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Countries' immigration histories and populations

INTRODUCTION

Migration movements form a central part of human history. In the social sciences, migration is most generally defined as "crossing the boundary of a political or administrative unit for a certain minimum period" where, in the case of international migration, the boundary involves the border of a state (Castles, 2000, p. 270; Skeldon, 1997). In the past two or three decades, interest in issues associated with international migration has increased among policy makers, educators, researchers and the general public. This development is partly due to the growth of immigrant inflows that most OECD countries experienced during the 1980s and the early 1990s resulting from the dissolution of the Eastern Bloc, political instability in many countries, the growing globalisation of economic activities and family reunion in the aftermath of labour migration movements during the 1960s and 1970s (OECD, 2001a). Worldwide, in the year 2000, approximately 175 million people lived outside their country of birth representing an increase since 1990 of 46% (Meyers, 2004, p. 1). Although many countries have implemented various measures to contain immigration levels, international migration movements remain a topic of global significance.

In addition to the question of how migration flows should be channelled and controlled, the issue of integration is a major concern. The process of integrating immigrants into society presents a major challenge for both the immigrants themselves and the host majorities in the receiving countries. It is a crucial issue in particular for the children of immigrants. Schools and other educational institutions play a central role in this process. As socialising agents, schools help transmit the norms and values that provide a basis for social cohesion. In diverse, multi-ethnic societies, this task is not only important, but also complex. Given the key relevance of education for success in working life, schools set the stage for the integration of immigrant groups into the economic system. To the extent that language barriers exist between immigrant groups and the host majority, a major task of schools is also to help students master the respective country's official language.

The Organisation for Economic Co-operation and Development's (OECD) *Programme for International Student Assessment* (PISA) provides a unique opportunity to examine the extent to which immigrant students succeed in the school systems of their host countries. *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004a) indicates that in most countries participating in PISA, immigrant students do not reach the same levels of achievement as their native peers. At the same time, the size of the performance gap varies considerably across countries. Using data from PISA 2003, this report analyses the situation of immigrant students in the participating countries in more detail (see also Baumert and Schümer, 2001; Baumert, Stanat and Watermann, 2006; Coradi Vellacotts *et al.*, 2003; Skolverket, 2005 for analyses based on PISA 2000). In order to contextualise the findings, the first chapter provides background information on immigrant populations and policies. It begins with an introduction to the concepts of immigration and integration used in this report. Next, it describes countries' approaches to immigration and integration and then provides a general characterisation of immigrant populations in the case countries. The chapter concludes with a description of the PISA database and the immigrant student samples for each of the case countries.

Not all of the 41 countries participating in PISA 2003 have significant immigrant populations, and for some countries the sample sizes of immigrant students in PISA are too small to conduct meaningful analyses (a more detailed explanation of the minimum criteria for inclusion of countries in the analytic chapters can be found in the description of the PISA database later in the chapter). As a result, this report focuses on 14 OECD countries: Australia, Austria, Belgium, Canada,

Denmark, France, Germany, Luxembourg, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the United States as well as 3 partner countries: Hong Kong-China, Macao-China and the Russian Federation. The OECD averages reported in the tables and graphs of the following chapters refer to the 14 OECD case countries only. Three additional countries, England, Finland and Spain participated in a supplementary survey on policies and programmes for language minority populations that is presented in Chapter 5.

IMMIGRATION AND INTEGRATION

International migration movements occur for a variety of reasons. The current literature on migration describes several types of migrants. Castles (2000, p. 269 f.), for example, lists the following eight migrant categories[1]:

1. ***Temporary labour migrants***: men and women who migrate for a limited period (from a few months to several years) in order to take up employment.
2. ***Highly skilled and business migrants***: people with qualifications as managers, executives, professionals, technicians or similar, who move within the internal labour markets of transnational corporations and international organisations, or who seek employment through international labour markets for rare specialised skills.
3. ***Irregular migrants*** (also known as undocumented or illegal migrants): people who reside in a country without the necessary documents or permits. They may initially arrive legally (*e.g.* as tourists, to visit family or with temporary work permits) but then stay beyond the expiration date of their visas. Labour migration flows include many undocumented migrants.
4. ***Refugees***: according to the 1951 United Nations *Geneva Convention* relating to the status of refugees, a refugee is a person residing outside his or her country of nationality who is unable or unwilling to return because of a "well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion." Signatories to the convention undertake to protect refugees by allowing them to enter and granting temporary or permanent residence status.
5. ***Asylum-seekers***: people who move across borders in search of protection and make a claim for refugee status (according to the *Geneva Convention*), which may or may not be recognised. The definition of asylum seeker varies across countries. In most countries, however, the terms asylum seeker and refugee differ only with regard to the place where an individual asks for protection. The asylum seeker makes the claim for refugee status upon arrival in a country and the claim is considered on the territory of the receiving state. In many contemporary conflict situations in less developed countries, it is difficult to determine the cause of departure: whether it is due to personal persecution or the destruction of the economic and social infrastructure needed for survival. Only a fraction of asylum-seekers is recognised as refugees, another small proportion receives temporary protection. All others are refused.
6. ***Forced migration***: forced migrants in a broader sense include not only refugees and asylum-seekers but also people who were forced to move due to environmental catastrophes or development projects such as new factories, roads or dams.
7. ***Family members*** (also known as family reunion migrants): people joining relatives who have already entered an immigration country under one of the above categories. This also includes

family formation migrants (*i.e.* people who enter the receiving country to marry a resident or who have recently married a resident). Many countries, including Australia, Canada, the United States and most EU member states recognise in principle the right to family reunion for legal immigrants.

