

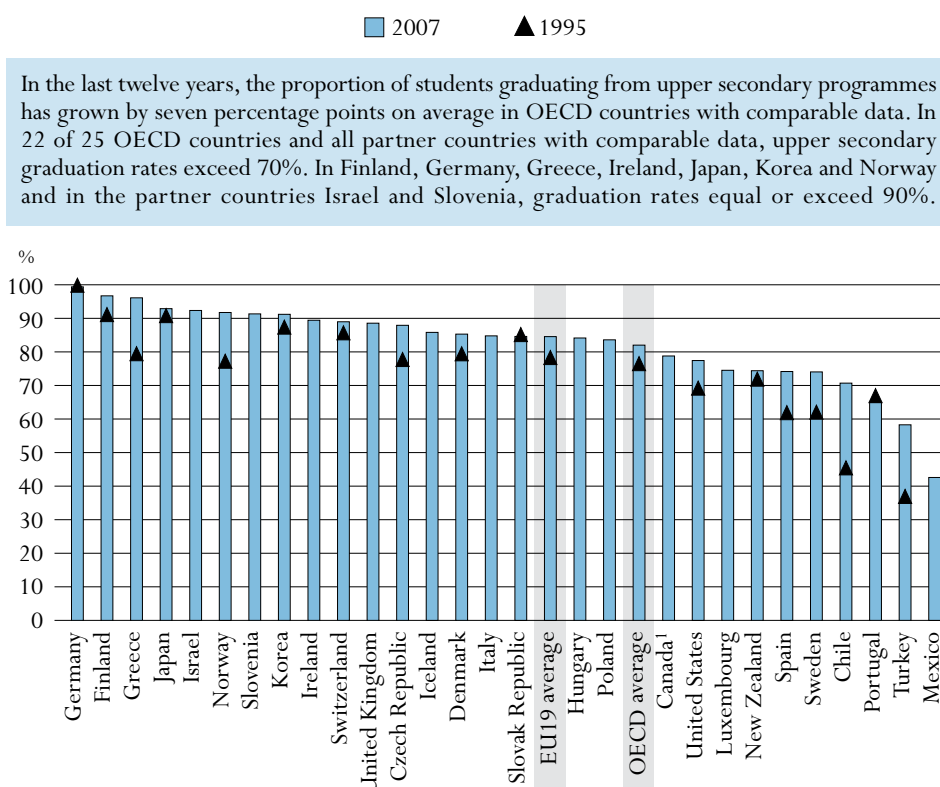
HOW MANY STUDENTS FINISH SECONDARY EDUCATION AND ACCESS TERTIARY EDUCATION?

This indicator shows the current upper secondary graduate output of education systems, *i.e.* the percentage of the typical population of upper secondary school age that follows and successfully completes upper secondary programmes. It also shows the percentage of the youth cohort that will enter different types of tertiary education during their lifetime and the impact of international/foreign students.

Key results

Chart A2.1. Upper secondary graduation rates (1995, 2007)

The chart shows the estimated percentage of an age cohort that will complete upper secondary education for the first time in 1995 and in 2007 (based on current patterns of graduation); it gives an indication of how many young adults complete upper secondary education compared to a decade earlier.



In the last twelve years, the proportion of students graduating from upper secondary programmes has grown by seven percentage points on average in OECD countries with comparable data. In 22 of 25 OECD countries and all partner countries with comparable data, upper secondary graduation rates exceed 70%. In Finland, Germany, Greece, Ireland, Japan, Korea and Norway and in the partner countries Israel and Slovenia, graduation rates equal or exceed 90%.

Note: 1995 graduation rates are calculated on a gross basis whereas 2007 are calculated as net graduation rates (for countries with available data).

1. Year of reference 2006.

Countries are ranked in descending order of the upper secondary graduation rates in 2007.

Source: OECD, Table A2.2. See Annex 3 for notes (www.oecd.org/edu/eqg2009).

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Other highlights of this indicator

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- Females are now more likely to complete upper secondary education than males in almost all OECD and partner countries, a reversal of the historical pattern. Today, graduation rates for females are below those for males only in Switzerland and Turkey. The gender gap is greater in Denmark, Finland, Hungary, Iceland, Ireland, New Zealand, Norway, Portugal and Spain and in the partner country Slovenia, where graduation rates for females exceed those for males by 10 percentage points or more.
- In most countries, upper secondary education is designed to prepare students to enter university-level education (tertiary-type A). In Austria, Germany and Switzerland and the partner country Slovenia, however, students are more likely to graduate from upper secondary programmes that lead to vocationally oriented tertiary education (tertiary-type B), where courses are typically shorter and focus on the development of practical, technical or occupational skills.
- Entry rates in tertiary-type A education increased by nearly 20 percentage points on average in OECD countries between 1995 and 2007. In 2007, in Australia, Finland, Iceland, New Zealand, Norway, Poland, the Slovak Republic and Sweden, and the partner country the Russian Federation, it is estimated that 65% and more of young adults will enter tertiary-type A programmes.
- The proportion of students who enter tertiary-type B programmes is generally smaller than for tertiary-type A programmes. In OECD countries for which data are available, 15% of young adults, on average, will enter tertiary-type B programmes, 56% will enter tertiary-type A programmes and 2.8% will enter advanced research programmes. In Belgium, and to a lesser extent in the partner countries Chile and Estonia, wide access to tertiary-type B programmes counterbalances comparatively low rates of entry into tertiary-type A programmes. New Zealand stands out as a country with entry rates at both levels that are among the highest in the OECD countries.
- High proportions of international students influence entry rate levels. In Australia and New Zealand, the impact of international students is so huge that their entry rate dropped significantly when international students were excluded, causing them to lose their top two ranking positions.

Policy context

Rising skill demands in OECD countries have made qualifications at the upper secondary level the minimum credential for successful labour market entry. Upper secondary education serves as the foundation for advanced learning and training opportunities, as well as preparation for direct entry into the labour market. Although many countries allow students to leave the education system at the end of the lower secondary level, those who leave without an upper secondary qualification tend to face severe difficulties when entering the labour market in OECD countries (see Indicators A6 and A7).

A high level for upper secondary graduation rates does not guarantee that an education system has adequately equipped its graduates with the basic skills and knowledge necessary to enter the labour market, because they do not capture the quality of educational outcomes. However, graduation rates do give a certain indication of the extent to which education systems succeed in preparing students to meet the minimum requirements of the labour market.

Entry rate is an estimated probability that a school leaver will enter tertiary education during his/her lifetime. So, entry rate provides an indication of the accessibility of tertiary education as well as the perceived value of attending tertiary programmes. It provides a partial indication of the degree to which a population is acquiring the high-level skills and knowledge valued by the labour market in today's knowledge society. High tertiary entry and participation rates help to ensure the development and maintenance of a highly educated population and labour force.

