



1

# Overview of Immigration Regimes and Education Systems

Different immigration and education policies across countries shape the context in which the children of immigrants strive to learn. History, international treaties and domestic immigration policy are all factors which have influenced and continue to influence the immigrant intake in a particular country. Education systems differ in the way they distribute resources and establish system-wide and school-level policies. The following overview of the context in which children of immigrants learn is intended to provide a frame of reference for the evidence and results discussed in subsequent chapters.

## INTRODUCTION

The Programme for International Student Assessment (PISA) tests 15-year-old students at school across countries. Some of these students and/or their parents were not born in the country of assessment. It is they who are the focus of this report. Some of these students speak a language at home different from that of the PISA assessment. Box 1.1 categorises students who participated in PISA across immigrant backgrounds and provides key definitions used in this report.

This chapter first reviews recent trends in international migration, describing the size of current foreign-born populations across countries and presenting elements associated with the size and nature of these populations. The chapter then reviews a set of important differences and similarities across national educational systems. It ends with a brief overview of population sizes across countries.

### Box 1.1 **Key definitions: Immigrant background**

PISA 2009 asked students to report the country where they and their parents were born. The countries or country groups identified vary by assessment country. All countries differentiate between the country of assessment and other countries. In some cases, a list of countries was provided. For example, among OECD countries, Australia, Austria, Belgium, Denmark, Luxembourg, New Zealand and Switzerland all had at least three options (specific countries or regions) in addition to “other country”.

This report distinguishes between immigrant and non-immigrant students based on the information reported by students on the country of origin of both their parents. If both of the student’s parents were born in a country other than the country where the student sat the PISA test, the student is classified as an immigrant student. Non-immigrant students are the remainder, that is, students who have at least one parent who was born in the country where the student took the assessment.

Among immigrant students, the report distinguishes between first- and second-generation students based on the information they reported on their own country of birth. Second-generation students are immigrant students born in the country of assessment (where they sat the PISA test). First-generation students are foreign-born, like their parents.

While this categorisation of students is useful for analysis, it hides some variation across family characteristics, age of arrival or countries of origin. For example, non-immigrant students include students with one parent born abroad or students who are themselves foreign-born but have at least one parent who was born in the country of assessment. Immigrant students vary by country of origin, as do their parents, sometimes even within the same family. For example, families may include children born both abroad and in the country. First-generation students vary according to the age they arrived in the country.

Another important dimension of variation among immigrant students is the language they speak at home. PISA asked students to report whether or not the language they mostly speak at home was the same as the language in which they were assessed by PISA, which is always the language of instruction. It is therefore possible to distinguish between immigrant students who mostly speak the assessment language at home and those who do not.

## OVERVIEW OF INTERNATIONAL MIGRATION

### *International migration trends in recent decades*

In part because of aging and demographic decline, international migration has jumped up the policy agenda in many countries across the globe in recent decades, but it is hardly a new phenomenon. The post-World War II years saw large movements of workers crossing borders to fill jobs for which there were not enough domestic workers in many European countries. At the same time, the traditional settlement countries of Australia, Canada, New Zealand and the United States resumed admission of immigrants from across the oceans, which had been interrupted by the two world wars and the Great Depression. Workers arrived from countries across the globe, as the settlement countries abandoned former restrictive policies, sometimes based on geographic origin.

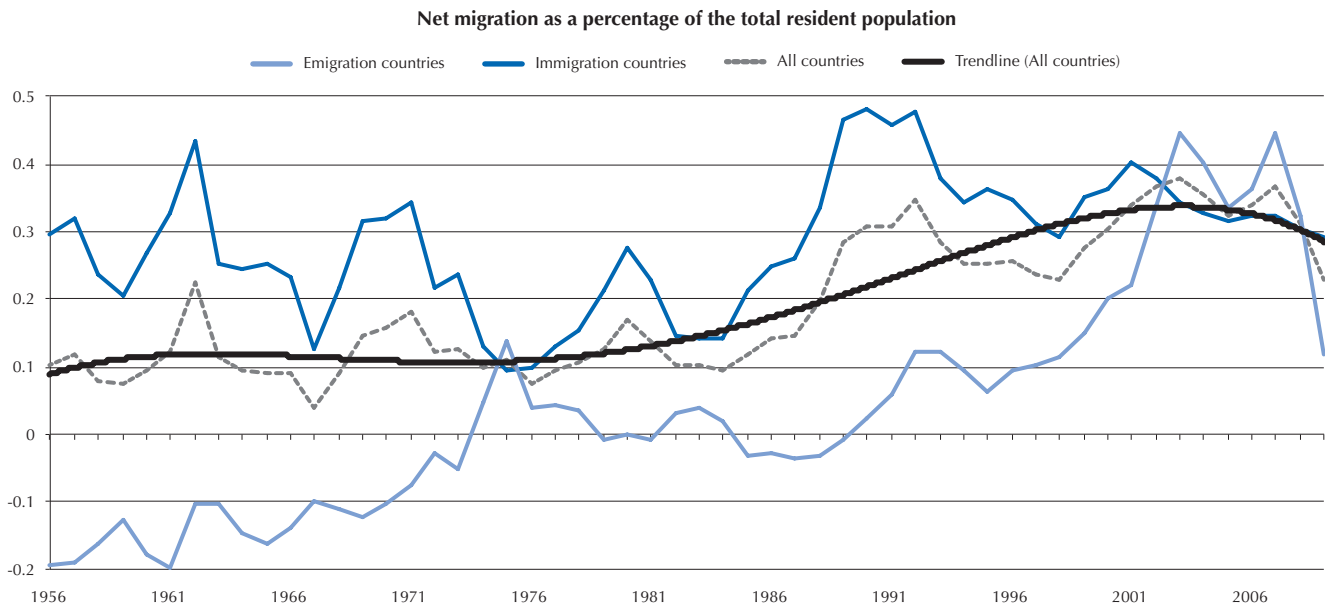
The seventies oil crisis put a stop to labour migration in many countries, as economies adjusted to higher energy prices. But migration as a whole did not stop. Many workers stayed on, bringing over their families from abroad. Others fled their homelands in the wake of civil wars and political persecution. The transfer of wealth to the Gulf States transformed them into magnets for workers moving to take on jobs in oil production, construction, commerce and domestic help. More than a decade later, the fall



of the Iron Curtain ushered in a new era of international migration, as barriers to out-migration, if not to immigration, came down almost everywhere. In addition, economic globalisation created needs and opportunities for workers, both skilled and lesser skilled, in new centres of development, production and growth, such as Korea, Thailand, Malaysia, Singapore, China and India.

At the same time, most former OECD emigration countries became immigration countries, showing immigration rates (before the economic crisis) that were on average as large as those of traditional OECD immigration countries (Figure 1.1). Such countries are thus being faced with new challenges, in both their educational systems and their labour markets, which they have not had to face before in a significant way.

■ Figure 1.1 ■  
50 years of net migration in selected OECD countries, 1959-2009



Note: Immigration countries include Australia, Austria, Belgium, Canada, France, Germany, Luxembourg, the Netherlands, New Zealand, Sweden, Switzerland, the United Kingdom and the United States. Emigration countries include the Czech Republic, Denmark, Finland, Iceland, Italy, Norway, the Slovak Republic, Japan, Greece, Hungary, Ireland, Poland, Portugal and Spain. Korea, Mexico and Turkey are out of the scope of the study for data availability reasons.