8. ***Return migrants***: people who return to their country of origin after having lived abroad.

An additional category of immigrants that does not appear in the list by Castles (2000) is long-term low-skilled labour migration. Although many countries would like this form of migration to be temporary, this is often not the case. In fact, a high proportion of immigrants in several European countries arrived as temporary low-skilled workers (*e.g.* "guest workers") but ended up staying for extended periods of time or permanently. Much of the migration into Southern Europe in recent years has involved unauthorised migrants taking on low-skilled jobs, who have been subsequently regularised by the receiving countries.

IMMIGRATION HISTORIES AND GENERAL APPROACHES TO IMMIGRATION AND INTEGRATION

A number of theories have been developed to account for international migration (for a comprehensive review see Massey, *et al.*, 1993). These models typically focus on labour migration, specifying factors that determine the initiation and development of international movement at the individual, household, national, and international levels. At the national level, receiving countries attempt to manage migration with immigration and integration policies.[2] State *immigration policies* establish the number and categories of immigrants accepted into the country and the types of residence and work permits granted. *Integration policies* concern the measures taken to promote the incorporation of immigrants in society. Both types of policy can be expected to influence the outcomes of immigrants and their offspring in the receiving country.

Immigration policies set the stage for integration (*e.g.* Bourhis, *et al.*, 1997). These policies, shaped by historical developments at international and national levels, differ across countries. In a comparative analysis of immigrant students' situation in schools, it is important to provide information on core characteristics of immigration processes including the relative size of immigrant populations, the primary forms of immigration, immigrants' level of skill within the receiving countries and naturalisation regulations. Such background information is necessary to contextualise findings on the situation of immigrant students within different school systems. This section will therefore provide a broad characterisation of approaches to immigration and integration within the countries included in the report. More specifically, it will discuss the most common model of categorising countries in terms of their immigration histories and general policies. Although this model cannot be regarded as definitive, it is useful for structuring the analyses presented in this report.

The literature typically distinguishes four groups of countries based on their immigration histories: 1) Traditional settlement countries, 2) European states with post-war labour recruitment, 3) European states with migration related to their colonial histories and post-war labour recruitment and 4) new immigration countries (*e.g.* Bauer, Loftstrom and Zimmermann, 2000; Freeman, 1995).

The *traditional settlement countries* include Australia, Canada, New Zealand and the United States. They were founded on the basis of immigration and continue to admit significant numbers of newcomers for permanent residence. These countries have extensive experience with immigration:

"Although immigration flows and policies have fluctuated over the course of their national histories, their interaction with immigration and its social consequences is intimate, of long standing, and well-institutionalized" (Freeman, 1995, p. 887).

European states with post-war labour recruitment have also experienced significant immigration inflows at various times over the course of their histories, yet their development as nation states was not based on migration. The countries in this report that are included in this group are Austria, Denmark, Germany,[3] Luxembourg, Norway, Sweden and Switzerland. Mass migration to these countries occurred after World War II, when they actively recruited large numbers of workers to compensate for a shortage in labour during the 1960s and 1970s. Often, governments expected these workers to be temporary residents (hence the term "guest workers" used in some nations), yet many of the temporary workers permanently settled in the host country. Today, these European countries have sizeable immigrant populations. Within this group, the Nordic countries are sometimes distinguished on the basis of their stronger emphasis since the 1970s on humanitarian immigration.

The general pattern within the *Northern European states with colonial histories* including Belgium, France, the Netherlands and the United Kingdom, is quite similar to that in European states with post-war labour recruitment. As a result of their colonial pasts, however, immigrants in these countries are often from the former colonies and are more likely to speak the receiving country's official language.

Finally, the so-called *new immigration countries* have more recently transformed from immigrant-sending countries to immigrant-receiving countries. In addition to return migration (*i.e.* former emigrants, usually guest workers, returning to their home countries) during the 1970s and 1980s, immigration of foreign nationals increased considerably in these countries towards the end of the 20th century. Among the new immigration countries are Ireland, Italy, Greece, Portugal and Spain. In addition, the three partner countries included in this report (Hong Kong-China, Macao-China and the Russian Federation) have more recently begun to experience increased levels of immigration. In the Russian Federation, most immigrants are from states of the former Soviet Union. In Hong Kong-China and Macao-China, the largest immigrant group is from mainland China, although Hong Kong-China also has significant numbers of foreign domestic helpers who come mainly from the Philippines (OECD, 2004b).

