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Migration

International Migration and Education - A Web of Mutual Causation

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Abstract

After reviewing the various definitions of international migration and refugee situations, the paper proposes a general framework in which to capture the complex two-way relationship between education and migration, and its consequences on both migrants and non-migrants in each of the origin and destination countries. It successively reviews: the over-education of migrants compared to non-migrants and the selection processes at play in origin and destination countries; the debate surrounding highly-educated migration from developing to developed countries and the inconclusive evidence regarding losses and gains for countries and individuals; the different ways in which migration impacts the education of non-migrant children in the origin countries through financial, but also ideational remittances; the school performances of migrant children and the various consequences of diversity in the classrooms for children of both migrant and local origin; the challenge of educating refugee children and avoiding that a whole generation be lost. The paper concludes on the many grey areas in our understanding of a crucial connexion and suggests practical steps to improve knowledge.

Introduction

The universal spread of school education and the global migration of people are two facets of an era that started in the second half of the twentieth century. Of course, both education and mobility had always existed, but it is only with the worldwide advent of nation-states in the post-World War II period that education became national and long-distance migration international, and both passed under the control of new state actors. The two trends are independent from each other, but at the same time strongly connected by a web of mutual causation. The convergence of school curricula and the resulting diffusion of shared knowledge around the world represent the backdrop of increasing international migration. Indeed, on one hand persisting or widening global divides in terms of wellbeing and access to resources (both economic and political) create the motives for why people move across borders. And, on the other hand, narrowing divides in terms of access to education provide them with knowledge and skills they can use anywhere. In brief, the reasons for international migration and its feasibility have grown in parallel. Moreover, booming means of communication, both virtual and real, have allowed the development of transnational networks and the worldwide circulation of information that facilitate migration. But, first, what is international migration?

Defining Migration

Who is a migrant? The United Nations uses two distinct definitions for “international migrant”. The first applies to the individual migrant, who is defined “as any person who changes his or her country of usual residence”.ⁱ The second applies collectively to the migrant population and defines the “international migrant stock [as] the number of people living in a country or area other than that in which they were born”.ⁱⁱ The two definitions are not fully consistent with each other. Persons who return to their country of birth after a period of residence abroad (an important category in countries affected by significant movements of temporary emigration, for example the South-Asian and Arab countries of origin for migrant workers in the Gulf States) are international migrants according to the first definition, but not to the second. Another organisation, IOM, which has been part of the UN system since 2016, uses the criterion of country of nationality instead of country of birth and

recognises foreign-nationals instead of foreign-born persons as immigrants. For the IOM, immigration is “a process by which non-nationals move into a country for the purpose of settlement”.ⁱⁱⁱ Using the two criteria of country of birth and country of citizenship interchangeably generates conceptual ambiguities.

Using the criterion of country of nationality, one makes a distinction between nationals and foreign-nationals, a dichotomy that does not correspond to actual cross-border migration. Indeed, persons who have never moved can be foreign-nationals in the country where they were born and live: e.g. sons and daughters of Moroccan or Turkish migrants in Germany before the implementation of the 1999 code of nationality that introduced a degree of *jus soli*; some 250,000 stateless persons in Kuwait, most of them the descendants of Bedouin tribes moving from time immemorial across a desert spanning Kuwait, Iraq and Saudi Arabia. Symmetrically, persons who have moved can be nationals of a country where they were not born, but in which they currently live: naturalised immigrants and nationals born abroad who have migrated to their country of nationality.

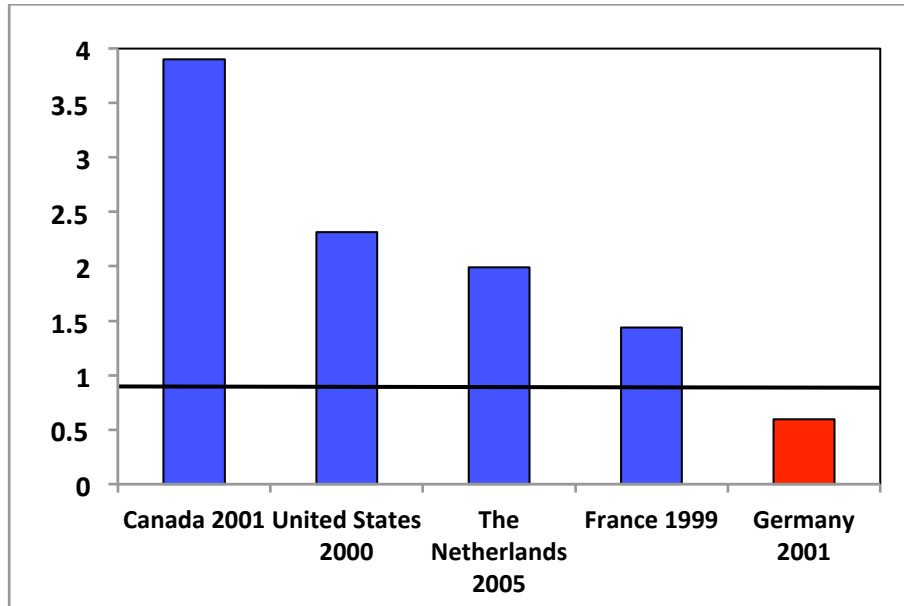
Using, instead, the country of birth criterion, one makes a distinction between natives and those born abroad. Migrants are, then, persons born in a country different from that where they live. It is theoretically a non-ambiguous distinction as every individual has only one country of birth. But this is true only if international borders do not move. Dividing a nation’s territory into smaller nations “creates” international migrants. So, for example, persons born in Russia and residing in Uzbekistan, who were internal migrants at the time of USSR, became international migrants once the Soviet Union collapsed. Uniting nations, meanwhile, into a single territory “removes” international migrants. An example here might be persons who migrated from Sana’a to Aden prior to 1990 and who ceased to be international migrants once the two Yemen became one nation in 1990.

