# INDICATOR A2

# HOW MANY STUDENTS FINISH SECONDARY EDUCATION AND ACCESS TERTIARY EDUCATION?

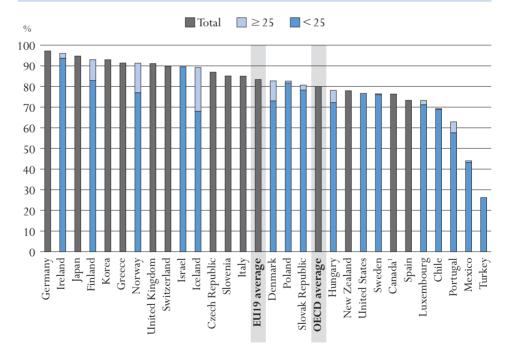
Rising knowledge demands in OECD countries have made qualifications at the upper secondary level the minimum credential for successful labour market entry. This indicator presents the current upper secondary graduate output of education systems, *i.e.* the estimated percentage of an age cohort that will follow and successfully complete upper secondary programmes. It also shows the percentage of a youth cohort that will enter different types of tertiary education during their lifetime and the impact of international students.

# Key results

# Chart A2.1. Upper secondary graduation rates (2008)

The chart shows the estimated percentage of a 2008 age cohort that will complete, for the first time, upper secondary education (based on current patterns of graduation); it also indicates how many young adults complete upper secondary education outside of the typical age of graduation.

On average 80% of an age cohort in 2008 is estimated to complete upper secondary education in the 26 OECD countries with available data. The proportion of students who complete the upper secondary level of education outside the typical age of graduation is high in Denmark, Finland, Iceland and Norway, where graduation rates for students older than 25 account for 10 percentage points or more.



#### 1. Year of reference 2007.

Countries are ranked in descending order of the upper secondary graduation rates in 2008. Source: OECD. Table A2.1. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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# Other highlights of this indicator

- In 22 of 26 OECD countries and all partner countries with available data, first-time upper secondary graduation rates exceed 70%. In Finland, Germany, Greece, Ireland, Japan, Korea, Norway, Switzerland, the United Kingdom and the partner country Israel, graduation rates equal or exceed 90%.
- 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 significantly below those for males only in Switzerland and Turkey. Females are also graduating from vocational programmes more often than in the past, and consequently their graduation rates are moving closer to those of males.
- In most countries, upper secondary education is designed to prepare students to enter into tertiary-type A education. In Germany, Switzerland and the partner country Slovenia, however, students are more likely to graduate from upper secondary programmes that lead to tertiary-type B, where courses are typically shorter and focus on the development of practical, technical or occupational skills.
- Entry rates for tertiary-type A education increased by more than 20 percentage points on average in OECD countries between 1995 and 2008. In 2008, in Australia, Finland, Iceland, Korea, New Zealand, Norway, Poland, Portugal and the Slovak Republic, it is estimated that 70% or more young adults will enter tertiary-type A programmes during their lifetime.
- The proportion of students who enter tertiary-type B programmes is generally smaller than that for tertiary-type A programmes. In OECD countries for which data are available, 16% of young adults, on average, will enter tertiary-type B programmes, 56% will enter tertiary-type A programmes and 2.4% will enter advanced research programmes.
- High proportions of international students influence entry rates. In Australia, the impact of international students is so great that entry rates drop significantly when international students are excluded, causing it to lose its top position.

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#### **Policy context**

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 and for staying in it (see Indicators A6 and A7).

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

The tertiary-level entry rate is an estimated probability that a school leaver will enter tertiary education during his/her lifetime. It 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. In the context of crisis, it could also increase the flexibility of the 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

In 22 of 26 OECD countries and all partner countries with available data, first-time upper secondary graduation rates exceed 70%. In Finland, Germany, Greece, Ireland, Japan, Korea, Norway, Switzerland, the United Kingdom and the partner country Israel, graduation rates equal or exceed 90% (Chart A2.1).

Even if completing an upper secondary education programme is considered the norm for most OECD and partner countries, the proportion of students outside the typical age of graduation varies. First-time graduates are generally between 17 and 20 years old (see Table X1.1a in Annex 1). However, some countries propose second chance/adult education programmes. In the Nordic countries, for example, students can relatively easily leave the education system and re-enter it at a later date: in Denmark, Finland, Iceland and Norway, graduation rates of students over 25 years old account for at least 10 percentage points. High graduation rates do not mean that all young people have graduated from the upper secondary level when they enter the labour market; they may do so later. Decision makers have room for manoeuvre to

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encourage upper secondary graduation at an earlier age and before entry to the labour market, as this level is often considered to be the minimum credential for successful labour market entry (Chart A2.1).

