

Chapter 5

Education of native-born offspring of immigrants

Educational outcomes are associated with labour market outcomes and some aspects of social integration. Immigrants' educational attainment cannot be considered as an outcome of the integration process, since most migrants have obtained their education abroad. However, the education of the native-born children of immigrants, raised and educated in the country of residence, is a major integration outcome and it is indeed considered a benchmark for integration at large because of the broader implications of education.

Personal cognitive skills, the household environment and socio-economic background (in particular educational attainment of the parents) are some of the most important determinants of individuals' educational outcomes. Language spoken at home is also a key factor that affects language skills. In addition, other disadvantages, such as attendance in schools with a high proportion of economically disadvantaged families, tend to correlate with poor educational outcomes. Conversely, participation in early childhood education and care can be a positive driver of final educational outcomes, particularly for children from immigrant and low-income families.

This chapter examines the participation in pre-primary education (Indicator 5.1); the reading skills at the age of 15 (Indicator 5.2) as well as the information on the highest educational level achieved (Indicator 5.3). For a discussion on these indicators, refer to the section "Measurement" at the end of this chapter.

5.1. Pre-primary education

Background information

Pre-primary education corresponds to all forms of organised centre-based activities, like pre-schools, kindergartens and day-care centres. These programmes are not compulsory and are proposed to children from the age of three or four, depending on the country. In some countries, part of these programmes are offered for free.

Statistics on attendance in pre-primary education were obtained from the OECD Programme for International Student Assessment (PISA) 2009. Students taking the PISA test are asked if they attended pre-primary education for at least one year. This implies that students refer to their own situation 10 to 13 years before the date of their skill assessment. The attendance rate should therefore be analysed with caution. Furthermore, there is some discrepancy in the quality and duration of the programmes attended, which may affect the extent to which attending such programmes may have an impact or not on skills at age 15. The attendance rates of native-born children of immigrants and the impact on their skills at the age of 15 are compared with those of children of native-born. For the purposes of this study, it is understood that both parents of native-born children of immigrants are born abroad. Children of native-born have at least one parent born in the country of residence.

On average around 76% of native-born children of immigrants attended pre-primary education for at least one year in the OECD area, an attendance 3 percentage points lower than that of offspring of native-born (Figure 5.1). Native-born children of immigrants are only slightly less likely to have attended pre-primary education than children of native-born in most OECD countries. The variation throughout OECD countries is much larger than the variation within individual countries (between native-born children of immigrants and children of native-born). In Canada, Finland, Israel*, Slovenia and Switzerland, native-born children of immigrants are slightly more likely to attend such programmes than children of native-born.

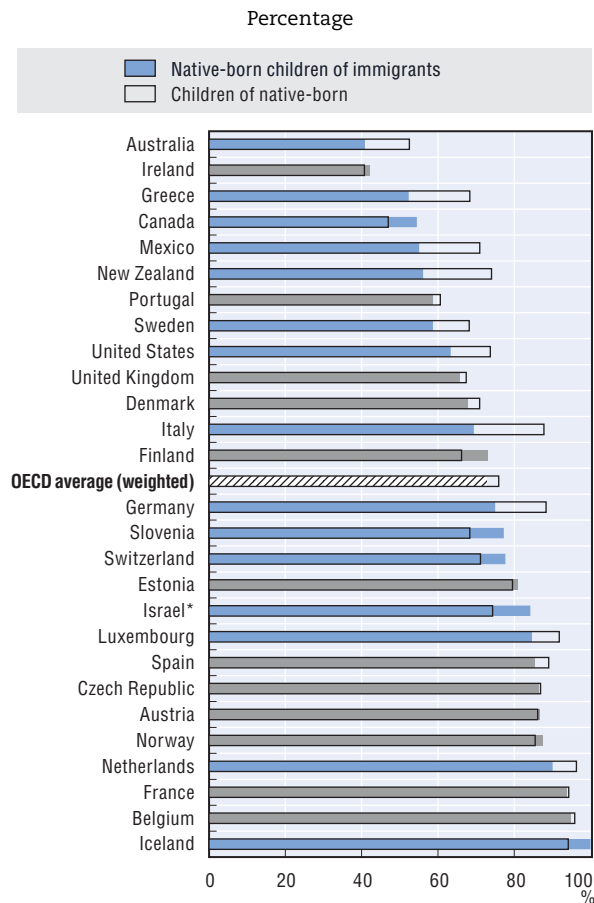
In countries that offer free pre-primary programmes, attendance rates are generally higher than 80% and differences with children of native-born are negligible. Conversely, in countries where most programmes imply the payment of fees by families (as it is the case in the United States, except for disadvantaged families, in Australia and New Zealand), or where the demand from families is not high or where pre-primary services are generally offered from age four or five (Greece, Ireland), attendance rates are much lower, both for native-born children of immigrants and children of native-born.