The two criteria of country of birth and country of nationality produce remarkably different estimates. Figure 1 plots the ratio of foreign-born persons to foreign-nationals in the case of individuals originating from the MENA region and residing in North America or Europe. This ratio varies from a high 390% in Canada (100 nationals of a MENA country per 390 migrants born in a MENA country) to a low 60% in Germany (100 nationals of a MENA country for 60 migrants born in a MENA country). Two main factors explain the difference between countries of destination: first, the rate of nationality acquisition in the destination country by migrants (from the highest in Canada to the lowest in Germany); and second, the principle governing nationality at birth (from dominant *jus soli* to dominant *jus sanguinis*).

Who is a refugee? A refugee is defined by the 1951 Refugee Convention as “any person who [...] owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.”^{iv}

A different definition applies to Palestine refugees who are “persons whose normal place of residence was Palestine during the period 1 June 1946 to 15 May 1948, and who lost both home and means of livelihood as a result of the 1948 conflict [...] The descendants of Palestine refugee males, including adopted children, are also eligible for registration.”^v

Figure 1: Ratio of foreign born to non-citizens among migrants originating from the Middle East and North Africa in selected countries of destination



Source: Philippe Fargues 2014, The fuzzy lines of international migration: a critical assessment of definitions and estimates in the Arab countries, EUI/RSCAS Working Papers - MPC Series 2014/71, 12p., <http://www.migrationpolicycentre.eu/publications/?sp=1&keyword=&project=&country=&yr=&auth=fargues>

Are refugees migrants? Most 1951 Convention - or UNHCR - refugees were born in their country of nationality and are international migrants in their country of asylum. But some of them are not (e.g. those sons and daughters of refugees born in exile; youngest age groups of populations in protracted refugee situations; etc.). By contrast, most Palestinian refugees are not themselves international migrants, but children or grandchildren of migrants. According to the countries where they reside, they can be second or third generation non-citizens (e.g. Lebanon) or citizens (e.g. Jordan). While the population of UNHCR refugees can decrease or increase depending on circumstances, the population of Palestine refugees under the mandate of UNRWA increases continuously due to natural population growth.

Table 1: Migrant and refugee stocks by level of development of the destination country- End of 2015

Region (UN)	Migrants	Refugees

classification)	Number	%	Number	%
Developed regions	140 481 955	57.6%	2 206 033	13.7%
Developing regions	103 218 281	42.4%	13 915 394	86.3%
Total	243 700 236	100.0%	16 121 427	100.0%

Sources: 1) Migrants: United Nations, Department of Economic and Social Affairs, Population Division (2015), trends in International Migrant Stock: Migrants by Age and Sex (United Nations database, POP/DB/MIG/Stock/Rev.2015) ; 2) Refugees: United Nations High Commissioner for Refugees, Global Report 2015, <http://www.unhcr.org/gr15/index.xml>

Migrants choose their destination, while refugees do not. As a general rule, voluntary migrants go to wealthier countries than their own. The move can be South-North, South-South or North-North, to use meaningless but popular categories. Their destination is not necessarily a neighbour. On the contrary, refugees move from lack of choice. They hope to return to their homes and find shelter in the vicinity, often on just the other side of their country's border, even if their neighbour is itself a large migrant sending country (e.g: Afghans in Iran, Somalis in Sudan, etc.). Since, in recent times, most refugee-producing situations have occurred in developing countries, which themselves happen to border other developing countries, there is a specialisation in destination countries according to their level of development: most refugees are hosted by developing countries and most economic migrants by developed countries (Table 1). This distinction has consequences on education opportunities created or removed by international mobility.

The Education and Migration Interaction Framework

Education and migration are linked by a complex two-way relationship with consequences on both migrants and non-migrants in each of the origin and destination countries, as schematised on Table 2 below.

The first kind of interaction consists of the various direct and indirect impacts that education produces on migration. Education is universally recognised as a driver of migration as it creates openness to, as well as opportunities for, employment abroad. There is worldwide evidence that the more educated the higher the probability of migrating, and consequently the typical migrant is more educated than the average person left behind in the original population [cell 1 on Table 2].

The over-emigration of individuals with an above-average level of education has consequences on the education of non-migrants in the origin country, but in which direction is a much-debated matter: does it deprive the source country of a scarce resource (a mechanism often called "brain drain") thereby hampering economic development and further harming the progress of education, or are there compensatory mechanisms? Moreover, educated migrants have been found to convey values and models to their country of origin that are susceptible to impact development, through a mechanism of social, or ideational remittances [cell 3 on Table 2].

Looking at what happens at the other end of the process, in the destination country, there is evidence that migrants' education attainment and skills are not always matched by their actual occupation and that investment in human capital has partly been wasted through migration [cell 5 on Table 2].

A subsidiary question relates to the impact of highly-educated migrants on natives in the destination country, in terms of competition and emulation on the labour market, but also in education and research institutions. Do educated migrants create unemployment among nationals with a comparable level of education? Or do they fill gaps in the labour market that would otherwise have remained vacant for lack of nationals with the necessary skills? Does education create specific synergies between national and foreign-national workforce, and with what results? [cell 7 on Table 2].

