INDICATOR A4

WHAT ARE STUDENTS' EXPECTATIONS FOR EDUCATION?

Drawing on data from the Programme for International Student Assessment (PISA) 2003 survey, this indicator presents the highest level of education that 15-year-old students report they expect to complete. The indicator first provides an overall picture of students' academic expectations in OECD countries and then examines relationships between expectations for tertiary education (ISCED 5 or 6) and variables such as individual performance levels, gender, socio-economic status and immigrant status, in order to shed light on equity issues.

Key results

- At the country level, there is wide variation in students' educational expectations, likely the result of the complex interaction of social, economic, and educational factors in each national context. Fifteen-year-old students' expectations for completing at least a tertiary level education (ISCED 5B, 5A or 6) vary from 21 to 95%, and these expectations are not necessarily related to countries' overall performance or attainment levels.

- PISA 2003 data shows that 15-year-old students' expectations for completing a university-level programme (ISCED 5A or 6) are closely associated with their performance in mathematics and reading. Within every OECD country, students' expectations for their educational attainment rise with their performance level in mathematics and reading. In a number of countries, there are particularly large percentage point differences between the expectation rates for those students at the highest levels of mathematics and reading proficiency and those at the lowest levels.

- In over two-thirds of OECD countries, 15-year-old female students are more likely than males to expect to complete ISCED 5A or 6.

- 15-year-old students from lower socio-economic backgrounds are less likely to expect to complete ISCED 5A or 6 than students from higher socio-economic backgrounds. Even after controlling for mathematics performance, *i.e.* comparing students of similar ability, students with lower socio-economic backgrounds remain less likely to expect to complete these levels of education.

- In most countries, 15-year-old students from an immigrant background have high expectations regarding their education and are more likely to expect to complete ISCED 5A or 6 than their native counterparts. In addition, the relative expectations of these students are even higher when controlling for mathematics performance and socio-economic status.

Policy context

Throughout OECD countries, university-level qualifications are associated with a high premium in the labour market (see Indicators A8 and A9). With skill requirements of OECD labour markets continuing to rise, the capacity and motivation of young people to pursue a university-level qualification remains an important goal for education systems. Indicator A1 examined current levels of educational attainment in the adult population and Indicator A3 compared rates of graduation from tertiary institutions as proxies of countries' production rates of advanced knowledge and skills. This indicator examines what students nearing the end of their compulsory education expect their own educational attainment to be. While the indicator first provides an overview of the percentages of 15-year-old students aspiring to various levels and types of education, the bulk of the indicator focuses more specifically on those 15-year-old students who expect to complete ISCED 5A or 6, *i.e.* those students who expect to obtain a theoretically oriented university-level degree or post-graduate education.

Evidence and explanations

The indicator reports the responses of 15-year-old students (referred to as students below) to a question in the PISA 2003 student background questionnaire: "What is the highest level of education you expect to complete?" For the purposes of comparisons across countries, education levels were classified according to ISCED levels. This indicator groups students by the percentages who expect to complete, as their highest level of education:

- ISCED 2: lower secondary education
- ISCED 3B or 3C: vocational or prevocational upper secondary education
- ISCED 3A or 4: upper secondary or non-tertiary post-secondary education
- ISCED 5B: shorter practically, technically or occupationally oriented tertiary education for direct entry into the labour market
- ISCED 5A or 6: theoretically oriented tertiary education and advanced research programmes

The indicator draws on self-reported data and the possible inaccuracies typically associated with this type of data should be kept in mind. Additionally, there may be cross-national and cross-cultural differences in how students perceived the question and what they may have considered to be a socially desirable response.

Students' expectations for education – comparing countries

Chart A4.1 shows the percentage of students in each OECD country who aspire to complete a tertiary qualification (ISCED 5A, 5B or 6), with countries sorted in descending order of the percentage of students who aspire to complete these levels. Table A4.1a provides the corresponding data for the chart, as well as data on the percentages of students aspiring to other ISCED levels.

Across OECD countries, over one-half (57%) of students on average expect to complete an ISCED 5 or 6 (tertiary) level of education. As the chart shows, this rate varies widely across countries, from a high of 95% of students expecting to complete tertiary education in Korea to a low of 21% expecting to complete at least this level in Germany.

Looking more specifically at the subcategories in the chart, an average of 45% of students across OECD countries expect to complete a university-level tertiary education (ISCED 5A) or

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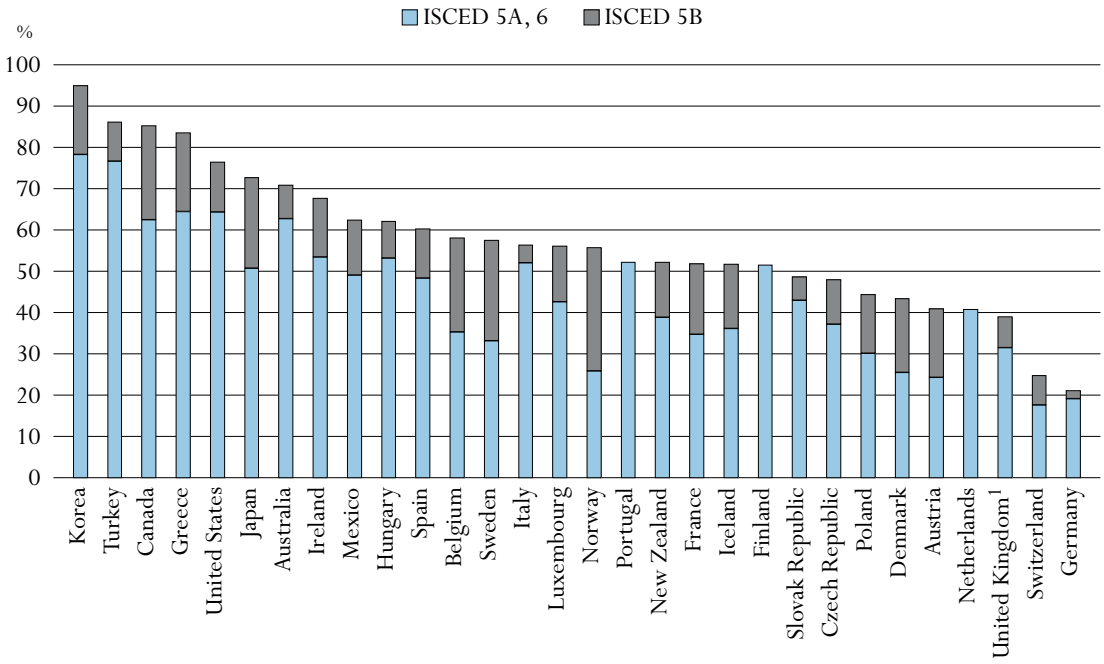
Chart A4.1. Percentage of students expecting to complete different levels of education (2003)