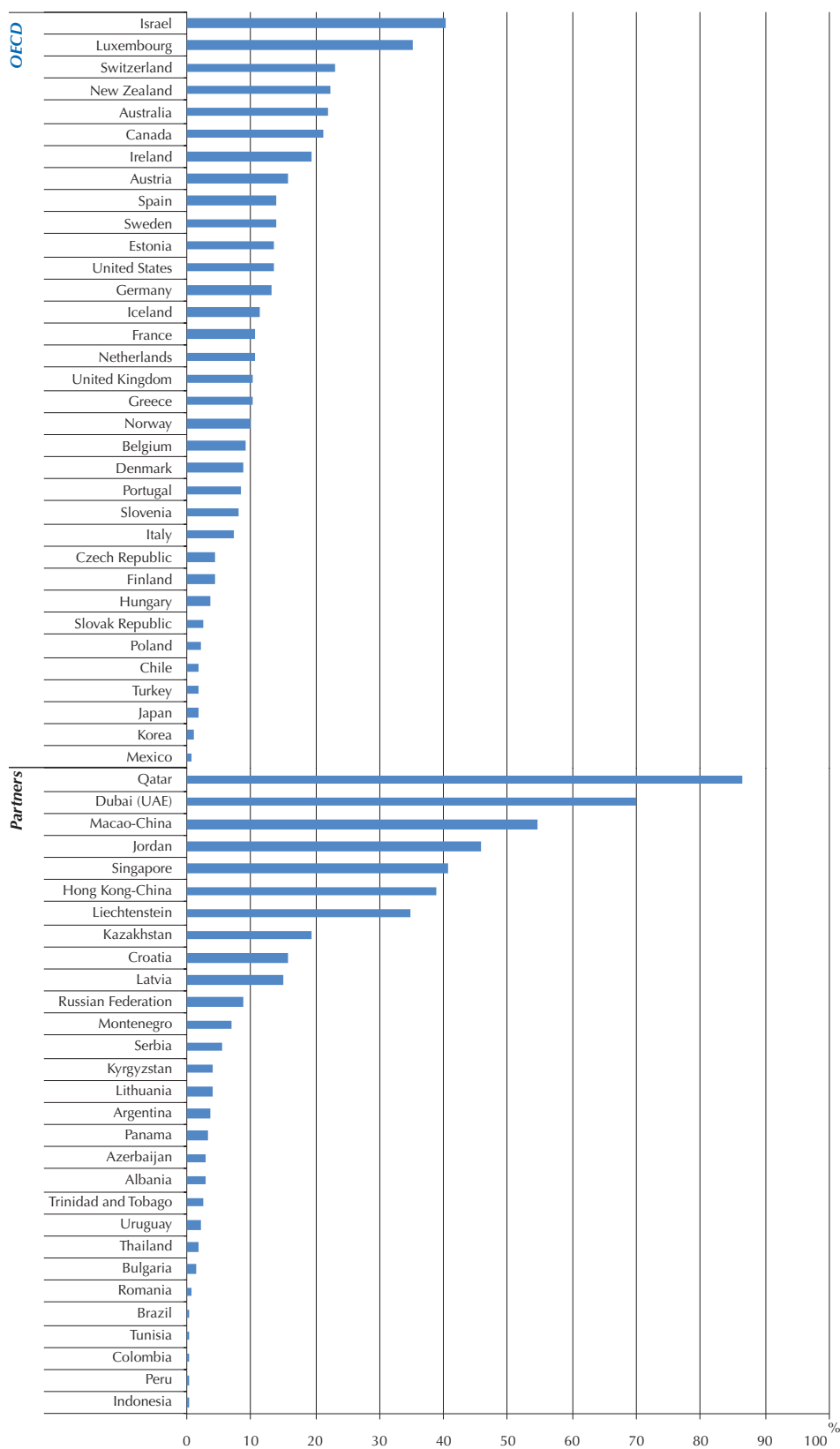
Source: OECD (2011), *Labour Force Statistics*.

By 2010, foreign-born individuals as a percentage of the total population reached an average of about 14% for countries participating in PISA 2009 and 11% for OECD countries (Figure 1.2). These averages over countries mask a considerable variability in immigrant prevalence. In Israel the size of the foreign-born population reaches 40%, Luxembourg follows with 35% and in Switzerland, New Zealand, Australia and Canada it ranges from 21% to 23%. Ireland with 20% and Austria with 16% are also above the OECD average. Spain, Sweden, Estonia, the United States and Germany are all near the OECD average. In contrast, Mexico, Korea, Japan, Turkey, Chile, Poland and the Slovak Republic have foreign born populations at less than 2% (Table B1.2).

Among partner countries and economies, some countries have negligible numbers of immigrants in percentage terms, such as Indonesia, Tunisia and most Latin American countries. At the other end of the spectrum are countries such as Dubai (UAE) and Qatar, where the immigrant population is almost as large if not larger than the native-born population, and countries or regions which have been involved in border changes, break-ups or changes in international status, such as the republics of former Yugoslavia and the Soviet Union and Macao- and Hong Kong-China. In the countries of former Yugoslavia, the foreign-born populations largely consist of individuals from other republics of the former country who had migrated (internally) before the break-up. In the former republics of the Soviet Union, such as Estonia, Latvia, Kyrgyzstan and Kazakhstan, immigrants are often ethnic Russians who attend Russian-language schools in those countries. Immigrants in Macao- and Hong Kong-China are mostly ethnic Chinese from the rest of China. Many immigrants in the Czech Republic are from the Slovak Republic. Most immigrants from Hungary are ethnic Hungarians who have “returned” to Hungary from their homes in the Slovak Republic, Romania and Serbia. All of these countries are included in the analyses of this publication, sample sizes permitting, with the cautionary note that much of the international migration in these cases does not bear all of the hallmarks usually associated with the cross-border movement of populations with ethnic, cultural and linguistic backgrounds different from those of the destination country. Table B1.5, which shows the assessment

■ Figure 1.2 ■

### The foreign-born population as a percentage of the total population, 2010



Countries are ranked ascending order of the percentage of the foreign-born population.

Source: United Nations (2011), *Trends in International Migrant Stock*.



languages for each country and the percentage of immigrants assessed in each language who speak a different language at home, gives an illuminating view of the nature of migration movements in the countries assessed in PISA. In some countries immigrants are assessed in a language which is not the main language of the native-born population.

### ***The regulation of international migration***

In any particular country, the size and composition of the immigrant population are determined by international treaties and country-specific immigration policies and practices. International migration movements are extremely diverse and have tended to be regulated since the beginning of the 20th century. The regulation of migration affects the composition and skill-level of immigrant populations across countries, but it would be an exaggeration to assume that the link is always strong. Governments do not necessarily even have full control over legal movements because, among other reasons, of past decisions concerning particular types of migration. For example, many movements are subject to international agreements or treaties, and governments generally cannot restrict such movements without reneging on the treaties. Examples of such treaties are free-mobility regimes in certain regions, such as the free-circulation regime for the citizens of European Union member countries, the Trans-Tasman Travel Arrangement between Australia and New Zealand, or the MERCOSUR Agreement on the Free Movement of Persons and Residence between the countries of the southern cone of South America.

Likewise many governments have signed the Geneva Convention, which requires that they examine requests for asylum by people arriving or present in the country or country's territory and grant refugee status to those satisfying the criteria defined in the convention. Those not satisfying the criteria in principle must return to their country of origin.

Most governments also recognise the right of residents to live with their families or to marry or adopt whom they want. There may be restrictions on the arrival of family migrants, such as minimum income levels or adequate lodgings, but these cannot be made overly restrictive without calling into the question the commitment of countries to the rights in question.

All of these describe situations in which governments have limited discretionary authority over the nature and composition of movements, and ultimately on the nature of the immigrant student populations as a result of these movements. Free-circulation regimes, for example, may not always be between countries with similar wage and education levels, with the consequence that significant movements of lesser-skilled migrants may occur from lower- to higher-wage countries. Likewise, refugee movements from some developing countries may involve and indeed have involved at times populations of extreme educational disadvantage.

### **Labour migration and immigration policy**

Labour migration, on the other hand, tends to be discretionary in nature, that is, governments define the conditions of entry and stay and, in principle, have full discretion to increase or decrease the flows as they wish. Movements are often restricted, either through numerical limits or by assessments of whether local labour is available, both to ensure political acceptability and to avoid adverse wage and employment effects on resident workers.

The education or skill level of labour migrants can and is often regulated by governments, whether the labour migrants are recruited directly by employers (demand-driven migration) or are selected by the national administration on the basis of an assessment of their characteristics and deemed aptitude to integrate into the labour market and society of the destination country (supply-driven migration). Most OECD governments have tended to favour highly skilled labour migration over recent decades, not the least because their labour market outcomes and contribution to the economy have generally been far more favourable than for lesser-skilled migration. At the same time, the children of such migrants have tended to have better educational outcomes than the children of lesser-skilled migrants. While highly skilled migration has been preferred by almost all countries, the scale of such migration has varied considerably across countries.