The balance of educational attainment between males and females in the adult population differs in most countries. In the past, females had fewer opportunities and/or incentives to obtain the same level of education as males. Females 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 26 OECD countries and in all partner countries for which total upper secondary graduation rates can be compared by gender. The exceptions are Switzerland and Turkey where graduation rates are significantly higher for males. The gap is greatest in Denmark, Iceland, New Zealand, Norway, Portugal, Spain and the partner country Slovenia, where female graduation rates exceed those of males by 10 percentage points or more (Table A2.1).

Since 1995, the upper secondary graduation rate has increased by seven percentage points on average among OECD countries with comparable data. The highest growth occurred in Chile, Greece, Norway, Spain and Sweden (more than ten percentage points of increase between 1995 and 2008) (Table A2.2).

Although graduation from upper secondary education is becoming the norm, the upper secondary curriculum may 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 2008, it is estimated that 47% of an age cohort will be graduated from a general programmes compared to 44% from a pre-vocational or vocational programmes.

In 2008, the female graduation rate from general programmes was higher than that of males for almost all OECD and partner countries with comparable data. The average OECD graduation rate from general programmes was 53% for females and 41% for males. The higher proportion of females is especially noteworthy in Austria, the Czech Republic, Iceland, Italy, Norway, Poland and the partner countries Estonia and Slovenia, where they outnumber males by at least three to two. Only in Korea are the proportions of both sexes close to equal. Females are also, more often than in the past, graduates of vocational programmes. On average among OECD countries, the graduation rate of females from pre-vocational and vocational programmes is 43% (45% for males). This pattern may affect entry rates in tertiary-type B programmes in subsequent years (Table A2.1).

Furthermore, graduation rates at the pre-vocational/vocational level are affected by the proportion of students outside the typical age of graduation, which differs markedly from one country to another (see Table X1.1a in Annex 1). Adult students have a particularly strong effect on graduation rates in Australia, Denmark, Finland, Iceland, Norway and the partner country Brazil as they account for some 40% or more of total graduation rates. In these countries, some programmes at this level of education, *i.e.* part-time or evening programmes, may be especially designed for the adult population (Table A2.1).

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#### Transitions following upper secondary education

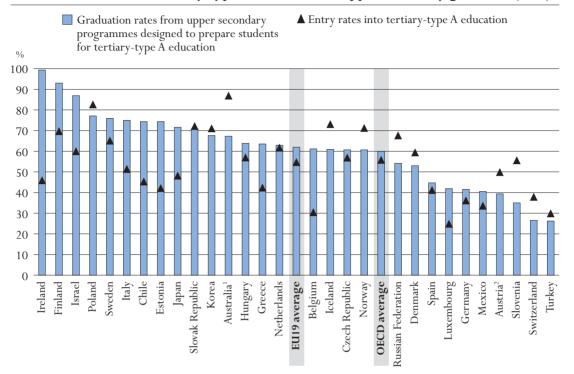
The vast majority of students who graduate from upper secondary education graduate from programmes designed to provide access to further tertiary education (ISCED 3A and 3B). Programmes to facilitate direct entry into tertiary-type A education are preferred by students in all countries except Germany, 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, Chile, Finland, Greece, Ireland, Italy, Japan and the partner countries Estonia and Israel, the difference between graduation rates from upper secondary programmes designed for tertiary-type A programmes and eventual entry rates into such programmes is relatively 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" which offer programmes that are similar to tertiary-type A programmes, but are classified as tertiary-type B because of two or three years' shorter duration of study with more practical programmes (on the basis of ISCED 97). 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, the upper secondary level includes vocational education, and many graduates enter the labour market immediately after completing this level without any studies at the tertiary level. There is also a numerus clausus system in Finnish higher education, which means that the number of entry places is restricted. In addition, graduates from upper secondary general education may have to take a break of two to three years before getting a university or a polytechnic education study place. In Ireland, the majority of students at second level take the "Leaving Certificate Examination" (ISCED 3A). Although this is an ISCED 3A course designed for entry to tertiary education, not all of the students who take this examination intend to do so. Until recently, school leavers in Ireland had alternatives, such as participation in a strong labour market, and this also may have had an effect on the difference.

In contrast, in Australia, Austria, Iceland, Norway, Switzerland and the partner countries the Russian Federation and Slovenia, the upper secondary graduation rate is markedly lower than tertiary-type A entry rates (more than 10 percentage points). Australia, Austria, Iceland, Norway and Switzerland attract high proportions of international/foreign students; their tertiary-type A entry rates are inflated by students who completed their upper secondary education in their own country but decided to pursue their education abroad (see below and Indicator C2).