1. Response rate too low to ensure comparability.
Countries are presented in descending order of the percentages of their students who expect to complete tertiary education.
Source: OECD PISA 2003. Table A4.1a.
StatLink http://dx.doi.org/10.1787/068053630540

possibly advanced research programmes (ISCED 6). Students' expectations of completing these levels of education again range widely, from approximately 18% in Switzerland to 78% in Korea. Students aspiring to complete a more occupationally oriented education, ISCED 5B, represent on average 13% in OECD countries. And while there also is variation in the expectations rates for ISCED 5B, it is significantly less than for ISCED 5A and 6, ranging from a low of 2% of students in Germany to a high of 30% of students in Norway (for the 27 countries in which this type of education is part of the national system). The countries for which tertiary-type B education makes up a relatively greater percentage of the overall students aiming for tertiary education are Austria, Belgium, Denmark, France, Iceland, Norway, Poland and Sweden.

Students who expect to complete vocational or technical upper secondary (ISCED 3B or 3C) or general upper secondary or non-tertiary post-secondary education (ISCED 3A or 4) as their highest level of education represent nearly 37% of students in OECD countries. Across OECD countries, looking cumulatively across the ISCED levels, this is the level at which the vast majority (frequently well over 90%) of students aspire to complete as a minimum level of education (except Germany with 57%, Mexico with 88%, the Netherlands with 70% and Portugal with 88%).

While this wide variation in students' expectations for completing ISCED 5A or 6 may at first be surprising, it should be noted that students' expectations are formed, in large part, by the social

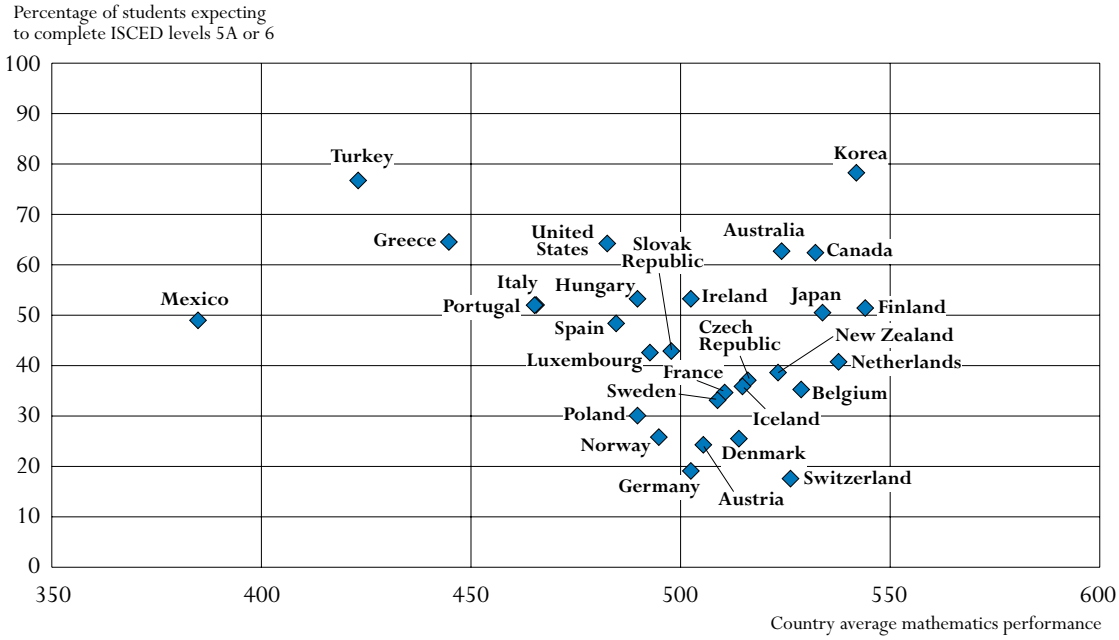
and economic context in which education and learning take place. These economic and social forces include the differential availability of well-paying jobs for individuals with varying levels of education, cost-benefit ratios for students in different countries to pursue higher education, availability of public and private funding, and the nature and structure of the education systems (*e.g.* all students can attend any school of their choosing, students have some choice regarding the school they attend or students are tracked and placed in certain schools). Moreover, the differing relevance of the question for students at the age of 15 – or, in other words, the proximity of that age to an actual decision point about higher education in different countries – may also play a role in the results displayed. Finally, the differences may reflect differing structures in the supply of educational opportunities. For example, in countries where a large proportion of school-leavers traditionally enter vocational programmes, student aspirations for academic programmes may be lower.

One obvious question, when looking at the variation in expectations across countries, relates to how students' expectations relate to their performance on the PISA mathematics assessment.

Chart A4.2 displays the relationship between countries' average mathematics scores and the percentage of students expecting to complete ISCED 5A or 6, and shows that students' expectations are not necessarily congruent with countries' overall performance.

For example, Austria, Denmark, Germany, Norway and Switzerland have average or above-average mathematics performance and, at the same time, well below-average percentages of students who expect to complete ISCED 5A or 6. Of the countries on this list, the three

Chart A4.2. Relationship between students' expectations for education and countries' mathematics performance (2003)



Source: OECD PISA 2003. Table A4.2a.

StatLink http://dx.doi.org/10.1787/068053630540

German-speaking countries have highly structured education systems in which students are tracked into different educational pathways (*e.g.* academic, vocational) relatively earlier in their careers, which may influence the expectations of students. There are other countries with similar performance levels whose students have above-average expectation rates (*e.g.* Australia, Hungary) and also those with below-average performance but yet high expectation rates among students (*e.g.* Turkey, Mexico).

It also is interesting to examine how student expectations compare with actual records of educational attainment at the country level. Table A4.1b examines the percentage of students who expect to complete ISCED 5A or 6 with the actual proportion of graduates in the country's adult population from these levels (as reported in Indicator A1). More specifically, the table calculates the difference in the percentage of students expecting to complete ISCED 5A or 6 with the percentage of adults aged 25 to 34 who have completed at least ISCED 5A. This is the segment of the population that is closest in age to the PISA students and with perhaps the most similar historical conditions affecting their educational choices.