It is essentially only in the settlement countries of Australia, Canada and New Zealand that discretionary labour migration was significant in numbers until approximately the mid 1990s, when Ireland and the United Kingdom also began opening up to skilled labour migration. This was also the case in Singapore since the 1980s and in Israel, with the migration of highly educated Russian Jewish people in the 1990s. In most other countries, highly skilled labour migration remained low in proportional terms and lower-skilled humanitarian and family migration predominated, even if education levels were generally increasing for immigrants from developing countries as well. It is hardly a coincidence that students of immigrant parents in the countries where there has been significant highly skilled migration generally have had favourable reading outcomes. In other countries, this is less often observed although, as will be seen, there are factors other than low parental educational attainment alone which influence outcomes in these countries.

The extent of discretionary skilled labour migration in countries would appear to be about the only facet of migration policy regimes which seems to be useful in explaining immigrant student reading outcomes. Other categorisations of countries according to their migration history or policy, such as whether or not they had guest-worker regimes in the 1960s and 1970s, colonial pasts or were important destination countries for refugee populations, may well have affected the composition of migration in these countries, but have not proven useful in distinguishing countries from each other with respect to the reading outcomes of immigrant students.

The countries of southern Europe constitute an interesting example, because they are among the countries which have seen very high levels of labour migration over the past 15 years. However, the education levels of immigrant parents have not been especially high, although they have not been substantially different from those of its (older) working-age population. Despite this, the PISA reading outcomes of immigrant children in these countries have not been especially favourable.

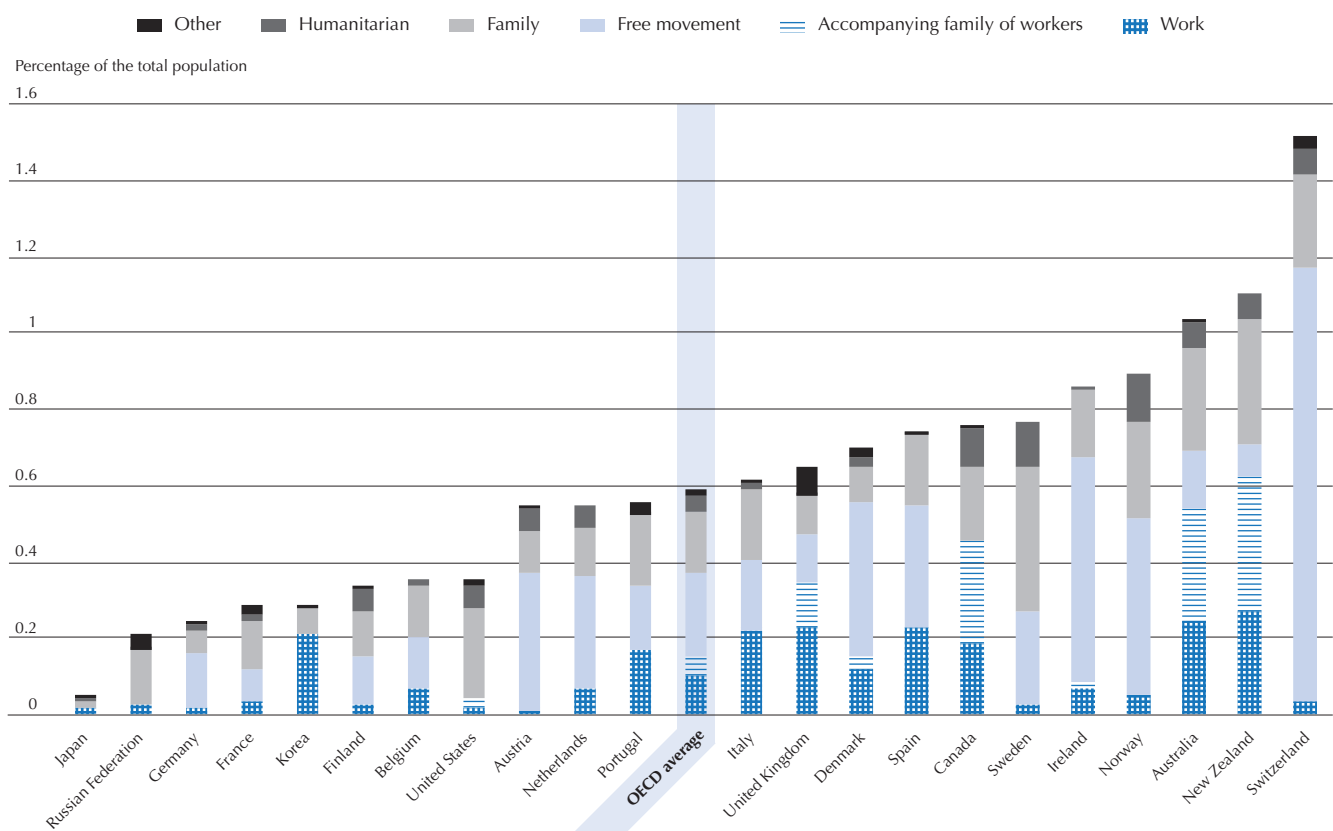
Other aspects of migration policy can affect the migration of family members and in particular of immigrant students. Historically, not all immigrants have been allowed to bring in their families at the same time they themselves migrated, nor have their spouses necessarily been allowed to work. Family reunification continues to be subject to certain conditions in most countries, in particular the requirement of adequate income and lodgings. In practice, these requirements may delay family reunification and the arrival of immigrant children in the educational systems of destination countries. By contrast, highly skilled migrants are normally allowed, and indeed in many countries encouraged, to come with their families from the beginning.

### The composition of international migration

For both historical and policy reasons, the scale and nature of international migration movements differ from country to country. Figure 1.3 gives an indication of this variability across OECD countries for a recent year (2009), showing both the relative importance of permanent migration and the distribution by category of entry. These statistics show immigration for a given year, that is immigration flows, as opposed to Figure 1.2, which shows the extent of the entire immigrant population. Note that most of the large countries in Figure 1.3 have relatively low immigration rates, even if the absolute numbers of immigrants in these countries may seem large. Free circulation has become an important category of entry for many European countries, although it was less so prior to the enlargement of the European Union (EU) in 2004. Labour migration (excluding free-circulation movements) tends to be a minority phenomenon in almost all countries and the number of people entering under this category is generally smaller than those entering as family migrants.

Figure 1.3

### Permanent immigration into selected OECD and non-OECD countries, total and by category of entry, 2009



Countries are ranked in ascending order of the percentage of the total population.

Source: OECD (2011).





The extent of discretionary labour migration tends to understate the impact of this form of migration, however. Spouses of migrants tend to have educational attainment levels that are similar to those of the migrants, and tend to transmit their educational situation to their children. In practice, this means that the impact of relatively modest labour migration regimes can be much greater than the actual size of a labour migration programme might lead one to believe. The selective migration countries of Australia, Canada and New Zealand, for example, tend to include accompanying family members in their statistics when they cite the relative importance of their skilled migration programmes. Although it is generally only the labour migrants who are directly settled, from the point of view of impact, it is undoubtedly the entire family which is the relevant group. Including family members of skilled labour migrants in the statistics for these countries raises the share of this group to over 60% of annual entries.

Migration movements tend to be strongly influenced by current migration policies but also by previous migration waves, which in turn may reflect the colonial history of the country, as is the case of Belgium, France, Netherlands and the United Kingdom. Table B1.1 provides circa 2000 statistics on the geographic origin of immigrants, for those PISA-assessed countries for which such data are readily obtainable from the most recent Census. This is not a recent year, but nonetheless provides a good overview of both the scale of international migration over recent decades, as well as its composition by continent and by OECD and non-OECD countries.