With the exception of Canada and Ireland, attendance rates of native-born children of immigrants are significantly lower than those of children of native-born in countries with low attendance rates for both groups (Australia, Greece, Mexico and New Zealand) but also in Italy and Germany.

Although all children can be expected to benefit from attendance in pre-primary education, attendance can be especially beneficial for children of immigrants, in particular those who do not speak the host-country language at home. On average in OECD countries, the benefit of attending pre-primary education in terms of reading skills at age 15 is higher for native-born children of immigrants than for children of native-born (premium of 40 points, equivalent to roughly one year of formal schooling, compared with 27 points for children of native-born, Figure 5.2).

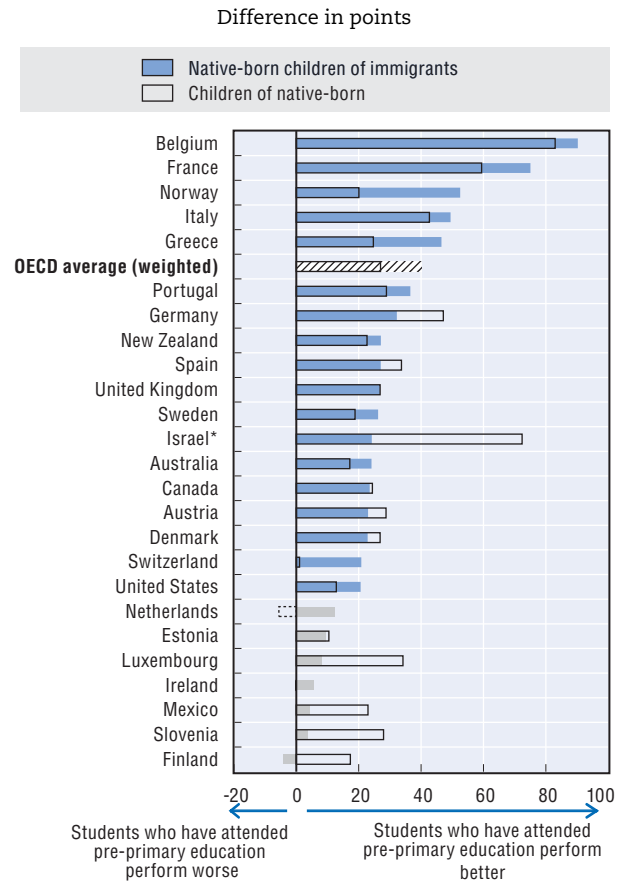
The positive differential in premium for native-born children of immigrants compared with the one calculated for children of native-born is particularly high in Greece and Norway, and to a lesser extent in Switzerland. This result is of particular interest for Greece where attendance rates for native-born children of immigrants are relatively low. The differential in premium is highest in Belgium and France, where most students participate in pre-primary education. This seems to indicate that the few children not participating in pre-primary education have specific characteristics in those two countries.

Figure 5.1. Attendance in pre-primary education for at least one year, native-born children of immigrants and children of native-born whose reading skills have been assessed in 2009



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Figure 5.2. Difference in PISA reading scores between children who attended pre-primary education (for at least one year) and those who did not, children of native-born and native-born children of immigrants, 2009



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Notes and sources are at the end of the chapter.

5.2. Reading skills at age 15

Background information

Student performance on reading is based on the OECD Programme for International Student Assessment (PISA).

The mean reading score of both immigrants and native-born children of immigrants are compared with those of the children of native-born. For the purposes of this study, it is understood that both parents of native-born children of immigrants are born abroad. Children of native-born have at least one parent born in the country of residence. Immigrants are born abroad.