Although the immigration experiences of countries within the four categories described above are obviously far from homogeneous, there is wide acceptance of this general categorisation based on common characteristics of immigration histories. More controversial, however, are attempts that have been made to group countries in terms of their general approaches to immigration and integration. For example, Freeman (2004) points out that countries do not typically have coherent national models of integration or incorporation in the sense of "incorporation regimes," which can be clearly distinguished and classified. Instead, he argues that countries "possess a patchwork of multidimensional frameworks" across different institutional sectors (p. 946). These include the *state sector*, the *market and welfare sectors*, and the *cultural sector*.

With regard to the *state sector*, there appears to be a relationship between immigration histories and regulations concerning the admission and naturalisation of immigrants. Although the relationship is far from perfect, it is possible to identify general policy approaches that distinguish the groups

of countries described above (*e.g.* Castles and Miller, 2003; Freeman, 2004). The most obvious distinction is between the traditional settlement countries and the European states with post-war labour recruitment or colonial histories. The traditional settlement countries – Australia, Canada, New Zealand and the United States – tend to encourage immigration of whole families, set target levels for different types of immigration and provide relatively easy access to citizenship. In most cases, children of immigrants born in the receiving country automatically attain citizenship. Australia, Canada and New Zealand have policies in place that provide for the selection of immigrants on the basis of characteristics that are considered to be important for integration (*e.g.* language skills and educational background).

In the European states with post-war labour recruitment, employers selected labour migrants who could bring their families only if they met a number of conditions (*e.g.* adequate housing or sufficient income). These countries are more reluctant to issue permanent residence status and to grant citizenship. Children born in the country to immigrant parents do not automatically receive citizenship. In general, the situation in European countries with colonial histories is similar to that of European states with post-war labour recruitment. In some cases, however, the countries granted citizenship more readily to immigrants from the former colonies and it was easier for them to bring in close relatives.

Despite this general pattern, the immigration policies and practices of countries within one group vary considerably, and there is also a great deal of overlap in the policies and practices among countries of different groups. For example, in Australia, Canada and New Zealand the proportion of new immigrants who come for work or other settlement reasons is higher than it is in the United States where family migration represents a much higher percentage of new immigrants (OECD, 2005a). Also, the system of categorisation does not take state policies and practices related to illegal immigration into account, which can vary considerably across countries within one group.

The extent to which between-country differences in the *market and welfare sectors* relate to the integration of immigrants is unclear. There is some evidence that informal immigrant economies are more likely to develop in liberal market economies than in social market economies (Freeman and Ögelman, 2000). At the same time, however, the integration of immigrants in the market sector appears to interact closely with geographic factors and various government characteristics. In terms of welfare policies, most countries seem to give immigrants access to welfare state benefits largely independent of their citizenship status (Freeman, 2004).

Finally, the *cultural sector* involves state policies related to the recognition and expression of culture. These policies "produce incentive structures for the retention or loss of immigrant cultural characteristics and can seek to protect or transform the cultures of the receiving societies" (Freeman, 2004, p. 958). They address issues such as the practice of religion and the display of religious symbols, the stance toward immigrants' native languages, the role of women and child-rearing practices. These issues are subject to considerable controversy and heated debate. In the literature, countries are often located on a scale ranging from tendencies towards the marginalisation of immigrants to expectations for assimilation to state-endorsed multiculturalism (Freeman, 2004, p. 958). For example, Castles and Miller (2003) argue that Austria, Germany and Switzerland tend towards differential exclusion of immigrants; France, the Netherlands, and the United Kingdom towards assimilation and Australia, Canada, Sweden and the United States towards multiculturalism. As

Freeman (2004) points out, however, these patterns are highly unstable and change constantly (see also Joppke and Morawska, 2003).

Overall, no clear-cut categorisation of different countries in terms of their approaches to immigration and integration policies exists. Yet, a few core differences emerge, especially among the traditional settlement countries, the European states with predominantly post-colonial and post-war labour migration, and the new countries of immigration. Whether it makes sense to divide these groups further into subgroups depends on the domain.

Because the categorisations suggested in the literature do not typically take educational policies and practices into account, their relevance for the education sector is unclear. This report therefore addresses the question of whether the results indicate that particular groups of countries show similar patterns of findings on the situation of immigrant students. It is important to note, however, that even if such patterns can be identified, it will be impossible to draw conclusions about their causes. Countries differ with respect to a multitude of characteristics and the design of PISA does not permit the isolation of causal factors. Therefore, the findings presented in this report are purely descriptive.