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

# Chart A2.2. Access to tertiary-type A education for upper secondary graduates (2008)



- 1. Year of reference for graduation rates 2007.
- 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 2008.

Source: OECD. Tables A2.1 and A2.3. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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#### 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 either as upper secondary or post-secondary programmes in particular national contexts. 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 individuals who have already gained an upper secondary qualification. Students in these programmes tend to be older than those enrolled at the upper secondary level. For more information on post-secondary non-tertiary programmes, see Table A2.5 on line or Indicator A2 in *Education at a Glance 2009*.

#### 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 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 A4) but also unemployment rates (see Indicator A6) if the programmes proposed are not adjusted to labour market needs.

It is estimated that 56% of young adults in OECD countries will enter tertiary-type A programmes during their lifetime if current patterns of entry continue. In Australia, Finland, Iceland, Korea, New Zealand, Norway, Poland, Portugal and the Slovak Republic, 70% or more of young adults enter tertiary-type A programmes. Although Turkey has had a large increase in the number of students entering tertiary-type A programmes since 1995, its entry rate is only 30% and it remains, with Belgium, Luxembourg and Mexico, at the bottom of the range. The University of Luxembourg was established in 2003 to carry out three principal activities: teaching, research and valorisation, at the highest international level. Entry and graduation rates at tertiary level are low as many students continue to follow their studies outside their country (Chart A2.3 and see Indicators A3 and C2).

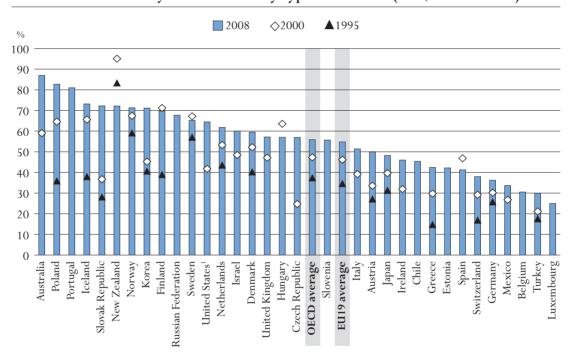


Chart A2.3. Entry rates into tertiary-type A education (1995, 2000 and 2008)

1. 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 2008.

Source: OECD. Table A2.4. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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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, 16% 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 Italy, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal and the Slovak Republic to 30% or more in Belgium, Korea, the United Kingdom and

the partner countries Estonia, the Russian Federation and Slovenia, and to more than 45% in Chile and New Zealand. 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 and Norway have respectively no longer or only one tertiary-type B programmes in their education systems (Chart A2.4).

2008 **▲**1995 % 60 50 40 30 20 10 Greece Hungary Spain Ireland OECD average Sweden Zech Republic Mexico Slovak Republic Slovenia Estonia United Kingdom Switzerland EU19 average Austria **Iceland** Poland Aussian Federation Denmark Norway Germany

Chart A2.4. Entry rates into tertiary-type B education (1995, 2008)

Countries are ranked in descending order of entry rates for tertiary-type B education in 2008. Source: OECD. Table A2.4. See Annex 3 for notes (www.oecd.org/edu/eag2010). StatLink MED http://dx.doi.org/10.1787/888932310111

In Belgium and Chile, broad access to tertiary-type B programmes counterbalances comparatively low entry rates into tertiary-type A programmes. Other OECD countries, most notably 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 for 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 inflated by higher entry at older ages and a greater proportion of international students (see below).

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 22 percentage points more than in 1995. Entry rates in tertiary-type A education increased by more than 20 percentage points between 2000 and 2008 in Australia, the Czech Republic, Korea and the Slovak Republic. Hungary, New Zealand and Spain are the only OECD countries that show a real decrease in entry to tertiary-type A programmes, although in Hungary and Spain, the decrease is counterbalanced by a significant increase in entry rates into tertiary-type B programmes between 2000 and 2008. In New Zealand, the rise and fall of entry rates from 2000 to 2008 mirrored the rise and fall of the number of international students over the same period.

Among OECD countries, overall net entry rates into tertiary-type B programmes between 1995 and 2008 have remained stable except in Greece, Korea, Spain and Turkey, where they have

increased. The reclassification of tertiary-type B to tertiary-type A programmes in Denmark after 2000 partly explains the changes observed in this country between 1995 and 2008 (Charts A2.3 and A2.4).

It is expected that 2.4% of today's young adults in the 22 OECD countries with comparable data will enter advanced research programmes during their lifetime. The figures range from less than 1% in Chile, Luxembourg, Mexico and Turkey to 4% or more in Austria, Greece and Switzerland (Table A2.3).