On average in the OECD area, reading test scores of immigrant students are 54 points lower than those of children of native-born. In most OECD countries, reading skills of native-born children of immigrants are in between those of immigrant students and those of children of native-born. Reading scores of native-born children of immigrants are 36 points lower than those of native-born (Figure 5.3). The highest reading skill gaps between immigrant and children of native-born are found in Mexico, in some Nordic countries (Denmark, Finland, Iceland and Sweden) as well as in some Western European countries, such as Austria, Belgium, France, Germany, Italy and Luxembourg.

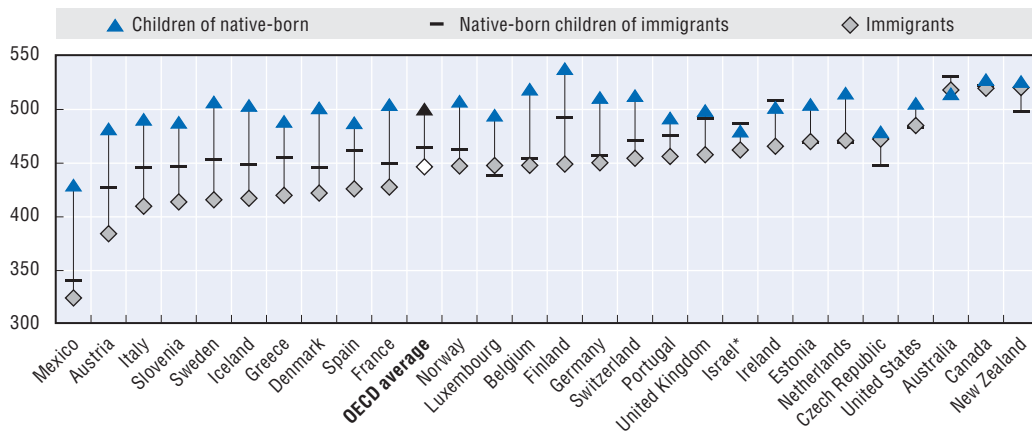
If household background characteristics are held constant, the reading score differences for both immigrants and native-born children of immigrants compared with children of native-born are reduced in most countries. On average, the reading score difference is reduced from 36 to 20 points for native-born children of immigrants and from 54 to 36 points for immigrant students. However, the differences increase after controlling for socio-economic characteristics in Australia, Canada, Israel and the United States (see Table 5.A1.1).

Most disadvantaged migrants are those not speaking the host-country language. The reading score penalty for not speaking the test language at home is around 27 points for native-born children of immigrants and around 30 points for immigrants on average in the OECD area (Figure 5.4). The penalty for not speaking the test language at home is even higher for both groups (over 60 points differential) in Luxembourg and Norway, and for native-born children of immigrant in Portugal and New Zealand.

Immigrant students benefit from an early arrival (Figure 5.5). On average, immigrant students that arrived between ages 11 and 16 have a reading score of about 40 score points lower than an immigrant student that arrived before age 6. This corresponds to about one year less of formal schooling. Arrival between 6 and 10 years of age corresponds to a smaller difference of about 12 points, compared with arrival before age 6. The difference between late and early arrival is especially large (over 60 points) in Belgium, Czech Republic, Germany, Iceland, Israel and Sweden. By contrast, there are few differences in Austria, Luxembourg, Switzerland and the United Kingdom.