IMMIGRANT POPULATIONS

International comparative data on immigrant populations are often difficult to interpret. Sources assembling this information, such as the OECD's annual report on *Trends in International Migration*, have to rely on national panels, censuses, national registers or residence permit data that often use inconsistent categories. A key difference is the general definition of the immigrant population, which is based on individuals' nationality in some countries ("foreigners," "foreign nationality") and on their country of birth in others ("foreign-born"). Although there is currently a general shift towards using the birthplace-based definition, many of the available statistics suffer from this comparability problem. Also, certain subcategories of immigrants, such as "foreign workers," are often based on different concepts of employment and unemployment (*e.g.* OECD, 2004b, p. 369). Furthermore, undocumented immigrants are rarely captured in statistics. In some of the case countries, however, illegal immigrants make up a substantial portion of the foreign-born population. For example, recent estimates indicate that undocumented immigrants represent 26% of the total foreign-born population in the United States (Passel, Capps, and Fix, 2004).

While these limitations should be kept in mind, the OECD does provide background information on the immigrant populations in the OECD countries included in the report. Most of the information presented in the rest of this chapter comes from the publication series *Trends in International Migration* (*e.g.* OECD, 2005a). In 2005, the OECD developed a new database on international migrants using national censuses or large-sample surveys (OECD, 2005a). The goal of this effort was to develop more accurate and comparable statistics on immigrant populations. This new database is used where possible to compare differences for foreign-born and foreign-nationality immigrants (see Figure 1.1; Table 1.7). Because the data used in *Trends in International Migration* is limited to the OECD member countries, the partner countries represented in the empirical chapters of this report will not appear in the corresponding tables and figures.

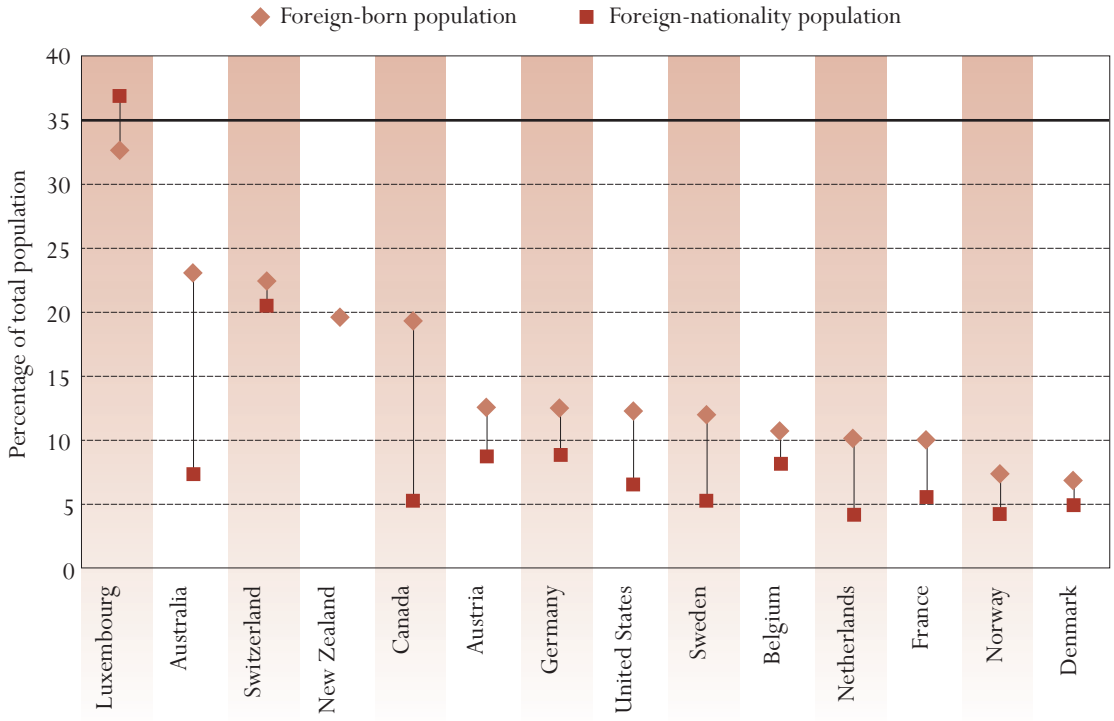
Figure 1.1 shows the number of foreign-nationality (non-citizen) and foreign-born individuals as a percentage of the total populations in the case countries for the year 2002. The proportion

of immigrants is particularly high in three of the four settler nations (Australia, Canada and New Zealand) and two European countries (Luxembourg and Switzerland). In these countries, between 19 and 33% of the total populations are foreign born. In Austria, Belgium, France, Germany, the Netherlands, Sweden and the United States, between 10 and 12% of the population are foreign born. Only in Denmark and Norway is the proportion of immigrants smaller than 10%.