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

#### 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 education 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, Iceland and New Zealand. For Australia, with adjustments of 26 percentage points, the impact is so great that its entry rates slip from the top to the fifth position. In Austria, Iceland and New Zealand, entry rates, with adjustments of 11, 10, 14 percentage points, respectively, are also affected by international students (Table A2.3).

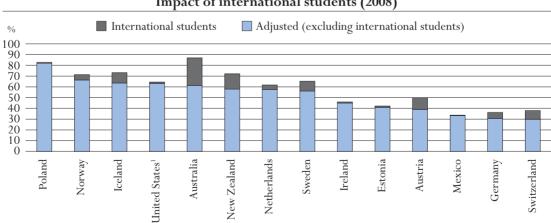


Chart A2.5. Entry rates into tertiary-type A education: Impact of international students (2008)

1. The entry rates for tertiary-type A programmes include the entry rates for tertiary-type B programmes. Countries are ranked in descending order of adjusted entry rates for tertiary-type A education in 2008. Source: OECD. Table A2.3. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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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 among countries with the largest proportions of international students (e.g. Australia and New Zealand). To improve the comparability of these indicators, which have generally a domestic focus, international students should be removed whenever possible. Unfortunately it is still difficult for many countries to collect reliable information on international students, adjustments for those countries are not always possible.

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

In some countries, tertiary-type A and tertiary-type 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 (see Indicator A4). Countries with high entry rates into tertiary education may also be countries that have pathways between the two types of programmes.

# Box A2.1. Age of new entrants into tertiary education

The age structure of new entrants into tertiary education varies among OECD countries for various reasons: the differences in the typical graduation ages from upper secondary education, the opportunity offered to students to enter the labour market before enrolling in tertiary education. People entering tertiary-type B programmes may also enter tertiarytype A programmes later in their lives. Adding tertiary-type A and B entry rates together 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, Mexico, the Netherlands, Poland, Spain and the partner country Slovenia, 80% of all first-time entrants into tertiary-type A programmes are under 23 years of age (Table A2.3).

In other OECD and partner countries, the transition from upper secondary to tertiary education may happen at a later age, due to time spent in the labour force for example. In such cases, first-time entrants into tertiary-type A programmes typically represent a much wider age range at entry. In Denmark, Iceland, Luxembourg, Portugal, Sweden, Switzerland, and the partner country Israel, the median age of students is over 21.5 when they start tertiary education.

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The proportion of older first-time entrants into tertiary-type A programmes may reflect, among other factors, the flexibility of these programmes (*i.e.* in the United States) 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 and Switzerland, where a sizeable proportion of new entrants are 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, with more than half of students entering the tertiary-type A level for the first time at the age of 23 or older, has mandatory military service for 18-21 year-old males and 18-20 year-old females. Nevertheless, entering at a later stage into tertiary education has also some consequence on the economy (*i.e.* foregone tax revenue). Some governments are taking measures to encourage students to make the most of their capacities by moving more rapidly into and through tertiary education, and to provide universities with more incentives to promote on-time completion (Table A2.3).

# **Definitions and methodologies**

Data refer to the academic year 2007-08 and are based on the UOE data collection on education statistics administered by the OECD in 2009 (for details see Annex 3 at <a href="https://www.oecd.org/edu/eag2010">www.oecd.org/edu/eag2010</a>).

Upper secondary graduation rates (Tables A2.1 and A2.2) are calculated as net graduation rates (*i.e.* as the sum of age-specific graduation rates) for the years 2005-09. Net graduation rates represent the estimated percentage of the age cohort that will complete upper secondary 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 (2005-08) 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. 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 graduation ages, as well as older students (*e.g.* those in "second chance" programmes) or younger students. Information on the methods used to calculate graduation rates – gross *versus* net rates - are presented for each level of education in Annex 1.

The count of first-time graduates (Columns 1-4 in Table A2.1) is calculated by netting out students who graduated from another upper secondary programme in a previous year. As for the others columns of the tables, the net rate is calculated when data are available.

Graduates of ISCED 3A, 3B and 3C 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 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 (see Annex 1). 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 are not overseen by a formal education authority are not taken into account.

In Table A2.2 (trends in graduation rates at upper secondary level) or Table A2.4 (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.

Entry rates distinguish 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.

Tables A2.3 and A2.4 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 for 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 if current age-specific entry rates continue. Table A2.3 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 2009.