Instead, the second kind of interaction consists of the many ways in which migration impacts education in both the origin and destination populations. Not all migrants settle for a lifetime in the destination country and part of them return to their homeland. Return migrants always bring back to their home country an experience, and often an education, that they and their born-abroad sons and daughters have gained in the host country, a mechanism by which international migration contributes to building human capital in the countries of origin [cell 2 on Table 2].

Table 2: The web of mutual causation between Education and Migration

Concerned population		I - Education → Migration	II - Migration → Education
Origin country	Migrants	1 Education, a driver of migration	2 Education gained abroad then brought back home by return migrants
	Non-Migrants	3 Development consequences of highly-educated migration ("brain drain" vs. ideational remittances)	4 Migrant remittances' impact on education in the homeland; parent's absence impact on education; prospect of emigration, an incentive to acquire more education ("brain gain")
Destination Country	Migrants	5 Over-qualification of migrants ("brain waste")	6 School performances of migrants' sons and daughters; student (and teachers') migration; development of foreign curricula and schools

	Non-Migrants	7 Competition and emulation between natives and migrants	8 Diversity of origins in the classroom and the quality of education; enrolment of locals in foreign schools and the building of human capital
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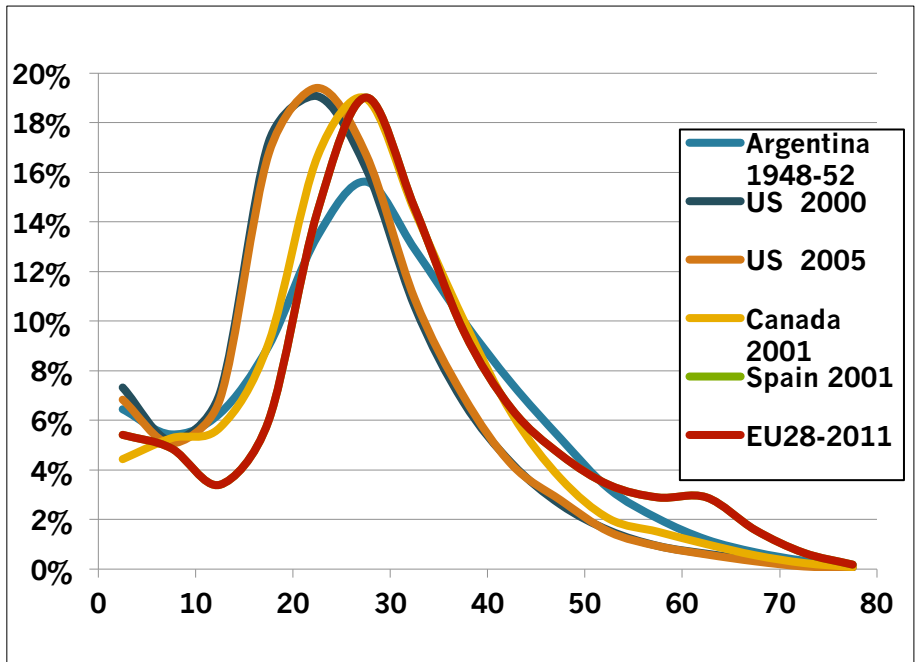
Another aspect is the role of emigration on the education of children in the origin country. Three channels must be considered in this framework: remittances and direct investments made by migrants in their country of origin (to what extent do they contribute to building human capital in home countries, from money spent on the education of their own children to the establishment of education institutions to serve their community?); psychological and often negative consequences of a parent’s absence on the enrolment and success at school of children left at home; and finally the spill-over effect that educated migrants’ success abroad produces on the wish to acquire education at home, often called “brain gain” [cell 4 on Table 2].

In the destination country, migration affects the education of migrants’ sons and daughters in several ways (do those enrolled in local schools suffer a handicap due to the teaching language? Has immigration favoured the creation of foreign schools? Etc.). Moreover, education is increasingly a cause of migration and international students (and teachers, researchers, etc.) comprise a growing share of global migrants [cell 6 on Table 2].

Finally, immigration may affect the education of local students by the diversity of origins and the spoken languages it brings to the classroom, but also through the possibility it offers them to attend foreign schools in the places where migrant communities or their states of origin have opened such schools. What is the impact of foreign students attending national schools (or universities) on school performances and ultimately on the human capital of the host country? Also, to what extent do foreign schools, created for those not enrolled in national schools, contribute to human capital formation in the host country? [cell 8 on Table 2]

Before addressing in more detail the above issues, a word must be said about education and migration in the individuals’ life cycle. Age patterns of international migration exhibit striking regularities over time and space, a fact that no theory has ever tried to explain despite several demographers developing mathematical expressions for migration rates by age. In a variety of national contexts and periods, the same bimodal age distribution of flows of international migrants at the time of first migration is observed. International migration peaks twice: below 5 years and around 25 years (Figure 2). The first and lowest peak corresponds to dependent children migrating or later reuniting with their parents, and the second and highest peak to autonomous migrants (labour migrants, family members or students, etc.).

Figure 2: Percentage Distribution of Immigration Flows by 5-year Age Group in Selected Countries and various years



Source of the data: United Nations, Department of Economic and Social Affairs, Population Division. World Marriage Data 2008 (POP/DB/Marr/Rev2008), and EUROSTAT

For the purpose of the present paper, it is sufficient to stress that a large proportion of migrants arrive at a destination when they are at pre-school, school or university ages. In the European Union, a majority of migrants fall into this category: 53.02% of the 2,425,977 immigrants entered in 2010 (most recent year available for all 28 EU member states at the time of writing) were below 28 years of age at arrival (Table 3). Looking at the reasons for legal immigration into the EU28, students represented close to one fifth of all immigrants in 2015 (almost the same proportion as workers) not taking into account all the younger students that entered through a family reunion visa (more than one third of all entries). These facts are too often overlooked in several policy debates surrounding migration and education, from the so-called ‘brain drain’ to school performance of students with a migrant background.

