

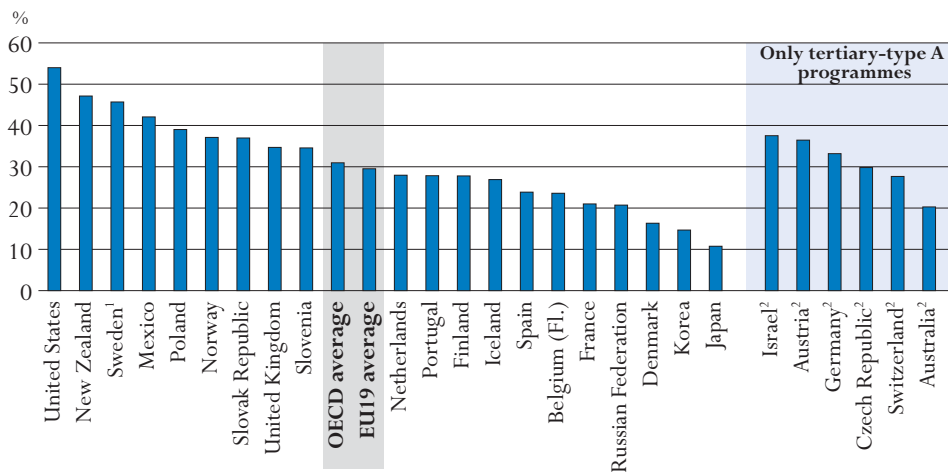
HOW MANY STUDENTS COMPLETE TERTIARY EDUCATION?

This indicator shows current tertiary completion rates in education systems, *i.e.* the percentage of students who follow and graduate from tertiary programmes. Although non-completion is not necessarily an indicator of failure from the individual student’s perspective, high dropout rates may indicate that the education system is not meeting students’ needs.

Key results

Chart A4.1. Proportion of students who enter tertiary education without graduating from at least a first degree at this level (2008)

On average, in the 18 OECD countries for which data are available, some 31% of tertiary students enter tertiary education without graduating from a programme equivalent to this level of education. Completion rates differ widely among OECD countries. In Mexico, New Zealand, Sweden and the United States, more than 40% of those who enter tertiary programmes do not graduate from at least a first degree at this level (in either a tertiary-type A or a tertiary-type B programme) in contrast to their counterparts in Belgium (Flemish Community), Denmark, France, Japan, Korea, Spain and the partner country the Russian Federation where the proportion is less than 25%. For countries in which only tertiary-type A data are available, the dropout rates vary from 38% in the partner country Israel to 20% in Australia.



Note: Some of the students who have not graduated may be still enrolled, or may have finished their education at a different institution than the one they started at, like in the United States.

1. Includes students entering single courses who may never intend to study all courses needed for a degree.

2. Tertiary-type A only.

Countries are ranked in descending order of the proportion of students who enter tertiary education without graduating from at least a first degree at this level.

Source: OECD, Table A4.1. See Annex 3 for notes (www.oecd.org/edu/eag2010).

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Other highlights of this indicator

- Tertiary-type B completion rates are, at 62%, somewhat lower than those for tertiary-type A, and there is wide country variation. Tertiary-type B completion rates range from 80% or above in Belgium (Flemish Community), Germany, Japan and Korea to below 40% in New Zealand, Portugal and the United States.
- Beginning but not completing a tertiary-type A programme does not necessarily represent a failure of the individual's curriculum if students benefit from the time spent in the programme and move successfully to the tertiary-type B education track and *vice versa*.
- Full-time students have a better chance of graduating from their courses than part-time students. The largest difference between full-time and part-time students is observed in New Zealand, where completion rates for full-time students who enter tertiary-type A education are 28 percentage points higher than those for students with part-time status.
- Non-completion of a degree does not mean that the skills and competences acquired will be lost and not valued by the labour market. This is particularly the case in countries where one year of study can provide students attractive opportunities for employment on the labour market. This helps explain students' decision to leave the education system before graduating. Similarly, some students who enter tertiary education (generally mature students) do not have the intention of graduating from a specific programme, but instead aim to study an individual subject or follow only a few courses as part of their lifelong learning – this is the case in New Zealand and in Sweden.
- There is no observable relationship between the charging of tuition fees and completion rates. In Australia, Japan, Korea, the Netherlands, New Zealand, the United Kingdom and the United States, where tuition fees charged by tertiary-type A educational institutions exceed USD 1 500, completion rates in tertiary-type A education are significantly lower than the OECD average in New Zealand and the United States but above 70% in the other countries. By contrast, Denmark, that has no tuition fees and a high level of public subsidies available for students, has completion rates above the OECD average (82%).