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 postgraduate 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 reentering 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: StatLink http://dx.doi.org/10.1787/888932310111

- Table A2.5. Post-secondary non-tertiary graduation rates (2008)
- Table A2.6. Percentage of new entrants in tertiary education and proportion of females, by field of education (2008)

Table A2.1. **Upper secondary graduation rates (2008)** 

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

		Total (first-time graduates)				General programmes				Pre-vocational/ vocational programmes				ISCED 3A (designed to prepare for direct entry into tertiary-type A education)	ISCED 3B (designed to prepare for direct entry into 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
		M + F	of which < 25 years <sup>1</sup>	Males	Females	M + F	of which < 25 years <sup>1</sup>	Males	Females	M + F	of which < 25 years <sup>1</sup>	Males	Females	M + F	M + F	M + F	$\mathbf{M} + \mathbf{F}$
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(16)	(19)	(22)
80	Australia <sup>2</sup>	m	m	m	m	67	66	62	73	39	19	37	41	67	x(19)	39	x(19)
OECD countri	Austria	m	m	m	m	17	17	14	21	75	68	84	64	17	53	1	20
	Belgium	m	m	m	m	37	37	32	42	68	50	63	74	61	a	20	25
	Canada <sup>2</sup>	76	m	72	81	74	m	69	79	8	m	8	7	74	a	8	a
	Chile	69	69	65	74	39	39	35	43	31	31	30	31	69	a	a	a
	Czech Republic	87		85	89	22		17	26	65		68	62	61		26	
			m 72	75			m				m				n		a
	Denmark	83	73		90	53	52	44	63	46	28	43	49	53	a	45	n
	Finland	93	83	89	97	49	48	41	57	88	47	81	95	93	a	a	a
	France	m	m	m	m	51	51	45	59	62	58	63	61	51	13	4	46
	Germany	97	m	97	98	42	m	36	47	56	m	60	51	42	55	a	n
	Greece	91	m	89	94	64	m	56	72	28	m	33	23	64	a	28	x(19)
	Hungary	78	72	74	82	64	59	57	71	16	15	19	13	64	a	16	x(19)
	Iceland	89	68	74	105	64	57	50	79	55	29	54	57	61	1	38	19
	Ireland	96	94	92	100	74	71	72	76	55	43	41	70	99	a	6	24
	Italy	85	m	83	87	34	m	24	45	64	m	72	56	75	n	a	23
	Japan	95	m	94	95	72	m	69	75	23	m	26	20	72	1	22	x(19)
	Korea	93	m	92	94	68	m	67	69	25	m	26	25	68	a	25	a
	Luxembourg	73	71	69	77	28	28	25	32	45	43	44	45	42	9	20	2
	Mexico	44	43	40	48	41	40	37	44	3	3	3	4	41	a	3	a
	Netherlands	m	m	m	m	36	36	33	40	69	57	68	69	63	a	42	a
	New Zealand	78	m	69	87	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	91	77	84	99	61	59	48	74	41	25	46	35	61	a	41	m
	Poland	83	82	79	88	56	52	45	67	33	33	41	26	77	a	12	a
	Portugal	63	58	55	71	42	38	35	50	20	19	21	20	x(1)	x(1)	x(1)	x(1)
	Slovak Republic	81	78	78	84	23	23	19	28	66	62	68	63	71	a	17	1
	Spain	73	m	67	80	45	m	37	52	38	m	37	40	45	a	20	18
	Sweden	76	76	74	79	33	33	28	38	43	43	46	40	76	n	n	n
	Switzerland	90	m	92	88	31	m	26	36	71	m	77	64	27	69	6	x(13)
	Turkey	26	26	29	23	17	17	18	16	9	9	11	7	26	a	a	m
	United Kingdom	91	m	88	94	m	m	m	m	m	m	m	m	m	m	m	m
	United States	77	77	77	76	x(1)	x(2)	x(3)	x(4)	x(1)	x(2)	x(3)	x(4)	x(1)	x(1)	x(1)	x(1)
	OECD average	80		76	84	47		41	53	44		45	43	60	8	16	9
	EU19 average	83		80	87	43		37	49	52		53	51	62	8	15	11
	LO17 average	03		80	07	43		37	47	32		33	31	02	0	13	11
S	Brazil	m	m	m	m	63	53	52	74	9	5	7	10	63	9	a	a
Ţ	China									_	m				m		m
ner countries		m	m	m	m	57	m E.G	m 45	m 70	19	18	m 2E	m 13	m 74		m	2 m
	Estonia India	m	m	m	m		56					25			a	a	
the		m	m	m	m	m 28	m 28	m 27	m 30	m 16	m 16	m 18	m 13	m 28	m 16	m	m
ar	Indonesia Israel	m 90	m	m	m o2	28				16	16		13	28	16	a	a
_			90	86	93	58	58	52	65	32	32	35	28	87	a 12	3	a
	Russian Federation	m or	m	m 70	m	54	m	x(5)	x(5)	39	m	x(9)	x(9)	54	13	22	4
	Slovenia	85	m	78	93	33	33	25	41	67	67	69	65	35	41	22	2

Note: Columns showing male/female graduation rates at upper secondary level by programme orientation (i.e. Columns 14-15, 17-18, 20-21, 23-24) 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.