As students' awareness of the economic and social benefits of tertiary education has increased, so have rates of entry into both tertiary-type A and tertiary-type B programmes. Continued growth in participation, accompanied by a widening diversity in the backgrounds and interests of those aspiring to tertiary studies, will demand new kinds of provision. Tertiary institutions will be challenged not only to meet growing demand through expansion of places offered, but also to adapt programmes, teaching and learning to match the diverse needs of the new generation of students. Moreover, the relative popularity of the various fields of study affects the demand for courses and teaching staff.

Evidence and explanations

Graduation from upper secondary programmes

Graduation from upper secondary education is becoming the norm in most OECD countries. Since 1995, the upper secondary graduation rate has increased by 7 percentage points on average among OECD countries with comparable data. The highest growth occurred in the Czech Republic, Greece, Norway, Spain, Sweden and Turkey and in the partner country Chile, while levels in Germany, Japan, Korea, New Zealand, Portugal, the Slovak Republic, and Switzerland have been stable over the last decade. In Mexico and Turkey, the proportion of students graduating at the upper secondary level has grown rapidly since 2000, narrowing the gap between these and other OECD countries (Table A2.2).

In 22 of 25 OECD countries and all partner countries with comparable data, first-time upper secondary graduation rates exceed 70%. In Finland, Germany, Greece, Ireland, Japan, Korea and Norway and in the partner countries Israel and Slovenia, graduation rates equal or exceed 90% (Chart A2.1). The balance of educational attainment between males and females in the adult

population differs in most countries. In the past, females did not have sufficient opportunities and/or incentives to reach the same level of education as males. They have generally been overrepresented among those not continuing to upper secondary education and consequently were underrepresented at higher levels of education. However, these gender differences are most evident in older age groups and have been significantly reduced or reversed among younger age groups (see Indicator A1).

Today, upper secondary graduation rates for females exceed those for males in 23 of 25 OECD countries and in all the partner countries for which total upper secondary graduation rates can be compared by gender. The exceptions are Switzerland and Turkey, where graduation rates are higher for males. The gap is greatest in Denmark, Finland, Hungary, Iceland, Ireland, New Zealand, Norway, Portugal and Spain and in the partner country Slovenia, where female graduation rates exceed those of males by 10 percentage points or more (Table A2.1).

Although graduation from upper secondary education is becoming the norm, the upper secondary curriculum can vary depending on the type of education or occupation for which it is designed. Most upper secondary programmes in OECD and partner countries are designed primarily to prepare students for tertiary studies; their orientation may be general, pre-vocational or vocational (see Indicator C1).

In 2007, the female graduation rate from general programmes was greater than the corresponding value for males for almost all OECD and partner countries with comparable data. The OECD average graduation rate from general programmes was 55% for females and 41% for males. The higher proportion of females is especially noteworthy in Austria, the Czech Republic, Iceland, Italy, Norway and the Slovak Republic and in the partner countries Estonia and Slovenia, where they outnumber males by at least three to two. Only in Korea and Turkey do the proportions for both sexes approach equality. Females are also, more often than in the past, graduates of vocational programmes. On average among OECD countries, 43% of 2007 pre-vocational and vocational programme graduates were female. This pattern can affect the entry rates in tertiary-type B programmes in the following years (Table A2.1).

Transitions following upper secondary education

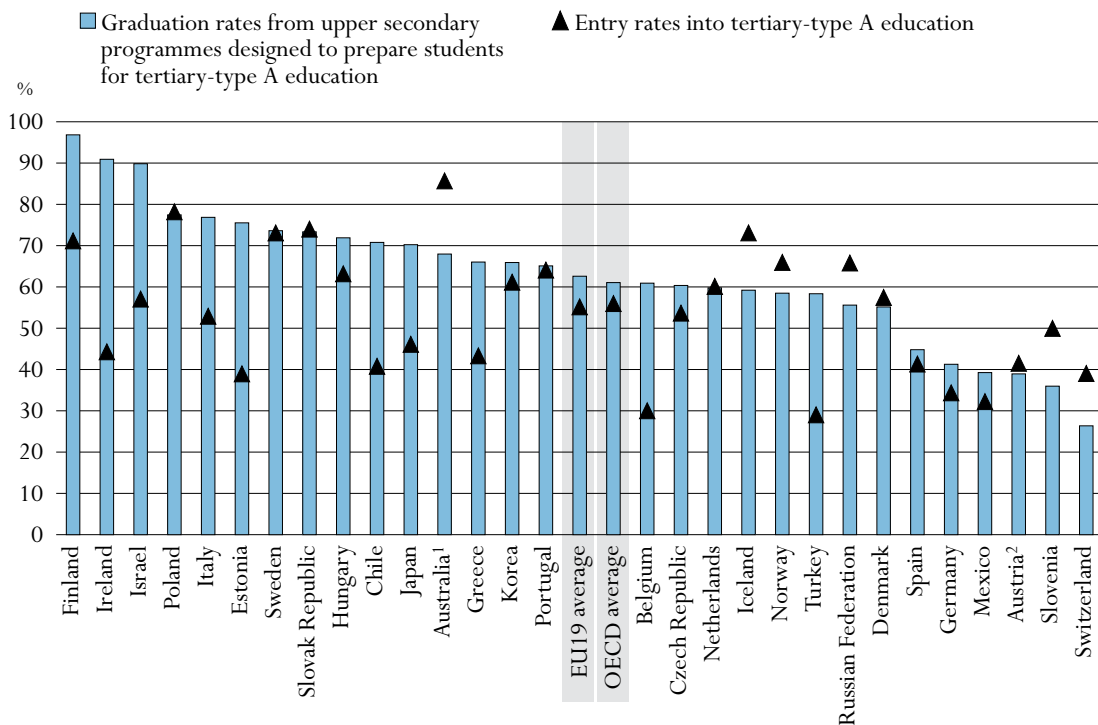
The vast majority of students who graduate from upper secondary education graduate from programmes designed to provide access to further tertiary education (ISCED 3A and 3B). Programmes to facilitate direct entry into tertiary-type A education are preferred by students in all countries except Austria, Germany and Switzerland and the partner country Slovenia, where both female and male students are more likely to graduate from upper secondary programmes leading to tertiary-type B programmes. The graduation rate for ISCED 3C (long programmes) is 16%, on average among OECD countries (Table A2.1).

