

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

Definitions and methodology

This indicator presents information on the proportion of students with an immigrant background and their performance on educational tests. The indicator is based on data from the OECD's *Programme for International Student Assessment* (PISA). PISA classifies students into several categories based on their country of birth and the country of birth of their parents:

- *Non-immigrant students* are students whose mother or father (or both) was/were born in the country or economy where they took the PISA test, regardless of whether the student himself or herself was born in that country. In this indicator, these students are referred to as “*students without an immigrant background*”.
- *Immigrant students* are students whose mother and father were both born in a country other than the country where the student took the PISA test. Here, they are referred to as “*students with an immigrant background*”. Among immigrant students, a distinction is made between those born in the country 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 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, including all the covered Asia/Pacific countries.

Key findings

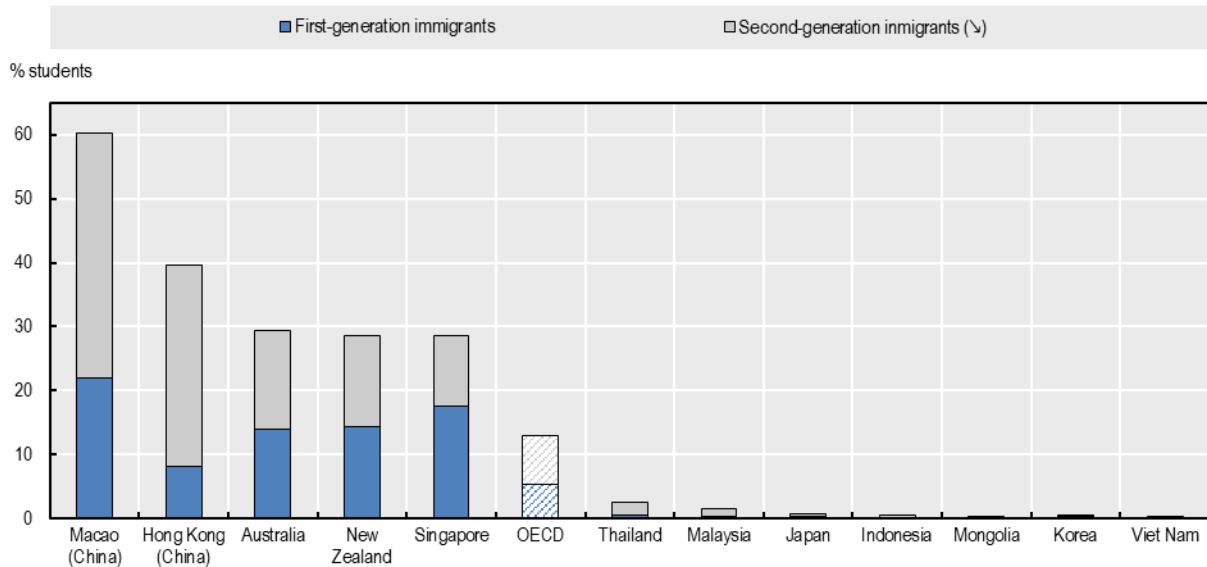
The share of students with an immigrant background differs drastically across the selected Asia/Pacific countries (Chart CO3.6.A). In Macao (China) and Hong Kong (China) - and to a lesser extent in Australia, New Zealand and Singapore, the share of students with an immigrant background is highest; in each of these countries, more than 25% of students are either a first- or second-generation migrant, which is well above the average share in OECD countries (13%), for example. However, in the other Asia/Pacific countries covered here, the share of students with an immigrant background is extremely low. In Malaysia and Thailand, less than 3% of students have an immigrant background, whereas in Indonesia, Japan, Korea, Mongolia, and Viet Nam, less than 1% of students do. The proportion is lowest in Viet Nam at 0.1%.