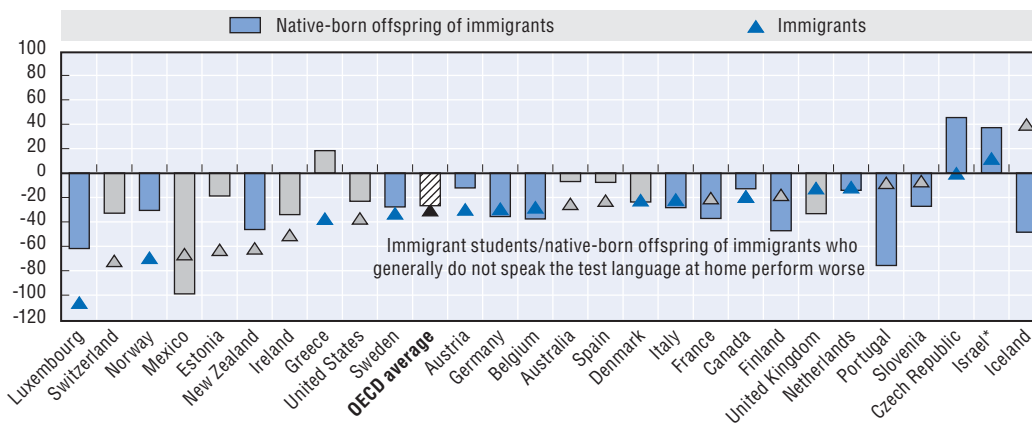
Average reading score differences with children of native-born have fallen between 2000 and 2009. These improvements have been observed for immigrant students and, to a lesser extent, for native-born children of immigrants as well (Table 5.A1.2). Reading score differences between immigrants and children of native-born have declined the most from 2000 to 2009 in Czech Republic, Germany, Luxembourg, the Netherlands, New Zealand, Switzerland, the United Kingdom and the United States. However, the differences increased in some southern European countries (Italy, Spain and Portugal), as well as in Denmark, Iceland, Ireland and Sweden.

Figure 5.3. Mean PISA reading scores by place of birth and parents' place of birth, 2009



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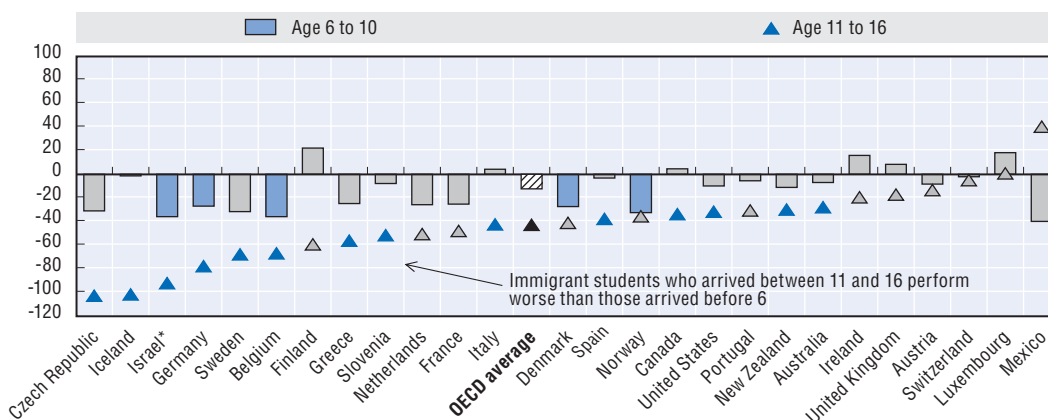
Figure 5.4. Difference in PISA reading scores between children who generally speak the test language at home and those who do not, native-born offspring of immigrants and immigrants, 2009



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Figure 5.5. Difference in PISA reading scores by age at arrival, 2009

Reference group = immigrant students entered before the age of 6



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Notes and sources are at the end of the chapter.

5.3. Educational attainment

Background information

Educational attainment levels are defined in this publication according to the International Standard Classification of Education (ISCED 1997). "Low-educated" persons are in ISCED category 0/1/2 and have completed at best lower secondary education. "Medium-educated" persons are in ISCED category 3/4 and have completed either upper secondary or post-secondary non-tertiary education. "Highly educated" persons are in ISCED category 5/6 and hold at least a first stage tertiary degree.

In this section, educational attainment is measured for the population aged 25 to 34, when most persons have completed formal education. Those still in education have generally already obtained a first tertiary qualification; they are thus "highly educated" and will remain so whether or not they complete a programme at a higher level.

