | 4.4 | 1.5 | 2.8 | m | m |
| Uruguay ${ }^{4}$ | 0.9 | 2.8 | 1.5 | 1.4 | m | m |
| Zimbabwe | m | m | 7.0 | m | m | m |

1. Only those OECD and non-OECD countries which report the inflow into their system are included in the sum.
2. Tertiary-type A and advanced research programmes only.
3. Country mean excludes Luxembourg.
4. Year of reference 1999.
5. Year of reference 2001.

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

Table C3．2．
Proportion of foreign students in tertiary education in the country of study（2000）
Number of foreign students enrolled in tertiary education as a percentage of students in the country of destination，based on head counts
The table shows the share of students in each country that have citizenship of another country．
Example：Reading the second column： 0.03 per cent of Austrian tertiary students are Belgian citizens， 0.02 per cent of Austrian students are Canadian citizens，etc．
Reading the first row： 0.03 per cent of Canadian tertiary students are Australian citizens， 0.04 per cent of Irish tertiary students are Australian citizens，etc．

|  |  |  |  |  |  |  |  |  |  |  |  |  | ountr | ries of | dest | － |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Countries of origin | $\begin{aligned} & \text { 采 } \\ & \text { 药 } \end{aligned}$ | $\begin{aligned} & \text { 坒 } \\ & \text { 等 } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { 㤫 } \\ & \text { In } \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { 를 } \\ & \text { 要 } \end{aligned}$ | $\begin{aligned} & \text { U } \\ & \text { \#y } \end{aligned}$ |  |  | $\begin{aligned} & \text { تّ } \\ & \text { た } \end{aligned}$ | 氠 | $\begin{aligned} & \stackrel{\tilde{I}}{\underset{\sim}{3}} \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { y } \\ & \text { E. } \\ & \text { ت} \\ & \text { D } \\ & \text { Z } \end{aligned}$ |  | $\begin{aligned} & \text { N } \\ & \text { B } \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { تِ } \\ & \frac{0}{\circ} \end{aligned}$ | $\begin{aligned} & \text { E. } \\ & \sum_{0}^{0} \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { 䂞 } \\ & \text { an } \end{aligned}$ | $\begin{aligned} & \frac{\tilde{y}}{0} \\ & \text { 0. } \end{aligned}$ | $\begin{aligned} & \text { ت} \\ & \text { 荡 } \\ & \text { B } \\ & \text { B } \end{aligned}$ | 密 |  |  |
|  | Australia | a | 0.01 | n | 0.03 | n | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.04 | n | 0.01 | n | 0.01 | $\mathrm{n}$ | 0.01 | ${ }_{\mathrm{n}}$ | 0.01 | $\begin{array}{\|l\|} \infty \\ \hline n \\ \hline \end{array}$ | $\frac{\operatorname{m}}{\mathrm{n}}$ | 0.05 | $0.03$ | $\mathrm{n}$ | 0.06 | $0.02$ |
|  | Austria | 0.01 | a | 0.01 | 0.01 | n | 0.02 | 0.01 | 0.02 | 0.32 | 0.05 | 0.03 | n | － | n | 0.02 | n | 0.02 | n | n | n | 0.03 | 0.10 | 0.46 | n | 0.06 | 0.01 |
|  | Belgium | 0.01 | 0.03 | a | 0.01 | n | 0.01 | 0.01 | 0.10 | 0.05 | 0.01 | 0.04 | 0.01 | n | n | 0.28 | n | 0.01 | n | 0.02 | $n$ | 0.07 | 0.05 | 0.17 | n | 0.12 | 0.01 |
|  | Canada | 0.13 | 0.02 | 0.02 | a | 0.01 | 0.02 | 0.03 | 0.05 | 0.02 | 0.08 | 0.08 | n | n | $n$ | 0.01 | 0.04 | 0.02 | 0.01 | 0.07 | n | n | 0.08 | 0.11 | n | 0.15 | 0.16 |
|  | Czech Republic | 0.01 | 0.13 | 0.01 | n | a | n | 0.01 | 0.02 | 0.07 | 0.05 | n | n | n | $n$ | 0.01 | n | 0.01 | 0.02 | n | 0.21 | 0.01 | 0.03 | 0.08 | n | 0.01 | 0.01 |
|  | Denmark | 0.02 | 0.03 | 0.01 | 0.01 | n | a | 0.02 | 0.01 | 0.03 | 0.44 | 0.01 | n | n | n | 0.01 | 0.02 | 0.40 | n | n | n | 0.02 | 0.25 | 0.06 | n | 0.09 | 0.01 |
|  | Finland | 0.01 | 0.07 | 0.02 | 0.01 | n | 0.06 | a | 0.02 | 0.05 | 0.36 | 0.05 | n | n | $n$ | 0.01 | n | 0.11 | n | n | n | 0.02 | 0.97 | 0.05 | n | 0.13 | 0.01 |
|  | France | 0.03 | 0.19 | 2.77 | 0.37 | n | 0.06 | 0.03 | a | 0.31 | 0.17 | 0.35 | 0.02 | n | $n$ | 0.06 | 0.03 | 0.06 | n | 0.26 | n | 0.25 | 0.27 | 1.80 | n | 0.62 | 0.05 |
|  | Germany | 0.13 | 2.25 | 0.15 | 0.06 | 0.01 | 0.29 | 0.08 | 0.27 | a | 0.42 | 0.30 | 0.04 | 0.01 | $n$ | 0.47 | 0.14 | 0.21 | 0.01 | 0.10 | 0.01 | 0.21 | 0.54 | 3.51 | 0.01 | 0.67 | 0.07 |