The table shows that the actual completion rates among 25-to-34-year-olds in OECD countries vary much less widely across countries than do expectation rates, from 12 to 39%, with most countries having completion rates between one-fifth and one-third of individuals in that age bracket.

The table also shows that there can be large differences between the percentage of students expecting to complete ISCED 5A or 6 and an individual country's actual proportion of graduates for these levels. These differences tend to be the largest for those countries with the highest expectation rates in the first place. In these countries (*e.g.* Australia, Canada, Greece, Korea, and the United States), many students may expect to complete a certain level of education, but a relatively larger percentage of those who expect to may not ultimately do so. Conversely, the differences tend to be the smallest in those countries with relatively lower expectation rates at the start. In these countries (*e.g.* Denmark, Germany, Switzerland), students may be projecting a realistic vision of their chances for this type of education and perhaps are adjusting their expectations according to their national realities or their current place within a tracked education system (such as in Switzerland). Alternatively, the relatively lower rates of graduation from that level may be influenced by the overall low rates of aspiration to that level.

Student characteristics associated with expectations for education

This section first examines the relationship between 15-year-old students' expectations for an ISCED 5A or 6 level of education and their mathematics and reading performance at the student level. Afterwards, it compares the expectations of different subgroups of students, including males and females, students of differing socio-economic status, and native students and those with an immigrant background.

Students' expectations and their performance in mathematics and reading

Table A4.2a examines the relationship between students' expectations and their academic performance at the individual level and shows, for each country, the percentage of students at different levels of mathematics performance who expect to complete ISCED 5A or 6. The data show a strong relationship between mathematics performance and student expectations:

within every OECD country students' expectations for their educational attainment rise with their performance level in mathematics.

The column at the far right of the table reports the difference between the minimum expectation rate for ISCED 5A or 6 (which in all countries is found among students performing at or below Level 1 on the mathematics proficiency scale) and the maximum expectation rate for ISCED 5A or 6 (which in all countries is found among students performing at Level 5 or 6). This is another way to examine the role of mathematics achievement in students' expectations.

These differences in expectations regarding completion of ISCED 5A or 6 among students of different performance levels are especially large in Hungary, Portugal, the Slovak Republic, and Spain. In each of these countries, there is at least a 70-percentage point difference between the expectation rate for those students at the highest levels of mathematics proficiency and those at the lowest levels. In these countries, the vast majority of high-performing students expect to complete ISCED 5A or 6 whereas roughly one-quarter or less of the lowest-performing students shares that expectation. By contrast, the difference between the expectation rate for this level of education between the highest and lowest mathematics performers in Finland, Norway, Sweden, Switzerland and Turkey is less than 40 percentage points.

Some of the variation in the relationship between achievement and expectation at the student level may reflect the degree to which ISCED 5A is a predominant part of the degree and qualification system in a country, as well as the degree to which such an education is perceived as open to everyone. In some countries there are a large number of ISCED 5A institutions catering to students with a wide range of competency levels. In other countries, institutions providing ISCED 5A qualifications are academically highly selective or a university-level education is only one of several common pathways to develop advanced knowledge and skills for the labor market.

Table A4.2b shows a similarly strong relationship between reading performance and expectations as there is between mathematics and expectations. Within every OECD country, for each successively higher reading performance level, a greater percentage of students report they expect to complete ISCED 5A or 6. In addition, differences in expectations to complete ISCED 5A or 6 among students of different reading performance levels are the highest in the same countries where the differences in expectations to complete ISCED 5A or 6 among students of different mathematics levels are the highest (*e.g.* Hungary, Portugal, the Slovak Republic, and Spain). For both reading and mathematics, Finland, Norway, Sweden, and Switzerland have the smallest differences among expectation rates for this level of education between the highest and lowest performing students.

Students' expectations by gender

Table A4.3a compares the percentages of females and males who expect to complete ISCED 5A or 6. In 21 of the OECD countries, there are statistically significant differences in the percentages of females versus males expecting to complete ISCED 5A or 6, with expectations for completing this level more prevalent among females in all but one of those countries (Japan). On average, across OECD countries, 48% of females expect they will complete ISCED 5A or 6 compared with 41% of males who expect to do so. The differences in expectations rates between females and males are over 16 percentage points in Hungary, Ireland, Italy and Portugal.

For Japan – which was the one exception above – the greater expectation for this level of education among males may be related to historical trends in graduation rates. As shown in Indicator A1.3, in Japan the proportion of the 25-to-34-year-old and 35-to-44-year-old males attaining ISCED 5A or 6 exceeds that of females in the same age ranges by the largest amount of any OECD country. This is in contrast to other countries, where the generally higher expectations of females tend to mirror the similar or overall higher proportion of graduates among females, particularly in the lowest age bracket.

Table A4.3b provides another view on students' expectations, showing that in 18 OECD countries females also have higher expectations in terms of the job market (*e.g.* to obtain a white-collar high-skilled job by the age of 30) than do males. This is an interesting complementary statistic because it shows that, in addition to females and males envisioning different educational pathways (to some extent), they also envision different career pathways. However, this may also reflect the extent to which males have greater access than females to lower skilled but relatively high paying jobs.

Overall, these results mirror other attainment-related statistics. Females today are far more likely to have completed tertiary education than females 30 years ago with more than twice as many females aged 25 to 34 having completed tertiary education than females aged 55 to 64. University-level graduation rates for females also now equal or exceed those for males in 21 of the 27 OECD countries for which data are comparable.

These factors most likely play a role in fostering the high expectations females have in terms of education and a future career, reported in this indicator. It appears that public policies over the past twenty years that have tried to foster gender equality have made an impression on young females. However, while females are generally doing better academically and generally have higher expectations, there are equity issues with regard to gender that remain with us: males continue to perform better in mathematics in most OECD countries while females outperform males in reading.

Considering the impact students' beliefs have been shown to have on their self-concepts, motivation to achieve, course taking behaviors, and ultimately on academic success, it is important to remember that more females than males indicate that they believe they are not good at mathematics and that females have shown a significantly lower self-concept in mathematics, as well as significantly higher levels of mathematics anxiety. These factors likely play a role in females' behaviors and choices in terms of field of study, resulting in the fact that on average among OECD countries females make up only 30% of university graduates in mathematics and computer science (Table A3.8, available on line at: *http://dx.doi.org/10.1787/068053630540*).