Table 3: Distribution of migrant flows in the EU28 in 2010 by broad age groups

Age groups	Percentage of migrants
0-4 years = Preschool	4,75%
5-9 years = Elementary school	3,56%
10-14 years = Middle school	3,42%
15-18 years = High school	4,86%
19-27 years = University	36,43%
28 years & over= Education completed	46,98%

Source: EUROSTAT Data

Table 4: First permits of residence by reasons in the EU28, 2008-2015

Reasons	Number	%
Family	4.536.282	35,7%
Education	2.443.391	19,2%
Remunerated activities	2.661.748	20,9%
Other	3.069.620	24,1%
Total	12.711.041	100,0%

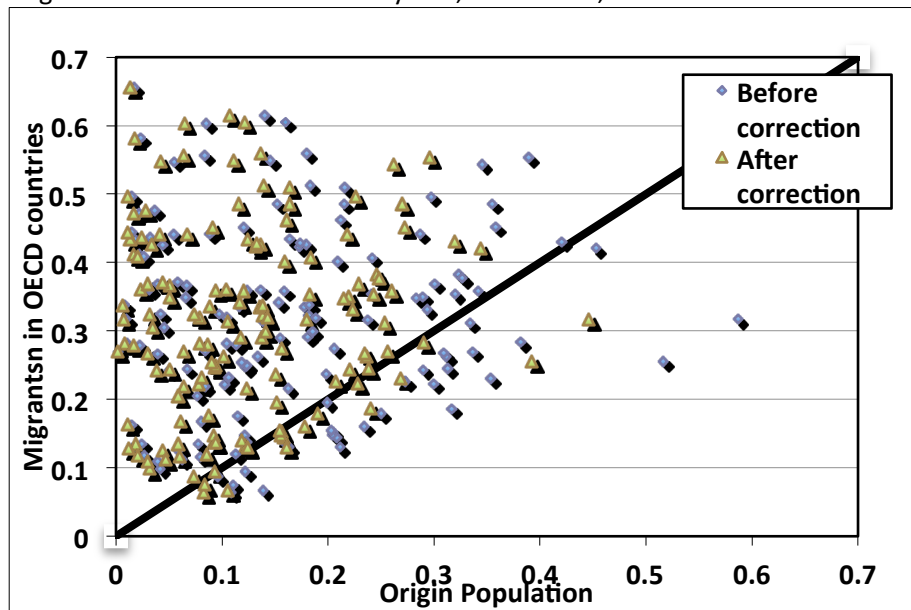
Source: EUROSTAT

Education as a driver of migration

International migrants constitute only 3.5% of the world’s population. They are a small minority and not at all a randomly selected one: those who voluntarily leave their country are usually among the fittest, physically and intellectually. In such sense, they are exceptional people.^{vi} Today, formal education has become an increasingly important criterion of selection, either by migration laws of destination countries (for example when they apply a points system) or by migrants’ self-selection at origin. As a result, the average level of education

attained by migrants is higher than that of their population of origin. In the 238 countries in which the distribution by educational level is available for both the resident population and the country's migrants (to OECD destinations only), the percentage of over 25s with tertiary-level education (ISCED 5 or higher) is in most cases higher among migrants than in their population of origin (dots situated above the diagonal on Figure 3).^{vii}

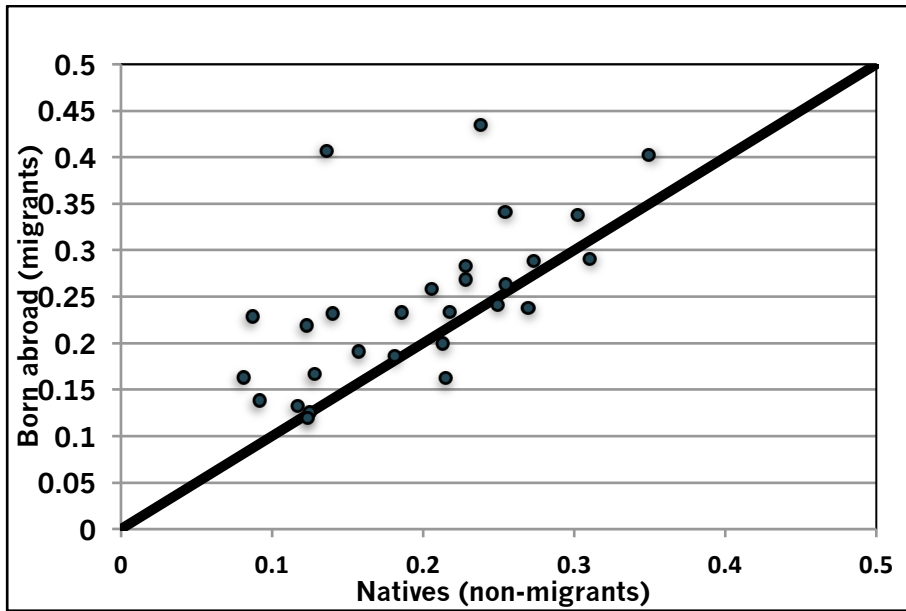
Figure 3: Population that has at least completed short-cycle tertiary (ISCED 5 or higher) amongst natives and migrants in OECD countries 25+ years, both sexes, ca. 2010