It is interesting to compare the proportion of students who graduate from programmes designed as preparation for entry into tertiary-type A programmes with the proportion who actually enter these programmes. Chart A2.2 shows significant variation in patterns among countries. For instance, in Belgium, Finland, Greece, Ireland, Italy, Japan and Turkey, and in the partner countries Chile, Estonia and Israel, the difference between graduation rates from upper secondary programmes designed for tertiary-type A programmes and the eventual entry rate into such programmes is relatively

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large (more than 20 percentage points). This suggests that many students who achieve qualifications designed for university level entrance do not in fact take up university studies; however, at least in Belgium, Japan and the partner countries Estonia and Israel, such upper secondary programmes also give access to tertiary-type B programmes. In addition, Japan has “Junior colleges” that offer programmes that are similar to tertiary-type A programmes, but are classified as tertiary-type B because of their shorter duration of study. In Israel, the difference may be explained by the wide variation in the age of entry to university, which is due in part to the two to three years of military service students undertake before entering higher education. In Finland, upper secondary level includes vocational education where many graduates enter the labour market straight after the completion of their studies and do not continue their studies at tertiary level. There is also a *numerus clausus* system in Finnish higher education, which means that the number of entry places to higher education is restricted. In addition to this, graduates from upper secondary general education take a two to three year break before entering into university or polytechnic education. In Ireland, the majority of students at second level take the Leaving Certificate examination (ISCED 3A). Although this is an ISCED 3A course which is designed for entry to third level, not all of the students who sit for this examination do so in order to advance to third level (college/university). Until recently school leavers in Ireland have had alternative options, such as participation in a strong labour market, which may also have affected this difference.

Chart A2.2. Access to tertiary-type A education for upper secondary graduates (2007)



1. Year of reference for graduation rates: 2006.

2. Includes ISCED 4A programmes (“Berufsbildende Höhere Schulen”).

Countries are ranked in descending order of graduation rates from upper secondary programmes designed to prepare students for tertiary-type A education in 2007.

Source: OECD, Table A2.1 and Table A2.4. See Annex 3 for notes (www.oecd.org/edu/eag2009).

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In contrast, in Australia, Iceland, Switzerland and in the partner countries the Russian Federation and Slovenia, the upper secondary graduation rate is markedly lower than tertiary-type A entry rates. Australia, Iceland and Switzerland attract high proportions of international/foreign students; their tertiary-type A entry rates are inflated by students who have completed their upper secondary education in their own country but have decided to pursue their education abroad (see Indicator C2).

As mentioned previously, in Switzerland and in the partner countries Slovenia and the Russian Federation, although many students are more likely to graduate from upper secondary programmes leading to tertiary-type B programmes, some of them may later choose to pursue university studies instead, thanks to pathways between the two types of tertiary programmes.

Graduation from post-secondary non-tertiary programmes

Post-secondary non-tertiary programmes of various kinds are offered in 26 OECD countries and 4 partner countries. These programmes straddle upper secondary and post-secondary education but may be considered as either upper secondary or post-secondary programmes in a particular national context. Although the content of these programmes may not be significantly more advanced than upper secondary programmes, post-secondary non-tertiary programmes serve to broaden the knowledge of participants who have already gained an upper secondary qualification. Students in these programmes tend to be older than those enrolled at the upper secondary level.

Typical examples of such programmes are trade and vocational certificates, nursery teacher training in Austria and Switzerland, or vocational training in the dual system for holders of general upper secondary qualifications in Germany. In most countries, post-secondary non-tertiary programmes are vocationally oriented. In the Czech Republic and New Zealand, nearly 20% or more of a typical age cohort complete a post-secondary non-tertiary programme (Table A2.3).

In 11 OECD countries and 1 partner country, all post-secondary non-tertiary students graduate from ISCED 4C programmes, which are designed primarily to prepare graduates for direct entry into the labour market. Differences in the proportion of males and females participating in these programmes are not apparent at the level of the OECD average, but at the country level they can be large. Among the countries in which the graduation rate exceeds 9% at this level of education, in Australia and Poland, 40% more females have completed an ISCED 4C programme than males, while the opposite is true in Ireland, where the proportion of female graduates is nearly seven times lower (Table A2.3).

Apprenticeships designed for students who have already graduated from an upper secondary programme are also included among post-secondary non-tertiary programmes. In Austria, the Czech Republic, Denmark, Germany, the Slovak Republic, Switzerland and in the partner countries Estonia and Slovenia, 50% or more of post-secondary non-tertiary graduates have completed programmes designed to provide direct access to either tertiary-type A or B education (Table A2.3).

Overall access to tertiary education

Graduates from upper secondary programmes and those in the workforce who want to upgrade their skills can choose from a wide range of tertiary programmes. The higher the upper secondary graduation rate, the higher the expected entry rate into tertiary education. This indicator examines

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students' orientation towards tertiary education and helps to understand the choices made by students at the end of upper secondary education. Furthermore, this orientation is extremely important and will affect not only dropout rates (see Indicator A3) but also unemployment rates (see Indicator A6) if the programmes proposed are not adjusted to labour market needs.

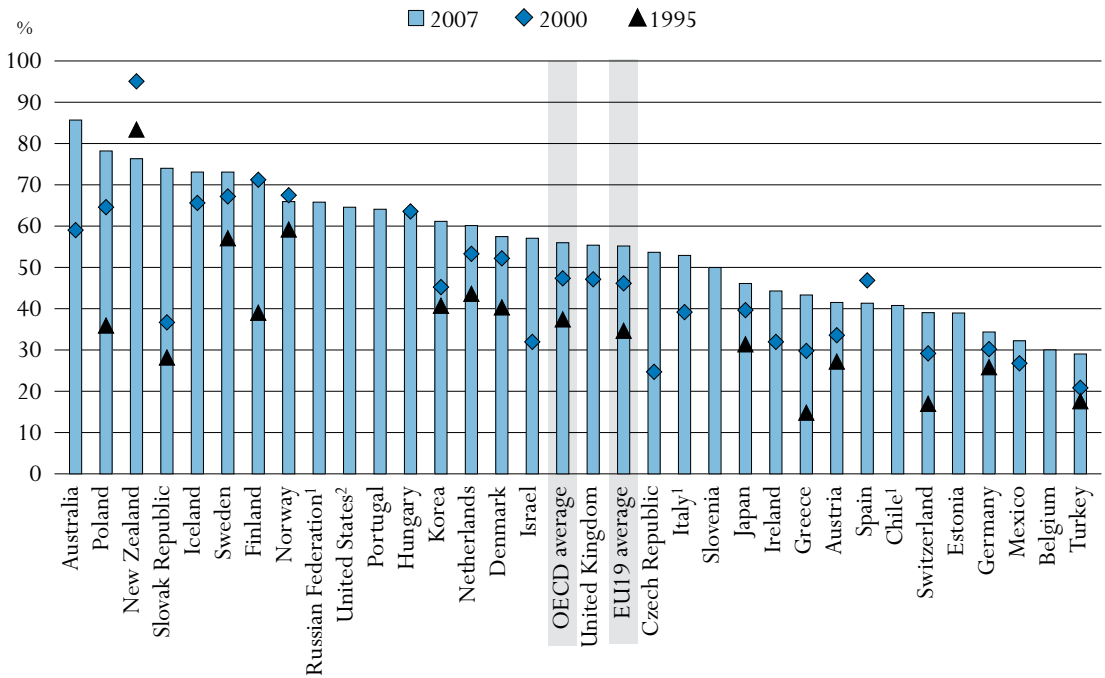
This indicator distinguishes among different categories of tertiary qualifications: programmes at tertiary-type B level (ISCED 5B); programmes at tertiary-type A level (ISCED 5A); and advanced research programmes at the doctorate level (ISCED 6). Tertiary-type A programmes are largely theory-based and designed to provide qualifications for entry into advanced research programmes and highly skilled professions. Tertiary-type B programmes are classified at the same level of competence as tertiary-type A programmes, but are more occupationally oriented and provide direct access to the labour market. They tend to be of shorter duration than tertiary-type A programmes (typically two to three years) and are generally not designed to lead to university degrees. The institutional location of programmes can give a relatively clear idea of their nature (*e.g.* university or non-university institution of higher education), but these distinctions have become blurred and are therefore not applied in the OECD indicators.