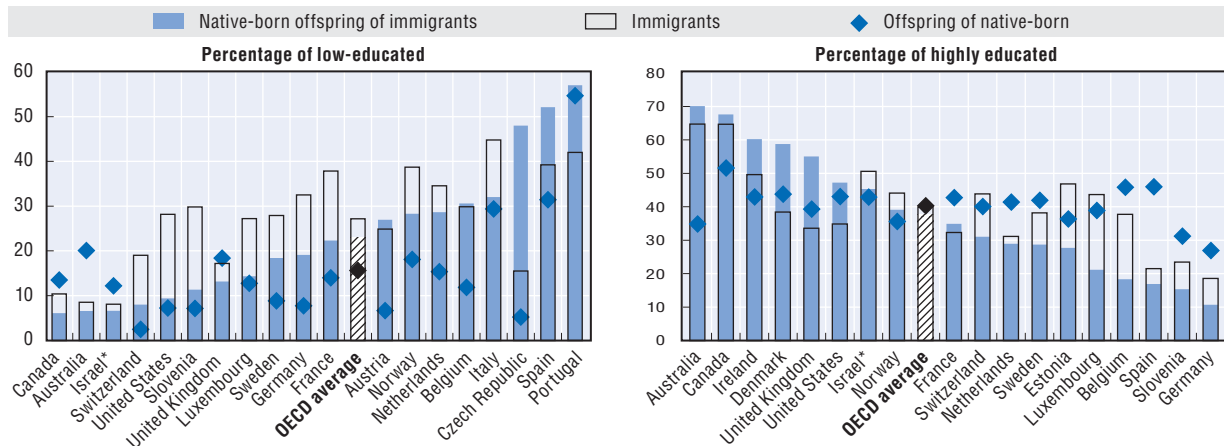
The native-born offspring of immigrants are defined as persons born in the country of residence both of whose parents are foreign-born. Immigrants are foreign-born persons. "Children of native-born" consist of persons for whom at least one parent is native-born.

On average across OECD countries, one third of native-born offspring of immigrants aged 25 to 34 years hold a university degree and about one out of five have completed at best lower secondary education (Figure 5.6). In terms of the proportion of low-educated, the outcomes for native-born offspring of immigrants are generally in between those of immigrants (faring worse) and those of offspring of native-born (faring better). However, the situation varies widely across OECD countries and generally differ between men and women. At least 60% of native-born offspring of immigrants hold a university degree in Australia, Canada, Denmark and Ireland. In those countries, as well as in the United Kingdom and the United States, the native-born offspring of immigrants are more likely to have completed tertiary education than the offspring of the native-born. In most other OECD countries, the reverse is true. The educational attainment of the native-born offspring of immigrants is particularly low in Portugal and Spain, where more than half of them have completed at best lower secondary education compared with 40% of the immigrants aged 25 to 34.

The under-representation of highly educated is particularly pronounced among male and female native-born offspring of immigrants in Belgium, Germany, Luxembourg and Spain (Figure 5.7). Conversely, in Australia, Canada, Denmark and the United Kingdom, the native-born offspring of immigrants both men and women are overrepresented among the highly educated. Immigrants are generally underrepresented among highly educated. Notable exceptions are Australia and Canada.

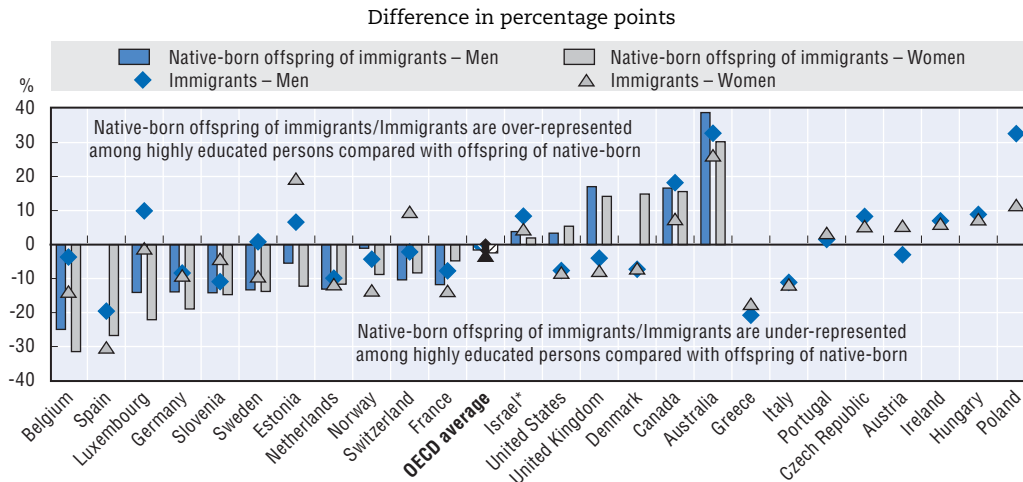
With the exception of Switzerland, female native-born offspring of immigrants are more likely to be highly educated than their male counterparts (Figure 5.8). This educational gender gap is particularly pronounced in Canada, France, Israel and Slovenia. The gender gap is generally lower among immigrants than among native-born offspring of immigrants. This is particularly the case in Canada, France and Sweden. In this latter country, as well as in Luxembourg and the United Kingdom, the educational gender gap is negligible among immigrants.