OECD countries are the origin countries of about 44% of all immigrants in OECD countries, but represent only 8% of all immigrants among the partner countries shown. Immigrants in European countries are generally European in origin, but there are significant populations from Africa in certain countries, in particular France and Portugal and to a lesser extent in Belgium, Italy, the Netherlands, Spain and the United Kingdom. Asia is strongly represented in Scandinavia, the Netherlands and the United Kingdom, but also in the settlement countries of Australia, Canada and New Zealand as well as in Japan. Migration in Latin America is heavily intra-regional, but also to the United States and Spain. In most countries, there is substantial diversity in origin countries, with more than 100 origin countries represented, but also often strong representation from a more limited number of countries (Table B1.1).

### ***The immigrant student population***

The children of immigrants may be immigrants themselves, having arrived with their parents or having been brought over some time later (first-generation students in PISA), or they may have been born in the country (second-generation students in PISA). First-generation immigrants may have arrived as adults or may have themselves entered the country when young and been largely educated in the country. Second-generation 15-year-old students in 2009 will generally have mothers roughly aged between 33 and 60, which means that they were born between 1949 and 1976. As immigrants, they must have entered the country in a year between their own birth and that of their PISA-assessed offspring in 1994, which provides for a rather broad range of possibilities. By contrast the mothers of first-generation students would only have entered the country as adults after 1994.

In practice then, second generation students may be a rather heterogeneous group, some being similar to first-generation students who arrived when quite young and some having parents who have been largely educated in the country of residence and thus more akin to children of the native-born.

Table B1.2 gives some indication of this diversity for a number of countries, using data for 13-17-year-olds from labour force surveys. It can be seen that the “older” migration countries tend to show more children of immigrants with parents who themselves arrived in the country when they were young. This is far less the case for recent migration countries such as Italy, Spain and Greece. It would be instructive to be able to distinguish between these different groups in practice. The better performance of second-generation students, which one generally observes in most countries, may well correspond to the fact that their parents in many cases may have been educated in the host country.

## **INTRODUCTION TO PISA**

### ***The PISA surveys***

Are students well prepared to meet the challenges of the future? Can they analyse, reason and communicate their ideas effectively? Have they found the kinds of interests they can pursue throughout their lives as productive members of the economy and society? The OECD Programme for International Student Assessment (PISA) seeks to answer these questions through its triennial surveys of key competencies of 15-year-old students in OECD member countries and partner countries/economies. Together, the group of countries participating in PISA represents nearly 90% of the world economy.<sup>1</sup>

PISA assesses the extent to which students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in modern societies, with a focus on reading, mathematics and science.

PISA has now completed its fourth round of surveys. Following the detailed assessment of each of PISA's three main subjects – reading, mathematics and science – in 2000, 2003 and 2006, the 2009 survey marks the beginning of a new round with a return to a focus on reading, but in ways that reflect the extent to which reading has changed since 2000, including the prevalence of texts in digital form.



## Box 1.2 Key features of PISA 2009

### *Content*

- The main focus of PISA 2009 was reading. The survey also updated performance assessments in mathematics and science. PISA considers students' knowledge in these areas not in isolation, but in relation to their ability to reflect on their knowledge and experience and to apply them to real-world issues. The emphasis is on mastering processes, understanding concepts and functioning in various contexts within each assessment area.
- For the first time, the PISA 2009 survey also assessed 15-year-old students' ability to read, understand and apply digital texts.

### *Methods*

- Around 470 000 students participated in PISA 2009, representing about 26 million 15-year-olds in the schools of the 65 participating countries and economies. Some 50 000 students took part in a second round of this assessment, representing about 2 million 15-year-olds from ten additional partner countries and economies.
- Each participating student spent two hours carrying out pencil-and-paper tasks in reading, mathematics and science. In 20 countries, students were given additional questions via computer to assess their capacity to read texts in digital form.
- The assessment included tasks requiring students to construct their own answers as well as multiple-choice questions. The latter were typically organised in units based on a written passage or graphic, much like the kind of texts or figures that students might encounter in real life.
- Students also answered a questionnaire that took about 30 minutes to complete. This questionnaire focused on their personal background, their learning habits, their attitudes towards reading, and their involvement and motivation.
- School principals completed a questionnaire about their school that included demographic characteristics and an assessment of the quality of the learning environment at school.

### *Outcomes*

PISA 2009 results provide:

- a profile of knowledge and skills among 15-year-olds in 2009, consisting of a detailed profile for reading and an update for mathematics and science;
- contextual indicators relating performance results to student and school characteristics;
- an assessment of students' engagement in reading activities, and their knowledge and use of different learning strategies;
- a knowledge base for policy research and analysis; and
- trend data on changes in student knowledge and skills in reading, mathematics, science, on changes in student attitudes and socio-economic indicators, and in the impact of some indicators on performance results.

### *Future assessments*

- The PISA 2012 survey will return to mathematics as the major assessment area, PISA 2015 will focus on science. Thereafter, PISA will turn to another cycle beginning with reading again.
- Tests will place greater emphasis on assessing students' capacity to read and understand digital texts and solve problems presented in a digital format, reflecting the importance of information and computer technologies in modern societies.





PISA 2009 offers the most comprehensive and rigorous international measurement of student reading skills to date. It assesses not only reading knowledge and skills, but also students' attitudes and their learning strategies in reading. PISA 2009 updates the assessment of student performance in mathematics and science as well.

The assessment focuses on young people's ability to use their knowledge and skills to meet real-life challenges. This orientation reflects a change in the goals and objectives of curricula themselves, which are increasingly concerned with what students can do and what they learn at school and not merely whether they have mastered specific curricular content. PISA's unique features include its:

- Policy orientation, which connects data on student learning outcomes with data on students' characteristics and on key factors shaping their learning in and out of school in order to draw attention to differences in performance patterns and to identify the characteristics of students, schools and education systems which have high performance standards.
- Innovative concept of "literacy", which refers to the capacity of students to apply knowledge and skills in key subject areas and to analyse, reason and communicate effectively as they pose, interpret and solve problems in a variety of situations.
- Relevance to lifelong learning, which does not limit PISA to assessing students' competencies in school subjects, but also asks them to report on their own motivations to learn, their beliefs about themselves and their learning strategies.
- Regularity, which enables countries to monitor their progress in meeting key learning objectives.
- Breadth of geographical coverage and collaborative nature. PISA 2009 covers the 34 OECD member countries and 40 partner countries and economies.<sup>2</sup>

The relevance of the knowledge and skills measured by PISA is confirmed by studies tracking young people in the years after they have been assessed by PISA. Longitudinal studies in Australia, Canada and Switzerland display a strong relationship between performance in reading on the PISA 2000 assessment at age 15 and future educational attainment and success in the labour-market (see Volume I, Chapter 2).<sup>3</sup>

The frameworks for assessing reading, mathematics and science in 2009 are described in detail in *PISA 2009 Assessment Framework: Key Competencies in Reading, Mathematics and Science* (OECD, 2010a).

Decisions about the scope and nature of the PISA assessments and the background information to be collected are made by leading experts in participating countries. Governments guide these decisions based on shared policy-driven interests. Considerable efforts and resources are devoted to achieving cultural and linguistic breadth and balance in the assessment materials. Stringent quality-assurance mechanisms are applied in designing the test, in translation, sampling and data collection. As a result, PISA data tend to be of high statistical quality.

PISA findings are useful in gauging the knowledge and skills of students in one country in comparison with those in other countries, especially the highest performing countries. They are also of use in assessing the pace of educational progress, through the possibility of contrasting performance changes observed nationally with those seen elsewhere. In a growing number of countries, PISA is used to set policy targets in terms of measurable goals achieved by other systems, and to initiate research and peer-learning designed to identify appropriate policy levers to improve educational outcomes. While it is difficult with PISA data to identify cause-and-effect relationships between inputs, processes and educational outcomes, they can highlight the key features common to education systems or by which they differ, making the findings available to educators, policy makers and the general public.