It is estimated that 56% of young adults in OECD countries will enter tertiary-type A programmes during their lifetime, assuming that current patterns of entry continue. In Australia, Finland, Iceland, New Zealand, Norway, Poland, the Slovak Republic and Sweden, as well as in the partner country the Russian Federation, 65% or more of young adults enter tertiary-type A programmes. The United States has an entry rate of 65%, but both type A and type B programmes are included in the figures for tertiary-type A. Although Turkey has had a large increase in the number of students entering tertiary-type A programmes since 1995, its entry rate is only 29% and it remains, with Belgium, Germany and Mexico, at the bottom of the scale (Chart A2.3).

The proportion of students entering tertiary-type B programmes is generally smaller, mainly because these programmes are less developed in most OECD countries. In OECD countries for which data are available, 15% of young adults, on average, enter tertiary-type B programmes. The OECD country average differs somewhat from the EU19 country average (12%). The figures range from 3% or less in Iceland, Italy, Mexico, the Netherlands, Norway, Poland, Portugal and the Slovak Republic to 30% or more in Belgium and Japan and in the partner countries Estonia, the Russian Federation and Slovenia and to more than 45% in Korea and New Zealand and in the partner country Chile. Although the share of tertiary-type B programmes in the Netherlands is currently very small, it is expected to increase with the introduction of a new programme of "associate degrees". Finland no longer has tertiary-type B programmes in its education system (Chart A2.4).

In Belgium and to a lesser extent in the partner countries Chile and Estonia, broad access to tertiary-type B programmes counterbalances comparatively low entry rates into tertiary-type A programmes. Iceland, Norway, Poland, Portugal, the Slovak Republic and Sweden have entry rates well above the OECD average for tertiary-type A programmes and comparatively very low rates for tertiary-type B programmes. Other OECD countries, most notably Korea and the United Kingdom and the partner country Slovenia have entry rates around the OECD average for tertiary-type A programmes and comparatively high rates of entry to tertiary-type B programmes. New Zealand stands out, with entry rates at both levels that are among the highest in OECD countries. However, its entry rates are, in part, inflated by a higher proportion of international students (Box A2.1).

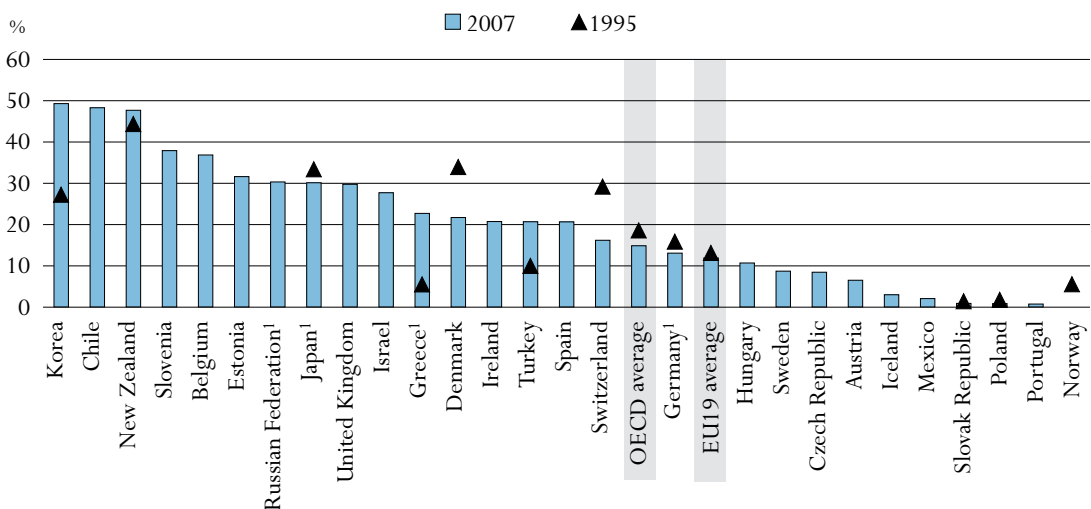
Chart A2.3. Entry rates into tertiary-type A education (1995, 2000 and 2007)



1. The entry rates for tertiary-type A programmes are calculated on a gross basis.
 2. The entry rates for tertiary-type A programmes include the entry rates for tertiary-type B programmes.
 Countries are ranked in descending order of entry rates for tertiary-type A education in 2007.
 Source: OECD, Table A2.5. See Annex 3 for notes (www.oecd.org/edu/eag2009).

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Chart A2.4. Entry rates into tertiary-type B education (1995, 2007)



1. The entry rates for tertiary-type B programmes are calculated on a gross basis.
 Countries are ranked in descending order of entry rates for tertiary-type B education in 2007.
 Source: OECD, Table A2.5. See Annex 3 for notes (www.oecd.org/edu/eag2009).

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On average, in all OECD countries with comparable data, 9 percentage points more of today's young adults enter tertiary-type A programmes than in 2000 and 19 percentage points more than in 1995. Entry rates in tertiary-type A education increased by more than 15 percentage points between 2000 and 2007 in Australia, the Czech Republic, Korea and the Slovak Republic and in the partner country Israel. New Zealand, Norway and Spain are the only OECD countries that show a decrease in entry to tertiary-type A programmes, although in Spain, the decrease is counterbalanced by a significant increase in entry rates into tertiary-type B programmes between 2000 and 2007. In New Zealand, the rise and fall in entry rates over the 2000 to 2007 period mirrored the rise and fall in the number of international students over the same period.

