

PROGRAMME FOR INTERNATIONAL
STUDENT ASSESSMENT (PISA)
RESULTS FROM PISA 2012

BELGIUM

Note- Some results for Belgium published today (3 December 2013) in the PISA 2012 international reports are in need of revision due to a technical error. An erratum is available from the PISA web page (www.pisa.oecd.org). This note, however, contains the corrected figures.

Key findings

Student performance

- Among the 34 OECD countries, Belgium performed above the OECD average in each of **mathematics** (515 points), reading (509 points) and science (505 points) in 2012. This gives Belgium a rank (out of 34) of 9th in mathematics (this is the best estimate, although the rank could be between 7 and 10 due to sampling and measurement error). Belgium's rank in **reading** was 11 (range of ranks: 8 to 14) and 17 in **science** (range of ranks: 15 to 18).
- Belgium's mean performance in mathematics has declined since 2003 by 15 score points, showing an annualised change of -1.6. There has been no significant change in reading or science.
- There are wide variations within Belgium. In **mathematics**, the Flemish Community scores 531 points on average, compared with 511 in the German speaking community and 493 in the French speaking community. There are similar regional differences in **reading** (Flemish Community= 518 points, German-speaking Community= 499 points, French-speaking Community= 497 points) and **science** (Flemish Community= 518 points, German-speaking Community= 508 points, French-speaking Community= 487 points).
- Belgium has a below average percentage of low-achieving students in mathematics: 19% perform below Level 2 compared with the OECD average of 23.1% and this level is unchanged since 2003. In contrast, Belgium has an above OECD average share of top performers in mathematics with 19.5% (OECD average 12.6%) but this has declined since 2003.

Gender differences

- As in most countries, boys outperform girls in **mathematics** in Belgium, with no significant change in this gap since 2003.
- In **reading** girls outperform boys in reading in Belgium by an average of 32 points, below the OECD average of 38 points (this gap has remained unchanged since 2000); and in **science**,

there is no difference in performance between boys and girls in Belgium, which is similar to the picture for OECD countries on average.

Socio-economic background

- Some 20% of the variation in student performance in mathematics in Belgium is explained by the socio-economic background of the students, a higher percentage than the OECD average of 15%. This relationship has declined slightly from 23% in PISA 2003, but this change is not statistically significant.
- The strength of the relationship between mathematics performance and students' socio-economic background is much stronger in the French Community of Belgium (21% of the variation explained) and the Flemish Community (20%) than it is in the German-speaking Community (4%).

Immigrant students

- The share of immigrant students in OECD countries increased from 9% in 2003 to 12% in 2012 while the difference in mathematics performance between immigrant and non-immigrant students shrank by 11 score points during the same period.
- In Belgium the proportion of students with an immigrant background went up from 11.8% in 2003 to 15.1% in 2012. In 2012, immigrant students in Belgium performed 52 score points below that of non-immigrant students, after taking account of the socio-economic background of students. This difference is significantly higher than the OECD average but has significantly improved since 2003, when it was 67 score points.

Student engagement, attitudes and motivation

Students' engagement with school, the belief that they can achieve at high levels, and their ability and willingness to do what it takes to reach their goals not only play a central role shaping students' ability to master academic subjects, they are also valuable attributes that will enable students to lead full lives, meeting challenges and making the most of available opportunities along the way. In other words, much more is required of students – and adults – than just cognitive proficiency.

Punctuality and attendance at school have strong associations with performance across all countries.

- In Belgium, 11% of students reported that they had skipped either classes or whole days of school in the two weeks prior to the PISA test (OECD average, 25%); and those who had skipped classes or days of school scored significantly lower in mathematics, on average, than those who hadn't.

Feelings about school

- Students in Belgium are largely satisfied with their school and have positive feelings towards school: 68% of students feel that they belong at school (OECD average, 81%), 88% make friends easily (OECD average, 87%). Some 85% of students reported that they feel happy at school (OECD average, 80%) and 78% believe that conditions are ideal in their school (OECD average, 61%).

Disciplinary climate

- Students in Belgium view the quality of the disciplinary climate in their schools at similar levels to students in OECD countries on average. Some 81% of Belgian students, compared to 78% of students across OECD countries, reported that they never or only occasionally find that students are not able to work well in mathematics classes.