Figure 5.6. **Educational attainment of persons aged 25 to 34, including persons still in education, by place of birth and parents' place of birth, 2008**



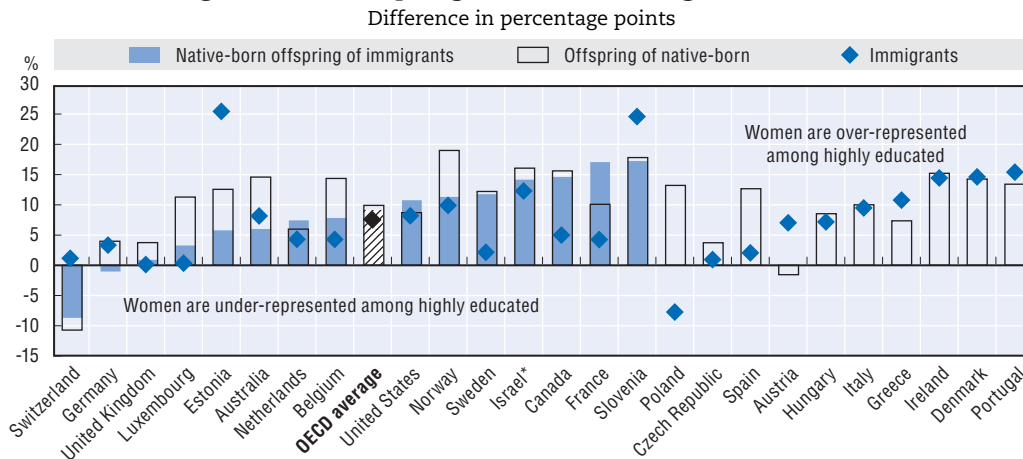
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Figure 5.7. **Difference in the proportion of highly educated native-born offspring of immigrants and immigrants compared with that of the offspring of native-born aged 25 to 34, by gender, 2008**



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Figure 5.8. **Gender gap in the proportion of highly educated native-born offspring of immigrants, immigrants and offspring of native-born aged 25 to 34, 2008**



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Notes and sources are at the end of the chapter.

Measurement

The OECD Programme for International Students Assessment (PISA) assesses the extent to which students at the end of compulsory education have acquired some of the knowledge and skills that are essential to fully participate in modern societies, with a focus on reading, mathematics and science. PISA covers students aged between 15 years and 3 months and 16 years and 2 months at the time of the assessment. Students assessed have completed at least six years of formal schooling, regardless of the type of institution in which they are enrolled, whether full-time or part-time, in academic or vocational programmes, and in public or private schools or foreign schools within the country.

This chapter uses some of the information available from PISA on participation in pre-primary education (Indicator 5.1) and on reading skills at the age of 15 (Indicator 5.2). Information on the highest educational level achieved is also reported for persons aged 25 to 34, when initial education is generally completed for low, medium and first-stage tertiary programmes (Indicator 5.3). These data are obtained from labour force surveys. Results are not shown for persons older than 34 because of the small number of native-born offspring of immigrants in this age range in many OECD countries.

There is considerable heterogeneity within each educational level and further information would be needed to better assess individuals' knowledge and skills. The OECD Programme for the International Assessment of Adult Competencies (PIAAC), a sort of PISA for adults, is a unique tool to evaluate adult's actual competences. However, the first results of this survey are not available at the time of writing this report.

Notes, sources and further reading

Notes

Indicators 5.1 and 5.2: PISA results include only countries with at least 30 students from five different schools in the sample.

Figures 5.1 and 5.2, 5.4 and 5.5: Grey bars/diamonds indicate countries for which differences between the two groups are not statistically significant at 5%.