Among OECD countries, overall net entry rates into tertiary-type B programmes between 1995 and 2007 have slightly decreased, except in Greece, Korea, New Zealand and Turkey, where they have increased, and in Poland and the Slovak Republic, where they have remained stable. The reclassification of tertiary-type B to tertiary-type A programmes in Austria and Denmark after 2000 partly explains the changes observed in these countries between 1995 and 2007 (Chart A2.3 and Chart A2.4).

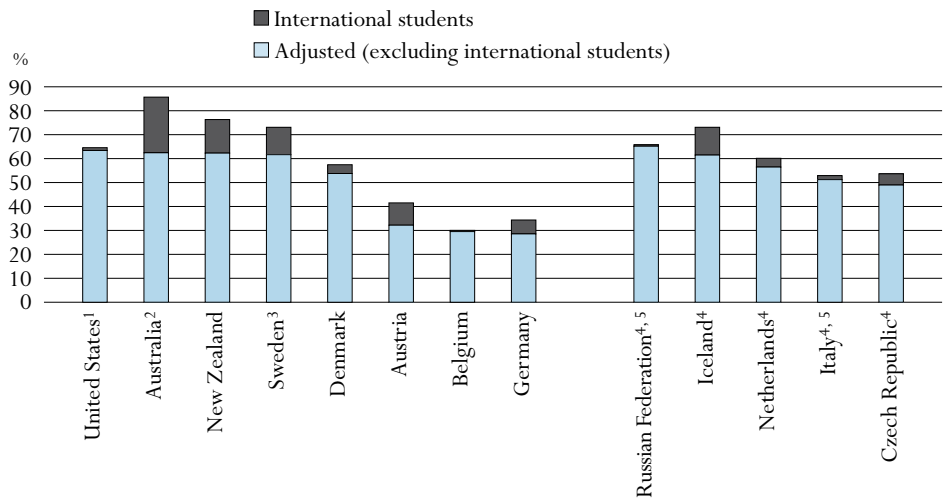
More than 2.8% of today's young adults in the 20 OECD countries with comparable data will enter advanced research programmes during their lifetime. The figures range from less than 1% in Mexico and Turkey and in the partner countries Chile and Slovenia to 4% or more in Austria, Greece, Portugal and Switzerland (Table A2.4).

Rates of entry into tertiary education should also be considered in light of participation in post-secondary non-tertiary programmes, an important alternative to tertiary education in some OECD countries.

Box A2.1. The impact of international students on entry rates at tertiary-type A level

By definition all international students enrolling for the first time in a country are counted as new entrants, regardless of their previous education in other countries. The reason is that countries are less likely to know about the previous education of international students. Entry rates estimate the proportion of the population that will enter tertiary-type A programmes during their lifetime. To highlight the impact of international students on entry rates at the tertiary-type A level, both unadjusted and adjusted entry rates (*i.e.* the entry rate when international students are excluded) are presented in Chart A2.5.

Among countries for which data on international students are available, the impact of international students is significant in Australia, Austria, Germany and New Zealand. For Australia and New Zealand, with adjustments of 23 and 14 percentage points respectively, the impact is so great that their entry rates slip from the top 2 ranking positions to fall behind the United States. Sweden's entry rate, with an adjustment of 11 percentage points, is also affected by the impact of international students, but this effect may be slightly overestimated as Sweden included exchange students in the count of international students. Among countries which report data on foreign students, a large adjustment (12 percentage points) is also seen in Iceland (Table A2.4).

Chart A2.5. Entry rates into tertiary-type A education level: impact of international students (2007)

1. The entry rate at tertiary-type A level includes the entry rate at tertiary-type B level.

2. Year of reference 2006.

3. International students include exchange students.

4. The entry rate is calculated for foreign students (defined on the basis of their country of citizenship). These data are not comparable with data on international entry rate and are therefore presented separately.

5. The entry rates calculated on a gross basis.

Countries are ranked in descending order of adjusted entry rates for tertiary-type A education in 2007.

Source: OECD, Table A2.4. See Annex 3 for notes (www.oecd.org/edu/eag2009).

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The greatest impact of international students on indicators such as the entry rate and graduation rate (see Indicator A3) is naturally observed amongst countries with the largest proportion of international students. Since these indicators generally have a domestic focus, they can be misinterpreted for countries with high proportions of international students (*e.g.* Australia and New Zealand). Therefore, to improve the comparability of these indicators amongst countries the impact of international students should be removed whenever possible. Unfortunately it is still difficult for many countries to collect reliable information on international students, so adjustments to indicators for those students are not always possible.

Pathways between tertiary-type A and tertiary-type B programmes

In some countries, tertiary-type A and B programmes are provided by different types of institutions but this is changing. It is increasingly common for universities or other institutions to offer programmes of both types; furthermore, the two levels are gradually becoming more similar in terms of curriculum, orientation and learning outcomes.

Graduates from tertiary-type B programmes often have the opportunity to gain admission to tertiary-type A programmes, either in the second or third year of the programme or even to a master's programme. This path is often subject to conditions (special examination, personal or professional past achievements, completion of a "bridging" programme, etc.) depending on the country or programme. Conversely, students who leave tertiary-type A education without having graduated can in some cases be successfully re-oriented towards tertiary-type B programmes.

Countries with high entry rates into tertiary-level education may also be countries that have pathways between the two types of programmes.

Age of new entrants into tertiary education

The age structure of new entrants into tertiary education varies among OECD countries. The typical graduation age for upper secondary education may be different and/or upper secondary graduates may have entered the labour market before enrolling in tertiary education. People entering tertiary-type B programmes may also enter tertiary-type A programmes later in their lives. Adding together tertiary-type A and B entry rates to obtain overall tertiary-level entry rates would therefore result in overcounting.

Traditionally, students enter tertiary-type A programmes immediately after having completed upper secondary education, and this remains true in many OECD countries. For example, in Belgium, Ireland, Italy, Japan, Korea, Mexico, the Netherlands and Poland and in the partner country Slovenia, 80% of all first-time entrants into tertiary-type A programmes are under 23 years of age (Table A2.4).

In other OECD and partner countries, the transition between upper secondary and tertiary education may happen at a later age, due to time spent in the labour force for example. In these countries, first-time entrants into tertiary-type A programmes are typically older and represent a much wider age range at entry. In Australia, Denmark, Iceland, New Zealand, Norway, Portugal, the Slovak Republic, Sweden, Switzerland and the United States and in the partner country Israel, 20% of first-time entrants are aged nearly 27 or older (Table A2.4). The proportion of older first-time entrants into tertiary-type A programmes may reflect, among other factors, the flexibility of these programmes and their suitability to students outside the typical age cohort. It may also reflect a view of the value of work experience for higher education studies, which is characteristic of the Nordic countries and common in Australia, the Czech Republic, Hungary, New Zealand, Switzerland and the United States, where a sizeable proportion of new entrants is much older than the typical age of entry. It may also reflect some countries' mandatory military service, which postpones entry into tertiary education. For example, the partner country Israel - where more than half of the students enter the tertiary-type A level for the first time at the age of 22 or older - has mandatory military service for males aged 18 to 21 and for females aged 18 to 20.