Policy context

Tertiary completion rates can be a useful indicator of the internal efficiency of tertiary education systems. However, students may leave a tertiary programme for many reasons: they may realise that they have chosen a subject or educational programme that is not a good fit for them; they may fail to meet the standards set by their educational institution, particularly in tertiary systems that provide relatively broad access; or they may find attractive employment before completing their programme. Students may find that the educational programmes offered do not meet their expectations or their labour market needs. It may also be that programmes last longer than the number of years for which students can justify being outside the labour market.

Evidence and explanations

Completion rates in tertiary education

Overall tertiary completion rates count as “completing” students who enter a tertiary-type A programme and graduate with either a tertiary-type A or a tertiary-type B qualification, or those who enter a tertiary-type B programme and graduate with either a tertiary-type A or a tertiary-type B qualification. On average among the 18 OECD countries for which data are available in 2008, some 31% of tertiary students failed to graduate from a programme equivalent to this level of education. Completion rates differ widely among OECD and partner countries. In Mexico, New Zealand, Sweden and the United States, more than 40% of those who enter a tertiary programme do not graduate at tertiary level of education (either tertiary-type A or tertiary-type B) in contrast to their counterparts in Belgium (Flemish Community), Denmark, France, Japan, Korea, Spain and the partner country the Russian Federation, where the proportion is less than 25%. For countries for which only tertiary-type A data are available, the dropout rates vary from 38% in the partner country Israel to 20% in Australia (Chart A4.1).

The difference between the proportion of skilled jobs and the proportion of people with tertiary education (see Indicator A1) suggests that most countries may benefit from a further increase in the output of tertiary graduates. Increasing the proportion of students who enter a tertiary programme and leave with a tertiary qualification can help to improve the internal efficiency of tertiary education systems, especially when a small proportion of upper secondary graduates enter tertiary education (due to a highly selective process for entry, compared to a universal acceptance process) or when graduation rates are relatively low compared to the OECD average. In terms of three variables (entry, graduation and completion rates), two countries may have similar graduation rates but significant differences in the two other variables; they should therefore adopt different strategies to improve their internal efficiency. For example, Japan and Sweden had similar first-time graduation rates in 2008 (39% and 40%, respectively) but also significant differences in the level of entry and completion rates in tertiary-type A education. Whereas Japan counterbalanced below-average entry rates into tertiary-type A programmes (43% in 2003 against 53% for the OECD average) with the highest completion rate (93%) among OECD and partner countries, Sweden had an entry rate well above the average in 2003 (80%) but the lowest completion rate (49%) (see Indicators A2, A3 and Table A4.1).

Full-time students have a better chance of completing their studies than part-time students. However, in certain countries, some students who enter tertiary education (generally mature students) do not have the intention of graduating from a specific programme, but instead aim to

study an individual subject or follow only a few courses as part of their lifelong learning. Despite their alternative goals, these students are still included in the category of new entrants in tertiary education, alongside more traditional full-time students. In New Zealand, where part-time study is common – completion rates for full-time students who enter tertiary-type A education are 28 percentage points higher than for students with part-time status – it is estimated that around one in five students complete all modules they enrol in, yet never enrol in enough modules to graduate from the qualification. This pattern tends to mask the performance of more traditional full-time students, which was at 74% in 2008 for the tertiary-type A education level (Tables A4.1 and A4.2).

Completion rates in tertiary-type A and tertiary-type B education

On average among the 23 OECD countries for which data are available, some 30% of tertiary-type A students do not graduate from the programme they enter. However completion rates differ widely among OECD countries. In Mexico, New Zealand, Sweden and the United States, fewer than 60% of those who enter tertiary-type A programmes graduate from their programme, in contrast to their counterparts in Australia, Denmark, Korea, Portugal, the United Kingdom and the partner country the Russian Federation where the completion rates are 80% or more, and in Japan where the rate is 93%. Tertiary-type B completion rates are, at 62% on average, somewhat lower than those for tertiary-type A programmes, and again there is wide variation among countries. Tertiary-type B completion rates range from 80% or above in Belgium (Flemish Community), Germany, Japan and Korea to below 40% in New Zealand, Portugal and the United States (Table A4.1).