### **The PISA student population**

In order to ensure the comparability of the results across countries, PISA devoted a great deal of attention to assessing comparable target populations. Differences between countries with respect to the nature and extent of pre-primary education and care, the age of entry to formal schooling, and the structure of the education system make it difficult to define school grade levels so that they are internationally comparable. PISA instead defines its population with reference to a specific target age, namely students who are aged between 15 years 3 months and 16 years 2 months at the time of the assessment and who have completed at least six years of formal schooling, regardless of the type of institution in which they are enrolled, whether they are in full-time or part-time education, whether they attend academic or vocational programmes, and whether they attend public or private schools or foreign schools within the country. (For an operational definition of this target population, see the *PISA 2009 Technical Report* [OECD, 2012].) Using a set age in PISA, across countries and over time, allows the performance of students to be compared in a consistent manner, prior to the upper age limit for compulsory education.

Stringent technical standards were established to define the national target populations and to identify permissible exclusions from this definition (for more information, see the PISA website [www.pisa.oecd.org](http://www.pisa.oecd.org)). The overall exclusion rate within a country was required to be below 5% to ensure that, under reasonable assumptions, any distortions in national mean scores would remain within plus or minus 5 score points, i.e. typically within the order of magnitude of two standard sampling errors (see *PISA 2009 Results Volume I, Annex A2* [OECD, 2010b]). Exclusion could take place either at the school or student level. There are several reasons why

a school or a student could be excluded from PISA. Schools might be excluded because they are situated in remote regions and are inaccessible or because they are very small, or because of organisational or operational factors that preclude participation. Students might be excluded because of intellectual disability or limited proficiency in the language of the test.

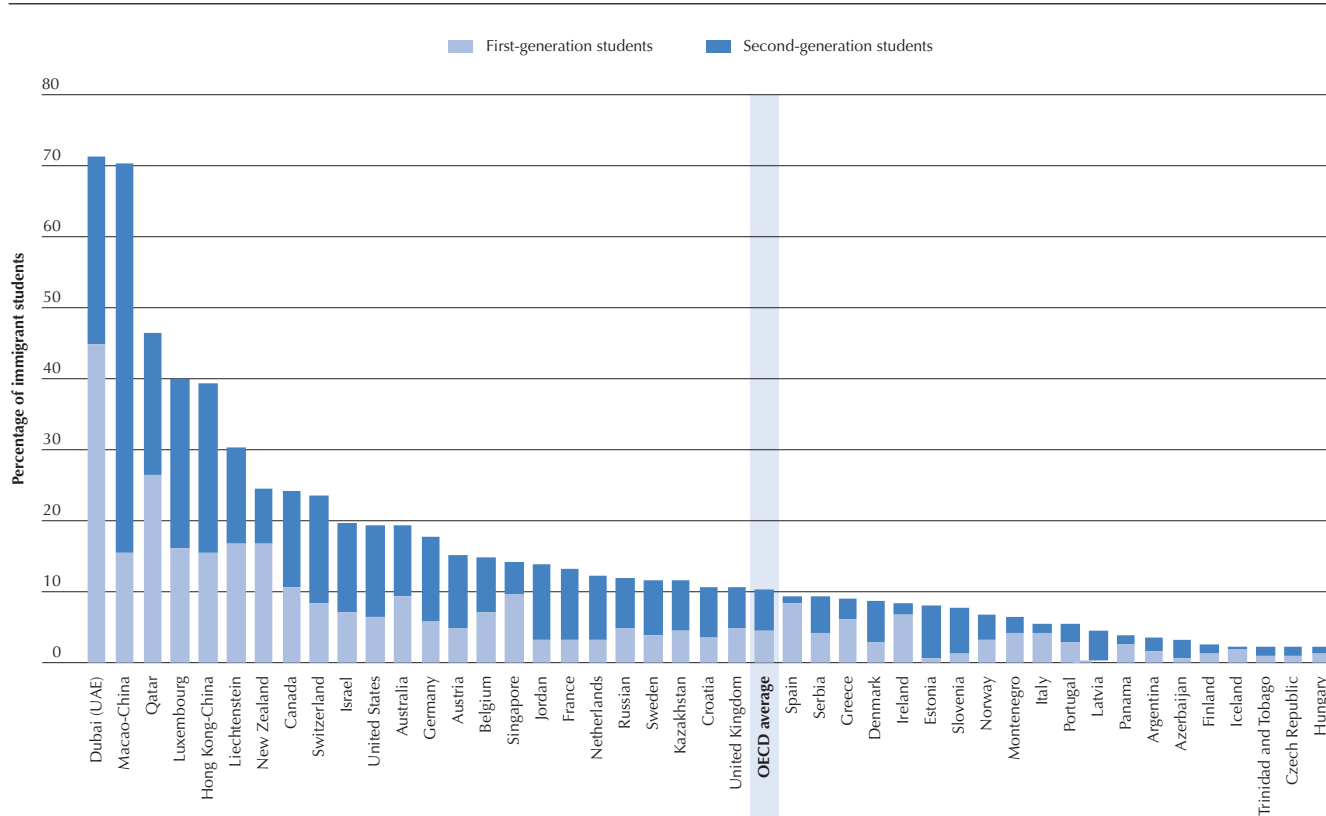
The specific sample design and size for each country aimed to maximise sampling efficiency for student-level estimates. In OECD countries, sample sizes ranged from 4 410 students in Iceland to 38 250 students in Mexico. Countries with large samples have often implemented PISA both at national and regional/state levels (e.g. Australia, Belgium, Canada, Italy, Mexico, Spain, Switzerland and the United Kingdom). The selection of samples was monitored internationally and adhered to rigorous standards for the participation rate, both among schools selected by the international contractor and among students within these schools, to ensure that the PISA results reflect the skills of the 15-year-old students in participating countries. Countries were also required to administer the test to students in identical ways, to ensure that students received the same information prior to and during the test (for details, see *PISA 2009 Results*, Volume I, Annex A4 [OECD, 2010b]).

## THE PREVALENCE OF IMMIGRANT STUDENTS ACROSS COUNTRIES

Immigrant students represent more than 5% of the student population in 25 of the 34 OECD and 13 of the 30 partner countries and economies that participated in PISA 2009. Figure 1.4 shows the proportion of 15-year-old students who have an immigrant background. The grey bar represents the percentage of first-generation students and the blue bar represents the percentage of second-generation students. Across OECD countries, 10% of the students assessed by PISA have an immigrant background. This group represents 40% of students in Luxembourg. In New Zealand, Canada and Switzerland, immigrant students represent around 24% of students. In Israel, the United States, Australia, Germany and Austria, immigrant students represent between 15% and 23% of the student population, and in Belgium, France, the Netherlands, Sweden and the United Kingdom, between 10% and 15%. Among the partner countries and economies, immigrant students represent around 70% of the student population in Dubai (UAE) and Macao-China. They also represent a sizeable percentage of the student population in Qatar, Hong Kong-China and Liechtenstein (between 30% and 50%). In Singapore, Jordan, the Russian Federation, Kazakhstan and Croatia, the percentage is between 10% and 15% (Table B1.3).

Figure 1.4

### Percentage of immigrant students



Countries are ranked in descending order of the percentage of immigrant students (first- and second-generation students).

Source: OECD PISA 2009 Database, Table II.4.1.