Drive

Intrinsic motivation refers to the drive to perform an activity because of the pleasure and interest in the activity itself. Across OECD countries, large proportions of students reported low levels of enjoyment of mathematics. For example, only 53% of students in OECD countries agreed or strongly agreed that they are interested in the things they learn in mathematics: 58% of boys but only 49% of girls so reported.

- Students in Belgium have relatively low levels of intrinsic motivation in mathematics. For example, in Belgium, only 24% of students agreed or strongly agreed that they look forward to their mathematics lesson, compared with the OECD average of 36%.

Mathematics anxiety

On average across OECD countries, greater mathematics anxiety is associated with a 34-point lower score in mathematics – the equivalent of almost one year of school.

- In Belgium, student report average levels of mathematics anxiety compared with the OECD average. For example, across the OECD 31% reported that they feel nervous when doing mathematics problems, compared with 34% in Belgium. Girls reported more maths anxiety than boys, both in Belgium and in other OECD countries.

Snapshot of performance in mathematics, reading and science

Countries/economies with a mean performance/share of top-performers above the OECD average
Countries/economies with a share of low-achievers below the OECD average
Countries/economies with a mean performance/share of low-achievers/share of top-performers not statistically significantly different from the OECD average
Countries/economies with a mean performance/share of top-performers below the OECD average
Countries/economies with a share of low-achievers above the OECD average
Countries/economies in which the annualised change in performance is statistically significant are marked in bold .

	Mathematics				Reading		Science	
	Mean score in PISA 2012	Share of low-achievers (Below Level 2)	Share of top-performers in mathematics (Level 5 or 6)	Annualised change	Mean score in PISA 2012	Annualised change	Mean score in PISA 2012	Annualised change
OECD average	494	23.1	12.6	-0.3	496	0.3	501	0.5
Shanghai-China	613	3.8	55.4	4.2	570	4.6	580	1.8
Singapore	573	8.3	40.0	3.8	542	5.4	551	3.3
Hong Kong-China	561	8.5	33.7	1.3	545	2.3	555	2.1
Chinese Taipei	560	12.8	37.2	1.7	523	4.5	523	-1.5
Korea	554	9.1	30.9	1.1	536	0.9	538	2.6
Macao-China	538	10.8	24.3	1.0	509	0.8	521	1.6
Japan	536	11.1	23.7	0.4	538	1.5	547	2.6
Liechtenstein	535	14.1	24.8	0.3	516	1.3	525	0.4