Source: OECD. China, India, Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (www.oecd.org/edu/eag2010).

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

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<sup>1.</sup> Sum of graduation rates for single year of age for males and females below the age of  $\frac{1}{2}$ 5.

<sup>2.</sup> Year of reference 2007.

Table A2.2. Trends in graduation rates (first-time) at upper secondary level (1995-2008)

		1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
mtries	Australia	m	m	m	m	m	m	m	m	m	m
uno	Austria	m	m	m	m	m	m	m	m	m	m
OECD countries	Belgium	m	m	m	m	m	m	m	m	m	m
OE	Canada <sup>1</sup>	m	m	77	79	83	79	80	79	76	m
	Chile	46	63	m	61	64	66	73	71	71	69
	Czech Republic <sup>1</sup>	78	m	84	83	88	87	89	90	88	87
	Denmark	80	90	91	93	87	90	82	84	85	83
	Finland	91	91	85	84	90	95	94	94	97	93
	France	m	m	m	m	m	m	m	m	m	m
	Germany <sup>1</sup>	100	92	92	94	97	99	99	100	100	97
	Greece	80	54	76	85	96	93	100	98	96	91
	Hungary	m	m	83	82	87	86	82	85	84	78
	Iceland	80	67	70	79	81	87	79	87	86	89
	Ireland	m	74	77	78	91	92	91	87	90	96
	Italy	m	78	81	78	m	82	81	84	85	85
	Japan <sup>1</sup>	91	94	93	92	91	91	93	93	93	95
	Korea <sup>1</sup>	88	96	100	99	92	94	94	93	91	93
	Luxembourg	m	m	m	69	71	69	75	71	75	73
	Mexico	m	33	34	35	37	39	40	42	43	44
	Netherlands	m	m	m	m	m	m	m	m	m	m
	New Zealand	72	80	79	77	78	75	73	75	77	78
	Norway	77	99	105	97	92	100	89	88	92	91
	Poland	m	90	93	91	86	79	85	81	84	83
	Portugal <sup>2</sup>	52	52	48	50	60	53	51	54	65	63
	Slovak Republic	85	87	72	60	56	83	83	84	85	81
	Spain <sup>1</sup>	62	60	66	66	67	66	72	72	74	73
	Sweden	62	75	71	72	76	78	78	76	74	76
	Switzerland <sup>1</sup>	86	88	91	92	89	87	89	89	89	90
	Turkey	37	37	37	37	41	55	48	52	58	26
	United Kingdom	m	m	m	m	m	m	86	88	89	91
	United States	69	70	71	73	74	75	75	77	78	77
	OECD average	74	75	77	76	78	80	80	81	82	80
	OECD average for countries with 1995 and 2008 data	74									81
	EU19 average	77	77	78	78	81	82	83	83	85	83
ies	Brazil	m	m	m	m	m	m	m	m	m	m
untr	Estonia	m	m	m	m	m	m	m	75	m	m
r coı	Israel	m	m	m	90	89	93	90	90	92	90
Partner countries	Russian Federation	m	m	m	m	m	m	m	m	m	m
$P_2$	Slovenia <sup>1</sup>	m	m	m	m	m	m	83	97	91	85

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.

2. Year of reference 1997 instead of 1995.

Source: OECD, See Annex 3 for notes (www.oecd.org/edu/eag2010).

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

StatLink I

Table A2.3. Entry rates into tertiary education and age distribution of new entrants (2008) Sum of net entry rates for each year of age, by gender and programme destination

