

CO3.6: Percentage of immigrant students and their educational outcomes

Definitions and methodology

This indicator presents estimates of the proportion of students with an immigrant background as well as their performance on educational tests compared with children without immigrant background. The indicator is based on data from the OECD Programme for International Student Assessment (PISA). PISA classifies students into several categories according to their immigrant background and that of their parents:

- *Non-immigrant students* are students whose mother or father (or both) was/were born in the country or economy where they sat the PISA test, regardless of whether the student himself or herself was born in that country or economy. In this chapter, these students are also referred to as “*students without an immigrant background*”.
- *Immigrant students* are students whose mother and father were both born in a country/economy other than that where the student sat the PISA test. In this chapter, they are also referred to as “*students with an immigrant background*”. Among immigrant students, a distinction is made between those born in the country/economy of assessment and those born abroad:
 - *First-generation immigrant students* are foreign-born students whose parents are also both foreign-born.
 - *Second-generation immigrant students* are students born in the country/economy where they sat the PISA test and whose parents are both foreign-born.

PISA evaluates the knowledge and skills of 15-year-old students across the OECD and other partner countries.

Key findings

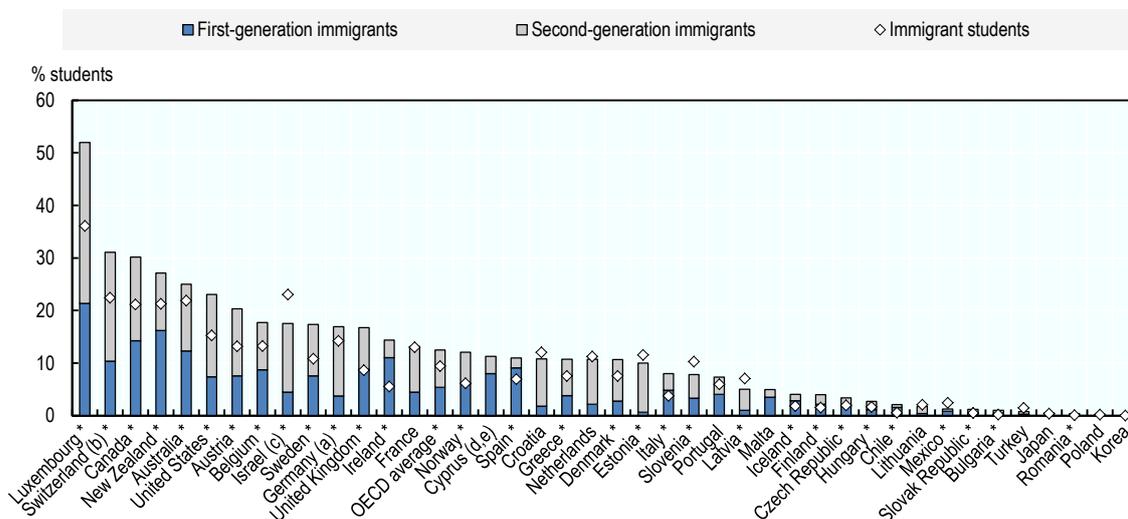
In 2015, on average in OECD countries, 12.5% of students aged 15 years old had an immigrant background (second- and first-generation students) (Chart CO3.6.A). However, cross-country differences were large. Luxembourg stood as the country with the largest percentage of 15-year olds with an immigrant background, with 52% of foreign-born students or native born with both parents foreign-born. In Australia, Canada, New Zealand and Switzerland the percentage of immigrant students was also high, at more than 25% of 15-year-old students. By contrast, in Japan, Korea, Poland, and Turkey less than 1% of students have an immigrant background.

The distribution of second- and first-generation students differs between countries. In countries with above-average proportion of immigrant students (except Ireland, New Zealand and the United Kingdom), second-generation children outnumbered first-generation ones. The great majority of these countries have been historically immigrant receiving countries, hence the higher proportion of second-generation students. On the other hand, countries like, Italy, Portugal and Spain, have more recently experienced important growth of inflows of immigrant population (Chart CO3.6.A). Hence, the greater proportion of first-generation students in these countries.