The role of gender in educational expectations and attainment is complex. However, as the data show, gender differences are not inevitable and policies can have an impact on expectations as well as on the achievement outcomes of males and females.

Students' expectations and their socio-economic status

Table A4.4 examines the relationship between students' backgrounds – using PISA's index of economic, social, and cultural status (ESCS) – and their expectations for achieving higher levels of education. Odds ratios are used to examine the probability that students expect to complete ISCED 5A or 6. Box A4.1 gives an explanation of odds ratios.

Box A4.1. Explanation and interpretation of odds ratios

An odds ratio compares the probability (expressed as odds) of an event occurring for two different groups. The odds ratio takes values between zero (0) and infinity. One (1) is the neutral value and means that there is no difference between the groups compared; close to zero or infinity means a large difference. An odds ratio larger than one means that group one has larger odds than group two (*i.e.* the event is more likely to occur for group one than for group two) - if the opposite is true the odds ratio will be smaller than one.

In Table A4.4, an odds ratio of 1 indicates that students of both high and low socio-economic status are equally likely to expect to complete a university-level programme (ISCED 5A or 6). An odds ratio greater than 1 means that students with high socio-economic status are more likely to expect to complete ISCED 5A or 6 than students with low socio-economic status. Conversely, an odds ratio of less than 1 means that students with low socio-economic status are more likely to expect to complete ISCED 5A or 6 than students with high socio-economic status. Therefore, odds ratios that differ from one indicate that socio-economic status plays an influential role in students' aspirations and points to potential inequities in the educational system.

The first column in the table describes the relationship (using the odds ratio) between socio-economic status on students' expectations to complete ISCED 5A or 6. The second column describes the relationship between socio-economic status and students' expectations to complete ISCED 5A or 6, after controlling for their mathematics performance.

The first column shows that students with a relatively higher socio-economic status were at least twice as likely, compared to those with a relatively lower socio-economic status, to expect to complete ISCED 5A or 6 in all but one country. In six countries, this figure was as high as 3 times as likely, and in Hungary, it was 4 times as likely.

The second column shows that in all countries after controlling for mathematics scores the likelihood of students with a relatively higher socioeconomic status to expect to complete ISCED 5A or 6 remains at least 1.5 times greater compared to those with a relatively lower socioeconomic status. Therefore, among students with similar performance levels those from higher socio-economic backgrounds are more likely to have high educational expectations.

This is an important finding and is consistent with much previous research, including analyses of PISA data, which shows that students' home backgrounds are strongly related to their academic beliefs and outcomes. The fact that even when students have the same ability level, students from lower socio-economic backgrounds are still less likely to expect to complete a high level of education than are students from more advantaged backgrounds may reflect the fact that students with lower socio-economic status have made choices in terms of educational programmes or institutions that constrain their educational potential.

Students' expectations and their immigrant status

Table A4.5 shows the odds ratios that first- and second-generation students expect to complete ISCED 5A or 6 compared to native-born students both before controlling for mathematics performance and socio-economic status and after.

Box A4.2. Terminology used for describing students' immigrant background

Native students: Students with at least one parent born in the country of assessment. Students born in the country who have one foreign-born parent (children of "combined" families) are included in the native category, as previous research indicates that these students perform similarly to native students.

First-generation students: Students born outside of the country of assessment whose parents are also foreign-born.

Second-generation students: Students born in the country of assessment with foreign-born parents.

The first and third columns in the table show that in at least half of the 14 OECD countries with sizeable population with an immigrant background among 15-year-olds, both first- and second-generation students are more likely to expect to complete ISCED 5A or 6 than are their native-born counterparts. The odds that first- and second-generation students will have higher expectations relative to native-born students are especially high in Australia and Canada – where these students are at least two times more likely to have such educational expectations.

The second and fourth columns show that the relationship between immigrant status and expectation for ISCED 5A or 6 education is stronger (and statistically significant in all of the OECD countries for which there are data) after controlling for performance and socio-economic status. In other words, among students of similar achievement levels and socio-economic means, immigrant students are much more likely to expect to complete a theoretically oriented tertiary education. In some countries, this expectation is more prevalent among first-generation students and in other countries, among second-generation students, for reasons that may be related to differing patterns of immigration in the countries.

These findings are consistent with other research and analyses that show immigrant students are motivated and have positive attitudes toward school (OECD, 2006b). Enhancing and nurturing these positive attitudes and expectations may be one avenue for educators and policy makers in working to overcome some of the performance differences (influenced partly but not entirely by differing socio-economic status and native language familiarity or ability) between immigrant students and their native counterparts.

Definitions and methodologies

PISA was most recently administered in 2006; however, since those data are not yet available, this indicator is based on data from the PISA 2003 survey.

The target population for this indicator was all 15-year-old students (in participating countries) enrolled in educational institutions at the secondary-school level regardless of grade level, type of institution, and part- or full-time enrolment status. Fifteen-year-olds were defined as students who were between 15 years and 3 months to 16 years and 2 months at the beginning of the PISA testing period. The term "student" is frequently used to denote this target population.

The tables in this indicator provide an OECD average and an OECD total, per the standard PISA reporting conventions. The OECD average takes the OECD countries as a single entity, to which each country contributes with equal weight. For statistics such as percentages or mean scores, the OECD average corresponds to the arithmetic mean of the respective country statistics. In contrast, for statistics relating to variation, the OECD average may differ from the arithmetic mean of the country statistics because it not only reflects variation within countries, but also variation that lies between countries. The OECD total, rather, takes OECD countries as a single entity, to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools. It illustrates how a country compares with the OECD as a whole and may be used to refer to the stock of human capital in the OECD region. As in the indicator, the average is used when the focus is on comparing performance or other attributes across countries. All averages include data for the United Kingdom, even when the data are not shown in the tables.

The United Kingdom did not reach PISA's unit response rate standard, which precludes its comparison with the other countries on whole population analyses. Estimates for the United Kingdom are still reported in charts and tables dealing with subsets of the population for the purposes of comparison within the country. When estimates for the United Kingdom are reported, they are reported at the end of charts and tables separate from the estimates of other countries as a cautionary reminder that the estimate may not be as reliable as the estimates of countries that met PISA's unit response rate standard.