|  | Greece | 0.02 | 0.12 | 0.20 | 0.01 | 0.21 | 0.01 | 0.01 | 0.13 | 0.40 | n | 0.02 | 0.46 | n | n | 0.02 | n | 0.01 | n | n | 0.18 | 0.02 | 0.07 | 0.17 | 0.13 | 1.45 | 0.02 |
|  | Hungary | 0.01 | 0.42 | 0.03 | n | n | 0.01 | 0.03 | 0.02 | 0.13 | n | n | n | n | n | 0.01 | n | 0.01 | n | n | 0.02 | 0.01 | 0.06 | 0.10 | n | 0.02 | 0.01 |
|  | Iceland | n | 0.01 | n | n | n | 0.37 | 0.01 | n | 0.01 | a | n | n | n | n | n | n | 0.13 | n | n | n | n | 0.10 | 0.01 | n | 0.01 | n |
|  | Ireland | 0.04 | 0.02 | 0.01 | 0.01 | n | 02 | 0.01 | 0.03 | 0.03 | n | a | n | n | n | 0.01 | n | 0.01 | n | n | n | 0.02 | 0.03 | 0.03 | n | 0.71 | 0.01 |
|  | Italy | 0.02 | 2.70 | 0.92 | 0.02 | n | 0.04 | 0.03 | 0.20 | 0.36 | 0.21 | 0.08 | a | n | n | 0.07 | n | 0.03 | n | 0.03 | n | 0.25 | 0.16 | 2.56 | n | 0.30 | 0.02 |
|  | Japan | 0.26 | 0.12 | 0.05 | 0.12 | n | 0.02 | 0.03 | 0.07 | 0.10 | 0.05 | 0.02 | n | a | 0.02 | 0.01 | 0.40 | 0.02 | n | n | $n$ | 0.01 | 0.04 | 0.10 | n | 0.30 | 0.33 |
|  | Korea | 0.28 | 0.12 | 0.01 | 0.09 | 0.01 | n | 0.01 | 0.08 | 0.24 | n | n | n | 0.46 | a | n | 0.26 | n | n | n | $n$ | 0.01 | 0.02 | 0.04 | n | 0.11 | 0.29 |
|  | Luxembourg | n | 0.12 | 0.41 | n | n | n | n | 0.06 | 0.07 | n | 0.01 | n | n | n | n | n | n | n | 0.01 | n | n | n | 0.12 | n | 0.03 | n |
|  | Mexico | 0.01 | 0.02 | 0.02 | 0.06 | n | 0.01 | n | n | 0.02 | n | n | n | n | n | n | 0.01 | 0.01 | n | n | 0.00 | 0.08 | 0.01 | 0.05 | n | 0.06 | 0.07 |
|  | Netherlands | 0.04 | 0.04 | 0.76 | 0.01 | n | ． 05 | 0.02 | 0.03 | 0.10 | 0.05 | 0.04 | n | n | n | a | 0.01 | 0.06 | n | 0.01 | n | 0.05 | 0.16 | 0.17 | n | 0.13 | 0.01 |
|  | New Zealand | 0.51 | n | n | 0.01 | n | 0.01 | n | n | n | 0.01 | n | n | n | n | n | a | n | n | n | n | n | 0.01 | 0.01 | n | 0.02 | 0.01 |
|  | Norway | 0.20 | 0.03 | 0.01 | 0.01 | 0.02 | 0.68 | 0.02 | 0.02 | 0.05 | 0.29 | 0.07 | n | n | n | 0.02 | 0.06 | a | 0.02 | n | n | 0.02 | 0.35 | 0.08 | n | 0.20 | 0.02 |
|  | Poland | 0.01 | 0.31 | 0.07 | 0.01 | 0.05 | 0.11 | 0.02 | 0.09 | 0.43 | 0.09 | 0.01 | 0.02 | n | $n$ | 0.03 | n | 0.05 | a | 0.01 | 0.03 | 0.02 | 0.19 | 0.20 | n | 0.03 | 0.02 |
|  | Portugal | 0.01 | 0.02 | 0.17 | 0.01 | n | 0.01 | 0.01 | 0.15 | 0.08 | 0.02 | 0.01 | n | n | $n$ | 0.02 | n | 0.01 | n | a | n | 0.05 | 0.03 | 0.27 | n | 0.11 | 0.01 |
|  | Slovak Republic | n | 0.34 | 0.01 | n | 0.70 | n | n | 0.01 | 0.00 | n | n | n | n | n | n | $n$ | 0.01 | n | n | a | n | 0.01 | 0.06 | n | 0.01 | n |
|  | Spain | 0.01 | 0.15 | 0.40 | 0.01 | n | 0.04 | 0.02 | 0.19 | 0.27 | 0.16 | 0.14 | 0.01 | n | n | 0.10 | n | 0.03 | n | 0.10 | n | a | 0.18 | 0.96 | n | 0.37 | 0.03 |
|  | Sweden | 0.11 | 0.10 | 0.02 | 0.02 | 0.02 | 0.31 | 0.20 | 0.05 | 0.04 | 0.39 | 0.04 | n | n | $n$ | 0.02 | 0.07 | 0.47 | 0.01 | n | n | 0.02 | a | 0.14 | n | 0.20 | 0.03 |
|  | Switzerland | 0.02 | 0.10 | 0.03 | 0.02 | n | 0.02 | 0.01 | 0.05 | 0.10 | 0.02 | 0.01 | 0.04 | n | n | 0.01 | 0.01 | 0.02 | n | 0.01 | $n$ | 0.01 | 0.05 | a | n | 0.07 | 0.01 |
|  | Turkey | 0.02 | 0.45 | 0.14 | 0.01 | n | 0.10 | 0.01 | 0.11 | 1.29 | 0.01 | n | n | n | $n$ | 0.24 | n | 0.02 | n | n | n | n | 0.04 | 0.33 | a | 0.09 | 0.07 |
|  | United Kingdom | 0.52 | 0.08 | 0.06 | 0.10 | 0.09 | 0.20 | 0.05 | 0.16 | 0.13 | 0.18 | 1.13 | 0.01 | 0.01 | n | 0.14 | 0.07 | 0.20 | n | 0.03 | n | 0.15 | 0.24 | 0.19 | 0.01 | a | 0.06 |
|  | United States | 0.38 | 0.14 | 0.05 | 0.36 | 0.02 | 0.11 | 0.06 | 0.12 | 0.18 | 0.34 | 0.98 | 0.01 | 0.03 | 0.01 | 0.05 | 0.27 | 0.15 | 0.02 | 0.08 | n | 0.04 | 0.26 | 0.22 | n | 0.55 | a |
|  | Argentina | 0.01 | 0.01 | 0.01 | 0.01 | n | n | n | 0.02 | 0.02 | 0.01 | n | 0.01 | n | n | n | 0.01 | n | n | n | $n$ | 0.08 | 0.01 | 0.05 | n | 0.02 | 0.02 |
|  | Brazil | 0.02 | 0.03 | 0.04 | 0.03 | n | 0.02 | 0.01 | 0.07 | 0.07 | n | n | 0.01 | 0.01 | n | 0.01 | 0.02 | 0.01 | n | 0.36 | $n$ | 0.06 | 0.02 | 0.11 | n | 0.05 | 0.06 |