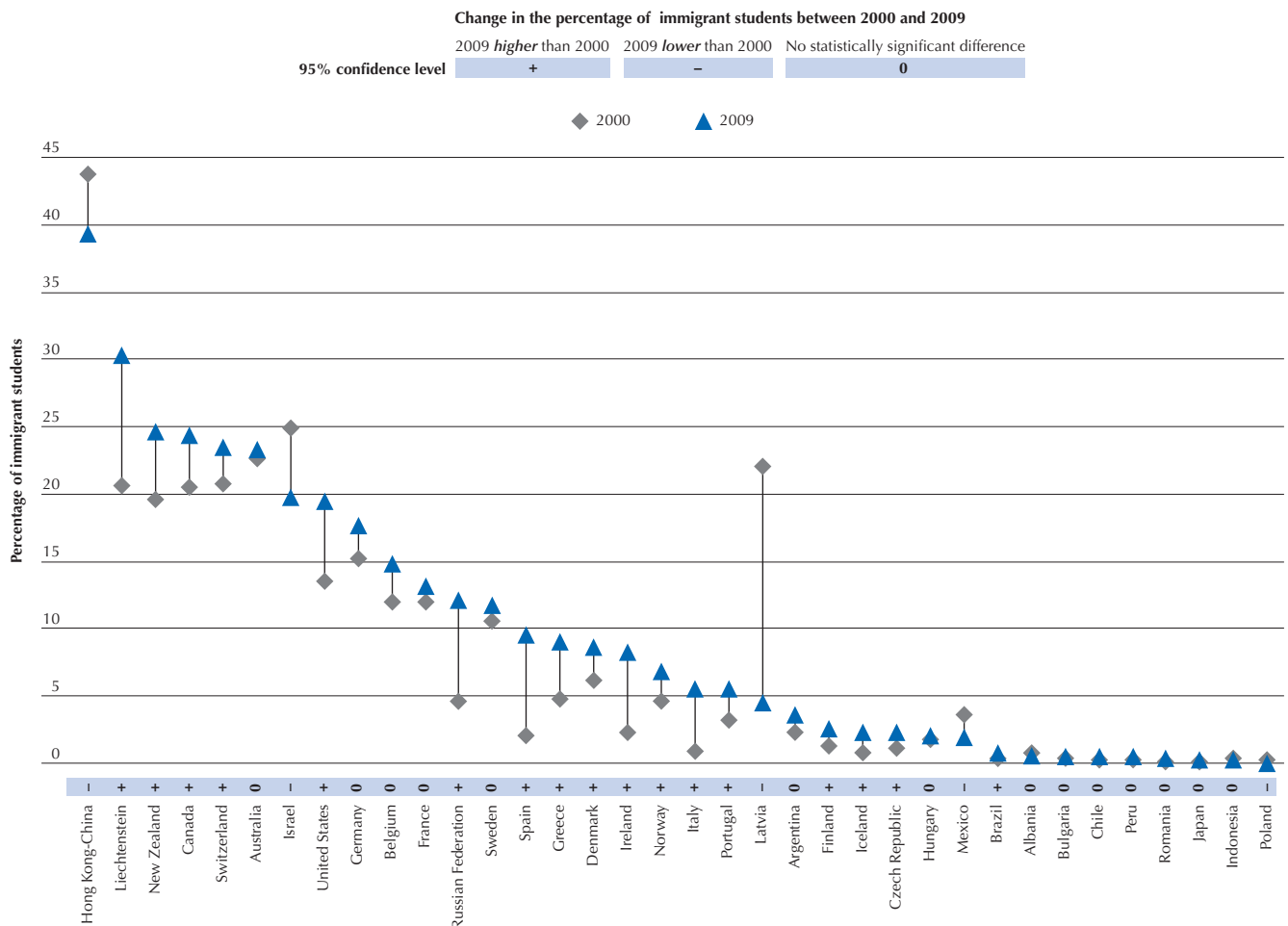


First-generation students represent 4.8% of the student population across OECD countries. However they represent more than 10% of the 15-year-old student population in Australia, Canada, Luxembourg, New Zealand and in the partner countries and economies of Dubai (UAE), Hong-Kong China, Liechtenstein, Macao-China and Qatar. Second-generation students represent a larger share of the student population – 6.2% across OECD countries – and in many countries represent sizeable minorities. Second-generation students represent more than 10% of the student population in Australia, Austria, Canada, France, Germany, Israel, Luxembourg, Switzerland and the United States among OECD countries and in Dubai (UAE), Hong-Kong China, Jordan, Liechtenstein, Macao-China and Qatar among partner countries and economies. In most countries second-generation students represent a larger proportion of students than first-generation students, reflecting established migration histories. In other countries, first-generation students represent the majority. First-generation students represent more than 50% of immigrant students in Spain, Chile, Shanghai-China, Ireland, Iceland, Italy, Romania, Greece, New Zealand, Singapore, Panama, Dubai (UAE), Montenegro, Mexico, Hungary, Qatar, Bulgaria, Finland, Liechtenstein, Uruguay, Japan, and Portugal (Table B1.3).

### THE PROPORTION OF IMMIGRANT STUDENTS CONTINUES TO GROW

Based on information gathered from questionnaires distributed with the PISA 2009 assessment, the percentage of 15-year-old immigrant students grew by two percentage points, on average, between 2000 and 2009 among OECD countries with comparable data (Figure 1.5). In Ireland, New Zealand, Spain, the United States, and the partner countries Liechtenstein and the Russian Federation, the percentage of immigrant students increased by five percentage points or more over the past decade, and these students now represent from 8% to 30% of these countries' student populations. In Italy, Greece and Canada, the percentage of immigrant students increased by three to five percentage points over the same period. Nearly 25% of Canada's student population has an immigrant background.

Figure 1.5  
Percentage of immigrant students in PISA 2000 and PISA 2009



Countries are ranked in descending order of the percentage of immigrant students in 2009.

Source: Table B1.6.

## OVERVIEW OF EDUCATION SYSTEMS

Education systems are charged with the task of teaching students and ensuring that they learn according to the standards and expectations set in each country. This is a particularly complex task because of the resources involved, the size and the diversity of the student population and because although standards and expectations may be determined at central levels, learning eventually takes place in the classrooms of many schools scattered around each country.

To accommodate the complexity of educating a large and diverse student population, school systems face at least four distinct and relevant issues that determine the organisation and character of the education system. These issues are: *i*) defining the level of resources to invest and how they are distributed across the school system ; *ii*) determining how to deal with the diversity in interests, abilities and backgrounds of the student population; *iii*) determining how individual schools are governed; and *iv*) evaluating the progress of their students and schools and motivating them.

PISA results show that the choices school systems make with respect to these issues have an impact on the average performance of students, but also on their dispersion, which concerns inequities in the distribution of learning opportunities available to students. Performance is a measure of students' cognitive achievement, and a country's average performance is an important benchmark against which to compare the quality of its education system. Equity, on the other hand refers to the degree to which student performance is related to students' economic, social and cultural backgrounds. In more equitable school systems, educational success tends to be more independent of students' socio-economic, cultural or linguistic background.

Due to the particular needs of immigrant students, the distribution of resources, the differentiation of students and the governance of schools may affect the level and quality of the opportunities to learn available to these students.

This overview draws on *PISA 2009 Results: What Makes a School Successful (Volume IV)* (OECD, 2010c) which offers a categorisation of school systems across these organisational dimensions. The organisation of school systems, even at the highest level in the hierarchy, eventually influences what happens in the classroom, that is students' (including immigrant students) exposure to opportunities to learn and their scholastic performance.

### **The level and distribution of resources**

Countries must decide on the level of resources to invest in education and how to distribute them. The decision on the distribution of resources hinges on deciding whether all students will be offered the same opportunities or whether students who have lower educational achievement are offered more resources in order to compensate for socio-economic, cultural or linguistic disadvantages. In general, effective school systems require the right combination of trained and talented personnel, adequate educational resources and facilities and motivated students ready to learn.

Countries must decide not only on the level of monetary resources to invest in education, but also where these resources will be invested in terms of learning time (in the classroom, in pre-primary institutions, and in extra-curricular learning and activities), human resources (number of teachers, teacher salaries and class size) and material resources (building and instructional infrastructure).

At the level of individual students, in practically all countries students who have attended pre-primary schools for more than one year tend to have higher reading performance. At the school level, higher student scores tend to be related to more learning time in mathematics and science, and the availability of better educational resources. PISA results also shows that the association between school resources and schools' performance is also largely related to schools' socio-economic intake. In other words, high socio-economic status students usually enjoy a higher level of educational resources than low socio-economic status students. Therefore school resources may be an important mediator through which the socio-economic background of students and schools affects performance.