It is interesting to compare the foreign-born and foreign-nationality populations within the case countries (see also the last two columns of Table 1.7). In most countries, the differences in the relative sizes of these populations are fairly small, typically not exceeding five percentage points. As a rough proxy, this indicates that most individuals who have immigrated into these countries have not acquired their citizenship (although for accurate numbers on naturalisation it is best to examine the proportion of the foreign-born population that has the nationality of the host country). Notable exceptions are Australia and Canada where the foreign-born populations are about 15 percentage points larger than the foreign-nationality populations.[4] This should reflect the relatively liberal naturalisation practices in these countries. The opposite pattern emerges for Luxembourg where the foreign-nationality population is larger than the foreign-born population. This indicates that a large number of foreign-nationals living in Luxembourg were born there.

Figure 1.2 provides information on the proportion of different categories of immigrants who entered selected countries in 2002. Only those OECD countries for which largely comparable data are

Figure 1.1 ■ **Stock of foreign-born and foreign-nationality populations**



Note: Countries are ranked by decreasing order of percentage of foreign-born population.
Source: OECD PISA 2003 database, Table 1.1.

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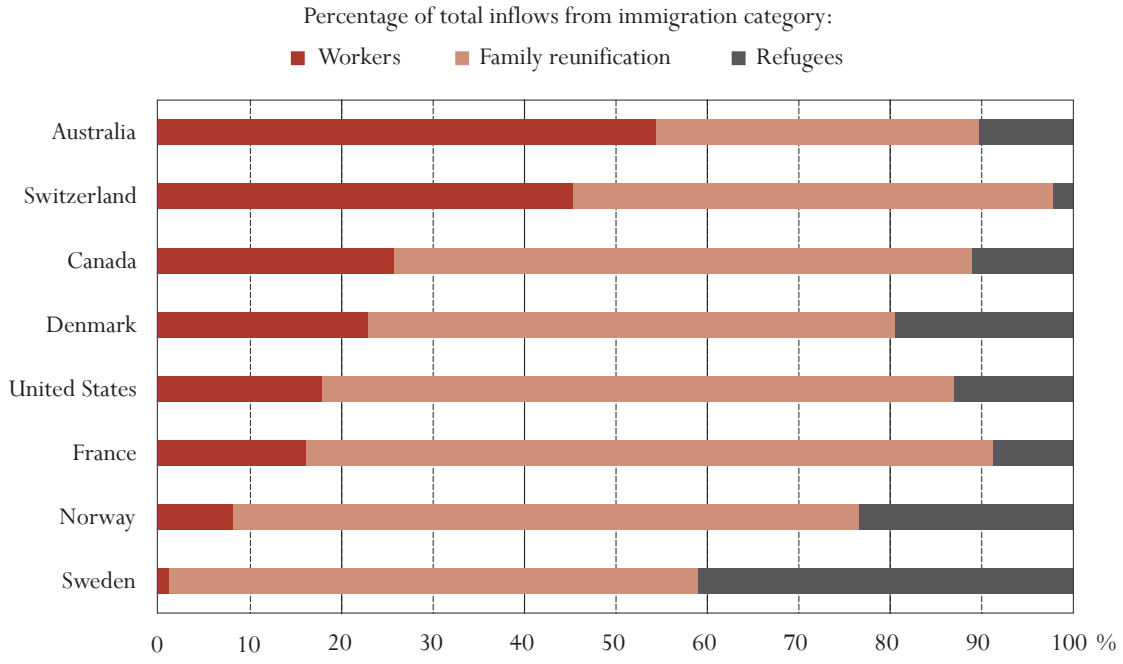
Figure 1.2 ■ **Permanent or long-term immigration flows into selected OECD countries in 2002, by main immigration categories[1]**



Note: Countries are ranked by decreasing order of the percentage of workers in total inflows. Categories give the legal reason for entering the country. A worker who has benefited from the family reunification procedure is regrouped into this latter category even if he has a job in the host country while entering. Family members who join a refugee are counted among other refugees.

1. For Australia, Canada, Norway, Sweden and the United States, data concern acceptances for settlement. For Denmark, France and Switzerland, entries correspond to residence permits usually delivered for longer than one year. For Australia, category "Workers" includes accompanying dependents who are included in the category "Family reunification" for all other countries.

Source: National Statistical Offices, OECD calculations (see Table 1.2 for notes on data for Australia, France, Norway, Sweden and the United States).

available are included in the graph (see footnotes in Figure 1.2 for comparability limitations). The figure shows that the proportion of work-related immigrants is particularly high in Australia[5] (54%) and Switzerland (45%) and particularly low in Norway (8%) and Sweden (1%). In contrast, Sweden stands out with regard to refugees entering the country with a share of more than 40% among new immigrants in 2002. Compared to the other countries, the proportion of refugees is also quite high in Denmark (19%) and Norway (23%). Finally, family reunification plays a substantial role in all the countries, with particularly large shares in Canada (63%), France (75%), Norway (68%) and the United States (69%).[6]