Source of the data: UNESCO and OECD (see Annex A)

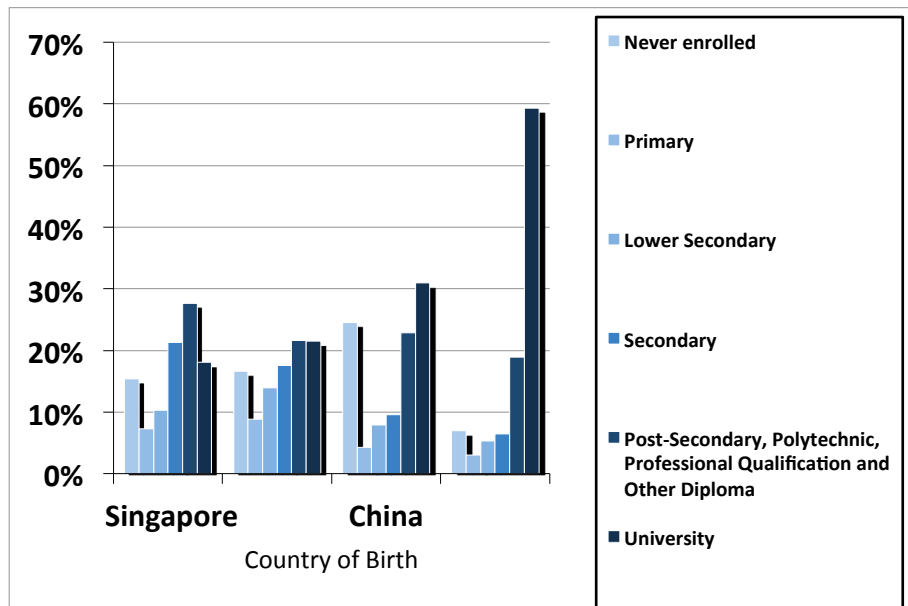
Not only are migrants more educated than non-migrants in the origin country, but they are also more educated than natives in the destination country (Figure 4). This last remark also applies to countries not included in Figure 4. In South Africa, for example, immigrants have a significantly higher level of education than non-migrants: 34.8% have received secondary or tertiary education against 30.0%.^{viii} In Singapore, it varies according to the national origin of migrants: those from Malaysia have a lower level of education than non-migrants, while those from China and other nationalities have a higher level (Figure 5).

Figure 4: Population aged 25 years and over with tertiary-level education (ISCED 5 or higher) among natives and migrants in OECD countries – ca. 2010



Source of the data: OECD (see Annex A)

Figure 5: Singapore 2010 - Resident population aged 15 years and over by country of birth and educational attainment



Source of the data: Census of Population 2010, Singapore Department of Statistics, <http://www.singstat.gov.sg/statistics/browse-by-theme/census-of-population>

Before discussing the consequences of migrants' education on the sending and receiving economies and societies, a preliminary question must be asked. What is most significant when explaining the educational profile of migrants: the country where they come from or where they go? Let us take migrants originating from Algeria and Mexico as a first example. Who are the migrants with the highest level of education? Asking the same question to two informed observers, one based in France and the other in the United States, one would obtain opposite answers; the first explaining that Algerian migrants typically belong to the working class and have a low level of education while Mexican migrants, in smaller numbers, occupy highly-skilled positions requiring more education; and the second describing exactly the opposite, which is to say Algeria and Mexico as sources of respectively highly and poorly educated migrants (Table 5). Turning now to observers based in the origin countries and asking them which destination is good for which level of skills, one would again obtain contradictory responses: Algerians would view France as a destination for the low-skilled and the US for the high-skilled, while Mexicans would express the exact opposite views. Looking at geography, one is tempted to conclude that what matters is not the origin or the destination country as much as how distant or close they are in geographic terms. Low-skilled migration would be regional and high-skilled migration global. Things are more complicated, however, as illustrated by a second example: Indian migrants in Europe.

Table 5: Distribution of migrant stocks aged 25-64 years by educational attainment, origin and destination ca. 2010

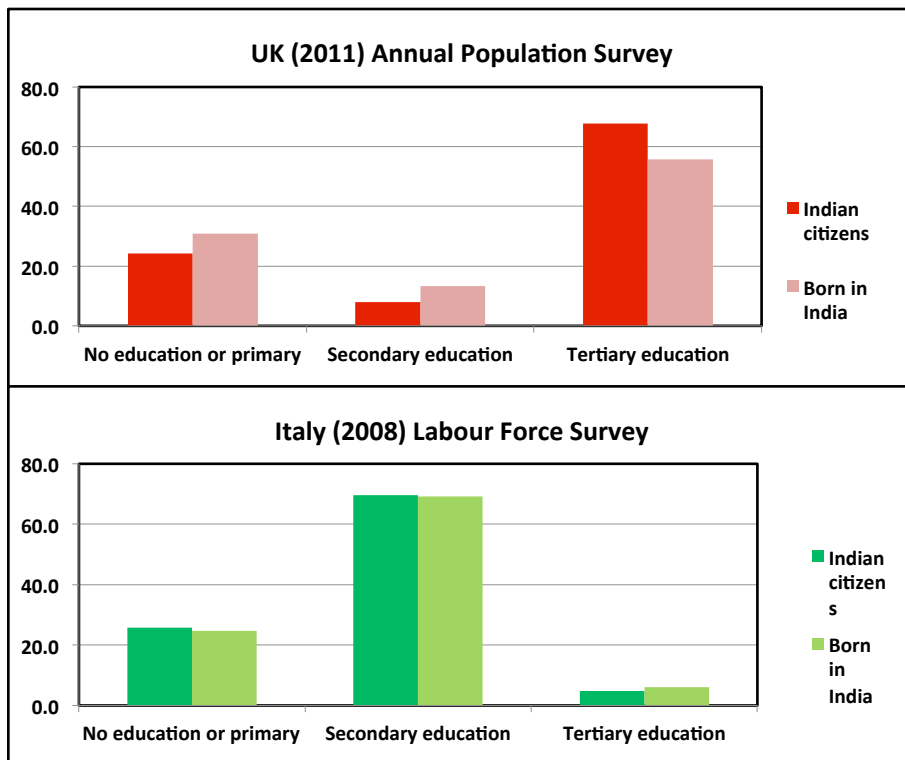
Educational attainment	France		United States	
	Algeria	Mexico	Algeria	Mexico
ISCED 0/1/2	54,1%	14,5%	12,9%	71,3%
ISCED 3/4	35,0%	34,9%	37,9%	25,3%
ISCED 5/6	10,9%	50,5%	49,2%	3,4%