Definitions and methodologies

Data refer to the academic year 2006/07 and are based on the UOE data collection on education statistics administered by the OECD in 2008 (for details see Annex 3 at www.oecd.org/edu/eag2009).

Upper secondary or post-secondary non-tertiary graduation rates (Table A2.1, Table A2.2 and Table A2.3) are calculated as net graduation rates (*i.e.* as the sum of age-specific graduation rates) for the years 2005, 2006 and 2007. Net graduation rates represent the estimated percentage of the age cohort that will complete upper secondary education or post-secondary non-tertiary education (based on current patterns of graduation). Gross graduation rates are presented for the years 1995 and 2000-04. Similarly, gross graduation rates are presented in the coming years for countries that are unable to provide such detailed data. In order to calculate gross graduation rates, countries identify the age at which graduation typically occurs. Information on the methods used to calculate graduation rates (gross versus net rates) are presented for each level of education in Annex 1. The number of graduates, regardless of their age, is divided by the population at the typical graduation age. The graduation rates take into account students

graduating from upper secondary education at the typical (modal) graduation ages, as well as older students (*e.g.* those in “second chance” programmes) or younger students.

The count of first-time graduates (Columns 1-3 in Table A2.1 or Table A2.3) is calculated by netting out students who graduated from another upper secondary programme in a previous year (or another post-secondary non-tertiary programme). As for the others columns of the tables, the net rate is calculated when data are available.

Graduates of ISCED 3A, 3B and 3C (or 4A, 4B and 4C) programmes are not considered as first-time counts. Therefore, gross graduation rates cannot be added, as some individuals graduate from more than one upper secondary programme (or post-secondary non-tertiary) and would be counted twice. The same applies for graduation rates according to programme orientation, *i.e.* general or vocational. Moreover, the typical graduation ages are not necessarily the same for the different programme types. 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.

In Table A2.2 (trends in graduation rates at upper secondary level) or Table A2.5 (trends in entry rates), data for the years 1995, 2000, 2001, 2002, 2003 and 2004 are based on a special survey carried out in OECD countries and four of the six partner countries in January 2007.

Table A2.4 and Table A2.5 show the sum of net entry rates for all ages. The net entry rate for a specific age is obtained by dividing the number of first-time entrants of that age to each type of tertiary education by the total population in the corresponding age group. The sum of net entry rates is calculated by adding the rates for each year of age. The result represents an estimate of the probability that a young person will enter tertiary education in his/her lifetime assuming current age-specific entry rates continue. Table A2.4 also shows the 20th, 50th and 80th percentiles of the age distribution of first-time entrants, *i.e.* the age below which 20%, 50% and 80% of first-time entrants are found. Finally, data on the impact of international students on tertiary entry rates are based on a special survey carried out by the OECD in December 2008.

New (first-time) entrants are students who enrol at the relevant level of education for the first time. International/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 to form a total tertiary-level entrance rate because it would result in counting entrants twice.

Further references

The following additional material relevant to this indicator is available on line at:

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- *Table A2.6. Percentage of new entrants in tertiary education and proportion of females, by field of education (2007)*

Table A2.1.

Upper secondary graduation rates (2007)

Sum of graduation rates for single year of age, by programme destination, programme orientation and gender

	Total (first-time graduates)			ISCED 3A (designed to prepare for direct entry to tertiary- type A education)		ISCED 3B (designed to prepare for direct entry to tertiary- type B education)		ISCED 3C (long) similar to duration of typical 3A or 3B programmes		ISCED 3C (short) shorter than duration of typical 3A or 3B programmes		General programmes		Pre- vocational/ vocational programmes	
	M + F	Males	Females	M + F	Females	M + F	Females	M + F	Females	M + F	Females	M + F	Females	M + F	Females
	(1)	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(12)	(13)	(15)	(16)	(18)	(19)	(21)
OECD countries															
Australia ¹	m	m	m	68	74	x(10)	x(12)	38	40	x(10)	x(12)	68	74	38	40
Austria	m	m	m	17	21	51	44	2	2	21	18	17	21	74	64
Belgium	m	m	m	61	66	a	a	20	18	11	14	37	42	55	57
Canada ¹	79	75	83	76	81	a	a	8	8	a	a	76	81	8	8
Czech Republic	88	86	90	60	70	n	n	27	20	a	a	21	26	67	64
Denmark	85	78	93	55	66	a	a	47	49	n	n	55	66	47	50
Finland	97	92	102	97	102	a	a	a	a	a	a	52	62	87	95
France	m	m	m	52	60	12	11	4	4	45	45	52	60	61	60
Germany	100	99	100	41	47	58	53	a	a	1	n	41	47	58	53
Greece	96	93	99	66	74	a	a	30	26	x(10)	x(12)	66	74	30	26
Hungary	84	79	90	72	80	a	a	15	12	x(10)	x(12)	72	80	15	12
Iceland	86	69	104	59	76	1	2	37	28	19	26	62	80	54	53
Ireland	90	84	96	91	98	a	a	5	5	23	36	68	71	52	68
Italy	85	82	88	77	83	1	1	a	a	22	20	34	45	66	58
Japan	93	92	94	70	74	1	n	22	20	x(10)	x(12)	70	74	23	20
Korea	91	90	93	66	67	a	a	25	25	a	a	66	67	25	25
Luxembourg	75	70	79	43	52	10	8	20	18	2	1	28	33	47	46
Mexico	43	39	46	39	43	a	a	3	4	a	a	39	43	3	4
Netherlands	m	m	m	60	66	a	a	18	19	21	17	35	38	64	64
New Zealand	74	66	84	x(1)	x(3)	x(1)	x(3)	x(1)	x(3)	x(1)	x(3)	x(1)	x(3)	x(1)	x(3)
Norway	92	82	102	58	71	a	a	39	35	m	m	58	71	39	35
Poland	84	80	88	77	86	a	a	12	8	a	a	58	69	32	25
Portugal	65	56	74	65	74	x(4)	x(6)	x(4)	x(6)	x(4)	x(6)	46	55	19	19
Slovak Republic	85	82	87	73	80	a	a	19	14	1	2	23	28	71	67
Spain	74	67	82	45	53	a	a	19	19	20	22	45	53	39	42
Sweden	74	72	77	74	76	n	n	1	n	n	n	33	39	41	38
Switzerland	89	90	88	26	29	66	61	6	7	x(10)	x(12)	31	36	67	61
Turkey	58	63	54	58	54	a	a	a	a	m	m	37	37	21	17
United Kingdom	89	86	92	m	m	m	m	m	m	m	m	m	m	m	m
United States	78	77	78	m	m	m	m	m	m	m	m	m	m	m	m
OECD average	82	78	87	61	67	8	7	16	15	10	11	48	55	45	43
EU19 average	85	80	89	63	70	8	7	14	13	11	12	43	50	51	50
Partner countries															
Brazil	m	m	m	54	64	5	7	a	a	a	a	54	64	5	7
Chile	71	67	75	71	75	a	a	a	a	a	a	39	43	32	32
Estonia	m	m	m	76	83	a	a	a	a	1	1	58	71	19	13
Israel	92	89	96	90	95	a	a	3	1	a	a	60	67	32	29
Russian Federation	m	m	m	56	x(4)	14	x(7)	21	12	4	2	56	x(16)	38	x(19)
Slovenia	91	85	98	36	43	44	47	25	21	2	1	34	42	72	70