Other relevant indicators: CO3.3: Literacy scores by gender at age 10; CO3.5: Literacy scores by gender at age 15; SF1.4: Population by age of children and young adults, and youth-dependency ratio.

Chart CO3.6.A. Students with an immigrant background, 2006 and 2015

Proportion (%) of students with an immigrant background, by type, 15-year-olds, 2006 and 2015



Note: In countries marked with an *, the change between 2006 and 2015 in the proportion of students with an immigrant background is statistically significant at $p < 0.05$.

a) Results for Germany should be interpreted with caution due to missing rates on the student immigrant background and language spoken at home variables.

b) For Switzerland the increase in the weighted share of students with an immigrant background between previous rounds of PISA and PISA 2015 samples is larger than the corresponding shift in the target population according to official statistics for this country.

c) The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

d) 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 recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the « Cyprus issue »;

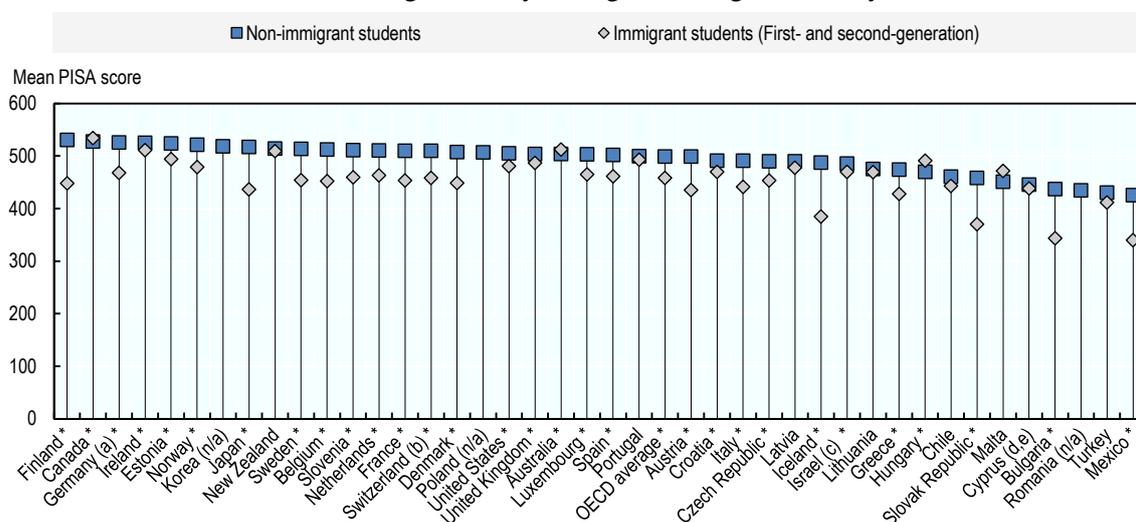
e) Footnote by all the European Union Member States of the OECD and the European Commission: The Republic of Cyprus is recognized by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the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

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

The PISA 2015 assessment shows that in most OECD countries children with an immigrant background perform less well in reading than their non-immigrant peers (40 score-points difference, on average) (Chart CO3.6.B). However, the performance gap between immigrant and non-immigrant children varies widely across countries. While students with an immigrant background in Austria, Belgium, Finland, Iceland, Japan, Mexico, the Slovak Republic, and Sweden underperformed significantly compared with native students (60 score-points or more difference), in Australia, Canada and Hungary students with an immigrant background actually performed slightly better than non-immigrant students.

The gap in mathematics literacy between children with immigrant and non-immigrant status is of similar size to that of reading performance (37 score-points difference, on average) (Chart CO3.6.4). Likewise, it varies considerably across the OECD. In Australia and Canada, students with an immigrant background again outperform native students. By contrast, immigrant students fare far worse (more than 75 points) than their native counterparts in Mexico and Japan.