Further references

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

StatLink http://dx.doi.org/10.1787/068053630540

- ***Table A4.1b. Comparing students' expectation rates and population attainment for ISCED levels 5A or 6***
- ***Table A4.2b. Percentage of students who expect to complete ISCED levels 5A or 6, by reading performance level***
- ***Table A4.3b. Percentage of students expecting a white-collar high-skilled occupation at age 30, by gender***

For further information about PISA 2003, see *Learning for Tomorrow's World – First Results from PISA 2003* (OECD, 2004a) and the *PISA 2003 Technical Report* (OECD, 2005b). For further information about the expectations and attitudes of students from an immigrant background, see *Where Immigrants Succeed: A Comparative Review of Performance and Engagement in PISA 2003* (OECD, 2006b). PISA data are also available on the PISA website: *www.pisa.oecd.org.*

Table A4.1a.

Percentage of students expecting to complete different levels of education (2003)

	Highest level students expect to complete									
	ISCED 2		ISCED 3B, 3C		ISCED 3A, 4		ISCED 5B		ISCED 5A, 6	
OECD countries	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
Australia	2.7	0.2	3.7	0.2	22.8	0.6	8.0	0.3	62.8	0.8
Austria	3.6	0.3	27.5	1.4	28.1	1.0	16.6	0.8	24.3	1.3
Belgium	6.7	0.4	7.5	0.4	27.8	0.9	22.7	0.7	35.3	1.0
Canada	0.7	0.1	6.5	0.3	7.5	0.3	22.7	0.6	62.5	0.8
Czech Republic	0.8	0.1	11.6	0.7	39.7	1.1	10.7	0.6	37.2	1.1
Denmark	9.6	0.5	12.3	0.6	34.8	0.7	17.8	0.7	25.5	0.9
Finland	2.8	0.3	a	a	45.7	0.9	a	a	51.5	0.9
France	1.7	0.2	24.4	1.0	22.2	0.9	17.1	0.8	34.7	0.9
Germany	43.4	1.6	3.4	0.3	32.2	1.0	1.9	0.2	19.1	0.9
Greece	0.8	0.1	8.1	0.7	7.6	0.7	19.0	1.5	64.5	1.9
Hungary	0.3	0.1	9.5	0.8	28.2	1.1	8.8	0.5	53.2	1.4
Iceland	1.6	0.2	8.2	0.5	38.6	0.8	15.6	0.6	36.1	0.8
Ireland	3.6	0.4	7.5	0.5	21.3	0.8	14.1	0.6	53.5	1.1
Italy	2.4	0.4	5.6	0.6	35.8	0.9	4.2	0.4	52.1	1.2
Japan	a	a	13.1	1.1	14.3	0.8	21.9	1.1	50.7	1.3
Korea	0.1	0.0	4.0	0.4	1.0	0.2	16.6	0.8	78.3	1.0
Luxembourg	5.7	0.4	19.4	0.6	18.9	0.6	13.4	0.5	42.6	0.6
Mexico	11.7	1.3	6.7	0.6	19.3	0.8	13.2	0.5	49.1	1.5
Netherlands	30.3	1.6	a	a	28.9	1.2	a	a	40.8	1.5
New Zealand	1.7	0.2	12.1	0.6	34.2	0.7	13.3	0.5	38.8	0.9
Norway	1.0	0.2	25.2	0.8	18.2	0.7	29.8	0.7	25.8	0.9
Poland	6.7	0.5	23.1	0.9	25.9	0.9	14.2	0.6	30.1	1.0
Portugal	12.0	0.9	10.4	0.7	25.4	0.7	a	a	52.2	1.4
Slovak Republic	3.8	0.5	8.5	0.9	39.1	1.2	5.6	0.4	43.0	1.3
Spain	13.8	0.9	11.8	0.6	14.2	0.5	11.9	0.4	48.4	1.2
Sweden	4.2	0.3	23.0	0.7	15.3	0.7	24.3	0.7	33.2	1.1
Switzerland	8.7	0.6	48.7	1.7	17.9	0.7	7.0	0.5	17.6	1.4
Turkey	1.9	0.7	0.9	0.2	11.1	1.0	9.4	0.9	76.7	1.8
United States	0.8	0.1	a	a	22.8	0.7	12.0	0.5	64.4	0.9
OECD total	***6.4***	***0.2***	***8.7***	***0.2***	***21.7***	***0.3***	***12.5***	***0.2***	***50.7***	***0.3***
OECD average	***6.2***	***0.1***	***12.1***	***0.2***	***24.5***	***0.2***	***12.6***	***0.1***	***44.5***	***0.2***
United Kingdom[1]	3.1	0.3	29.4	0.8	28.6	0.7	7.4	0.5	31.5	1.2

1. Response rate too low to ensure comparability.

Source: OECD PISA 2003.

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

StatLink http://dx.doi.org/10.1787/068053630540

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Table A4.2a.

Percentage of students expecting to complete ISCED levels 5A or 6, by mathematics performance level (2003)