		Tertiary-type B  Net entry rates						Terti	Advanced research programmes							
		y rates	3	N	et entr	y rates	5	1	Age at:		N	et ent	ry rate	s		
		M + F	Adjusted <sup>1</sup>	Males	Females	M + F	Adjusted <sup>1</sup>	Males	) Females	20th percentile <sup>2</sup>	50th percentile <sup>2</sup>	80th percentile <sup>2</sup>	M + F	Adjusted1	Males	Females
s	A . 1'	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
trie	Australia Austria	m 9	m 9	m 7	m 10	87 50	61 39	76 44	99	18.7 19.5	21.0	27.0 25.3	3.0 5.4	2.0 4.1	2.9 5.7	3.0 5.2
OECD countries	Belgium	37	m	31	44	31	39 m	29	56 32	18.3	18.7	19.8	5. <del>4</del> m			
Do	Canada	m	m	m	m	m	m	m	m	10.5 m	10.7 m	19.6 m	m	m m	m m	m m
OEC	Chile	48	m	50	46	45	m	42	49	18.6	19.8	25.6	0.4	m	0.4	0.3
•	Czech Republic	9	m	6	12	57	m	50	65	19.6	20.5	25.8	3.5	m	3.9	3.0
Aus Belgiconnutive Can Communication Communi	Denmark	21	m	21	21	59	m	46	73	20.6	22.1	26.1	2.7	m	2.8	2.6
	Finland	a	m	a	a	70	m	61	79	19.7	21.3	26.2	m	m	m	m
	France	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Germany	14	m	11	17	36	30	36	37	19.9	21.2	23.9	m	m	m	m
	Greece	26	m	27	26	42	m	33	53	18.2	18.9	28.8	4.2	m	4.7	3.7
	Hungary	12	m	7	17	57	m	52	62	19.2	20.3	24.8	1.5	m	1.5	1.5
	Iceland	6	6	5	6	73	64	54	94	21.0	23.2	32.1	1.8	1.3	1.7	1.9
	Ireland	20	20	19	21	46	45	43	49	18.4	19.3	21.1	m	m	m	m
	Italy	n	m	n	n	51	m	43	60	19.2	19.7	21.0	2.2	m	2.1	2.4
	Japan	29	m	22	37	48	m	54	42	18.2	18.6	18.9	1.0	m	1.4	0.6
	Korea	38	m	35	42	71	m	72	70	18.3	18.8	24.0	2.2	m	2.7	1.7
	Luxembourg	n	m	n	n	25	m	25	25	19.9	21.5	24.7	0.7	m	0.6	0.7
	Mexico	2	2	3	2.	34	34	34	34	18.4	19.5	22.7	0.3	0.3	0.3	0.2
	Netherlands	n	m	n	n	62	57	57	67	18.4	19.8	22.7	m	m	m	m
	New Zealand	46	38	41	51	72	58	60	84	18.6	20.6	33.3	2.5	1.3	2.5	2.5
	Norway	n	m	n	n	71	66	57	86	19.8	21.1	29.4	2.9	2.9	3.0	2.9
	Poland	1	m	n	1	83	82	76	90	19.4	20.3	23.0	a	m	a	a
	Portugal	n	m	n	n	81	m	71	92	18.9	21.5	31.3	3.9	m	2.9	5.0
	Slovak Republic	1	m	1	1	72	m	59	86	19.5	20.8	27.9	3.3	m	3.2	3.3
	Spain	22	m	20	23	41	m	35	48	18.4	18.9	22.2	2.7	m	2.4	3.0
	Sweden	10	10	9	10	65	56	53	78	19.9	22.1	30.2	2.6	1.8	2.7	2.5
	Switzerland	19	m	21	18	38	30	37	39	20.0	21.6	26.6	4.3	2.2	4.7	3.9
	Turkey	23	m	26	19	30	m	32	28	18.5	19.8	23.5	0.6	m	0.7	0.6
	United Kingdom	30	m	21	39	57	m	50	64	18.5	19.5	24.6	2.5	m	2.6	2.3
	United States	x(5)	x(6)	x(7)	x(8)	64	63	57	72	18.4	19.4	25.5	m	m	m	m
	OECD average	16		14	17	56		50	63	19.1	20.4	25.4	2.4		2.4	2.3
	EU19 average	12		10	14	55		48	62	19.2	20.4	25.0	2.7		2.7	2.7
ries	Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
unc	China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Estonia	31	31	22	40	42	41	33	52	19.2	19.8	23.4	2.8	2.6	2.3	3.2
rtne	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Pa	Indonesia	5	m	4	5	22	m	21	22	18.3	18.7	19.1	0.2	m	0.2	0.1
		26	m	24	28	60	m	54	66	21.4	23.7	26.9	2.1	m	2.0	2.2
	Russian Federation	30 32	m	x(1) 32	x(1) 32	68 56	m	x(5) 43	x(5) 69	m 19.2	m 19.7	m 20.9	2.1	m	x(12)	x(12)
	Slovenia	32	m	32	32	56	m	43	67	17.2	17./	∠∪.9	1.0	m	0.8	1.3

Note: Mismatches between the coverage of the population data and the new entrants data mean that the entry rates for those countries that are net exporters of students may be underestimated and those that are net importers may be overestimated. The adjusted entry rates seek to compensate for these differences.