|  | Chile | 0.02 | 0.01 | 0.03 | 0.01 | $n$ | 0.01 | 0.01 | 0.02 | 0.02 | 0.01 | n | n | n | n | 0.01 | 0.01 | 0.04 | n | n | $n$ | 0.04 | 0.06 | 0.04 | n | 0.01 | 0.01 |
|  | China | 0.59 | 0.16 | 0.18 | 0.32 | n | 0.07 | 0.30 | 0.10 | 0.32 | 0.09 | 0.03 | n | 0.71 | 0.04 | 0.04 | 0.66 | 0.08 | n | 0.01 | n | 0.01 | 0.18 | 0.27 | 0.01 | 0.30 | 0.38 |
|  | Egypt | 0.01 | 0.08 | 0.01 | 0.01 | n | n | n | 0.03 | 0.05 | n | 0.01 | n | n | n | 0.01 | ， | 0.01 | n | n | 0.02 | n | n | 0.03 | 0.01 | 0.05 | 0.01 |
|  | India | 0.54 | 0.04 | 0.03 | 0.07 | 0.01 | 0.01 | 0.02 | 0.01 | 0.06 | 0.01 | 0.03 | n | n | $n$ | 0.01 | 0.12 | 0.05 | n | 0.01 | n | n | 0.02 | 0.06 | n | 0.20 | 0.30 |
|  | Indonesia | 1.18 | 0.02 | 0.02 | 0.03 | n | n | 0.01 | 0.01 | 0.10 | n | n | n | 0.03 | n | 0.08 | 0.21 | 0.01 | n | n | n | n | n | 0.02 | n | 0.05 | 0.08 |
|  | Jamaica | n | n | n | 0.02 | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | 0.03 | 0.03 |
|  | Jordan | 0.01 | 0.03 | n | 0.01 | 0.01 | n | n | 0.01 | 0.05 | 0.01 | 0.01 | 0.01 | n | n | n | n | n | n | n | 0.02 | n | 0.01 | 0.01 | 0.03 | 0.04 | 0.01 |
|  | Malaysia | 1.52 | n | n | 0.06 | n | n | n | ． | 0.01 | n | 0.39 | n | 0.05 | n | n | 0.69 | n | n | n | n | n | 0.01 | 0.01 | n | 0.51 | 0.06 |
|  | Paraguay | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n |
| c | Peru | 0.01 | 0.03 | 0.02 | 0.01 | $n$ | 0.01 | 0.01 | 0.02 | 0.04 | n | n | 0.01 | n | n | n | n | 0.01 | n | n | n | 0.06 | 0.02 | 0.10 | n | 0.01 | 0.02 |
| 2 | Philippines | 0.08 |  | 0.02 | 0.01 | n | 0.01 | 0.01 |  | 0.01 | n | n |  | 0.01 | n | n | 0.03 | 0.01 | n | n | n | 0.01 | 0.01 | 0.01 | n | 0.01 | 0.02 |
| \％ | Russian Federation | 0.02 | 0.11 | 0.04 | 0.02 | 0.04 | 0.06 | 0.24 | 0.07 | 0.32 | 0.10 | 0.02 | 0.01 | 0.01 | n | 0.04 | 0.01 | 0.18 | 0.02 | n | 0.02 | 0.01 | 0.13 | 0.21 | 0.10 | 0.05 | 0.05 |
| － | Thailand | 0.32 | 0.01 | 0.01 | 0.02 | n | 0.01 | n | 0.01 | 0.02 | 0.01 | n | n | 0.03 | n | n | 0.19 | 0.01 | n | n | n | n | 0.02 | 0.01 | n | 0.13 | 0.08 |
| 0 | Tunisia | n | 0.02 | 0.08 | 0.05 | n | 0.01 | n | n | 0.05 | n | n | n | n | n | n | n | n | n | n | n | n | n | 0.01 | n | n | n |
| $\stackrel{1}{2}$ | Uruguay | n | n | n | n | n | n | n | n | n | n | n | n | n | n | $n$ | n | n | n | n | n | 0.01 | n | 0.01 | n | n | n |
| 2 | Zimbabwe | 0.03 | n | n | 0.01 | n | n | n | n | n | n | n | n | n | n | n | 0.01 | 0.01 | n | n | n | n | n | n | n | 0.09 | 0.01 |
|  | Africa | 0.37 | 0.38 | 3.32 | 0.48 | 0.08 | 0.17 | 0.24 | 3.36 | 0.89 | 0.02 | 0.19 | 0.10 | 0.02 | $n$ | 0.49 | 0.07 | 0.33 | 0.02 | 1.63 | 0.12 | 0.26 | 0.20 | 1.06 | 0.04 | 0.82 | 0.21 |
| 令 | Asia | 8.03 | 1.44 | 0.71 | 1.18 | 0.27 | 0.52 | 0.52 | 0.87 | 3.12 | 0.30 | 0.79 | 0.12 | 1.37 | 0.09 | 0.60 | 3.24 | 0.53 | 0.07 | 0.04 | 0.23 | 0.07 | 0.67 | 1.26 | 1.18 | 3.49 | 2.21 |
| z | Europe | 1.32 | 9.41 | 6.33 | 0.78 | 1.29 | 2.86 | 1.14 | 2.04 | 4.53 | 3.32 | 2.41 | 0.91 | 0.05 | 0.01 | 1.49 |  | 2.51 | 0.26 | 0.62 | 0.79 | 1.29 | 4.50 | 12.55 | 0.51 | 5.54 | 0.54 |
| \％ | North America | 0.52 | 0.21 | 0.13 | 0.56 | 0.03 | 0.14 | 0.10 | 0.27 | 0.26 | 0.46 | 1.09 | 0.02 | 0.04 | 0.01 | 0.06 | 0.33 | 0.20 | 0.02 | 0.16 | 0.01 | 0.20 | 0.38 | 0.44 | $n$ | 0.89 | 0.38 |
| － | Oceania | 0.72 | 0.01 |  | 0.04 |  | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.04 |  | 0.01 | $n$ | 0.01 | 0.65 | 0.01 | m | 0.01 | $n$ | $n$ | 0.05 | 0.03 | $n$ | 0.09 | 0.03 |
| － | South America | 0.10 | 0.12 | 0.18 | 0.11 | 0.03 | 0.06 | 0.02 | 0.20 | 0.20 | 0.04 | 0.01 | 0.04 | 0.02 | $n$ | 0.21 | 0.05 | 0.08 | $n$ | 0.49 | 0.01 | 0.40 | 0.15 | 0.51 | $n$ | 0.14 | 0.22 |
| 交 | Not specified | 1.46 | 0.06 | 0.23 | 0.13 | 0.46 | 3.01 | 0.03 | 0.05 | 0.09 | 0.01 | 0.09 | 0.21 | ${ }^{n}$ | $n$ | 0.01 | a | 0.90 | 0.01 | 0.04 | a | a | 1.41 | 0.72 | $n$ | 0.04 | $n$ |
|  | All countries | 12.51 | 11.63 | 10.91 | 3.28 | 2.25 | 6.80 | 2.06 | 6.80 | 9.10 | 4.17 | 4.62 | 1.41 | 1.50 | 0.11 | 2.87 | 4.77 | 3.66 | 0.39 | 2.99 | 1.16 | 2.22 | 6.00 | 16.58 | 1.74 | 11.01 | 3.60 |