Note: Columns showing male graduation rates at upper secondary level (i.e. columns 5, 8, 11, 14, 17, 20) are available for consultation on line (see StatLink below).

Please refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages. Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated (for instance Luxembourg) and those that are net importers may be overestimated.

1. Year of reference 2006.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2009).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


StatLink  <http://dx.doi.org/10.1787/664035755120>

Table A2.2.
Trends in graduation rates (first-time) at upper secondary level (1995-2007)

	1995	2000	2001	2002	2003	2004	2005	2006	2007
OECD countries									
Australia	m	m	m	m	m	m	m	m	m
Austria	m	m	m	m	m	m	m	m	m
Belgium	m	m	m	m	m	m	m	m	m
Canada ¹	m	m	77	79	83	79	80	79	m
Czech Republic ¹	78	m	84	83	88	87	89	90	88
Denmark	80	90	91	93	87	90	82	84	85
Finland	91	91	85	84	90	95	94	94	97
France	m	m	m	m	m	m	m	m	m
Germany ¹	100	92	92	94	97	99	100	100	100
Greece	80	54	76	85	96	93	100	98	96
Hungary	m	93	83	82	87	86	82	85	84
Iceland	m	67	67	79	79	84	79	87	86
Ireland	m	74	77	78	91	92	91	87	90
Italy	m	78	81	78	m	82	81	84	85
Japan ¹	91	94	93	92	91	91	93	93	93
Korea ¹	88	96	100	99	92	94	94	93	91
Luxembourg	m	m	m	69	71	69	75	71	75
Mexico	m	33	34	35	37	39	40	42	43
Netherlands	m	m	m	m	m	m	m	m	m
New Zealand ¹	72	80	79	77	78	75	72	74	74
Norway	77	99	105	97	92	100	89	88	92
Poland	m	90	93	91	86	79	85	81	84
Portugal	67	52	48	50	59	53	51	54	65
Slovak Republic	85	87	72	60	56	83	83	84	85
Spain ¹	62	60	66	66	67	66	72	72	74
Sweden	62	75	71	72	76	78	78	76	74
Switzerland ¹	86	88	91	92	89	87	89	89	89
Turkey	37	37	37	37	41	55	48	52	58
United Kingdom ¹	m	m	m	m	m	m	86	88	89
United States	69	70	71	73	74	75	75	77	78
<i>OECD average</i>	77	76	77	77	78	81	80	81	82
<i>OECD average for countries with 1995 and 2007 data</i>	77								84
<i>EU19 average</i>	78	78	78	78	81	82	83	83	85
Partner countries									
Brazil	m	m	m	m	m	m	m	m	m
Chile	46	63	m	61	64	66	73	71	71
Estonia	m	m	m	m	m	m	m	75	m
Israel	m	m	m	90	89	93	90	90	92
Russian Federation	m	m	m	m	m	m	m	m	m
Slovenia ¹	m	m	m	m	m	m	83	97	91

Note: Up to 2004, graduation rates at upper secondary level were calculated on a gross basis. From 2005 and for countries with available data, graduation rates are calculated as net graduation rates (i.e. as the sum of age-specific graduation rates).

1. The graduation rates are calculated on a gross basis.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2009).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


StatLink  <http://dx.doi.org/10.1787/664035755120>

Table A2.3.

Post-secondary non-tertiary graduation rates (2007)

Sum of graduation rates for single year of age, by programme destination and gender

	Total (first-time graduates)			ISCED 4A (designed to prepare for direct entry to tertiary-type A education)			ISCED 4B (designed to prepare for direct entry to tertiary-type B education)			ISCED 4C		
	M + F	Males	Females	M + F	Males	Females	M + F	Males	Females	M + F	Males	Females
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD countries												
Australia ¹	m	m	m	a	a	a	a	a	a	17.2	14.1	20.3
Austria	m	m	m	21.6	18.6	24.9	2.6	0.9	4.5	2.3	1.6	3.1
Belgium	m	m	m	7.2	7.4	7.1	3.1	2.8	3.3	11.4	9.7	13.2
Canada	m	m	m	m	m	m	a	a	a	m	m	m
Czech Republic	22.7	20.4	25.2	22.5	20.1	25.0	a	a	a	0.2	0.2	0.2
Denmark	1.0	1.1	0.8	1.0	1.2	0.8	a	a	a	a	a	a
Finland	3.3	3.1	3.6	a	a	a	a	a	a	7.1	6.2	8.1
France	m	m	m	0.7	0.5	0.8	a	a	a	0.8	0.4	1.1
Germany	18.3	17.9	18.6	12.1	11.0	13.3	6.2	7.0	5.4	a	a	a
Greece	10.1	9.6	10.8	a	a	a	a	a	a	10.2	9.6	10.8
Hungary	19.4	18.5	20.4	a	a	a	a	a	a	24.4	22.4	26.5
Iceland	9.3	10.7	7.6	n	n	n	n	n	n	9.6	11.2	7.8
Ireland	9.3	16.1	2.4	a	a	a	a	a	a	9.3	16.1	2.4
Italy	3.0	2.3	3.8	a	a	a	a	a	a	3.0	2.3	3.8
Japan	m	m	m	m	m	m	m	m	m	m	m	m
Korea	a	a	a	a	a	a	a	a	a	a	a	a
Luxembourg	2.3	3.4	1.1	a	a	a	a	a	a	2.3	3.4	1.1
Mexico	a	a	a	a	a	a	a	a	a	a	a	a
Netherlands	m	m	m	a	a	a	a	a	a	1.1	1.5	0.7
New Zealand	19.9	15.8	23.7	x(1)	x(2)	x(3)	x(1)	x(2)	x(3)	x(1)	x(2)	x(3)
Norway	4.5	6.3	2.7	1.1	1.6	0.5	a	a	a	3.7	5.1	2.4
Poland	12.8	10.1	15.6	a	a	a	a	a	a	12.8	10.1	15.6
Portugal	0.7	1.0	0.4	x(1)	x(2)	x(3)	x(1)	x(2)	x(3)	x(1)	x(2)	x(3)
Slovak Republic	2.8	3.1	2.4	2.8	3.1	2.4	a	a	a	a	a	a
Spain	a	a	a	a	a	a	a	a	a	a	a	a
Sweden	2.2	1.7	2.8	n	n	n	n	n	n	2.2	1.7	2.8
Switzerland	9.9	9.2	10.6	5.6	5.9	5.2	5.0	4.0	6.1	a	a	a
Turkey	a	a	a	a	a	a	a	a	a	a	a	a
United Kingdom	m	m	m	m	m	m	m	m	m	m	m	m
United States	m	m	m	m	m	m	m	m	m	m	m	m
OECD average	7.2	7.2	7.3	3.1	2.9	3.3	0.7	0.6	0.8	4.9	4.8	5.0
EU19 average	7.7	7.7	7.7	4.0	3.6	4.4	0.7	0.6	0.8	5.1	5.0	5.3
Partner countries												
Brazil	a	a	a	a	a	a	a	a	a	a	a	a
Chile	a	a	a	a	a	a	a	a	a	a	a	a
Estonia	m	m	m	a	a	a	16.5	10.9	22.3	a	a	a
Israel	m	m	m	m	m	m	a	a	a	a	a	a
Russian Federation	m	m	m	a	a	a	a	a	a	5.3	5.6	4.9
Slovenia	3.3	2.6	4.0	1.3	0.8	1.9	1.9	1.8	2.1	n	n	n