Chart CO3.6.B. Students' performance on reading scores by immigrant status, PISA 2015
 Mean PISA reading scores by immigrant background, 15-year-olds

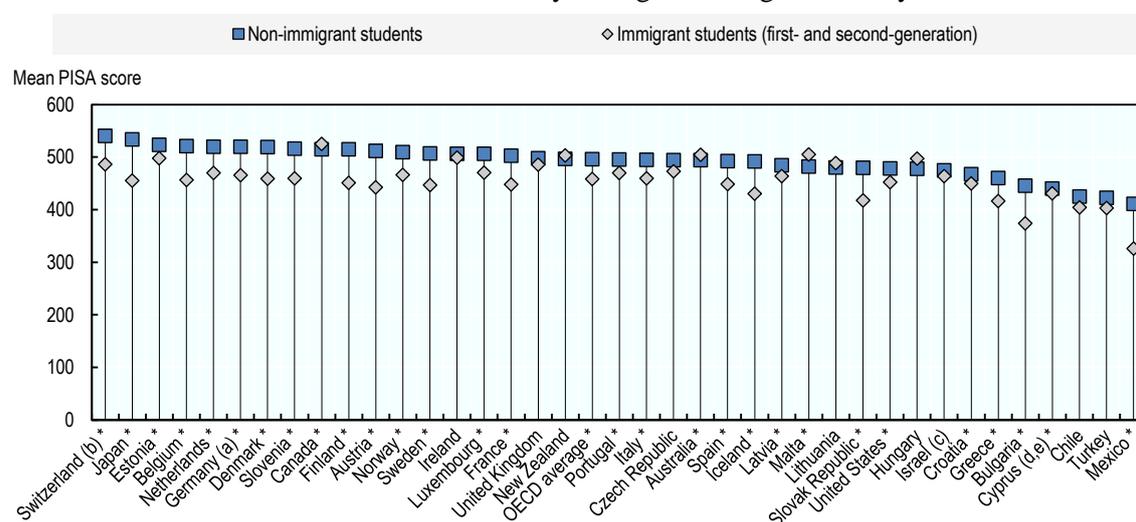


Note: In countries marked with an *, the difference between non-immigrant students and immigrants students (first- and second-generation) is statistically significant at $p < 0.05$. Disaggregated data for first- and second-generation students are available in the associated .xls file.

- a) See note a) to Chart CO3.6.A
- b) See note b) to Chart CO3.6.A
- c) See note c) to Chart CO3.6.A
- d) See note d) to Chart CO3.6.A
- e) See note e) to Chart CO3.6.A

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

Chart CO3.6.C. Students' performance in mathematics by immigrant status, PISA 2015
 Mean PISA mathematics scores by immigrant background, 15-year-olds



Note: In countries marked with an *, the difference between non-immigrant students and immigrants students (first- and second-generation) is statistically significant at $p < 0.05$. Disaggregated data for first- and second-generation students are available in the associated .xls file.

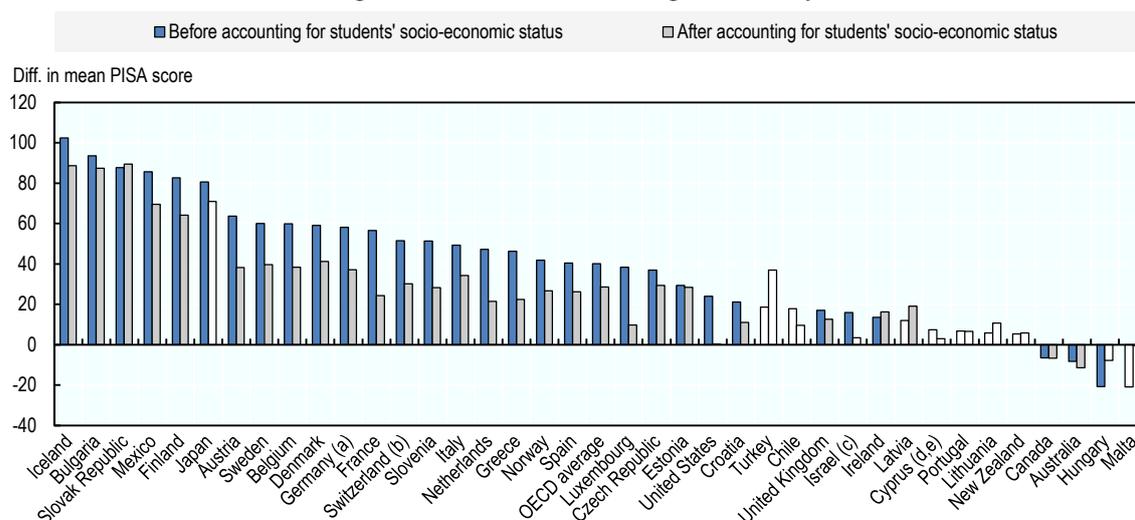
- a) See note a) to Chart CO3.6.A
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- d) See note d) to Chart CO3.6.A
- e) See note e) to Chart CO3.6.A