[^1]Table C3.3.
Proportion of citizens in tertiary education studying abroad (2000)
Number of students enrolled in tertiary education in other countries as a percentage of students enrolled in the country of origin, based on head counts

The table shows the share of students from each country that are studying in other countries.
Example: Reading the first column: 0.06 per cent of Japanese tertiary students study in Australia, 0.08 per cent of Korean students study in Australia, etc. Reading the first row: 0.05 per cent of Australian students study in Canada, 0.03 per cent of Australian students study in Germany, etc.


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

## PARTICIPATION IN CONTINUING EDUCATION AND TRAINING IN THE ADULT POPULATION

- For half of the reporting OECD countries, more than 40 per cent of the adult population participated in some form of continuing education and training within a 12 -month period.
- The incidence and intensity of continuing education and training varies greatly between OECD countries. Participation rates range from 18 per cent or below in Hungary, Poland and Portugal, to more than 50 per cent in Denmark, Finland, Sweden and the United States.
- In 11 out of 19 OECD countries, adults with tertiary qualifications are between two and three times more likely to participate in job-related training than adults who have not completed upper secondary education. Education is thus one of several influences making adult training least common among those who need it most.

Chart C4.1.
Participation rate in continuing education and training during one year for 25 to 64-year-olds, by gender and type of training


1. Data refer to total continuing education and training.

Countries are ranked in descending order of the participation of women in all continuing education and training.
Source: OECD. Table C4.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

## Policy context

A skilled labour force is a prerequisite for success in today's economy. The education and training of current workers is likely to be the most effective means of maintaining and upgrading the skills of the current labour force. Given swiftly changing technologies, work methodologies and markets, policymakers in many OECD countries are encouraging enterprises to invest more in training, and to promote more general work-related training of adults.

While much is known about what governments and individuals expend to promote learning within formal education institutions, far less is known about the extent of learning at the workplace or in other settings outside formal education and after the completion of initial education.

## Evidence and explanations

Previous editions of Education at a Glance have revealed consistent patterns of adult participation in continuing education and training among OECD countries. For example, younger workers spend, on average, more hours in training than older workers; employees in the service sector receive, on average, more training than employees in the manufacturing sector; and employees in large firms or in the public sector receive, on average, more training hours than employees in small firms.

This indicator seeks to expand this picture by relating data on the incidence of adult participation in continuing education and training, both job-related and otherwise, with the participants' educational experiences during initial education.