OECD countries with low tuition fees in tertiary-type A education often debate whether they should increase those fees in order to improve completion rates. In fact, some OECD countries have already increased tuition fees (while exempting some students for academic merit), with the idea that higher fees will increase students' incentives to finish their studies quickly. However, it is difficult to see a relationship between completion rates in tertiary-type A programmes and the level of tuition fees charged by tertiary-type A institutions. The countries in which tuition fees charged by tertiary-type A public educational institutions exceed USD 1 500 and for which data on completion rates are available are Australia, Japan, Korea, the Netherlands, New Zealand, the United Kingdom and the United States (see Indicator B5). In New Zealand and the United States completion rates are significantly lower than the OECD average of 70%, but in the other countries, the rates exceed the average. By way of contrast, Denmark does not charge tuition fees and does provide a high level of public subsidies for students, but has a completion rate of 82% (above the OECD average). These results are not surprising since all indicators on tertiary education, and especially on rates of return, show that compared to upper secondary attainment, tertiary-type A educational attainment significantly benefits individuals in terms of earnings and employment. This can create a sufficiently large incentive, independently of the level of tuition fees, for students to finish their studies (see Indicator A8).

Consequences of non-completion of tertiary-type A programmes

Beginning a tertiary-type A programme but not graduating is not necessarily linked to failure if students can be successfully re-oriented towards tertiary-type B education and *vice versa*. In France, a significant proportion of students (15%) do not complete tertiary-type A level but are successfully re-oriented to tertiary-type B level. In other words, in France, out of 100 students who start a tertiary-type A programme, 64 will receive at least a first tertiary-type A

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qualification, 15 will be re-oriented to a tertiary-type B programme and only 21 will leave without a tertiary qualification. To a lesser extent, in both Denmark and New Zealand, 3% of students who do not complete the tertiary-type A level are successfully re-oriented to the tertiary-type B level. Re-orientation is more frequent in tertiary-type B education: in Iceland, New Zealand and Sweden, 21%, 7% and 9%, respectively, of students who do not complete this level are re-oriented to a tertiary-type A programme. Among these countries, only New Zealand has a large proportion of students enrolled in tertiary-type B education (Table A4.1).

Non-completion of a degree does not mean that the skills and competences acquired are lost and not valued by the labour market in the given countries. In Sweden and the United States, students can leave a tertiary-type A programme before completing it, be employed for some time, and decide to continue their studies at a later date. They do not lose the benefit of the modules completed in the past. Furthermore, in countries with modular systems like Sweden, it has to be taken into account that students receive credit points for each course they have completed. Even if they have studied enough to graduate, they might not apply for a diploma as the credit points from the individual courses for many programmes are recognised as equivalent by the labour market.

The extent to which non-completion of tertiary education is a policy problem will vary among countries and completion rates should be interpreted with caution. It will be interesting to see if future changes in the labour market will have an effect on the incentives for individuals to graduate from tertiary studies. If there is further expansion of tertiary education over the next decade (a feasible option in most countries), completion of tertiary programmes will be more highly valued on the labour market and the benefit of entering tertiary education without graduating with at least a first degree will be eroded (see Indicator A1).

Box A4.1. Interaction between entry rates, graduation rates and completion rates

These three indicators are highly correlated and complementary in order to explain and interpret the main differences between tertiary education systems across countries. A change in one of these factors can affect the others. Entry and graduation rates are based on total population, unlike completion rates, which are compiled from an entry cohort at a certain level of education. Data on graduates and new entrants are based on the UOE annual data collection. Completion rates were collected through a special survey undertaken in 2009-10.