Switzerland	531	12.4	21.4	0.6	509	1.0	515	0.6
Netherlands	523	14.8	19.3	-1.6	511	-0.1	522	-0.5
Estonia	521	10.5	14.6	0.9	516	2.4	541	1.5
Finland	519	12.3	15.3	-2.8	524	-1.7	545	-3.0
Canada	518	13.8	16.4	-1.4	523	-0.9	525	-1.5
Poland	518	14.4	16.7	2.6	518	2.8	526	4.6
Belgium	515	18.9	19.4	-1.6	509	0.1	505	-0.8
Germany	514	17.7	17.5	1.4	508	1.8	524	1.4
Viet Nam	511	14.2	13.3	m	508	m	528	m
Austria	506	18.7	14.3	0.0	490	-0.2	506	-0.8
Australia	504	19.7	14.8	-2.2	512	-1.4	521	-0.9
Ireland	501	16.9	10.7	-0.6	523	-0.9	522	2.3
Slovenia	501	20.1	13.7	-0.6	481	-2.2	514	-0.8
Denmark	500	16.8	10.0	-1.8	496	0.1	498	0.4
New Zealand	500	22.6	15.0	-2.5	512	-1.1	516	-2.5
Czech Republic	499	21.0	12.9	-2.5	493	-0.5	508	-1.0
France	495	22.4	12.9	-1.5	505	0.0	499	0.6
United Kingdom	494	21.8	11.8	-0.3	499	0.7	514	-0.1
Iceland	493	21.5	11.2	-2.2	483	-1.3	478	-2.0
Latvia	491	19.9	8.0	0.5	489	1.9	502	2.0
Luxembourg	490	24.3	11.2	-0.3	488	0.7	491	0.9
Norway	489	22.3	9.4	-0.3	504	0.1	495	1.3
Portugal	487	24.9	10.6	2.8	488	1.6	489	2.5
Italy	485	24.7	9.9	2.7	490	0.5	494	3.0
Spain	484	23.6	8.0	0.1	488	-0.3	496	1.3
Russian Federation	482	24.0	7.8	1.1	475	1.1	486	1.0
Slovak Republic	482	27.5	11.0	-1.4	463	-0.1	471	-2.7
United States	481	25.8	8.8	0.3	498	-0.3	497	1.4
Lithuania	479	26.0	8.1	-1.4	477	1.1	496	1.3
Sweden	478	27.1	8.0	-3.3	483	-2.8	485	-3.1
Hungary	477	28.1	9.3	-1.3	488	1.0	494	-1.6
Croatia	471	29.9	7.0	0.6	485	1.2	491	-0.3
Israel	466	33.5	9.4	4.2	486	3.7	470	2.8
Greece	453	35.7	3.9	1.1	477	0.5	467	-1.1
Serbia	449	38.9	4.6	2.2	446	7.6	445	1.5
Turkey	448	42.0	5.9	3.2	475	4.1	463	6.4
Romania	445	40.8	3.2	4.9	438	1.1	439	3.4
Cyprus	440	42.0	3.7	m	449	m	438	m
Bulgaria	439	43.8	4.1	4.2	436	0.4	446	2.0
United Arab Emirates	434	46.3	3.5	m	442	m	448	m
Kazakhstan	432	45.2	0.9	9.0	393	0.8	425	8.1
Thailand	427	49.7	2.6	1.0	441	1.1	444	3.9
Chile	423	51.5	1.6	1.9	441	3.1	445	1.1
Malaysia	421	51.8	1.3	8.1	398	-7.8	420	-1.4
Mexico	413	54.7	0.6	3.1	424	1.1	415	0.9
Montenegro	410	56.6	1.0	1.7	422	5.0	410	-0.3
Uruguay	409	55.8	1.4	-1.4	411	-1.8	416	-2.1
Costa Rica	407	59.9	0.6	-1.2	441	-1.0	429	-0.6
Albania	394	60.7	0.8	5.6	394	4.1	397	2.2
Brazil	391	67.1	0.8	4.1	410	1.2	405	2.3
Argentina	388	66.5	0.3	1.2	396	-1.6	406	2.4
Tunisia	388	67.7	0.8	3.1	404	3.8	398	2.2
Jordan	386	68.6	0.6	0.2	399	-0.3	409	-2.1
Colombia	376	73.8	0.3	1.1	403	3.0	399	1.8
Qatar	376	69.6	2.0	9.2	388	12.0	384	5.4
Indonesia	375	75.7	0.3	0.7	396	2.3	382	-1.9
Peru	368	74.6	0.6	1.0	384	5.2	373	1.3