At the system level with respect to resources, high-performing school systems tend to prioritise higher salaries for teachers over smaller classes. OECD countries can be grouped into four categories, depending on the amount of resources they invest and the spending choices they make (Figure 1.6). Countries may invest relatively small or large amounts of resources in education, and each of these countries may choose to focus this investment on factors such as teachers' salaries or smaller class sizes. In general, high-performing countries spend more than USD 35 000 per student from ages 6 to 15, but the level of expenditure above this level is unrelated to performance or equity. Most OECD countries prioritise smaller class sizes: the Czech Republic, Estonia, Greece, Hungary, Israel, New Zealand, Poland, Portugal, the Slovak Republic and Turkey spend relatively less on education than the average OECD country and focus these limited resources on smaller class sizes. Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States spend more on education and also focus resources on smaller classes. Only four OECD countries prioritise teachers' salaries: two of these countries, Mexico and Chile, spend relatively small amounts on education and two, Japan and Korea, invest relatively large amounts in education.



Figure 1.6

### How school systems allocate resources for education

		Small class size and/or low teacher salaries	Large class size and high teacher salaries
		Class size for the language of instruction: 23	Class size for the language of instruction: 36
		Teacher salary relative to GDP/capita <sup>1</sup> : 118	Teacher salary relative to GDP/capita <sup>1</sup> : 172
<b>Low cumulative expenditure on education</b>	Cumulative expenditure by educational institutions per students aged 6 to 15: 39 463	Czech Republic, Estonia,** Hungary, Greece, Israel, New Zealand,* Poland,* Portugal, Slovak Republic, Turkey, Albania, Argentina, Azerbaijan, Bulgaria, Croatia, Dubai (UAE), Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Montenegro, Panama, Peru, Qatar, Romania, Russian Federation, Serbia, Tunisia, Trinidad and Tobago, Uruguay	Chile, Mexico, Brazil, Colombia, Hong Kong-China,** Jordan, Indonesia, Macao-China, Shanghai-China,* Singapore,* Chinese Taipei, Thailand
<b>High cumulative expenditure on education</b>	Cumulative expenditure by educational institutions per students aged 6 to 15: 81 238	Australia,* Austria, Belgium,* Canada,** Denmark, Finland,** France, Germany, Iceland,** Ireland, Italy, Luxembourg, Norway,** Netherlands,* Slovenia, Spain, Sweden, Switzerland,* the United Kingdom, United States	Japan,** Korea*

\* Perform higher than the OECD average in reading.

\*\* Perform higher than the OECD average in reading and have the relationship between students' socio-economic background and reading performance weaker than the OECD average.

Note: The estimates in the grey cells indicate the average values of the variables used in latent profile analysis in each group. See Annex A5 in *PISA 2009 Initial Results: What Makes a School Successful (Volume IV)* for technical details.

1. This is the weighted average of upper and lower secondary teachers. The average is computed with weighting teacher salaries for upper and lower secondary education according to the respective 15-year-old students enrolment (for countries with valid information on both if 15-year-old students are both at the upper and lower secondary schools).

Source: OECD (2010c), Figure IV.3.7.

### Managing student diversity: the selection and grouping of students across and within schools

The educational task of school systems is particularly complex given the diversity of student populations. Students vary not only with respect to their age, but also with respect to their interests, abilities and socio-economic, cultural and linguistic background. Governments must decide how they manage this diversity and many choose either to adopt a comprehensive approach to student diversity or differentiate students to create homogeneous learning environments. While the latter opt for similarity in the classroom to cater teaching to students' academic potential and/or interests in specific programmes, comprehensive schools seek to provide all students with similar opportunities, leaving it to each teacher and school to provide for the full range of student abilities, interests and backgrounds. In comprehensive school systems immigrant students are more likely to share the classroom and the school with non-immigrant students, as well as with both high- and low-achieving students. Depending on the perceived academic potential and interests of the immigrant student population and immigrant sub-groups, in school systems that differentiate, immigrant students may tend to be concentrated in particular schools through the selection practices of students into schools, through school transfers or by the establishment of different types of educational programmes (academic or vocational/technical programmes for example) which may differentiate students into different schools or into different tracks/streams within schools.

When analysing the academic outcomes of students it is important to bear in mind how students are grouped into schools, grades and classrooms. Figure 1.7 categorises school systems in PISA by how they sort students into schools and classrooms and how they differentiate students with different academic potential and interests. Among OECD countries, Australia, Canada, Denmark, Estonia, Finland, Greece, Iceland, New Zealand, Norway, Poland, Sweden, the United Kingdom and the United States (and Kazakhstan, Latvia, Lithuania and the Russian Federation among partner countries) adopt more comprehensive approaches to schooling, implying that students of different academic potential and interests attend the same schools and, generally, the same classrooms. Other school systems, differentiate students across schools, selecting students at an early age into schools with different educational programmes, for example (as is the case in Austria, the Czech Republic, Hungary, the Slovak Republic in the OECD, as well as in Croatia, Liechtenstein and Singapore). Other school systems, in turn, homogenise schools and classrooms by transferring students with behavioural or low academic achievement and/or retaining students that fail to meet the grade's standards (Spain, Chile, Argentina, Brazil, Colombia, Tunisia, Peru and Uruguay, for example).



PISA results show that school systems that track students at an early age tend to show a stronger impact of socio-economic background on learning outcomes, signalling larger socio-economic inequalities which may affect immigrant students if they generally have lower socio-economic status or tend to be selected in specific educational programmes. PISA results also show that school systems that are underpinned by a philosophy that all students can succeed and commit to having all students succeed (e.g. school systems with low grade-repetition, low transfer rates and low prevalence of ability grouping within schools) tend to show better student performance and a weaker impact of socio-economic background on learning outcomes. Selective schools perform at higher levels than non-selective schools, but a system as a whole does not benefit from having more selective schools.

▪ Figure 1.7 ▪

### How school systems select and group students for schools, grades and programmes

		Low vertical differentiation		High vertical differentiation	
		Students who repeated one or more grades: 7% Students out of modal starting ages: 7%		Students who repeated one or more grades: 29% Students out of modal starting ages: 11%	
		Low horizontal differentiation at the school level	High horizontal differentiation at the school level	Low horizontal differentiation at the school level	High horizontal differentiation at the school level
		Schools that transfer students to other schools due to low achievement, behavioural problems or special learning needs: 15%	Schools that transfer students to other schools due to low achievement, behavioural problems or special learning needs: 33%	Schools that transfer students to other schools due to low achievement, behavioural problems or special learning needs: 15%	Schools that transfer students to other schools due to low achievement, behavioural problems or special learning needs: 33%
		Schools that group students by ability in all subjects: 8%	Schools that group students by ability in all subjects: 38%	Schools that group students by ability in all subjects: 8%	Schools that group students by ability in all subjects: 38%
Low horizontal differentiation at the system level	Number of school types or distinct educational programmes: 1.1 First age of selection: 15.8 Selective schools: 17%	Australia,* Canada,** Denmark, Estonia,** Finland,** Greece, Iceland,** New Zealand,* Norway,** Poland,* Sweden, United States, United Kingdom, Kazakhstan, Latvia, Lithuania, Russian Federation	Jordan	Spain, Argentina, Brazil, Tunisia, Uruguay	Chile, Colombia, Peru
Medium horizontal differentiation at the system level	Number of school types or distinct educational programmes: 3.0 First age of selection: 14.5 Selective schools: 42%	Ireland, Israel, Italy, Japan,** Korea,* Slovenia, Albania, Azerbaijan, Dubai (UAE), Hong Kong-China,** Montenegro, Shanghai-China,* Thailand	Indonesia, Kyrgyzstan, Qatar, Romania, Chinese Taipei	Mexico, Portugal	Luxembourg, Macao-China, Panama
High horizontal differentiation at the system level	Number of school types or distinct educational programmes: 4.3 First age of selection: 11.2 Selective schools: 61%	Austria, Czech Republic, Hungary, Slovak Republic, Croatia, Liechtenstein, Singapore*	Turkey, Bulgaria, Serbia	Belgium,* Germany, Trinidad and Tobago	Netherlands,* Switzerland*

\* Perform higher than the OECD average in reading.

\*\* Perform higher than the OECD average in reading and have the relationship between students' socio-economic background and reading performance weaker than the OECD average.

Note: The estimates in the grey cells indicate the average values of the variables used in latent profile analysis in each group. See Annex A5 in *PISA 2009 Initial Results: What Makes a School Successful (Volume IV)* for technical details.