Figures 5.7 and 5.8: The OECD average includes countries which cannot be presented individually for sample size issues.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Sources

Indicators 5.1 and 5.2: OECD Programme for International Student Assessment (PISA) 2000 and 2009.

Indicator 5.3: European Labour Force Survey, 2008 ad-hoc module (Eurostat); Australian Survey of Education and Training 2009; 2006 Canadian census; Israeli Labour Force Survey 2009; US Current Population Survey (CPS) 2008.

Further reading

OECD (2010a), *PISA 2009 Results: What Students Know and Can Do: Student Performance in Reading, Mathematics and Science*, OECD Publishing, Paris.

OECD (2010b), *PISA 2009 Assessment Framework: Key Competences in Reading, Mathematics and Science*, OECD Publishing, Paris.

OECD (2010c), *Equal Opportunities? The Labour Market Integration of the Children of Immigrants*, OECD Publishing, Paris.

OECD (2012a), *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care*, OECD Publishing, Paris.

OECD (2012b), *Untapped Skills: Realising the Potential of Immigrant Students*, PISA, OECD Publishing, Paris.

ANNEX 5.A1

Statistical annex

Table 5.A1.1. **Difference in PISA reading scores of native-born children of immigrants and immigrants compared with those of children of native-born, before and after accounting for socio-economic background, 2009**

	Native-born children of immigrants		Immigrants	
	Before accounting for socio-economic background	After accounting for socio-economic background	Before accounting for socio-economic background	After accounting for socio-economic background
Australia	16	19	3	2
Austria	-55	-26	-98	-61
Belgium	-65	-37	-71	-46
Canada	-5	1	-8	-9
Czech Republic	-31	-21	-7	-11
Denmark	-56	-27	-79	-54
Estonia	-35	-34	-35	-36
Finland	-45	-42	-89	-75
France	-55	-26	-77	-43
Germany	-54	-23	-61	-35
Greece	-33	-21	-69	-42
Iceland	-55	-46	-87	-64
Ireland	6	4	-36	-41
Israel*	7	21	-18	9
Italy	-45	-31	-81	-60
Luxembourg	-56	-18	-47	-20
Mexico	-89	-77	-105	-91
Netherlands	-46	-16	-44	-11
New Zealand	-28	-14	-6	-13
Norway	-45	-31	-60	-36
Portugal	-16	-13	-36	-35
Slovenia	-41	-19	-74	-45
Spain	-26	-20	-62	-47
Sweden	-53	-33	-91	-56
Switzerland	-42	-20	-58	-41
United Kingdom	-7	-3	-41	-28
United States	-22	8	-21	11
OECD average	-36	-20	-54	-36

Note: Differences in bold are statistically different from zero at a 5% level.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Programme for International Student Assessment (PISA) 2009.


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Table 5.A1.2. Difference in PISA reading scores of immigrants and native-born children of immigrants compared with those of children of native-born, 2000 and 2009

	Native-born offspring of immigrants		Immigrant students	
	2000	2009	2000	2009
Australia	-2	16	-18	3
Austria	-62	-55	-92	-98
Belgium	-111	-65	-89	-71
Canada	2	-5	-27	-8
Czech Republic	-40	-31	-33	-7
Denmark	-94	-56	-71	-79
Finland	-30	-45	-80	-89
France	-41	-55	-76	-77
Germany	-73	-54	-88	-61
Greece	33	-33	-75	-69
Iceland	-51	-55	-67	-87
Ireland	-2	6	46	-36
Italy	-18	-45	-44	-81
Luxembourg	-74	-56	-103	-47
Mexico	-46	-89	-97	-105
Netherlands	-72	-46	-87	-44
New Zealand	-27	-28	-29	-6
Norway	-46	-45	-62	-60
Portugal	-8	-16	-21	-36
Spain	-44	-26	-34	-62
Sweden	-39	-53	-73	-91
Switzerland	-54	-42	-111	-58
United Kingdom	-20	-7	-71	-41
United States	-33	-22	-45	-21
OECD average	-40	-38	-60	-55

Note: Differences in bold are statistically different from zero at a 5% level.

Source: OECD Programme for International Student Assessment (PISA) 2000 and 2009.