OECD countries	PISA mathematics performance levels												Difference between maximum and minimum expectation rates	Mathematics scores	
	All levels		Level 1 and below		Level 2		Level 3		Level 4		Levels 5 and 6				
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.		Mean score	S.E.
Australia	62.8	(0.8)	33.0	(1.8)	46.0	(1.6)	60.8	(1.3)	74.2	(1.4)	88.4	(1.0)	55.5	524	(2.1)
Austria	24.3	(1.3)	5.4	(1.1)	8.6	(1.2)	19.6	(1.6)	38.7	(2.4)	58.4	(2.5)	53.0	506	(3.3)
Belgium	35.3	(1.0)	7.7	(1.2)	12.5	(1.3)	24.8	(1.6)	41.3	(1.7)	65.2	(1.3)	57.4	529	(2.3)
Canada	62.5	(0.8)	35.2	(1.6)	44.9	(1.5)	58.2	(1.7)	71.4	(1.3)	83.2	(1.1)	48.0	532	(1.8)
Czech Republic	37.2	(1.1)	6.5	(1.2)	15.1	(1.8)	30.6	(2.3)	50.2	(2.0)	75.7	(1.7)	69.2	516	(3.5)
Denmark	25.5	(0.9)	8.0	(1.4)	14.5	(1.6)	22.5	(1.8)	33.7	(2.0)	49.9	(2.5)	41.9	514	(2.7)
Finland	51.5	(0.9)	35.7	(2.7)	36.8	(2.3)	44.9	(1.8)	53.9	(1.6)	71.1	(1.7)	35.4	544	(1.9)
France	34.7	(0.9)	6.5	(1.1)	17.7	(1.9)	32.2	(2.2)	49.0	(2.5)	68.8	(1.9)	62.3	511	(2.5)
Germany	19.1	(0.9)	3.0	(0.8)	6.2	(1.1)	13.4	(1.3)	27.3	(1.8)	48.3	(1.9)	45.3	503	(3.3)
Greece	64.5	(1.9)	38.4	(1.9)	69.8	(2.5)	85.4	(1.6)	93.6	(1.5)	98.5	(1.1)	60.1	445	(3.9)
Hungary	53.2	(1.4)	15.7	(1.6)	41.1	(2.1)	62.6	(2.3)	80.1	(1.7)	93.1	(1.2)	77.4	490	(2.8)
Iceland	36.1	(0.8)	13.7	(1.9)	21.4	(1.9)	33.0	(1.9)	48.6	(2.2)	63.4	(2.6)	49.7	515	(1.4)
Ireland	53.5	(1.1)	24.8	(2.0)	41.2	(2.3)	58.2	(2.5)	69.9	(2.0)	79.7	(2.3)	54.9	503	(2.4)
Italy	52.1	(1.2)	34.5	(2.6)	50.5	(1.9)	60.4	(1.8)	68.2	(1.9)	78.3	(2.3)	43.8	466	(3.1)
Japan	50.7	(1.3)	14.7	(1.9)	26.5	(2.0)	43.4	(2.4)	60.4	(2.1)	82.6	(1.9)	67.9	534	(4.0)
Korea	78.3	(1.0)	39.7	(3.2)	61.1	(2.1)	76.3	(1.8)	88.6	(1.4)	96.3	(0.8)	56.6	542	(3.2)
Luxembourg	42.6	(0.6)	11.9	(1.4)	28.2	(1.7)	47.7	(1.7)	62.8	(2.2)	80.7	(2.5)	68.8	493	(1.0)
Mexico	49.1	(1.5)	38.6	(1.3)	64.4	(1.8)	74.7	(2.1)	82.0	(4.2)	92.7	(4.3)	54.0	385	(3.6)
Netherlands	40.8	(1.5)	9.3	(2.0)	14.0	(2.3)	22.2	(2.2)	49.7	(2.3)	78.0	(1.6)	68.7	538	(3.1)
New Zealand	38.8	(0.9)	18.9	(1.9)	23.1	(1.9)	33.1	(1.8)	45.4	(2.0)	66.3	(1.8)	47.4	523	(2.3)
Norway	25.8	(0.9)	11.2	(1.2)	16.2	(1.7)	26.2	(2.0)	38.0	(2.1)	50.5	(2.7)	39.3	495	(2.4)
Poland	30.1	(1.0)	7.7	(1.2)	18.8	(1.3)	33.3	(1.7)	49.6	(1.9)	64.8	(3.2)	57.0	490	(2.5)
Portugal	52.2	(1.4)	22.4	(1.5)	47.7	(2.1)	66.3	(1.8)	82.4	(2.1)	92.5	(2.4)	70.2	466	(3.4)
Slovak Republic	43.0	(1.3)	8.7	(1.3)	24.8	(1.7)	45.8	(2.2)	68.3	(2.1)	85.1	(2.1)	76.4	498	(3.3)
Spain	48.4	(1.2)	15.6	(1.8)	37.2	(2.0)	56.3	(1.8)	75.6	(2.0)	88.2	(2.3)	72.7	485	(2.4)
Sweden	33.2	(1.1)	19.1	(1.6)	21.9	(1.9)	30.9	(1.7)	42.4	(2.2)	55.2	(2.2)	36.1	509	(2.6)
Switzerland	17.6	(1.4)	3.8	(0.8)	5.0	(1.1)	10.5	(1.4)	19.9	(1.8)	42.9	(2.9)	39.1	527	(3.4)
Turkey	76.7	(1.8)	63.5	(2.4)	84.8	(1.8)	94.4	(1.5)	97.1	(1.7)	99.3	(0.4)	35.8	423	(6.7)
United States	64.4	(0.9)	43.9	(1.6)	59.6	(1.7)	70.7	(1.7)	79.5	(1.5)	86.7	(2.3)	42.8	483	(2.9)
OECD total	***50.7***	***(0.3)***	***32.9***	***(0.6)***	***42.9***	***(0.7)***	***52.1***	***(0.7)***	***63.0***	***(0.6)***	***77.7***	***(0.7)***	***44.9***	***489***	***(1.1)***
OECD average	***44.5***	***(0.2)***	***24.8***	***(0.4)***	***33.4***	***(0.4)***	***44.0***	***(0.4)***	***56.6***	***(0.4)***	***72.5***	***(0.4)***	***47.7***	***500***	***(0.6)***
United Kingdom[1]	31.5	(1.2)	8.2	(1.4)	15.6	(1.7)	28.8	(1.7)	44.0	(2.1)	68.7	(2.2)	60.5	m	m

1. Response rate too low to ensure comparability.

Source: OECD PISA 2003.

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

StatLink http://dx.doi.org/10.1787/068053630540

Table A4.3a.
Percentage of students expecting to complete ISCED levels 5A or 6, by gender (2003)