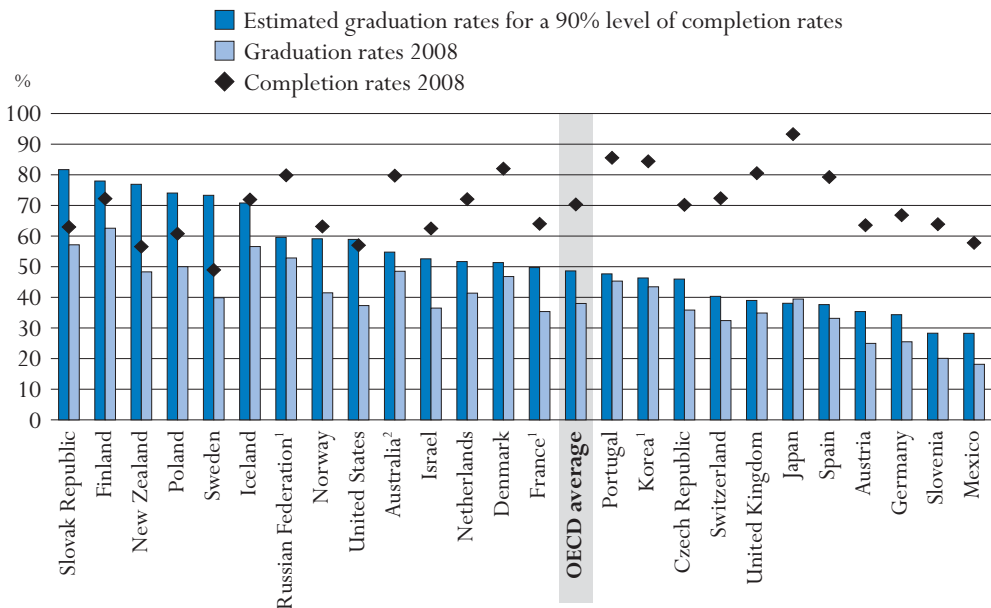
The definitions of entry rates, graduation rates and completion rates (see Definitions and methodologies section) shed light on the relationships among them. In reality, completion rates do not correspond to the simple division of graduation by entry rates, but a significant change in entry rates or in completion rates will definitely influence the indicator on graduation rates. A significant increase/decrease in the tertiary completion rates should have a direct impact on the tertiary graduation rates if the tertiary entry rates remain stable over the same time period. Similarly, a significant increase/decrease in the indicator on entry rates into tertiary education can have a direct impact on tertiary graduation rates if the tertiary completion rates remain stable.

As mentioned previously in the text, completion rates differ widely among OECD countries. Japan is at the top end with over 90% of students succeeding while in Sweden, about one out of two students leave without at least a first degree.

For countries with low completion rates (bearing in mind that in some countries there may be many reasons why students do not complete a degree), policy makers have much room to manoeuvre to raise the number of graduates and meet labour force needs. Similarly, in countries with low access to tertiary programmes compared to the OECD average, high completion rates compared to the average can counterbalance the first factor and maintain the graduation rates at the level of the OECD average.


In 12 of the 25 countries for which data are available on tertiary-type A level, more than 3 students out of 10 have not graduated from the level of studies they initially pursued. If in these countries entry rates were maintained and completion rates were increased to the same level as that of Japan (around 90%), graduation rates would sharply increase (Chart A4.2).

Chart A4.2. Estimated graduation rates for a 90% level of completion rates at tertiary-type A level of education, considering that the level of entry rates remains constant (2008)



1. First-degree graduation rates instead of first-time graduation rates.
2. Year of reference 2007.

Countries are ranked in descending order of the estimated graduation rates for a 90% level of completion rates in 2008.
 Source: OECD. Tables A3.1, A3.3 and A4.1. See Annex 3 for notes (www.oecd.org/edu/eqg2010).

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In Australia, New Zealand and the Nordic countries, entry rates have been well over the OECD average for a long time (see Indicator A2). These countries facilitate access to tertiary education for all types of students (*e.g.* international students or adults). Different types of students may engage in tertiary studies for reasons slightly different than those of the normal generation of students (*i.e.* they may enter a programme without the will to graduate or they may decide to follow a part-time programme in order to finance their studies with a job and therefore graduate later). It follows that compared to the level of their entry rates, these countries have a relatively low level of graduation rates and thus considerable room for improvement.

Definitions and methodologies

Data on completion rates were collected through a special survey undertaken in 2009-10. The calculation of the completion rate is defined from a cohort analysis in one-half of the countries listed in Table A4.1 (true cohort method). Estimates for the other countries assume constant student flows at the tertiary level, owing to the need for consistency between the graduate cohort in the reference year and the entrant cohort n years before (cross-section method). This assumption may be an oversimplification (see Annex 3 at www.oecd.org/edu/eag2010).

Net entry rates are the estimated percentage of an age cohort that will enter tertiary education for the first time in its lifetime. Net entry rates are defined as the sum of all net entry rates for single ages. The total net entry rate is therefore the sum of the proportions of new entrants into tertiary-type A and tertiary-type B programmes aged i to the total population aged i , at all ages. Since data by single year are only available for ages 15 to 29, net entry rates for older students are estimated from data for five-year age bands. Entry rates therefore provide an indication of the accessibility of tertiary education as well as of the perceived value of attending tertiary programmes (see Indicator A2).