Continuing education and training activities covered by this indicator include courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses and any other organised and sustained education.

This indicator does not include informal learning activities, such as informal, "on the job" or other self-organised learning.

## Participation in job-related training activities among all training activities

Participation rates in job-related training activities are, on average, 8 percentage points lower than participation rates in all continuing education and training activities combined. The difference is higher for women (by 10 percentage points), whose labour force participation rates are generally lower than those of men. The proportion of job-related training among all training activities is particularly high in Denmark, Norway and the United Kingdom.

Women appear to participate in continuing education and training activities at levels not very different from those of men. Women's participation is

This indicator brings together evidence on adult education and training.

## What this indicator

 covers......and what it does not cover.

Participation rates in job-related training activities are, on average, 8 percentage points lower than participation rates in all continuing education and training activities combined.

> For half of the reporting OECD countries, more than 40 per cent of the adult population participated in some form of continuing education and training within a 12-month period.

In 11 out of 19 OECD countries, adults with tertiary qualifications are between two and three times more likely to participate in job-related
training than adults who have not completed upper secondary education...
...thus education is one of several factors making adult training least common among those who need it most.

Women with lower levels of educational attainment tend to receive less job-related continuing education and training...
even higher, in the four OECD countries with the highest total participation rate. However, in the Czech Republic, Germany, Italy, the Netherlands and Switzerland, the gap is significant, even for job-related education and training. (Chart C4.1).

For half of the reporting OECD countries, more than 40 per cent of the adult population participated in some form of continuing education and training within a 12 -month period. However the incidence and intensity of continuing education and training vary greatly between OECD countries. International comparisons are difficult to make but there is evidence that participation in formal continuing education and training is much higher in the Nordic countries compared with Southern or Eastern European countries. Adult participation rates in continuing education and training range from 18 per cent or below in Hungary, Poland and Portugal, to more than 50 per cent in Denmark, Finland, Sweden and the United States.

## Participation rates by level of educational attainment

Training tends to reinforce skill differences resulting from unequal participation in initial education. Participation rates in both job-related continuing education and training and in all continuing education and training (Table C4.1) rise with levels of educational attainment. In 11 of the 19 OECD countries with available data, adults with tertiary qualifications are between two and three times more likely to participate in job-related training than adults who have not completed upper secondary education. This relative advantage tends to be between four and eight times larger in the OECD countries where the incidence of training is particularly low. In other words, the OECD countries where there is broad continuing education and training were more successful in securing the participation of individuals with different educational qualifications (Chart C4.2).

The positive association between initial education and participation in continuing education and training remains strong even after controlling for other characteristics affecting participation in training. Workers tend to receive more training in OECD countries with higher overall average levels of educational attainment, as well as in OECD countries which devote a larger share of GDP to research and development or which achieve a strong trade performance in high tech industries. These patterns suggest that initial education and continuing education and training are mutually reinforcing, and that education combines with other factors to make adult training least common among those who need it most.

On average, only 12 per cent of women with less than an upper secondary qualification compared with 17 per cent of men have participated in some jobrelated continuing and training over the course of a year.

## Chart C4.2

Participation rate in continuing education and training and ratio of participation based on educational attainment for 25 to 64-year-olds (2001)


Countries are ranked in descending order of total participation in all continuing education and training. Source: OECD. Table C4.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

By contrast, gender differences in participation rates for individuals with tertiary qualifications are less pronounced. For example, for 25 to 64 -year-olds with upper secondary education, the participation rate of women in job-related continuing education and training is, on average, 28 per cent compared to 31 per cent for men. At the tertiary level, the average participation rate of women is 45 per cent, while that of men is 46 per cent (Table C4.1).

## Definitions and methodologies

For this indicator, comparable data on continuing education and training were compiled from national surveys in seven OECD countries that all have the same reference period of 12 months. The sample sizes in these surveys ranged from 5000 to 40000 respondents. Data collection was based on face-to-face interviews or telephone interviews. The coverage of job-related continuing education and training in these surveys extended to "all measures which the interviewed persons identify as job or career-related". For this indicator, informal types of training have not been included. (See Annex 3 at www.oecd.org/els/education/

## ...but the pattern

 becomes less pronounced for individuals with upper secondary and tertiary qualifications.Data are based on national surveys on continuing education and training of the adult population...
> ...as well as the International Adult Literacy Survey (IALS), carried out by the OECD and Statistics Canada between 1994 and 1998, were substituted.
eag2002 for a list of sources on national household surveys on adult education and training.)

Where comparable data could not be obtained from recent national surveys, data from the International Adult Literacy Survey (IALS), which was carried out by the OECD and Statistics Canada between 1994 and 1998, were substituted. The background questionnaire of the International Adult Literacy Survey records participation in education or training during the 12 months preceding the survey. The survey asks: "During the past 12 months, did you receive any training or education including courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses or any other training or education?" This very broad definition of education and training covers a wide category of training types. A further question distinguishes between education or training taken for "career or job-related purposes" (shown in this indicator as "job-related training"); education or training undertaken for "personal interest"; and education and training undertaken for "other" reasons.

Table C4.1.
Participation rate in continuing education and training during one year for 25 to 64-year-olds, by level of education, type of training and gender


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

Source: International Adult Literacy Survey 1994-1998 and national household surveys on adult education and training (see Annex 3 for details).

## EDUCATION AND WORK STATUS OF THE YOUTH POPULATION

- The percentage of 20 to 24 -year-olds not in education ranges, in most OECD countries, between 50 and 70 per cent.
- In some countries, education and work largely occur consecutively, while in other countries they are concurrent. Work-study programmes, relatively common in European countries, offer coherent vocational education routes to recognised occupational qualifications.
- In some countries, many young people also combine paid work out of school hours with education. In other countries, initial education and work are rarely associated.