	All students		Boys		Girls		Statistically significant difference
	%	S.E.	%	S.E.	%	S.E.	
OECD countries							
Australia	62.8	(0.8)	56.6	(1.3)	69.1	(0.9)	G>B
Austria	24.3	(1.3)	22.8	(1.4)	25.7	(2.0)	
Belgium	35.3	(1.0)	32.4	(1.4)	38.5	(1.4)	G>B
Canada	62.5	(0.8)	56.1	(1.0)	68.7	(0.9)	G>B
Czech Republic	37.2	(1.1)	32.0	(1.4)	42.6	(1.7)	G>B
Denmark	25.5	(0.9)	24.6	(1.2)	26.4	(1.0)	
Finland	51.5	(0.9)	49.6	(1.2)	53.5	(1.1)	G>B
France	34.7	(0.9)	29.2	(1.4)	39.7	(1.2)	G>B
Germany	19.1	(0.9)	17.7	(1.3)	20.5	(1.0)	
Greece	64.5	(1.9)	58.5	(2.5)	70.1	(1.8)	G>B
Hungary	53.2	(1.4)	45.5	(1.8)	61.8	(1.8)	G>B
Iceland	36.1	(0.8)	30.7	(1.1)	41.8	(1.3)	G>B
Ireland	53.5	(1.1)	45.3	(1.6)	61.8	(1.4)	G>B
Italy	52.1	(1.2)	43.0	(1.7)	60.4	(1.6)	G>B
Japan	50.7	(1.3)	54.1	(2.1)	47.6	(2.2)	B>G
Korea	78.3	(1.0)	78.9	(2.0)	77.5	(2.0)	
Luxembourg	42.6	(0.6)	41.3	(1.0)	43.9	(1.1)	
Mexico	49.1	(1.5)	41.8	(1.7)	55.8	(1.6)	G>B
Netherlands	40.8	(1.5)	38.7	(2.0)	42.9	(1.6)	
New Zealand	38.8	(0.9)	38.2	(1.3)	39.5	(1.4)	
Norway	25.8	(0.9)	22.4	(1.0)	29.3	(1.2)	G>B
Poland	30.1	(1.0)	23.4	(1.1)	36.8	(1.2)	G>B
Portugal	52.2	(1.4)	43.7	(1.5)	59.9	(1.5)	G>B
Slovak Republic	43.0	(1.3)	37.9	(1.7)	48.3	(1.8)	G>B
Spain	48.4	(1.2)	40.7	(1.7)	55.7	(1.3)	G>B
Sweden	33.2	(1.1)	28.8	(1.2)	37.5	(1.4)	G>B
Switzerland	17.6	(1.4)	16.7	(1.6)	18.6	(1.4)	
Turkey	76.7	(1.8)	72.3	(2.4)	82.1	(1.9)	G>B
United States	64.4	(0.9)	61.2	(1.1)	67.6	(1.2)	G>B
OECD total	***50.7***	***(0.3)***	***47.6***	***(0.5)***	***53.8***	***(0.5)***	***G>B***
OECD average	***44.5***	***(0.2)***	***40.7***	***(0.3)***	***48.4***	***(0.3)***	***G>B***
United Kingdom[1]	31.5	(1.2)	27.0	(1.4)	35.4	(1.7)	G>B

1. Response rate too low to ensure comparability.

Source: OECD PISA 2003.

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

StatLink http://dx.doi.org/10.1787/068053630540

Table A4.4.

Odds ratios that students expect to complete ISCED levels 5A or 6 by socio-economic status (2003)

OECD countries	(A) Odds before taking into account the mathematics score	S.E.	(B) Odds after taking into account the mathematics score	S.E.	Difference (A)-(B)/(A)
Australia	**2.2**	(0.10)	**1.8**	(0.08)	0.186
Austria	**3.0**	(0.17)	**2.4**	(0.13)	0.211
Belgium	**3.0**	(0.13)	**2.2**	(0.09)	0.274
Canada	**2.2**	(0.06)	**1.9**	(0.06)	0.129
Czech Reublic	**2.9**	(0.11)	**2.2**	(0.09)	0.247
Denmark	**2.2**	(0.13)	**1.8**	(0.11)	0.192
Finland	**1.8**	(0.06)	**1.7**	(0.06)	0.104
France	**2.3**	(0.15)	**1.7**	(0.12)	0.264
Germany	**3.2**	(0.21)	**2.3**	(0.16)	0.280
Greece	**3.0**	(0.17)	**2.3**	(0.13)	0.206
Hungary	**4.0**	(0.22)	**2.7**	(0.15)	0.313
Iceland	**2.1**	(0.09)	**1.8**	(0.09)	0.111
Ireland	**2.2**	(0.11)	**1.8**	(0.10)	0.183
Italy	**2.5**	(0.11)	**2.2**	(0.10)	0.119
Japan	**2.5**	(0.15)	**2.1**	(0.12)	0.168
Korea	**2.5**	(0.11)	**2.0**	(0.08)	0.211
Luxembourg	**2.5**	(0.11)	**1.8**	(0.09)	0.250
Mexico	**2.2**	(0.10)	**1.8**	(0.07)	0.174
Netherlands	**2.2**	(0.12)	**1.5**	(0.10)	0.309
New Zealand	**2.0**	(0.10)	**1.6**	(0.08)	0.197
Norway	**2.4**	(0.12)	**2.0**	(0.11)	0.146
Poland	**2.8**	(0.11)	**2.2**	(0.09)	0.202
Portugal	**2.3**	(0.09)	**1.8**	(0.07)	0.233
Slovak Republic	**3.1**	(0.14)	**2.3**	(0.10)	0.279
Spain	**2.5**	(0.11)	**2.0**	(0.09)	0.197
Sweden	**2.1**	(0.10)	**1.8**	(0.08)	0.129
Switzerland	**3.1**	(0.24)	**2.5**	(0.21)	0.213
Turkey	**2.2**	(0.17)	**1.6**	(0.12)	0.241
United States	**2.2**	(0.08)	**1.9**	(0.08)	0.167
United Kingdom[1]	**2.4**	(0.10)	**1.8**	(0.07)	0.265

Notes: Bold indicates odds ratio is statistically significantly different than 1. The calculations in this table compare the odds ratio for students whose scores on the ESCS index are within one standard deviation of the mean value for the country and those that are not. This was to make the analysis more comparable with that for immigration status.

1. Response rate too low to ensure comparability.

Source: OECD PISA 2003.

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

StatLink http://dx.doi.org/10.1787/068053630540

Table A4.5.

Odds ratios that students expect to complete ISCED levels 5A or 6, by immigrant status (2003)

	First generation		Second generation	
	Odds ratio before taking into account mathematics performance and ESCS index	Odds ratio after taking into account mathematics performance and ESCS index	Odds ratio before taking into account mathematics performance and ESCS index	Odds ratio after taking into account mathematics performance and ESCS index
OECD countries				
Australia	**2.39**	**3.16**	**2.03**	**2.92**
Austria	**0.70**	**2.39**	1.04	**3.49**
Belgium	**0.70**	**2.56**	**0.60**	**2.41**
Canada	**3.22**	**3.90**	**2.29**	**2.77**
Denmark	**2.23**	**6.96**	**1.77**	**6.23**
France	0.85	**2.64**	1.19	**3.63**
Germany	0.70	**3.03**	**0.58**	**3.16**
Luxembourg	1.01	**3.35**	1.02	**2.34**
Netherlands	0.97	**5.21**	1.16	**5.47**
New Zealand	**2.36**	**2.77**	**1.75**	**3.19**
Norway	1.13	**2.44**	**1.95**	**3.86**
Sweden	**1.93**	**5.70**	**1.70**	**3.29**
Switzerland	0.90	**3.67**	0.87	**2.66**
United States	**0.76**	**1.43**	1.15	**2.05**