Source of the data: OECD

India shares no land or sea border with any part of Europe, a fact that could make India-to-EU migration an arduous endeavour. Apart from geography, however, other kinds of proximity create links that facilitate the move. Historical proximity and sharing a language explain why the United Kingdom hosts a sizeable population of Indian migrants. In the case of Italy, which is the second largest destination for Indians in the EU, it is instead the proximity in terms of how labour markets function -- with a multitude of informal, small- or mid-sized industries in Italy just as in India-- that allows easy migration despite the absence of historical links and the language barrier. Moreover, these two European countries of destination greatly differ in terms of nationality laws. In the UK, naturalisation is the normal outcome of long-term residency and the predominant *jus soli* incorporates most second-generation migrants in the citizenry, while in Italy access to citizenship is exceptional for migrants and difficult for their locally born children due to unmitigated *jus sanguinis*.

All the above differences combine to explain why so many Indian migrants have tertiary level education in the UK and below-secondary education, and sometimes no school education at all in Italy (Figure 6).

Figure 6: Indian migrant stocks in Italy and the United Kingdom by level of education



Source: Fargues P. and K. Lum 2014, *India-EU Migration. A Relationship with Untapped Potential*, CARIM-India Research Report 2014/01, 25 p. <http://cadmus.eui.eu/handle/1814/31305>

Moreover, in the UK, the recently adopted points system, which along with other criteria includes an assessment of competence in the English language, knowledge and skills, explains how the more educated the migrant, the more likely they will be granted first a residence permit and later British citizenship. By contrast, in Italy the employment-based admission policy provides only residency status to migrants with an employment contract with no or little prospect of acceding citizenship. In these two countries, migration serves different strategies of human capital building. In the UK, the points system (as well as a policy of educating international students in British world-class universities) positions the country in the so-called “global competition for talents”^{ix} in order to attract the “best and brightest” from abroad. In Italy, the employment-based system brings from abroad those who will do the three-D (dirty, dangerous and demeaning) jobs that citizens no longer accept, thereby indirectly freeing citizens for skilled jobs and fostering education.

The brain drain-brain waste-brain gain debate

The international migration of people with tertiary-level education is a massive and controversial phenomenon. Many policymakers in origin countries and development experts in international agencies tend to see the emigration of highly-educated persons as brain drain or as a brain flight, depending on whether they put forward the pull effect of the destination countries or the free choice of the migrants. Those denouncing the brain drain see developing countries as victims of more advanced predator economies, while those blaming a brain flight point towards collective interests being sacrificed to private ambitions. Reality may be more complex however.

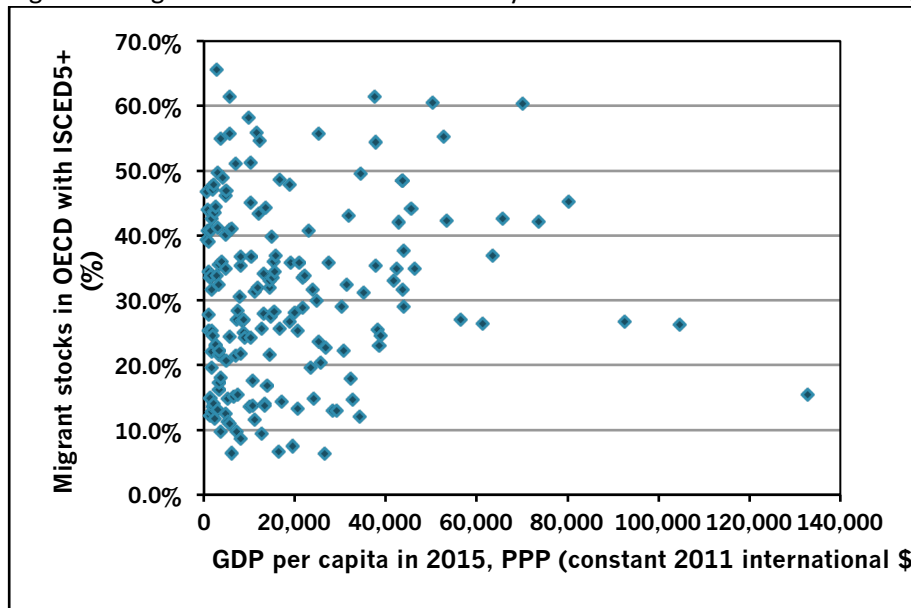
Migration statistics by country of origin and level of education are only available in OECD countries of destination and a few others. They do not provide a full, global picture of the emigration of highly educated people. Indeed, while OECD countries are the destination for most migrants from certain countries (for example from Mexico and Morocco whose migrants are mostly destined for the US and the EU respectively), it is not the case for other countries whose migrants go primarily to non-OECD destinations (for example India and Egypt from where they mostly go to the Gulf States). If, as we have already noted, the educational distribution of migrants of a same origin varies with their destination, then data discussed below represent only a partial vision of the reality.