Chart C5.1.
Percentage of 20 to 24-year-olds in education and not in education, by work status (2001)


## Policy context

All OECD countries are experiencing rapid social and economic changes that are making the transition to working life more uncertain. In some OECD countries, education and work largely occur consecutively, while in other OECD countries they may be concurrent. The ways in which education and work are combined can significantly affect the transition process. Of particular interest, for example, is the extent to which working while studying may facilitate the eventual definitive entry into the labour force. On the other hand, many hours of work while studying may result in dropping out rather than successful transition.

## Evidence and explanations

## Combining work and education

Table C5.1 reveals the education and work status of young people in the age groups 15 to 19,20 to 24 and 25 to 29 , and the overall situation for all young people aged 15 to 29 . Working while studying can occur as part of work-study programmes or in the form of part-time jobs out of school hours. Work-study programmes are relatively common in European countries such as Austria, the Czech Republic, Denmark, Germany and Switzerland, and offer coherent vocational education routes to recognised occupational qualifications. Many young people also combine paid work out of school hours with education. This form of initial contact with the labour market is a major feature of the transition from education to work in Australia, Canada, Denmark, the Netherlands, the United States and, to a lesser extent, Finland, Sweden and Switzerland. Finally, in Belgium, France, Mediterranean and Eastern European countries, initial education and work are rarely associated.

The employment status of men and women is broadly similar during the years spent in education, with the exception of Austria and Germany, where men participate more in work-study programmes. In Australia, Canada, Denmark, Finland, Iceland and Sweden, more women than men in the 15 to 29 -year-old age group combine work outside school hours with education (Tables C5.1a and C5.1b).

## Entry into the labour market after initial education

As they grow older, young people participate decreasingly in education and increasingly in the labour force. The percentage of young people not in education in most OECD countries is between 10 and 35 per cent for 15 to 19 -year-olds, rises to between 50 and 70 per cent for 20 to 24 -year-olds and reaches 80 to 95 per cent for 25 to 29 -year-olds (Chart C5.2). However, in many OECD countries young people begin their transition to work later, and in some cases over a longer period. This trend reflects not only the demand for education, but also the general state of the labour market, the length and orientation of educational programmes in relation to the labour market and the prevalence of part-time education.

This indicator examines the education and employment status of young men and women.

Work-study programmes and other ways of combining work and education are common in some OECD countries, but rare in others.

## During the years spent

 in education, the employment status of men and women is broadly similar in most OECD countries.
## The transition from

 education to work occurs at different points of time in different $O E C D$ countries, depending on various educational and labour market factors.Percentage of the youth population in education and not in education,
by age group and work status (2001)


1. Year of reference 2000.

Countries are ranked in descending order of the percentage of 20 to 24-year-olds in education.
Source: OECD. Table C5.1. See Annex 3 for notes (www.oecd.ora/els/education/eaa2002).

The age at which people enter the labour market after completing initial education has consequences for employment. Overall, older non-students are more likely to be employed than non-students in the age group 15 to 19 years, while a higher percentage of male than female non-students are working. In relative terms, more women than men are out of the labour force, particularly during the years associated with child-bearing and child-rearing, captured by the age group 25 to 29 years in this indicator (Tables C5.1a and C5.1b).

Employment-to-population ratios among young adults who are not in education provide information on the effectiveness of transition frameworks and thus help policy-makers to evaluate transition policies. In two-thirds of OECD countries, fewer than 65 (and in some even fewer than 50) per cent of 15 to 19 -year-olds not in education are working, which may suggest that because these young people have left school early, they are not viewed by employers as having the skills necessary for productive employment. Employment-to-population ratios for 20 to 24 -year-olds generally exceed 70 per cent, but ratios in some OECD countries such as Greece, Italy, Poland and Turkey are still around or below 65 per cent. For the 25 to 29 age group, most OECD countries have ratios of between 70 and 80 per cent, with the exception of Italy, Mexico, Poland, the Slovak Republic and Turkey. Employment-to-population ratios for men tend to be higher than for women after completion of initial education, probably because of family-related reasons and because the social acceptability of being unemployed is still higher for women than for men in many OECD countries (Table C5.1a and C5.1b).

## Unemployment rate and ratio of unemployed non-students to the total youth population

Young people represent the principal source of new skills in OECD countries. In most OECD countries, education policy seeks to encourage young people to complete at least upper secondary education. Since jobs on offer in the labour market require ever higher general skill levels and more flexible learning skills, persons with low attainment are often severely penalised. Differences in the ratio of unemployed non-students to the total youth population, by level of educational attainment, are an indicator of the degree to which further education improves the economic opportunities of any young man or woman.

The youth unemployment rate by age group is the most common measure available for describing the labour market status of young people. However, unemployment rates do not take educational circumstances into account. Consequently, an unemployed young person counted in the numerator may, in some OECD countries, be enrolled in education. The denominator may include young people in vocational training, provided they are apprenticed, but not those in school-based vocational courses. Hence, if almost all the young people in a particular age group are still in education, the employment rate will reflect only the few in the labour market and therefore appear very high,

Traditional
unemployment measures overestimate unemployment in the transition period and are insensitive to different systems of combining education and work in the transition period

The ratio of unemployed people with no upper secondary education to the total youth population is 1.5 times higher on average than for upper secondary graduates.
particularly among the youngest cohort who have usually left the education system with very low qualifications.

The ratio of unemployed non-students to the total age cohort is therefore a more appropriate way to reflect the likelihood of youth unemployment. This is because young people who are looking for a job while still in education are usually seeking part-time or temporary work while studying, unlike those entering the labour market after leaving school.