Note: Please refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated (for instance Luxembourg) and those that are net importers may be overestimated.

1. Year of reference 2006.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2009).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


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Table A2.5. Trends in entry rates at tertiary level (1995-2007)

	Tertiary-type 5A ¹									Tertiary-type 5B								
	1995	2000	2001	2002	2003	2004	2005	2006	2007	1995	2000	2001	2002	2003	2004	2005	2006	2007
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD countries																		
Australia	m	59	65	77	68	70	82	84	86	m	m	m	m	m	m	m	m	m
Austria	27	34	34	31	34	37	37	40	42	m	m	m	m	8	9	9	7	7
Belgium	m	m	32	33	33	34	33	29	30	m	m	36	34	33	35	34	35	37
Canada	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Czech Republic	m	25	30	30	33	38	41	50	54	m	9	7	8	9	10	8	9	8
Denmark	40	52	54	53	57	55	57	59	57	33	28	30	25	22	21	23	22	22
Finland	39	71	72	71	73	73	73	76	71	32	a	a	a	a	a	a	a	a
France	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Germany ²	26	30	32	35	36	37	36	35	34	15	15	15	16	16	15	14	13	13
Greece	15	30	30	33	35	35	43	49	43	5	21	20	21	22	24	m	31	23
Hungary	m	64	56	62	69	68	68	66	63	m	1	3	4	7	9	11	10	11
Iceland	m	66	61	72	83	79	74	78	73	m	10	10	11	9	8	7	4	3
Ireland	m	32	39	39	41	44	45	40	44	m	26	19	18	17	17	14	21	21
Italy ²	m	39	44	50	54	55	56	55	53	m	1	1	1	1	1	a	m	n
Japan	31	40	41	42	43	42	44	45	46	33	32	31	30	31	32	32	32	30
Korea	41	45	46	46	47	49	51	59	61	27	51	52	51	47	47	48	50	50
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Mexico	m	27	27	35	29	30	30	31	32	m	1	2	2	2	2	2	2	2
Netherlands	44	53	54	54	52	56	59	58	60	n	n	n	n	n	n	n	n	n
New Zealand	83	95	95	101	107	86	79	72	76	44	52	50	56	58	50	48	49	48
Norway	59	67	69	75	75	72	76	67	66	5	5	4	3	1	1	n	n	n
Poland	36	65	68	71	70	71	76	78	78	1	1	1	1	1	1	1	1	1
Portugal	m	m	m	m	m	m	m	53	64	m	m	m	m	m	m	m	1	1
Slovak Republic	28	37	40	43	40	47	59	68	74	1	3	3	3	3	2	2	1	1
Spain	m	47	47	49	46	44	43	43	41	m	15	19	19	21	22	22	21	21
Sweden	57	67	69	75	80	79	76	76	73	m	7	6	6	7	8	7	10	9
Switzerland	17	29	33	35	38	38	37	38	39	29	14	13	14	17	17	16	15	16
Turkey	18	21	20	23	23	26	27	31	29	9	9	10	12	24	16	19	21	21
United Kingdom	m	47	46	48	48	52	51	57	55	m	29	30	27	30	28	28	29	30
United States	m	43	42	64	63	63	64	64	65	m	14	13	x(4)	x(5)	x(6)	x(7)	x(8)	x(9)
OECD average	37	47	48	52	53	53	55	56	56	18	15	16	16	16	15	15	16	15
<i>OECD average for countries with 1995, 2000 and 2007 data</i>	37	49						57		18	18							17
EU19 average	35	46	47	49	50	52	53	55	55	12	11	13	12	12	12	11	13	12
Partner countries																		
Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Chile	m	m	32	33	33	34	48	43	41	m	m	36	34	33	35	37	34	49
Estonia	m	m	m	m	m	m	55	41	39	m	m	m	m	m	m	34	32	32
Israel	m	32	39	39	41	44	55	56	57	m	26	19	m	17	m	25	26	28
Russian Federation ^{2,3}	m	m	m	m	m	m	67	65	66	m	m	m	m	m	m	33	32	31
Slovenia	m	m	m	m	m	m	40	46	50	m	m	m	m	m	m	49	43	38


1. The entry rate for tertiary-type A programmes includes advanced research programmes for 1995, 2000, 2001, 2002, 2003 (except for Belgium).

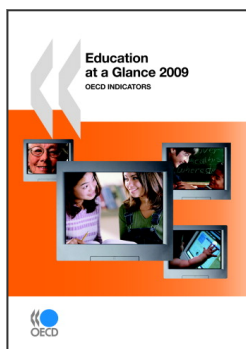
2. The entry rates for tertiary-type B programmes are calculated on a gross basis.

3. The entry rates for tertiary-type A programmes are calculated on a gross basis.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2009).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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