

## PERFORMANCE OF 15-YEAR-OLDS BY IMMIGRANT STATUS

Because of the large inflows of migrants experienced in recent decades, many OECD governments are paying special attention to the school performance of youths issued from immigration. These migrant youths constitute a sizable and very heterogeneous group, with a diverse range of skills, backgrounds and motivations. While some migrants are highly skilled, others have low skills and are socially disadvantaged. Such disadvantage, along with cultural and ethnic differences, can breed divisions and inequities in the host society between newcomers and natives.

### Definition

Differences in the performance of 15-year-old students by immigrant status are here assessed in terms of scientific literacy, i.e. the capacity of students to use scientific knowledge to identify questions, acquire new knowledge, explain scientific phenomena, and draw evidence-based conclusions about science-related issues. Data are issued from the OECD's Programme for International Student Assessment (PISA), which assesses the knowledge and skills

of students at age 15, i.e. towards the end of compulsory education. PISA survey covers science, mathematics and reading. For the 2006 round of PISA, three and a half hours of total testing time was in science, two hours for mathematics and one hour for reading.

Differences in scientific literacy by immigrant status are measured by the gap that separates students with an immigrant background from natives. Students with an immigrant background are grouped in first-generation students (i.e. students who were born outside the country of assessment and who also have foreign-born parents) and second-generation students (i.e. those who have been born in the country of assessment and have benefited from participation in the same formal education system as their native peers for the same number of years). Data are limited to countries where first-generation and second-generation students account for at least 3% of all 15-years old students.

### Overview

Across OECD countries, first-generation students lag their native counterparts by more than 50 points in the PISA scale, which is equivalent to more than one year in school attainment. Much of this difference remains even after accounting for other socio-economic factors. This gap suggests that schools and societies face major challenges in realising the human capital potential that immigrants bring with them. This gap ranges from 22 score points in Canada to between 77 and 95 score points in Germany, Sweden, Denmark, Austria, Belgium and Switzerland. In contrast, first-generation immigrant students perform at the same level as their native peers in Australia, New Zealand, Ireland and the Russian Federation.

The gap in performance relative to natives remains sizable (at 40 points, on average) for second-generation students. This disadvantage is very large in Germany, Austria, Denmark, Belgium and the Netherlands, where these students score between 79 and 93 points lower than their native counterparts, while it is negligible in Australia and Canada. In Sweden and Switzerland, the better performance of second-generation students compared to first generation ones suggests that participation in the education and social system from birth onwards can bring a substantial gain in school performance. However, the opposite pattern is observed in New Zealand, where second-generation students have lower scores than their first-generation counterparts.

### Source

- OECD (2007), *PISA 2006: Science Competencies for Tomorrow's World: Volume 1 Analysis*, OECD, Paris.

### Further information

#### Methodological publications

- OECD (2006), *Assessing Scientific, Reading and Mathematical Literacy: A Framework for PISA 2006*, OECD, Paris.

#### Online database

- OECD PISA Database.

#### Websites

- PISA website, [www.pisa.oecd.org](http://www.pisa.oecd.org).



## Students performance on the science scale in PISA 2006 by immigrants status

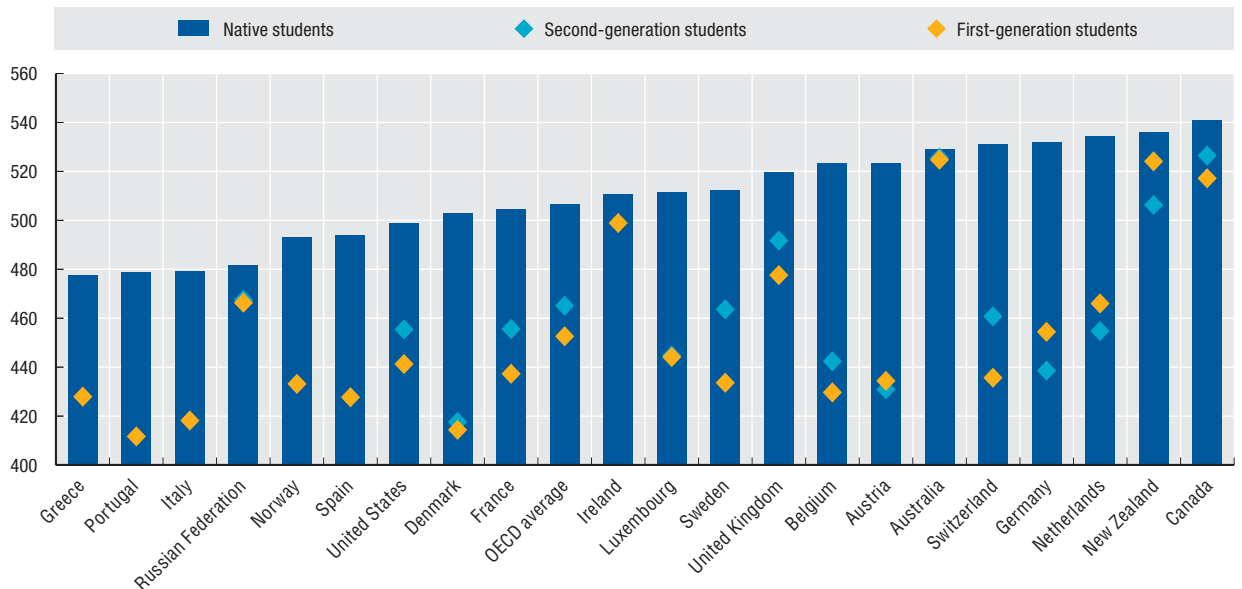
Mean scores

	Native students	Second-generation students	First-generation students
Australia	529	528	527
Austria	523	431	435
Belgium	523	443	430
Canada	541	528	519
Czech Republic	515	..	..
Denmark	503	418	414
Finland	566	..	..
France	505	456	438
Germany	532	439	455
Greece	478	..	428
Hungary	505	..	..
Iceland	494	..	..
Ireland	510	..	500
Italy	479	..	418
Japan	532	..	..
Korea	523	..	..
Luxembourg	511	445	445
Mexico	415	..	..
Netherlands	534	455	467
New Zealand	536	508	526
Norway	493	..	433
Poland	499	..	..
Portugal	479	..	412
Slovak Republic	490	..	..
Spain	494	..	428
Sweden	512	464	434
Switzerland	531	462	436
Turkey	425	..	..
United Kingdom	519	493	479
United States	499	456	442
OECD average	506	466	453
OECD total	497	463	448
Brazil	393	..	..
Indonesia	395	..	..
Russian Federation	481	468	467

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## Student performance on the science scale in PISA 2006 by immigrant status

Mean scores



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