Graduation rates correspond to the estimated percentage of an age cohort that will complete tertiary education, based on current patterns of graduation (see Annex 1). Net graduation rates are calculated in the same way as entry rates. Graduation rates provide an indication of the current production of higher-level knowledge by each country's education system (see Indicator A3).

Completion rates are defined as the proportion of new entrants into a specified level of education who graduate from at least a first degree at this level. The rates are calculated as the ratio of the number of students who graduate from an initial degree during the reference year to the number of new entrants in this degree n years before, n being the number of years of full-time study required to complete the degree.

Dropouts are defined as students who leave the specified level of education without graduating from a first qualification at that level. The first qualification refers to any degree, regardless of the duration of study, obtained at the end of a programme that does not have a previous degree at the same level as a pre-requisite. For some countries, it is difficult to distinguish interruptions of studies from dropouts.

Table A4.1.
Completion rates in tertiary education (2008)

Calculated separately for tertiary-type A and tertiary-type B programmes: number of graduates from these programmes divided by the number of new entrants into these programmes in the typical year of entrance

	Method	Year used for new entrants		Tertiary education		Tertiary-type A education		Tertiary-type B education		
		5A	5B	Completion rates (at least first 5B or 5A programme) ¹	Not graduated from tertiary education ²	5A completion rates (at least first 5A programme) ³	Not graduated from 5A level but re-oriented with success at 5B level	5B completion rates (at least first 5B programme) ⁴	Not graduated from 5B level but re-oriented with success at 5A level	
		(1)	(2)	(3)	(4)	(5)	(6)			
OECD countries	Australia	Cross-section	2003-05	m	m	80	m	m	m	
	Austria	Cross-section	2002-05	m	m	64	m	m	m	
	Belgium (Fl.)	Cross-section	2005-06	2005-06	76	24	72	m	80	
	Canada	m	m	m	m	m	m	m	m	
	Chile	m	m	m	m	m	m	m	m	
	Czech Republic	True cohort	2001	m	m	m	70	m	m	
	Denmark	Cross-section	1997-98	1997-98	84	16	82	3	77	3
	Finland	True cohort	1995-2005	a	72	28	72	a	a	a
	France	True cohort	1996-2003	1996-2003	79	21	64	15	78	2
	Germany	True cohort 5A, cross-section 5B	1999-2000	1995-97	m	m	67	n	80	n
	Greece	m	m	m	m	m	m	m	m	m
	Hungary	m	m	m	m	m	m	m	m	m
	Iceland	True cohort	1998-99	1998-99	73	27	72	1	63	21
	Ireland	m	m	m	m	m	m	m	m	m
	Italy	m	m	m	m	m	m	m	m	m
	Japan	Cross-section	2002-04	2006	89	11	93	m	84	m
	Korea	Cross-section	2000-02	2002-04	85	15	84	m	86	m
	Luxembourg	m	m	m	m	m	m	m	m	m
	Mexico	Cross-section	2004-05	2006-07	58	42	58	a	60	a
	Netherlands	True cohort	1999	a	72	28	72	a	a	a
	New Zealand	True cohort	2001	2001	53	47	57	3	35	7
	Norway	True cohort	1997-98	1997-98	63	37	63	m	60	m
	Poland	Cross-section	2003-06	2005-06	61	39	61	m	73	m
	Portugal	Cross-section	2003-08	2006	72	28	86	m	17	m
	Slovak Republic	Cross-section	2002-05	2005-07	63	37	63	m	68	m
	Spain	Cross-section	2003-06	2005-07	76	24	79	m	70	m
Sweden ⁵	True cohort	1999-2000	1999-2000	54	46	49	1	52	9	
Switzerland	True cohort	1998-2003	m	m	m	72	m	m	m	
Turkey	m	m	m	m	m	m	m	m	m	
United Kingdom	Cross-section	Various	2005-06	65	35	81	m	45	m	
United States ⁶	True cohort	2001	2004	46	54	57	m	28	m	
OECD average				69	31	70	~	62	~	
EU19 average				70	30	70	~	53	~	
Partner countries	Brazil	m	m	m	m	m	m	m	m	
	Estonia	m	m	m	m	m	m	m	m	
	Israel	Cross-section	2002	m	m	m	62	m	m	
	Russian Federation	Cross-section	2003-04	2004-05	79	21	80	m	78	
	Slovenia	Cross-section	2001-02	2001-02	65	35	64	m	67	

Note: The cross-section method refers to the number of graduates in the calendar year 2008 and is calculated according to the traditional OECD approach, taking into account different durations. True cohort method is defined from a cohort analysis and based on panel data.