Tables 1.3 and 1.4 present some data on the educational background and employment situation of immigrants in the OECD countries included in this report. Table 1.3 shows the proportion of the native-born and foreign-born populations aged 15 years and older by highest level of education attained. The disparities between the two population groups vary considerably across countries. In a few countries – notably Austria, Germany, the Netherlands, Switzerland and the United States – immigrants show substantially lower levels of education, with much higher proportions not having attained upper secondary level education. Belgium, Denmark and France show similar patterns,

although the differences between the two population groups,substantial as they are, tend to be less pronounced. In Luxembourg there are substantially higher proportions of immigrants at both the lowest and highest levels of education. Differences between the foreign-born and native-born populations in Sweden are not substantial across the levels of education, although there is a similar pattern to that in Luxembourg, with more of the foreign-born population having both the lowest and highest levels of education. In Australia and New Zealand immigrants' levels of education compares favourably to the native-born population: there are comparatively lower proportions of foreign-born population that have not attained upper secondary education and there are higher proportions of immigrants that have attained both upper secondary and tertiary education. In Canada and Norway, the two population groups are similarly represented at the lowest level of education but there is a substantially higher percentage of immigrants that has attainted tertiary education.

In terms of unemployment rates, foreign-nationality and foreign-born populations tend to be in a less favourable position than national and native-born populations in most countries (see Table 1.4). Compared to nationals, the unemployment rates are particularly high (with a ratio of more than 2.5) among the foreign-nationality population in Belgium, Denmark, the Netherlands, Norway, Sweden and Switzerland (see left panel of Table 1.4). In Austria, Germany and Luxembourg, the differences are smaller. The patterns are quite similar when comparing unemployment rates for native-born and foreign-born populations (see right panel of Table 1.4). These figures are also available for Australia, Canada and the United States where the differences in unemployment rates between the two groups tend to be comparatively small.

Overall, the patterns of immigrant population characteristics reveal some differences and similarities among the traditional settlement countries and the European countries with post-war labour recruitment and colonial histories. Within the group of traditional immigration countries, the United States tends to differ. In terms of the proportion of immigrants residing in the different countries, three of the traditional settlement nations (Australia, Canada and New Zealand) occupy the highest ranks together with two particularly prosperous European countries – Luxembourg and Switzerland. The United States is similar to a group of European countries with somewhat lower (although not low in absolute terms) proportions of immigrants. Moreover, in most European countries and in the United States, immigrants tend to have lower levels of education than non-immigrants. This is not the case in Australia and Canada where immigrants' level of education is comparable or even higher than that of non-immigrants. Similarly, differences in unemployment rates between the two groups tend to be small in Australia, Canada and the United States.

RESEARCH QUESTIONS ADDRESSED IN THE REPORT

As previously noted, the OECD publication *Trends in International Migration* provides information on international migration movements on a regular basis. In recent years, the series has also begun to address questions related to the integration of immigrants. These analyses focus mainly on labour market integration while much less has been written about the integration of immigrant students in schools. With PISA, a database has become available that allows researchers to explore and compare the school success of immigrant students at an international level. Drawing on the immigration literature and the background information on countries' immigration histories and immigrant populations presented in this chapter, this report addresses the following set of questions related to

immigrant students in the case countries:

- How do immigrant students perform in the PISA assessment domains compared to their native peers and how do relative achievement levels vary across the case countries?
- How do economic, social and cultural background characteristics of immigrant students relate to their achievement levels?
- Are the patterns for other learning prerequisites and outcomes, such as motivation to learn mathematics and self-concept in mathematics, similar to those for achievement?
- How do language support policies and programmes differ across the case countries?
- Do groups of countries emerge with similar patterns of immigrant student outcomes and do these groups correspond to categories distinguished in the literature?
- Which factors might contribute to between-country differences in immigrant student outcomes and what could be potential target points of interventions to improve the situation of immigrant students?

As noted throughout the report, the PISA data supply only descriptive information. Nevertheless, the analyses can provide new information and insights into these questions on the situation of immigrant students in many of the world's largest immigrant receiving countries.

IMMIGRANT STUDENTS IN THE PISA SAMPLE

The strength of PISA for examining immigrant students cross-nationally is that it provides an internationally comparable basis to explore students' learning across and within countries. In 2003, 41 countries participated (including all 30 OECD countries) and the survey includes information on students' background characteristics, approaches to learning and performance. In 2003 the focus of the assessment was mathematical literacy, with reading literacy, scientific literacy and problem solving as minor domains[7]. Literacy in each of the domains focuses on students' ability to apply their knowledge and experience to real-life situations.

In some countries participating in PISA, immigrants make up a very small proportion of the population. For these countries, the number of immigrant students included in the PISA database is not sufficient to yield reliable estimates of their achievement levels or relationships between performance indicators and other factors. To be included in the report, countries had to have a minimum of 3% of immigrant students (first-generation and second-generation students – see below) in the sample. In addition, at least 3% of students had to speak a different language at home to the language of assessment or other national language.[8] Countries' samples also had to have data for at least 100 immigrant students. Among the participating countries, 17 met these criteria: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Luxembourg, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United States and the partner countries Hong Kong-China, Macao-China and the Russian Federation.