Focusing on OECD countries of destination, which are amongst the richest in the world, a striking fact emerges from Table 6 and Figure 7: the proportion of a given origin country's migrants who have tertiary-level education is independent from the level of income of that country. Put in other terms, low-income, low-education countries are a source of highly-educated-migrant flows to the OECD in the same proportion as high-income, high-level education countries. Apparently, less developed countries lose a scarce resource to the benefit of more developed countries, a phenomenon commonly described as 'brain drain'. But what are the terms of the debate? There are economic and ethical arguments, as well as an overall deficit of accurate knowledge.

Table 6: Migrants with tertiary education in the OECD and income of the origin country

Level of income per capita*	Migrants in the OECD with tertiary education, 25 years+ (ISCED5+)	
	Number	Percentage of migrants
1st Quintile (< \$2,900)	1,229,861	32.9%
2nd Quintile (\$2,900 - \$7,900)	3,425,430	29.0%
3rd Quintile (\$7,900 - \$14,900)	2,882,143	29.6%
4th Quintile (\$14,900 - 31,900)	2,810,036	27.6%
5th Quintile (>\$31,900)	11,964,501	36.7%
* 2015 GDP per capita, PPP (constant 2011 international \$)		
Sources: World Bank (GDP) and OECD (migrant stocks)		

Figure 7: Migrant to the OECD with tertiary education and income of the origin country in 2015



Source of the data: GDP World

Development Indicators, 1 February 2017 <http://data.worldbank.org/data-catalog/world-development-indicators> ; Migrant stock OECD (see Annex A)

From an economic point of view, the international migration of highly educated people has both negative and positive aspects. On the negative side, a first authoritative argument is that university graduates are a scarce resource in poor countries, paid in part or in totality by public funds (the state finances public education). Their emigration amounts to a transfer of wealth with no compensation to rich countries; in other terms a kind of reverse aid to development. It represents a loss for the national economy because the country needs high-level skills for its long-term development. It is also a loss for the family if highly educated migrants have a lower propensity to return to their country of origin, and a loss for the local community that will miss the various positive spill-overs that highly-educated workers can produce locally. Finally, it is a loss for the country's good governance as the more educated bring a stronger contribution to institution-building.

On the positive side, one can argue that highly-educated workers earn a higher income in rich countries; a fact which will benefit both the migrant and those left behind through higher amounts remitted. Moreover, successful migrants become an example for their fellow citizens inciting them to invest in education if they hope to migrate themselves. The brain drain is turned into a brain gain since not all the highly educated will have an opportunity to emigrate.^x Finally, not all migrants will stay abroad indefinitely and those who return (temporarily or permanently) bring back some of the benefits of their migration experience in terms of financial, human and social capital built abroad, triggering a reverse brain drain. An example is given by the

thousands of Indian engineers circulating between Silicon Valley where they strengthen their skills and business or scientific networks, and Bangalore where they develop one of India's most brilliant sectors.^{xi}

Empirical evidence has accumulated in recent years to support, or eliminate, several of the above arguments. A first question addresses money: do highly educated migrants remit less or more? There are arguments for the former. First, these migrants come from wealthier families who do not count on remittances as much as the poor families of low-educated migrants. Second, they have more opportunities to stay in the destination countries and therefore less reasons to invest in the origin countries. Such a view is apparently confirmed by the negative correlation found at macro level between the average education level of outward migrant stocks and the total volume of inward remittances.^{xii} However, analyses at micro level making it possible to directly link the migrant's remittance decision with his or her education, find more mitigated results. According to a 2009 study, migrants with a university degree would remit on average US\$300 more per year than migrants without a university degree.^{xiii} In the same vein, a micro-analysis of data from five Sub-Saharan African countries found that migrants' education has no effect on their propensity to remit, but a significantly positive effect on the amount sent by those who remit. Indeed, highly-skilled migrants tend to earn higher incomes, tend to be legally employed and therefore tend to have bank accounts allowing low-cost money transfers.^{xiv}

A second question regards human capital: does highly-educated migration produce a net depleting effect or is this offset by a brain gain mechanism? Empirical evidence is scanty and several objections have been made against the brain-gain model, in particular that: the level of ability varies amongst highly-educated individuals and those with high-ability will sooner or later find an opportunity to emigrate and leave behind only those with low abilities; not only highly educated but also low educated individuals emigrate, making incentives for acquiring education weaker in the reality than in the model.^{xv} Another form of human capital building is through social or ideational remittances. Since, on the one hand, migrants are exposed to a different culture in destination countries and, on the other, they continue to exchange with their community of origin, it was found that migrants are conveyors of models and ideas prevailing in the receiving society to non-migrants in the sending society. There is some evidence that the high value placed on education is among the ideas transmitted.^{xvi}