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

The gaps in performance between migrant and non-migrant students may stem from the fact that migrant students generally are more socio-economically disadvantaged than native students. However, results from PISA show that, in most OECD countries, even after controlling for socio-economic background, students with an immigrant background perform worse than their native peers. Chart CO3.6.D suggests that low socio-economic status is an important driver of poor literacy scores in Austria, France, Luxembourg, and the Netherlands.

Chart CO3.6.D. Gaps in reading performance between native students and students with an immigrant background before and after accounting for socio-economic background, 2015

Difference in PISA reading scores between non-immigrant students and immigrant students before and after accounting for socio-economic background, 15-year-olds



Note: Shaded markers represent statistically significant differences at $p < 0.05$.

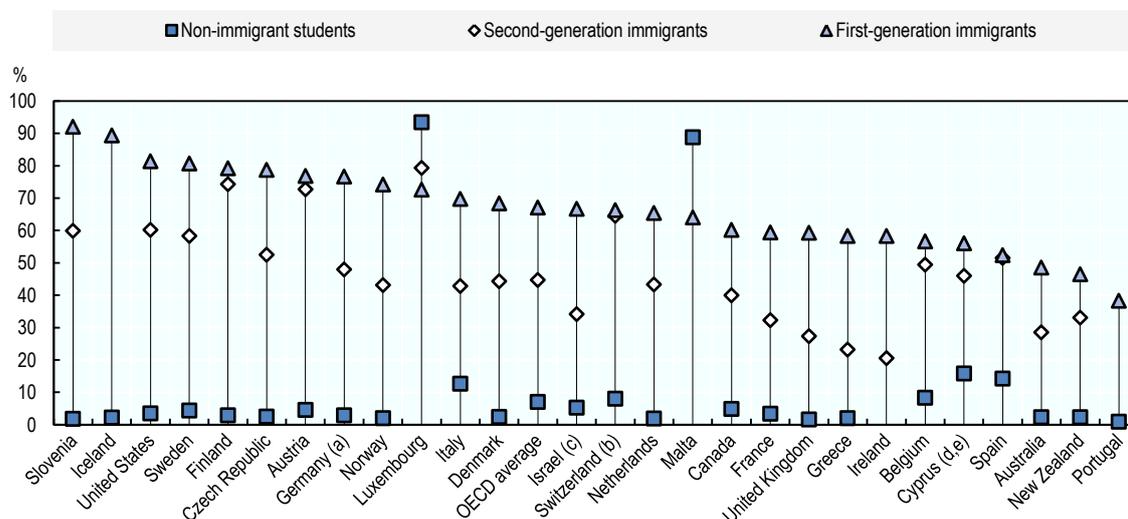
- a) See note a) to Chart CO3.6.A
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- d) See note d) to Chart CO3.6.A
- e) See note e) to Chart CO3.6.A

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

The language spoken at home is an additional factor that may influence children’s performance in school. In many countries, students with an immigrant background are more likely to speak a language at home which is different from the language spoken in the country of assessment. Chart CO3.6.E shows that this is especially so in Finland, Iceland, Slovenia, Sweden and the United States.

Chart CO3.6.F shows the gaps in reading performance between immigrant and non-immigrant students before and after accounting for students' socio-economic status and language spoken at home. This “performance gap” is reduced upon accounting for socio-economic background and language spoken at home in all countries. On average across the OECD, differences in reading performance between immigrant and non-immigrant students are reduced by more than two-thirds after accounting for students' socio-economic status and language spoken at home. However, in some countries, it remains large. Policies to improve the language skills of immigrant students could help reduce one of the many challenges immigrant children face.