On average, completing upper secondary education reduces the unemployment-to-population ratio (e.g., unemployment among non-students as a percentage of the entire age cohort) of 20 to 24 -year-olds by about 6 percentage points, and that of 25 to 29 -year-olds by about 4 percentage points (Table C5.2). In 20 out of 27 OECD countries, the unemployment-to-population ratio among 20 to 24 -year-olds not in education is less than 8 per cent if they have completed upper secondary or post-secondary non-tertiary education. This proportion remains below 8 per cent for people who have not attained upper secondary

## Chart C5.3.

Ratio of unemployed non-students to the population of 20 to 24-year-olds, by level of educational attainment (2001)


1. Year of reference 2000.

Countries are ranked in descending order of the ratio of unemployed non-students to the population of 20 to 24-year-olds having attained upper secondary and post-secondary non-tertiary education.
Source: OECD. Table C5.2. See Annex 3 for notes (www.oecd.org/els/education/eag2002).
education in only six OECD countries. Since it has become the norm in most OECD countries to complete upper secondary education, many young persons who do not are much more likely to have employment problems during their working lives.

Nevertheless, in a number of OECD countries, for upper secondary graduates aged 20 to 24, the ratio of unemployed non-students to the total youth population is above 7 per cent (Chart C5.3). In a few OECD countries, even young people who have completed tertiary-level education, probably a first degree given the age band involved, are subject to considerable unemployment when they enter the labour market. The ratio of unemployed non-students to the total youth population among this age group is up to 16 per cent or more in Greece, Italy, the Slovak Republic and Turkey, and higher than 13 per cent for 25 to 29 -year-olds in Greece and Italy (Table C5.2).

## Definitions and methodologies

Data for this indicator were obtained from a special OECD data collection usually implemented during the first quarter or the average of the first three months of the calendar year, and therefore exclude summer employment. The labour force status categories shown in this section are defined according to ILO guidelines, with one exception. For the purposes of these indicators, persons in work-study programmes (see below) have been classified separately as in education and employed, without reference to their ILO labour force status during the survey reference week, since they may not necessarily be in the work component of their programmes during the reference week, and may therefore not be employed then.

Work-study programmes combine work and education as parts of an integrated, formal education or training activity, such as the dual system in Germany; apprentissage or formation en alternance in France and Belgium; internship or cooperative education in Canada; apprenticeship in Ireland; and youth training in the United Kingdom. Vocational education and training take place in school settings and working environments. Students or trainees can be paid or not, usually depending on the type of job and the course or training.

The enrolment rates shown in Table C5.1 are estimated on the basis of selfreports collected during labour force surveys that often correspond only imprecisely with enrolment counts obtained from administrative sources shown elsewhere in this publication, for several reasons. First, age may not be measured in the same way. For example, in administrative data, both enrolment and age are measured on January 1st in OECD countries in the northern hemisphere, whereas in some labour force surveys, enrolment is measured in the reference week, while the age recorded is the age that will be attained at the end of the calendar year, even if the survey is conducted in the early part of the year. This means that recorded enrolment rates may occasionally reflect a population that is almost one year younger than the specified age range. At ages when movements
upper secondary education, and even tertiary-level education, does not guarantee a job.

Data for this indicator were obtained from a special OECD data collection in the first quarter of the year.
out of education may be significant, this affects enrolment rates. Second, young people may be enrolled in several programmes and can sometimes be counted twice in administrative statistics but only once in a labour force survey. Moreover, not all enrolments may be captured in administrative statistics, particularly in profit-making institutions. Third, the programme classification used in the self-reports in labour force surveys do not always correspond to the qualification standards used for administrative data collections.

Table C5.1.
Percentage of the youth population in education and not in education, by age group and work status (2001)


1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition
. Year of reference 2000
Source: OECD. See Annex 3 for national data sources (www.oecd.org/els/education/eag2002).

Table C5.1a.
Percentage of young men in education and not in education, by age group and work status (2001)


1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Year of reference 2000.

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

Table C5.1b.
Percentage of young women in education and not in education, by age group and work status (2001)


1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition
2. Year of reference 2000,

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

Table C5.2.
Percentage of unemployed non-students in the total population, by level of educational attainment, age group and gender (2001)


1. Year of reference 2000.

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

## THE SITUATION OF THE YOUTH POPULATION WITH LOW LEVELS OF EDUCATION

- Most persons aged 15 to 19 are still in school. In many OECD countries, a high percentage of those who are not are either unemployed or not in the labour force.
- In Austria, Italy, Mexico, the Slovak Republic, Turkey and the United Kingdom, over 10 per cent of persons aged 15 to 19 are neither at school nor in the workforce.
- This situation is true mainly for young men in Austria, Denmark, Finland, the Slovak Republic and Sweden, and young women in Greece, Mexico, Portugal and Turkey.

Chart C6.1.
Percentage of 15 to 19-year-olds not in education or work, by gender (2001)


[^2]Countries are ranked in ascending order of 15 to 19-year-old males not in education or work.
Source: OECD. Tables C5.1a and C5.1b. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

This indicator reflects on
the situation of young people who are no longer in education but who are not yet in employment.

Most 15 to 19-year-olds are still at school. In many OECD countries, a high percentage of those who are not, are either unemployed or not in the labour force.

Between the ages of 20 and 24 , the scale

## Policy context

Entering the labour market is often a difficult period of transition. While the length of time spent in education has increased, a significant proportion of young people still remain marginal if they are neither in education or working, i.e., they are either unemployed or in non-employment. This situation gives particular cause for concern for younger age groups, many of whom have no unemployment status or welfare cover (see A CaringWorld, OECD, 1999).