1. Completion rates in tertiary education represent the proportion of those who enter a tertiary-type A or a tertiary-type B programme and go on to graduate from either at least a first tertiary-type A or a first tertiary-type B programme.

2. Column 2 corresponds to 100 minus Column 1.

3. Completion rates in tertiary-type A education represent the proportion of those who enter a tertiary-type A programme and go on to graduate from at least a first tertiary-type A programme.

4. Completion rates in tertiary-type B education represent the proportion of those who enter a tertiary-type B programme and go on to graduate from at least a first tertiary-type B programme.

5. Includes students entering single courses who may never intend to study all courses needed for a degree.

6. Includes full-time students who graduated from their entry institution within 6 years.

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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Table A4.2.

Completion rates in tertiary-type A education, by mode of enrolment (2008)

Proportion of those who enter a tertiary-type A programme, and go on to graduate from at least a first tertiary-type A programme, by mode of enrolment

	Method	Year used for new entrants		Proportion of new entrants enrolled ¹ in		5A completion rates (at least first 5A programme)		
		5A	5B	Full-time (1)	Part-time (2)	Full-time (3)	Part-time (4)	
OECD countries	Australia	m	m	m	m	m	m	
	Austria	Cross-section	2002-05	m	100	a	64	a
	Belgium (Fl.)	Cross-section	2005-06	2005-06	m	m	m	m
	Canada	m	m	m	m	m	m	m
	Chile	m	m	m	m	m	m	m
	Czech Republic	True cohort	2001	m	m	m	71	m
	Denmark	Cross-section	1997-98	1997-98	m	m	82	m
	Finland	True cohort	1995-2005	a	m	m	m	m
	France	m	m	m	m	m	m	m
	Germany	m	1992-95	1995-97	m	m	m	m
	Greece	m	m	m	m	m	m	m
	Hungary	m	m	m	m	m	m	m
	Iceland	True cohort	1998-99	1998-99	81	19	74	63
	Ireland	m	m	m	m	m	m	m
	Italy	m	m	m	m	m	m	m
	Japan	Cross-section	2002-04	2006	98	2	93	m
	Korea	Cross-section	2000-02	2002-04	m	m	m	m
	Luxembourg	m	m	m	m	m	m	m
	Mexico	Cross-section	2004-05	2006-07	100	a	58	a
	Netherlands	True cohort	1997-98	1997-98	90	10	73	57
	New Zealand	True cohort	2001	2001	38	62	74	46
	Norway	True cohort	1997-98	1997-98	88	12	65	49
	Poland	Cross-section	2003-06	2005-06	49	51	66	56
	Portugal	Cross-section	2003-08	2006	m	m	m	m
	Slovak Republic	Cross-section	2002-05	2005-07	64	36	62	65
	Spain	Cross-section	2003-06	2005-07	m	m	m	m
	Sweden	True cohort	1999-2000	1999-2000	m	m	m	m
	Switzerland	True cohort	1998-2003	m	m	m	m	m
	Turkey	m	m	m	m	m	m	m
	United Kingdom	Cross-section	Various	2005-06	92	8	m	m
United States ²	True cohort	2001	2004	m	m	57	m	
	<i>OECD average</i>			80	20	70	~	
	<i>EU19 average</i>			79	21	69	~	
Partner countries	Brazil	m	m	m	m	m	m	
	Estonia	m	m	m	m	m	m	
	Israel	Cross-section	2002	m	80	20	m	m
	Russian Federation	Cross-section	2003-04	2004-05	54	46	78	83
	Slovenia	Cross-section	2001-02	2001-02	m	m	m	m


Note: The cross-section method refers to the number of graduates in the calendar year 2008 and is calculated according to the traditional OECD approach, taking into account different durations. True cohort method is defined from a cohort analysis and based on panel data.

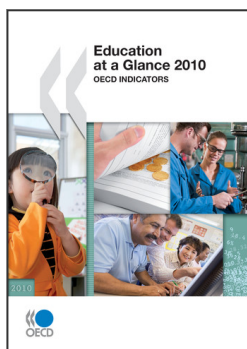
1. Based on the data collected in the 2009-10 OECD survey.

2. Includes full-time students who graduated from their entry institution within 6 years.

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

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