The student background questionnaire includes questions related to students' and parents' place of birth, allowing for comparisons between three subgroups throughout this report – first-generation students (foreign-born students with foreign-born parents), second-generation students (students born in the country of assessment with foreign-born parents), and native students (students with

at least one parent born in the country of assessment). Students born in the country who have one foreign-born parent (children of "combined" families) were included in the native category, as previous research indicates that these students perform similarly to native students (Gonzalez, 2002).[9] Table 1.5 displays the proportion of each of the immigrant subgroups in the case countries.

First-generation students were asked to indicate the age at which they immigrated. One may expect that the performance of first-generation students is less a reflection of the receiving country's school system than the performance of second-generation students, as the majority of first-generation students have not spent their entire schooling experience in the receiving country. However, the average age at which immigrant students arrived in the OECD case countries is just over six years (see Table 1.6). Therefore, while the first-generation students missed the early years that may be critical for the integration process, many of them attended schools in the receiving country for the majority of their education, which may reduce the differences between the two immigrant groups. Nevertheless, differences between first-generation and second-generation students will be examined throughout the report.

The student questionnaire also allows for the exploration of the role of the language spoken at home, distinguishing between students mainly speaking a language that is different from the language of assessment, other official languages or other national dialects, and students mainly speaking a language that is the same as the language of assessment, other official languages or other national dialects. A limited number of countries participating in PISA also collected information on the specific country where the students or their parents were born and the specific language spoken at home. Where possible, this information is also presented throughout the report. However, because only a small number of countries collected this information, the majority of the analyses focus on the situation of immigrant student populations as a whole in the case countries. Furthermore, in some analyses, the groups of first-generation and second-generation students are combined to form a broader category labelled immigrant students.

To judge how well the PISA data on immigrant students represent the immigrant populations in each country, Table 1.7 compares the percentage of 15-year-old immigrant students (first-generation and second-generation combined) in the PISA 2003 sample to the percentage of immigrants in the population as a whole (see also Figure 1.1). The table indicates that the proportions of immigrants within the group of 15-year-olds and within the countries' populations as a whole are quite similar, rarely deviating more than two to three percentage points. While these comparisons do not ensure that immigrant students are accurately represented in the PISA samples, they do indicate that the proportions in the PISA sample are not substantially different from other estimates of immigrant populations.

Table 1.8 compares the three most common countries of origin for immigrant students in the PISA sample (where available) with the three most common countries of origin for the total foreign-born population in each of the case countries. The comparison is based on data from *Trends in International Migration* (SOPEMI) for 2002 (OECD, 2005). Again, this report uses migration statistics collected in each of the OECD countries with some countries providing information on foreign-born immigrants and others on foreign-nationality immigrants. Although the most common countries of origin do not align perfectly, there is a significant overlap in most of the case countries. This is particularly remarkable as there are numerous reasons why the results could diverge. The categories

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used in PISA are different from those used in the SOPEMI, and larger deviations are found in countries whose official migration statistics are based on nationality rather than on country of birth. For example, in Germany many immigrants from the former Soviet republics are immediately granted citizenship and are not counted in the German SOPEMI data (which uses nationality to categorize immigrants). In addition, differences should also result from cohort effects, as PISA focuses on 15-year-old students and their parents, while the SOPEMI includes the whole population of immigrants.[10] In the majority of the case countries where data are available, however, the broad trends for the most common countries of origin are similar in the two data sets.

The proportion of students in the PISA sample who speak a language at home other than the language of assessment also varies across countries (see Table 1.9). Luxembourg has the highest percentage of students who speak a different language at home (24%) followed by Canada (10%). In the rest of the case countries, the proportion is less than 10%. Table 1.10 shows the proportion of students by immigrant subgroup who speak a different language from the language of assessment. Not surprisingly, only a very small percentage of native students speak a different language at home: less than two percent in all of the OECD case countries. In the partner countries, the proportions tend to be a little higher. Among first-generation and second-generation students, much larger proportions of students speak a different language at home from the language of assessment. Again, the partner countries are exceptions to this trend, with immigrants in Hong Kong-China and Macao-China mostly coming from countries with the same official language as the receiving country and many immigrants in the Russian Federation coming from the former Soviet Republics. Among second-generation students in OECD countries, the proportion of students who speak a different language at home from the language of assessment ranges from about 28% in Australia and New Zealand to 64% in Luxembourg. The percentages are even higher among first-generation students ranging from 32% in Belgium to 83-84% in Luxembourg and Norway. Table 1.11 presents the most common languages spoken at home in each case country where this information was collected. As expected, these numbers are closely aligned with immigrant students' countries of origin.