As the interrelationships between education, the economy and the well-being of nations become ever closer, providing for effective educational careers of young people and for successful transitions from initial education to working life become major policy concerns. Rising skill demands in OECD countries have made upper secondary diplomas a minimum for successfully entering the labour market and a basis for further participation in lifelong learning. Young people with lower qualifications run a higher risk of long-term unemployment or unstable or unfulfilling employment, which can have additional consequences such as social exclusion.

## Evidence and explanations

## Young people not in education or work

Over 80 per cent of persons between the ages of 15 and 19 are in education in most OECD countries. A small proportion of this age group is employed after having left school, although this figure is as high as 10 or 20 per cent in some OECD countries (Table C5.1).

There is, however, a group of young people who are no longer in education but not yet at work. Some are officially unemployed if they are actively seeking work, while those who are not doing so for some reason are considered to be in non-employment. Their reasons may be many and varied, such as discouragement because of the difficulty of finding work or voluntary withdrawal because of family circumstances. In 18 out of 27 OECD countries, the proportion of these young people is higher than the proportion of those with unemployment status.

To be out of education or out of employment is very uncommon in Denmark, France, Iceland, Luxembourg, the Netherlands and Norway yet common in Austria, Italy, Mexico, the Slovak Republic, Turkey and the United Kingdom. In these OECD countries, over 10 per cent of young people aged 15 to 19 are neither at school nor in work (Table C5.1). In other OECD countries, the proportion is lower but not insignificant, ranging from 4 to 10 per cent. The problem mainly affects young men in Austria, Denmark, Finland, the Slovak Republic and Sweden, and young women in Greece, Mexico, Portugal and Turkey (Chart C6.1).

Young people with low qualifications may run an increased risk of long-term unemployment or of unstable, unfulfilling employment, which can have other
negative consequences such as social exclusion. Early drop-out has become one of the most important educational policy problems. For students between 20 and 24 years, the scale of the problem grows and changes since most young people are entering the labour market at that age. Most have just completed initial education. There is often a period of unemployment before finding a job (Chart C6.2).
of the problem grows and changes since most young people enter the labour market at that age.

## Chart C6.2.

Percentage of 20 to 24 -year-olds who are not in education and who have not attained upper secondary education, by gender (2001)


1. Year of reference 2000.

Countries are ranked in ascending order of the percentage of 20 to 24-year-old males who are not in education and who have not completed upper secondary education.
Source: OECD. Table C6.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

Three different patterns exist. In a first group of eight OECD countries including Nordic and Eastern European countries as well as Switzerland and the United Kingdom, the proportion of young people without upper secondary education in the age group remains under 10 per cent. This particular group is certainly in a difficult position, but its extent is limited. For a second group of 12 out of 27 OECD countries, this potentially "at risk" group represents between 10 and 20 per cent of the age group. The challenge in terms of increasing upper secondary graduation rates is significant here. For the third
group of eight OECD countries, more than 20 per cent of the age group falls under this category.

The consequences of having left school without an upper secondary qualification can be observed by comparing the work status of those with and those without an upper secondary qualification. In all OECD countries except one, higher educational attainment is associated with an average increase in the employment rate of 19 percentage points. The comparison also reveals some patterns related to the specific organisation of the labour market. The gap between those who have attained upper secondary education and those who have not is remarkably small in all Mediterranean countries, which suggests a good match between qualifications - even if these are low - and employment. The United Kingdom is an interesting case in that the prevalence of low qualifications is among the lowest among OECD countries, but the unemployment differentials are particularly high, suggesting that the few persons who have not obtained an upper secondary qualification are particularly disadvantaged.

## Chart C6.3. <br> Employment rates for 20 to 24-year-olds who are not in education, by level of educational attainment (2001)



[^3]Countries are ranked in descending order of the employment rate of 20 to 24-year-olds who are not in education and who have not completed upper secondary education.
Source: OECD. Table C6.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

## Definitions and methodologies

The indicator is based on labour force survey data on age-specific proportions of young people in each of the specified categories. The definitions of the labour force statuses of those not in education (and not enrolled in workstudy programmes) are based on ILO guidelines. Data for this indicator were calculated from the special OECD data collection on transition from education to work (see Indicator A12).

An "early school leaver" could broadly be defined as "a young person who has not attained upper secondary education and is not in education, or in a work-study programme leading to an upper secondary qualification or higher". However, such a definition needs to include the specification of an age group within which very few people can still be attending school at the primary or secondary level. Young people aged 18 and 19, in a significant number of OECD countries, are still enrolled in upper secondary education. Very early leavers may eventually return to school. Moreover, labour market outcomes at early ages may not be representative of outcomes at later ages. The OECD therefore defines a young adult with low level of education as "a person aged 20-24 years who has not attained upper secondary education and who is not enrolled in education nor in a work-study programme".

Table C6.1.
Percentage of 20 to 24-year-olds not in education, by level of educational attainment, gender and work status (2001)


Note: Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.

1. Year of reference 2000.

Source: OECD. See Annex 3 for national data sources (www.oecd.org/els/education/eag2002).
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[^0]:    Note: Net entry rates for tertiary-type A and B programmes cannot be added due to double counting.

    1. Entry rate for type A and B programmes calculated as gross entry rate.
    2. Entry rate for type B programmes calculated as gross entry rate.

    Countries are ranked in descending order of the total entry rates for tertiary-type A education.
    Source: OECD. Table C2.1. See Annex 3 for notes (www.oecd.org/els/education/eag2002).

[^1]:    Source：OECD．See Annex 3 for notes（www．oecd．org／els／education／eag2002）．

[^2]:    1. Year of reference 2000.
[^3]:    1. Year of reference 2000.