Chart CO3.6.E. Students who speak another language at home, 2015
 Proportion (%) of students who speak another language at home, by immigrant background, 2015

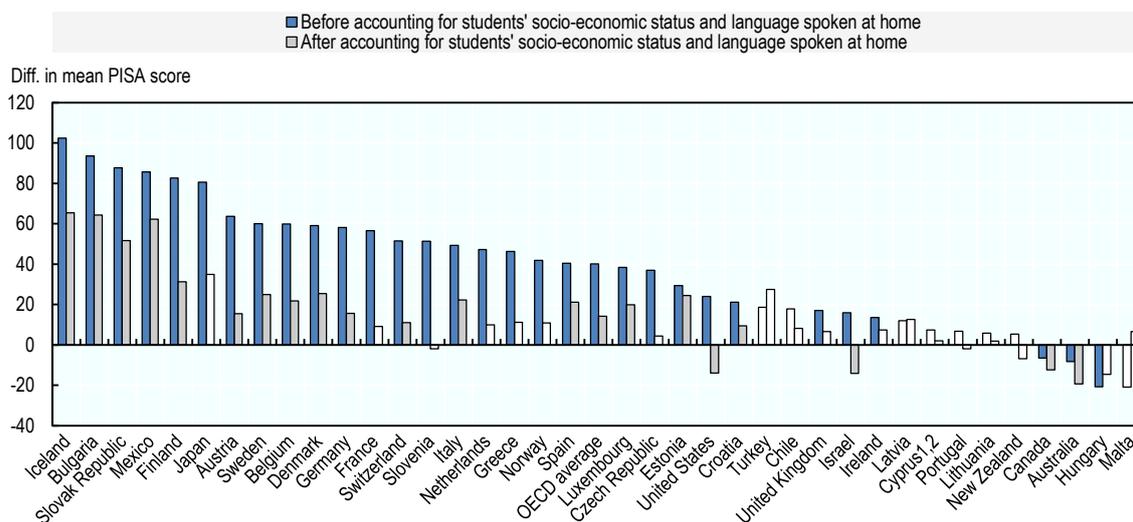


- a) See note a) to Chart CO3.6.A
- b) See note b) to Chart CO3.6.A
- c) See note c) to Chart CO3.6.A
- d) See note d) to Chart CO3.6.A
- e) See note e) to Chart CO3.6.A

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

Chart CO3.6.F. Gaps in reading performance between immigrant and non-immigrant students before and after accounting for students' socio-economic status and language spoken at home, 2015

Difference in PISA reading scores between non-immigrant students and immigrant students before and after accounting for socio-economic background and language spoken at home, 15-year-olds



Note: Shaded markers represent statistically significant differences at $p < 0.05$.

- a) See note a) to Chart CO3.6.A
- b) See note b) to Chart CO3.6.A
- c) See note c) to Chart CO3.6.A
- d) See note d) to Chart CO3.6.A
- e) See note e) to Chart CO3.6.A

Source: PISA 2015 Results (Volume I): Excellence and Equity in Education

Comparability and data issues

The PISA assessment process devotes substantial efforts and resources to achieving cultural and linguistic balance in the assessment materials, to provide students with equal chances of successful performance. Stringent quality assurance mechanisms are applied in translation, sampling and data collection. If countries fail to meet sampling size requirements they are omitted from the published international comparisons (e.g., the Netherlands in 2000 and the United Kingdom in 2003). In 2006, reading tests in the United States were excluded from the report due to a fieldwork error that could have affected student performance. More than 500 000 15-year old students in 72 countries were assessed for PISA2015. Because the results are based on probability samples, the standard errors of the estimates can also be calculated and can be found on the OECD PISA website (www.pisa.oecd.org).

Sources and further reading: OECD (2015) Volume I: Excellence and Equity in Education , Volume II: Policies and Practices for Successful Schools ; OECD (2016) International Migration Outlook 2016, OECD Publishing, OECD, Paris (www.oecd.org/migration/imo); Indicators of Immigrant Integration 2015 Settling In ; Washbrook, E., J. Waldfogel, B. Bradbury, M. Corak, and A.A.Ghanghro, (forthcoming), “The Development of Young Children of Immigrants in Australia, Canada, the United Kingdom and the United States”, Child Development.