Note: Bold indicates odds ratio is statistically significantly different from 1. ESCS = the PISA index of economic, social and cultural status.
Source: OECD PISA 2003.
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
StatLink http://dx.doi.org/10.1787/068053630540

Reader's Guide

Coverage of the statistics

Although a lack of data still limits the scope of the indicators in many countries, the coverage extends, in principle, to the entire national education system (within the national territory) regardless of the ownership or sponsorship of the institutions concerned and regardless of education delivery mechanisms. With one exception described below, all types of students and all age groups are meant to be included: children (including students with special needs), adults, nationals, foreigners, as well as students in open distance learning, in special education programmes or in educational programmes organised by ministries other than the Ministry of Education, provided the main aim of the programme is the educational development of the individual. However, vocational and technical training in the workplace, with the exception of combined school and work-based programmes that are explicitly deemed to be parts of the education system, is not included in the basic education expenditure and enrolment data.

Educational activities classified as "adult" or "non-regular" are covered, provided that the activities involve studies or have a subject matter content similar to "regular" education studies or that the underlying programmes lead to potential qualifications similar to corresponding regular educational programmes. Courses for adults that are primarily for general interest, personal enrichment, leisure or recreation are excluded.

Calculation of international means

For many indicators an OECD average is presented and for some an OECD total.

The OECD average is calculated as the unweighted mean of the data values of all OECD countries for which data are available or can be estimated. The OECD average therefore refers to an average of data values at the level of the national systems and can be used to answer the question of how an indicator value for a given country compares with the value for a typical or average country. It does not take into account the absolute size of the education system in each country.

The OECD total is calculated as a weighted mean of the data values of all OECD countries for which data are available or can be estimated. It reflects the value for a given indicator when the OECD area is considered as a whole. This approach is taken for the purpose of comparing, for example, expenditure charts for individual countries with those of the entire OECD area for which valid data are available, with this area considered as a single entity.

Note that both the OECD average and the OECD total can be significantly affected by missing data. Given the relatively small number of countries, no statistical methods are used to compensate for this. In cases where a category is not applicable (code "a") in a country or where the data value is negligible (code "n") for the corresponding calculation, the value zero is imputed for the purpose of calculating OECD averages. In cases where both the numerator and the denominator of a ratio are not applicable (code "a") for a certain country, this country is not included in the OECD average.

For financial tables using 1995 data, both the OECD average and OECD total are calculated for countries providing both 1995 and 2004 data. This allows comparison of the OECD average and OECD total over time with no distortion due to the exclusion of certain countries in the different years.

For many indicators an EU19 average is also presented. It is calculated as the unweighted mean of the data values of the 19 OECD countries that are members of the European Union for which data are available or can be estimated. These 19 countries are Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Spain, Sweden and the United Kingdom.

Classification of levels of education

The classification of the levels of education is based on the revised International Standard Classification of Education (ISCED-97). The biggest change between the revised ISCED and the former ISCED (ISCED-76) is the introduction of a multi-dimensional classification framework, allowing for the alignment of the educational content of programmes using multiple classification criteria. ISCED is an instrument for compiling statistics on education internationally and distinguishes among six levels of education. The glossary available at *www.oecd.org/edu/eag2007* describes in detail the ISCED levels of education, and Annex 1 shows corresponding typical graduation ages of the main educational programmes by ISCED level.

Symbols for missing data

Six symbols are employed in the tables and charts to denote missing data:

a Data is not applicable because the category does not apply.

c There are too few observations to provide reliable estimates (*i.e.* there are fewer than 3% of students for this cell or too few schools for valid inferences). However, these statistics were included in the calculation of cross-country averages.

m Data is not available.

n Magnitude is either negligible or zero.

w Data has been withdrawn at the request of the country concerned.

x Data included in another category or column of the table (*e.g.* *x*(2) means that data are included in column 2 of the table).

~ Average is not comparable with other levels of education.

Further resources

The website *www.oecd.org/edu/eag2007* provides a rich source of information on the methods employed for the calculation of the indicators, the interpretation of the indicators in the respective national contexts and the data sources involved. The website also provides access to the data underlying the indicators as well as to a comprehensive glossary for technical terms used in this publication.

Any post-production changes to this publication are listed at *www.oecd.org/edu/eag2007*.

The website *www.pisa.oecd.org* provides information on the OECD Programme for International Student Assessment (PISA), on which many of the indicators in this publication draw.

Education at a Glance uses the OECD's StatLinks service. Below each table and chart in *Education at a Glance 2007* is a url which leads to a corresponding Excel workbook containing the underlying data for the indicator. These urls are stable and will remain unchanged over time. In addition, readers of the *Education at a Glance* e-book will be able to click directly on these links and the workbook will open in a separate window.

Codes used for territorial entities

These codes are used in certain charts. Country or territorial entity names are used in the text. Note that in the text the Flemish Community of Belgium is referred to as "Belgium (Fl.)" and the French Community of Belgium as "Belgium (Fr.)".

AUS	Australia	ITA	Italy
AUT	Austria	JPN	Japan
BEL	Belgium	KOR	Korea
BFL	Belgium (Flemish Community)	LUX	Luxembourg
BFR	Belgium (French Community)	MEX	Mexico
BRA	Brazil	NLD	Netherlands
CAN	Canada	NZL	New Zealand
CHL	Chile	NOR	Norway
CZE	Czech Republic	POL	Poland
DNK	Denmark	PRT	Portugal
ENG	England	RUS	Russian Federation
EST	Estonia	SCO	Scotland
FIN	Finland	SVK	Slovak Republic
FRA	France	SVN	Slovenia
DEU	Germany	ESP	Spain
GRC	Greece	SWE	Sweden
HUN	Hungary	CHE	Switzerland
ISL	Iceland	TUR	Turkey
IRL	Ireland	UKM	United Kingdom
ISR	Israel	USA	United States

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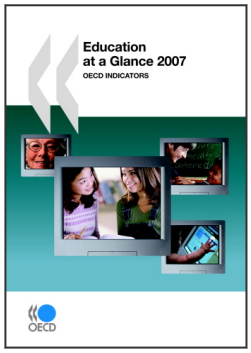

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