Several of the covered Asia/Pacific countries see significant differences in reading performance between non-immigrant students and immigrant students, but the direction of the difference varies from country to country (Chart CO3.6.B). In Japan and especially Indonesia, students with an immigrant background perform significantly worse on the PISA reading tests than non-immigrant students. However, in Australia, Macao (China), and Singapore the

<i>Other relevant indicators:</i> CO3.1 Educational attainment by gender; CO3.3 Literacy scores by gender at age 10; CO3.4 Literacy scores by gender at age 15
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opposite is true – in these three countries, students with an immigrant background outperform non-immigrant students on the PISA reading tests.

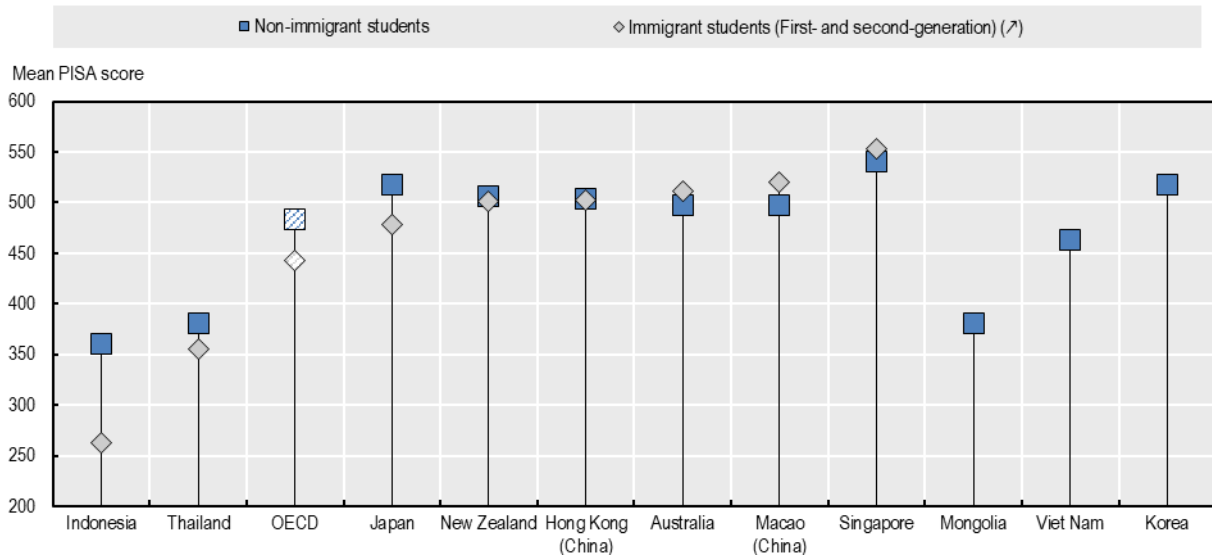
Chart CO3.6.A. Students with an immigrant background, 2022
 Proportion (%) of students with an immigrant background, by type, 15-year-old



Notes: For Australia, New Zealand, and Hong Kong (China), caution is required when interpreting estimates because one or more PISA sampling standards were not met (see Reader's Guide, Annexes A2 and A4).

Sources: [OECD \(2023\), PISA 2022 Results \(Volume I\): The State of Learning and Equity in Education.](#)

Chart CO3.6.B. Students' performance on reading scores by immigrant status, 2022
 Mean PISA reading scores by immigrant background, 15-year-olds