Please refer to Annex 1 for information on the method used to calculate entry rates (gross rates *versus* net rates) and the corresponding age of entry. 1. Adjusted entry rates correspond to the entry rates when international students are excluded.

<sup>2.</sup> Respectively 20%, 50% and 80% of new entrants are below this age.

Source: OECD. China, India, Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (www.oecd.org/edu/eag2010).

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

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Table A2.4. Trends in entry rates at tertiary level (1995-2008)

				Teı	tiary-	type 5	$\mathbf{A}^1$		Tertiary-type 5B								
		1995	2000	2003	2004	2005	2006	2007	2008	1995	2000	2003	2004	2005	2006	2007	2008
OECD countries	Australia	m	59	68	70	82	84	86	87	m	m	m	m	m	m	m	m
	Austria	27	34	34	37	37	40	42	50	m	m	8	9	9	7	7	9
	Belgium	m	m	33	34	33	35	30	31	m	m	33	35	34	36	37	37
	Canada	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	m	m	54	46	46	43	41	45	m	m	18	25	35	34	49	48
	Czech Republic	m	25	33	38	41	50	54	57	m	9	9	10	8	9	8	9
	Denmark Finland	40 39	52 71	57 73	55 73	57 73	59 76	57 71	59 70	33 32	28	22	21	23	22	22	21
	France	m	m m	m	m	m	m	m m	m	32 m	a m						
	Germany	26	30	36	37	36	35	34	36	15	15	16	15	14	13	13	14
	Greece	15	30	35	35	43	49	43	42	5	21	22	24	13	31	23	26
	Hungary	m	64	69	68	68	66	63	57	m	1	7	9	11	10	11	12
	Iceland	38	66	83	79	74	78	73	73	12	10	9	8	7	4	3	6
	Ireland	m	32	41	44	45	40	44	46	m	26	17	17	14	21	21	20
	Italy	m	39	54	55	56	56	53	51	m	1	1	1	n	n	n	n
	Japan	31	40	43	42	43	45	46	48	33	32	31	32	33	32	30	29
	Korea	41	45	47	49	54	59	61	71	27	51	47	47	51	50	50	38
	Luxembourg	m	m	m	m	m	m	m	25	m	m	m	m	m	m	m	n
	Mexico	m	27	29	30	30	31	32	34	m	1	2	2	2	2	2	2
	Netherlands	44	53	52	56	59	58	60	62	n	n	n	n	n	n	n	n
	New Zealand	83	95	107	86	79	72	76	72	44	52	58	50	48	49	48	46
	Norway	59	67	75	72	73	70	70	71	5	5	1	1	n	n	n	n
	Poland	36 m	65 m	70 m	71 m	76 m	78 53	78 64	83 81	1 m	1 m	1 m	1 m	1 m	1 1	1	1 n
	Portugal Slovak Republic	28	m 37	m 40	m 47	m 59	68	74	72	m 1	3	m 3	2	m 2	1	1	n 1
	Spain	m	47	46	44	43	43	41	41	3	15	21	22	22	21	21	22
	Sweden	57	67	80	79	76	76	73	65	m	7	7	8	7	10	9	10
	Switzerland	17	29	38	38	37	38	39	38	29	14	17	17	16	15	16	19
	Turkey	18	21	24	26	27	31	29	30	9	9	24	16	19	21	21	23
	United Kingdom	m	47	48	52	51	57	55	57	m	29	30	28	28	29	30	30
	United States	m	42	63	63	64	64	65	64	m	13	x(5)	x(6)	x(7)	x(8)	x(9)	x(10)
	OECD average	37	47	53	53	54	56	56	56	17	15	16	16	16	16	16	16
	OECD average for countries with 1995, 2000 and 2008 data	37	50						59	19	19						20
	EU19 average	35	46	50	52	53	55	55	55	11	11	12	12	11	12	12	12
ries	Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
countries	Estonia	m	m	m	m	54	41	39	42	m	m	m	m	34	32	32	31
r co	Israel	m	48	58	58	55	56	57	60	m	31	25	m	25	26	28	26
Partner	Russian Federation	m	m	63	68	68	65	66	68	m	m	38	34	33	32	31	30
Par	Slovenia	m	m	m	m	40	46	50	56	m	m	m	m	49	43	38	32
	Diorellia	111	111	111	111	10	10	50	50	111	111	111	111	17	15	50	32

Note: Years 2001 and 2002 are available for consultation on line (see Statlink below).

Please refer to Annex 1 for information on the method used to calculate entry rates (gross rates versus net rates) and the corresponding age of entry.

1. The entry rates for tertiary-type A programmes include advanced research programmes for 1995, 2000-03 (except for Belgium and Germany).

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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

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