Countries and economies are ranked in descending order of the mathematics mean score in PISA 2012.

Source: OECD PISA 2012 database, Tables I.2.1a, I.2.1b, I.2.3a, I.2.3b, I.4.3a, I.4.3b, I.5.3a and I.5.3b.

- Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".
- Footnote by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

What is PISA?

The Programme for International Student Assessment (PISA) is an ongoing triennial survey that assesses the extent to which 15-year-olds students near the end of compulsory education have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment does not just ascertain whether students can reproduce knowledge; it also examines how well students can extrapolate from what they have learned and apply that knowledge in unfamiliar settings, both in and outside of school. This approach reflects the fact that modern economies reward individuals not for what they know, but for what they can do with what they know.

PISA offers insights for education policy and practice, and helps monitor trends in students' acquisition of knowledge and skills across countries and in different demographic subgroups within each country. The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries in comparison with those in other countries, set policy targets against measurable goals achieved by other education systems, and learn from policies and practices applied elsewhere.

Key features of PISA 2012

- The PISA 2012 survey focused on mathematics, with reading, science and problem-solving minor areas of assessment. For the first time, PISA 2012 also included an assessment of the financial literacy of young people, which was optional for countries.

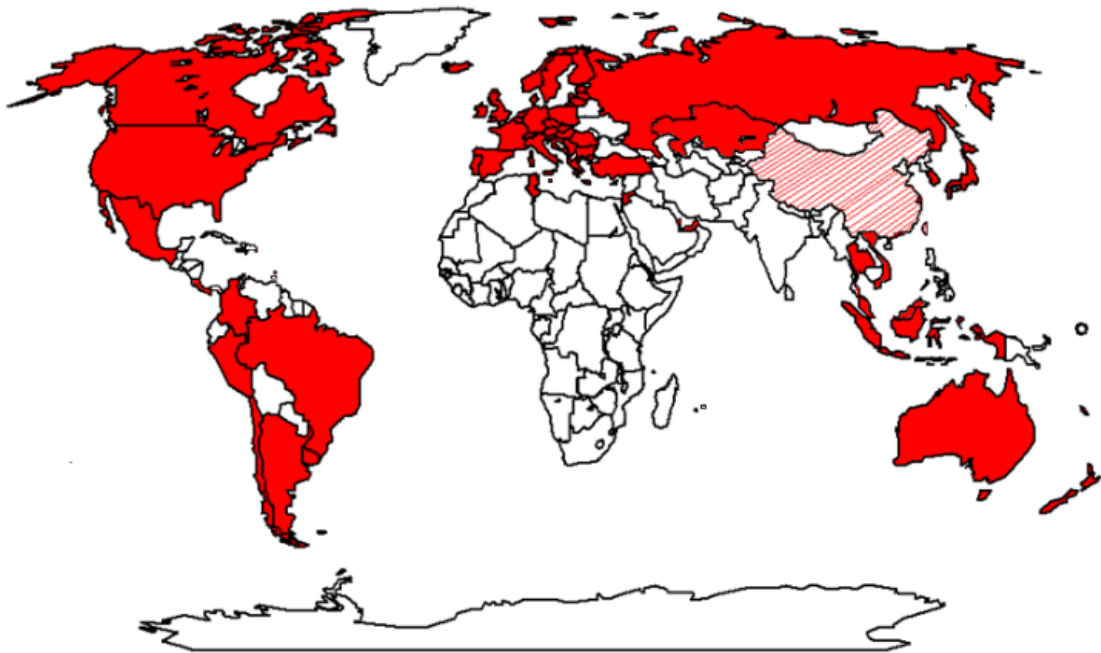
The students

- Around 510 000 students completed the assessment in 2012, representing about 28 million 15-year-olds in the schools of the 65 participating countries and economies. In Belgium, around 10,000 randomly selected 15-year-old students from around 280 randomly selected schools participated

The assessment

- Paper-based tests were used, with assessments lasting a total of two hours for each student. In a range of countries and economies, an additional 40 minutes were devoted to the computer-based assessment of mathematics, reading and problem solving.
- Test items were a mixture of multiple-choice items and questions requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. A total of about 390 minutes of test items were covered, with different students taking different combinations of test items.
- Students answered a background questionnaire, which took 30 minutes to complete, that sought information about themselves, their homes and their school and learning experiences. School principals were given a questionnaire, to complete in 30 minutes, that covered the school system and the learning environment. In some countries and economies, optional questionnaires were distributed to parents, who were asked to provide information on their perceptions of and involvement in their child's school, their support for learning in the home, and their child's career expectations, particularly in mathematics. Countries could choose two other optional questionnaires for students: one asked students about their familiarity with and use of information and communication technologies, and the second sought information about their education to date, including any interruptions in their schooling and whether and how they are preparing for a future career.

Map of PISA 2012 countries and economies



OECD countries

Australia	Japan
Austria	Korea
Belgium	Luxembourg
Canada	Mexico
Chile	Netherlands
Czech Republic	New Zealand
Denmark	Norway
Estonia	Poland
Finland	Portugal
France	Slovak Republic
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Iceland	Switzerland
Ireland	Turkey
Israel	United Kingdom
Italy	United States

Partner countries and economies in PISA 2012

Albania	Malaysia
Argentina	Montenegro
Brazil	Peru
Bulgaria	Qatar
Colombia	Romania
Costa Rica	Russian Federation
Croatia	Serbia
Cyprus ^{1,2}	Shanghai-China
Hong Kong-China	Singapore
Indonesia	Chinese Taipei
Jordan	Thailand
Kazakhstan	Tunisia
Latvia	United Arab Emirates
Liechtenstein	Uruguay
Lithuania	Vietnam
Macao-China	

1. Footnote by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

2. Footnote by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Contacts:

Andreas Schleicher
Advisor to the Secretary-General on Education Policy,
Deputy Director for Education and Skills
Email: Andreas.SCHLEICHER@oecd.org
Telephone: +33 6 07 38 54 64

Michael Davidson
Head, Early Childhood and Schools Division
Directorate for Education and Skills
Email: michael.davidson@oecd.org
Telephone: +33 1 45 24 92 25

**For more information on the Programme for International
Student Assessment and to access the full set of PISA 2012
results visit:**

www.oecd.org/pisa