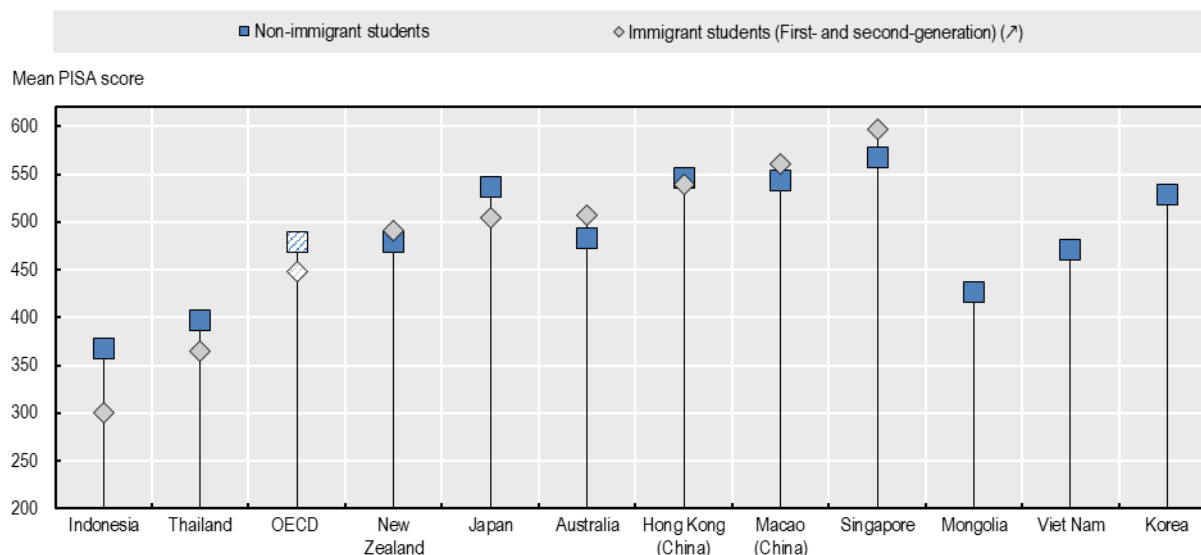
Note: For Australia, New Zealand, and Hong Kong (China), caution is required when interpreting estimates because one or more PISA sampling standards were not met (see Reader's Guide, Annexes A2 and A4). For Vietnam, caution is required when comparing estimates based on PISA 2022 with other countries/economies as a strong linkage to the international PISA reading scale could not be established (see Reader's Guide and Annex A4). For Korea, Mongolia, and Vietnam, there were too few observations to provide reliable estimates on the scores of students with an immigration background.

Sources: [OECD \(2023\), PISA 2022 Results \(Volume I\): The State of Learning and Equity in Education.](#)

A similar pattern is visible for differences between non-immigrant students and immigrant students on the PISA mathematics tests (Chart CO3.6.C). Mathematics scores for students with an immigrant background are slightly higher than those for students without an immigrant background in Australia, Macao (China) New Zealand and Singapore. However, the difference remains relatively small in most countries.

Chart CO3.6.C. **Students' performance in mathematics by immigrant status, PISA 2022**