Source: OECD (2010c), Figure IV.3.2.

Because PISA assesses students when they are 15-years-old, they may have been in school for a different number of years (given the different ages of entry into primary school in different countries), or be in different educational levels (i.e. lower or upper secondary school given the curricular organisation of the school). As a result, students assessed in PISA attend a wide variety of grades and may be in lower or upper secondary schools in different countries. PISA does not assess curricular content but the ability of students to apply knowledge to everyday-life situations. As a result, PISA scores are less sensitive to the fact that 15-year-old students in one country may be in different grade levels or ISCED levels than performance assessments that are curriculum-based.

### Governance of schools

Another important organisational feature of school systems is the extent to which parents and students can choose the school they attend and the degree to which schools are considered autonomous entities that make organisational decisions independently of district, regional or national entities. Since the early 1980s, educational reforms in many countries have intended to improve the



quality of instruction in schools by offering a greater diversity of courses, greater autonomy for schools to respond to local needs, and more choice for parents.

Figure 1.8 shows how school systems organise the governance of schools in terms of the autonomy they give schools to decide over the curriculum and assessment, and the extent to which they allow parents to choose schools (and schools to compete for students). Across OECD countries, the most common configuration is the one that gives schools discretion over curricular and assessment decisions, and restricts competition for enrolment among schools. These school systems have relatively little competition for enrolment among schools, and private schools are not widely available in these countries. Twenty-three OECD countries and 15 partner countries and economies share this configuration. The configuration that offers relatively low levels of autonomy to schools and low levels of school competition is found in 4 OECD countries and 11 partner countries. Six OECD countries and five partner countries and economies reported configurations that offer high levels of autonomy and competition, either in the form of a high prevalence of privately managed schools or greater competition among schools for enrolment. In these school systems, schools have the authority to design curricula, and parents and students can choose from a variety of schools for their children.

PISA results highlight the fact that education systems which grant autonomy to schools over curricular decisions tend to perform better, particularly when autonomy is coupled with accountability measures that guide autonomy towards national standards and expectations. School systems that promote competition between schools do not perform better than school systems that limit competition, nor is the prevalence of private schools in the system associated with national reading performance.

The governance of school systems may impact the educational opportunities available to immigrant students in many ways. For example, schools with more autonomy over curricular decisions may be better able to cater to the particular needs of immigrant students (as long as the decision makers in the school are able to make informed decisions). Greater levels of school choice may also mean more educational opportunities available for immigrant students. School choice depends on parents' access to information and ability to make decisions based on that information. When immigrant parents have restricted access or a limited ability to choose schools, school choice may lead to segregation of students across immigrant status lines. In this regard, PISA results show that socio-economically disadvantaged parents are less likely to choose schools for their children and those school systems that promote parental choice of schools have lower equity levels than school systems that limit competition between schools.

■ Figure 1.8 ■

### How school systems are governed

		Less school competition	More school competition
		Schools that compete with other schools for students in the same area: 73%	Schools that compete with other schools for students in the same area: 89%
		Private schools: 8%	Private schools: 52%
<b>Less school autonomy for curriculum and assessment</b>	Establish student assessment policies: 61% Choose which textbooks are used: 55% Determine course content: 14% Decide which courses are offered: 18%	Greece, Mexico, Portugal, Turkey, Albania, Azerbaijan, Bulgaria, Croatia, Kazakhstan, Jordan, Montenegro, Qatar, Serbia, Tunisia, Uruguay	—
<b>More school autonomy for curriculum and assessment</b>	Establish student assessment policies: 92% Choose which textbooks are used: 97% Determine course content: 85% Decide which courses are offered: 87%	Austria, Canada,** Czech Republic, Denmark, Estonia,** Finland,** Germany, Hungary, Iceland,** Israel, Italy, Japan,** Luxembourg, New Zealand,* Norway,** Poland,* Slovak Republic, Slovenia, Spain, Sweden, Switzerland,* United Kingdom, United States, Panama, Argentina, Brazil, Colombia, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Peru, Romania, Russian Federation, Shanghai-China,* Singapore,* Thailand, Trinidad and Tobago	Australia,* Belgium,* Chile, Ireland, Korea,* Netherlands,* Dubai (UAE), Hong Kong-China,** Indonesia, Macao-China, Chinese Taipei

\* Perform higher than the OECD average in reading.

\*\* Perform higher than the OECD average in reading and have the relationship between students' socio-economic background and reading performance weaker than the OECD average.

Note: The estimates in the grey cells indicate the average values of the variables used in latent profile analysis in each group. See Annex A5 in *PISA 2009 Initial Results: What Makes a School Successful (Volume IV)* for technical details.

Source: OECD (2010c), Figure IV.3.5.



### Assessment and accountability

To ensure that instruction is effective, most schools evaluate student learning, usually through teachers' assessments, required assignments or tests. Standardised tests are often used to compare students and schools at the national or regional level. Evaluation of student learning outcomes can also be used to hold schools and other actors in education accountable for what is one of the principal functions of schooling.

PISA results show that the use of standards-based external examinations tends to be positively related to a system's overall performance, while the use of standardised tests or assessment data for benchmarking or decision making is not consistently related to learning outcomes. However, in some countries, schools that post achievement data publicly tend to perform better. Assessment and accountability practices may be related to the educational opportunities of immigrant students, as assessments may provide useful information to schools and teachers on the educational needs of immigrant students. In this regard, results from PISA suggest that the use of standardised tests tends to be associated with a lower impact of socio-economic background on student performance.

### SUMMARY AND CONCLUSIONS

Increasing levels of migration and the associated increases in immigrant student populations will continue to pose challenges and opportunities for governments and educators. Differences and similarities in the composition of migrant populations and the characteristics of education systems allow for shared experiences and mutual learning among countries. What may work in some contexts might not be appropriate in different circumstances.

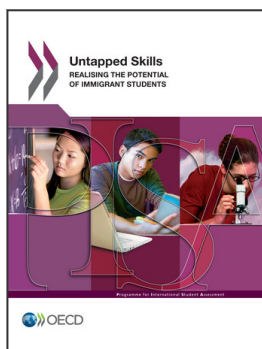
This chapter provides an overview of immigration regimes and education systems among PISA 2009 participants. The evidence and results presented in subsequent chapters must be interpreted within this framework.

### Notes

1. The GDP of the countries that participated in PISA 2009 represents 86% of the 2007 world GDP. Some of the entities represented in this report are referred to as partner economies. This is because they are not strictly national entities.
2. Thirty-one partner countries and economies originally participated in the PISA 2009 assessment and ten additional partner countries and economies took part in a second round of the assessment.
3. Marks (2007); Bertschy, et al. (2009); OECD (2010b).

### References

- Bertschy K., M.A. Cattaneo and S.C. Wolter** (2009), "PISA and the Transition into the Labour Market", *Labour*, Vol. 23, pp. 111-139.
- Marks, G.N.** (2007), "Do Schools Matter for Early School Leaving? Individual and School Influences in Australia", *School Effectiveness and School Implementation*, Vol. 18, No. 4, University of Melbourne, Australian Council for Educational Research, Australia, pp. 429-450.
- OECD** (2010a), *PISA 2009 Assessment Framework: Key Competencies in Reading, Mathematics and Science*, PISA, OECD Publishing.
- OECD** (2010b), *PISA 2009 Results: What Students Know and Can Do: Student Performance in Reading, Mathematics and Science (Volume I)*, PISA, OECD Publishing.
- OECD** (2010c), *PISA 2009 Results: What Makes a School Successful?: Resources, Policies and Practices (Volume IV)*, PISA, OECD Publishing.
- OECD** (2011), *International Migration Outlook 2011*, OECD Publishing.
- OECD** (2012), *PISA 2009 Technical Report*, PISA, OECD Publishing.



**From:**  
**Untapped Skills**  
Realising the Potential of Immigrant Students

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264172470-en>

**Please cite this chapter as:**

OECD (2012), “Overview of Immigration Regimes and Education Systems”, in *Untapped Skills: Realising the Potential of Immigrant Students*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264172470-4-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).