The remainder of this report consists of five chapters. The next chapter compares immigrant and non-immigrant student performance in the case countries. In addition, it explores the relationship between students' home language and their levels of performance. Chapter 3 examines central background characteristics of first-generation and second-generation students in the case countries as they relate to achievement. In addition, it explores differences in the characteristics of schools that immigrant students and native students attend. Chapter 4 focuses on students' motivation, beliefs about themselves and perceptions of school, and how these essential prerequisites of learning vary among the three subgroups (first-generation, second-generation and native students). Chapter 5 presents the results from the supplementary survey of national policies and practices related to assisting immigrant students attain proficiency in the language of instruction.

Notes

1 The descriptions represent modified versions of Castles' (2000) definitions.

2 Within a country regional levels of decision-making may also play a role.

3 Over the last two decades, the main form of migration to Germany has included individuals with German ancestry from the former Soviet Union and Eastern Europe. They receive German citizenship upon arrival, and official statistics typically do not count them as immigrants.

4 Data on the foreign population are not available for New Zealand. Therefore, the difference cannot be calculated for this country.

5 The figure for Australia given here includes accompanying family and is therefore inflated. The real proportion is around half that shown.

6 Note that some of the family reunification involves accompanying family of worker migrants. Also some of what appears under family reunification, especially the United States, involves the migration of relatives such as adult siblings or adult children, who constitute separate households.

7 Problem solving was an exceptional assessment of cross-curricular competencies carried out in the PISA 2003 survey. Future PISA surveys will include mathematics, reading and science as domains.

8 The percentages refer to weighted data.

9 Consistent with *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004a), students born abroad but whose parents are both native-born were also included in the native category. The number of cases with this constellation, however, is very small.

10 Indeed, certain migration waves are older (Italians in Australia or Belgium) and are unlikely to have many 15-year-olds still in school.

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Data underlying the figures

The data referred to in Chapters 1, 2, 3, and 4 of this report are presented in Annex B. In these tables, as well as in data tables included in Chapter 5, the following symbols are used to denote missing data:

a The category does not apply in the country concerned. Data are therefore missing.

c There are too few observations to provide reliable estimates (*i.e.* there are fewer than 3% of students for this cell or too few schools for valid inferences). However, these statistics were included in the calculation of cross-country averages.

m Data are not available. These data were collected but subsequently removed from the publication for technical reasons.

n Data are negligible *i.e.* they do not occur in any significant numbers.

w Data have been withdrawn at the request of the country concerned.

Calculation of the OECD average

An OECD average was calculated for most indicators presented in this report. The OECD average takes the OECD countries as a single entity, to which each country contributes with equal weight. The OECD average corresponds to the arithmetic mean of the respective country statistics and for this report only applies to the selection of OECD *case countries* (see definition below).

Rounding of figures

Because of rounding, some figures in tables may not exactly add up to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation. When standard errors in this publication have been rounded to one or two decimal places and the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005 respectively.

Reporting of student data

The report uses "15-year-olds" as shorthand for the PISA target population. In practice, this refers to students who were aged between 15 years and 3 (complete) months and 16 years and 2 (complete) months at the beginning of the assessment period and who were enrolled in an educational institution, regardless of the grade level or type of institution, and of whether they were attending full-time or part-time.

Abbreviations used in this report

The following abbreviations are used in this report:

ESCS Index of economic, social and cultural status (see Annex A1 for definition)

HISEI Highest international socio-economic index of occupational status (corresponds to the highest occupational status of either the mother or father)

ISCED International Standard Classification of Education (the ISCED levels are explained in Annex A1)

SE Standard error

SD Standard deviation

SOPEMI *Système d'Observation Permanente des Migrations* (Continuous Reporting System on Migration). This was established in 1973 by the OECD to provide its European member states a mechanism for sharing of information on international migration.

Terminology used in this report

Native students or non-immigrant students: Students with at least one parent born in the country of assessment. Students born in the country who have one foreign-born parent (children of "combined" families) are included in the native category, as previous research indicates that these students perform similarly to native students.

Immigrant students: This group includes both *first-generation students* and *second-generation students* (see definitions below).

First-generation students: Students born outside of the country of assessment whose parents are also foreign-born.

Second-generation students: Students born in the country of assessment with foreign-born parents.

Case countries: This includes the 17 countries covered in this report. Fourteen OECD countries: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Luxembourg, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the United States; as well as three partner countries: Hong Kong-China, Macao-China and the Russian Federation.

Further documentation

For further information on the PISA assessment instruments and the methods used in PISA, see the *PISA 2003 Technical Report* (OECD, 2005) and the PISA Web site (*www.pisa.oecd.org*).

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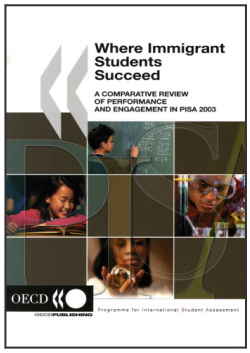

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