Mean PISA mathematics scores by immigrant background, 15-year-olds



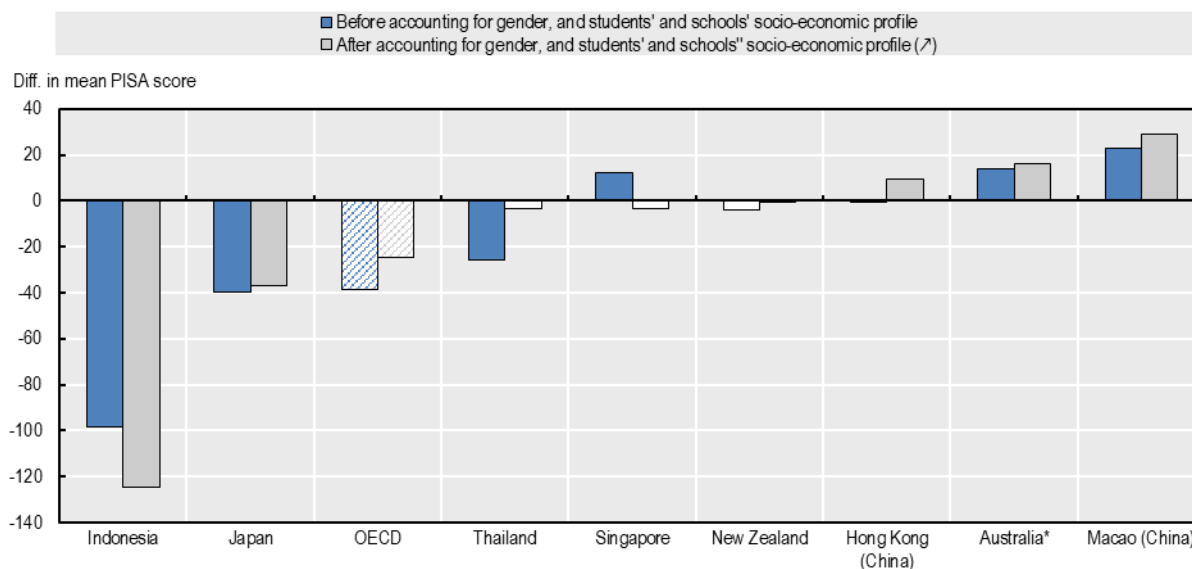
Notes: For Australia, New Zealand, and Hong Kong (China), caution is required when interpreting estimates because one or more PISA sampling standards were not met (see Reader's Guide, Annexes A2 and A4). For Korea, Mongolia, and Vietnam, there were too few observations to provide reliable estimates on the scores of students with an immigration background.

Sources: [OECD \(2023\), PISA 2022 Results \(Volume I\): The State of Learning and Equity in Education.](#)

To some extent, gaps in student performance between those with and without an immigrant background may be explained by differences in both gender and the socio-economic make-up of the respective populations. This is illustrated by Chart CO3.6.D, which shows differences in PISA reading scores between non-immigrant students and immigrant students before and *after* accounting for gender and socio-economic background. In some of the covered Asia/Pacific countries, differences in scores between students with and without an immigrant background decrease once socio-economic backgrounds and gender difference are taken into account. In Japan, for example, the gap in reading scores between immigrant and non-immigrant students slightly declines after accounting for socio-economic differences, while in Thailand, the gap largely disappears and falls out of significance. However, in Australia, Hong Kong (China), and Macao (China) the opposite pattern is true: differences in reading performance increase in favour of students with an immigrant background after socio-economic backgrounds are taken into account. Lastly, in Indonesia and Singapore, the reading performance gap increases in favour of non-migrant students after accounting for the socio-economic background (although the difference is non-significant in Singapore).

Chart CO3.6.D. Gaps in reading performance between native students and students with an immigrant background before and after accounting for gender and socio-economic background, 2022

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



Notes: For Australia, New Zealand, and Hong Kong (China), caution is required when interpreting estimates because one or more PISA sampling standards were not met (see Reader's Guide, Annexes A2 and A4). Shaded markers represent statistically significant gender differences and white markers non-statistically significant gender differences.

Sources: [OECD \(2023\), PISA 2022 Results \(Volume I\): The State of Learning and Equity in Education](#).

Comparability and data issues

The OECD PISA assessment programme devotes substantial efforts and resources to achieving cultural and linguistic balance in the assessment materials, in order to provide students with equal chances of successful performance. Stringent quality assurance mechanisms are applied in translation and data collection, and sample sizes are large – more than 600 000 students across 79 countries were assessed for the 2018 wave. 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). For a more detailed discussion of the methodology used, see OECD (2023) and the [OECD PISA](#) website.

Data collected by PISA for China refer to Hong Kong and Macao only, and not to the whole country. As a consequence, results for China (Hong Kong and Macao) should be taken as representative for students in these two Special Administrative Regions only, but not as representative for 15-year-old students across the country as a whole.

Sources and further reading: OECD (2023), PISA 2022 Assessment and Analytical Framework, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/dfe0bf9c-en>; OECD (2023), PISA 2022 Results (Volume I): The State of Learning and Equity in Education, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/53f23881-en>.