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Table 5.A1.3. **Educational attainment of native-born offspring of immigrants, immigrants and offspring of native-born aged 25 to 34, by gender, 2008**

	Men						Women					
	Native-born offspring of immigrants		Immigrants		Offspring of native-born		Native-born offspring of immigrants		Immigrants		Offspring of native-born	
	ISCED 0/1/2	ISCED 5/6	ISCED 0/1/2	ISCED 5/6	ISCED 0/1/2	ISCED 5/6	ISCED 0/1/2	ISCED 5/6	ISCED 0/1/2	ISCED 5/6	ISCED 0/1/2	ISCED 5/6
Australia	4.1	66.6	7.4	60.5	20.8	27.8	8.3	72.6	9.6	68.7	19.3	42.3
Austria	22.3	–	25.2	18.4	5.2	21.4	31.0	–	24.7	25.4	8.2	19.8
Belgium	35.0	14.1	34.3	35.4	15.7	39.1	26.8	21.9	26.3	39.7	7.6	53.4
Canada	8.0	60.4	11.2	62.0	15.8	43.8	4.1	75.0	9.7	67.0	11.1	59.4
Czech Republic	54.4	–	11.1	24.8	4.6	16.5	37.9	–	20.4	25.7	5.9	20.2
Denmark	–	–	53.8	29.6	14.2	36.9	–	66.0	21.3	44.3	10.6	51.2
Estonia	17.1	24.7	–	36.8	17.4	30.2	–	30.5	–	62.2	14.1	42.8
France	25.4	26.0	40.3	30.1	14.9	37.8	19.5	43.1	35.7	34.3	13.0	47.9
Germany	16.4	11.2	33.4	16.7	8.2	25.1	22.3	10.2	31.8	20.1	7.3	29.1
Greece	–	–	66.7	5.4	25.6	26.2	–	–	46.4	16.2	15.8	33.6
Hungary	–	–	–	28.3	14.8	19.5	–	–	14.7	35.5	14.1	28.0
Ireland	–	–	12.2	42.4	21.8	35.4	–	–	9.1	56.8	13.5	50.6
Israel*	9.3	38.0	9.7	42.6	14.5	34.2	3.6	52.2	6.8	54.9	9.9	50.3
Italy	57.5	–	51.7	5.1	33.4	16.3	–	–	39.3	14.6	25.2	26.3
Luxembourg	18.2	19.5	26.6	43.5	14.8	33.6	–	22.8	27.8	43.8	10.6	44.8
Netherlands	32.4	25.5	36.6	28.7	17.7	38.6	22.4	32.9	33.0	33.0	12.9	44.6
Norway	34.0	33.7	42.8	30.5	21.0	34.8	22.0	45.0	35.0	40.4	14.9	53.8
Poland	–	–	–	58.4	8.2	25.7	–	–	–	50.6	6.1	38.9
Portugal	–	–	44.2	17.6	61.8	16.1	69.5	–	39.8	33.0	47.4	29.5
Slovenia	13.0	8.5	29.5	11.8	8.8	22.7	8.8	25.8	30.2	36.4	5.4	40.5
Spain	47.9	–	38.5	20.5	36.3	40.0	56.8	26.0	40.0	22.5	26.2	52.7
Sweden	22.3	22.9	31.7	37.0	10.1	36.2	14.5	34.6	24.9	39.2	7.5	48.4
Switzerland	6.6	35.1	18.1	43.3	2.0	45.4	9.7	26.4	19.9	44.4	3.0	34.7
United Kingdom	14.9	54.6	15.4	33.5	19.3	37.5	11.7	55.5	19.1	33.7	17.5	41.3
United States	10.0	42.0	31.8	31.1	8.1	38.7	8.7	52.8	23.9	39.3	6.4	47.4
OECD average	23.6	26.2	27.7	31.8	17.4	31.2	20.6	35.8	23.6	39.3	13.3	41.3

Note: OECD averages take into account percentages that are not presented individually for sample size issues. Not taking these percentages into account would result in overestimating the percentages.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: Australian Survey of Education and Training 2009; European Labour Force Survey 2008, ad-hoc module (Eurostat); Israeli Labour Force Survey 2009; US Current Population Survey 2008.

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