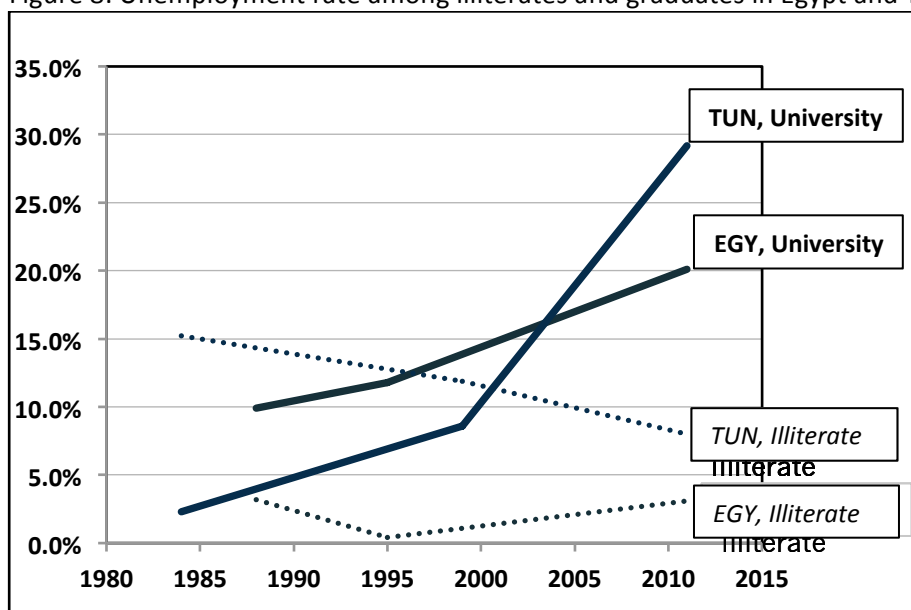
A third question is whether skills lost through emigration are a scarce resource in the country of origin. Higher education varies in quantity and quality throughout the world; so does the employment of highly-skilled workers. After decades of considerable efforts and investment in education by families and governments, a number of developing countries now suffer a brain waste: i.e. high unemployment among young people with university education, and often with a diploma, as a result of mismatches between education and employment. Therefore, the quantity of education exported through emigration does not accurately reflect the brain-drain phenomenon, if the quality of education and its employability at home are not accounted for.

Middle Eastern and North African countries provide an illustration of this global trend. Unemployment rates of university graduates reach two-digit levels across the entire region: 20.4% in Morocco at the end of 2011; 20.3% in Algeria in 2010; 29.2% in Tunisia in 2011 and 34.2% in 2012; 20.1% in Egypt mid-2011; 27.2% in Palestine in 2012; 16.0% in Jordan in 2012; and 11.4% in Lebanon in 2009.^{xvii} Moreover, a striking shift in unemployment from the bottom to the top of the educational ladder has occurred as shown in Figure 8 for Egypt and Tunisia. Until the 1980s, unemployed workers were mostly illiterate or had incomplete primary

education. With the spread of school education this category shrank as did unemployment among them; those with no school education today do not have the necessary means to survive unemployment. This great shift from illiterate to graduate unemployment is the result of a process by which education has developed faster than the opportunities it offered. In Morocco, an Association of Unemployed Graduates was established in 1991.^{xviii} In such a context, the emigration of highly educated individuals is a safety valve as much as a drain.

Moreover, at the world's level, highly-educated individuals have today become four times more likely to emigrate than low-educated workers. Taking a global perspective, as opposed to a focus on only the origin countries, it was found that highly-skilled migration enhances the welfare of the receiving population and gains resulting from a more efficient allocation of skills at global level are larger than the losses suffered by the sending countries.^{xix}

Figure 8: Unemployment rate among illiterates and graduates in Egypt and Tunisia 1980-2011



Source: Philippe Fargues and Alessandra Venturini (Ed.), Migration from North Africa and the Middle East - Skilled Migrants, Development and Globalisation, 2015, London, I.B. Tauris

From an ethical point of view, the question is how to strike a balance between individual freedom and individuals' debt to their country. Blaming highly-educated migration from poor countries for hampering their development logically translates into simple policy recommendations: for poor countries to limit or forbid the emigration of highly educated people (in the name of national interest) and for rich countries to limit or ban their immigration (in the name of ethical recruitment), in brief controlling migration at exit and entry.^{xx} But would such policies be fair? Based on the absence of any empirical evidence on 1) a direct adverse effect that highly educated migration would have on a country's development and 2) a positive impact of restrictive migration policies on development, it was argued that people not places develop. It was also recalled that

freedom is consubstantial to development^{xxi} and must apply to migration choices which are part of individuals' agency.^{xxii} It was also rightly noted that those advocating restrictions on the mobility of tertiary-educated Africans would never accept limitations on their own mobility.^{xxiii}

A last considerations questions the level of education and skills that is really transferred through migration? A Moroccan engineer working in Canada will not represent the same education and skill package being transferred from Morocco to Canada if the engineer's tertiary education and diploma were gained after departure, once established in Canada. 'Where did education take place?' and 'were skills mainly acquired in the source or in the host country?' are therefore important questions when evaluating the existence and magnitude of any brain drain. They are all the more relevant since the global circulation of university students has recently gained tremendous momentum. Unfortunately, large datasets combining individuals' histories of mobility and education are not available and the question remains largely unanswered.^{xxiv} What we have seen on age at education and age at migration in the life cycle of individuals (53% of all immigrants in the EU arrive before 28 years of age; see above Figure 2 and Table 3) suggests that a large proportion of highly-educated migrants have gained at least the last phase of their education (university) after migration.

Migrants' children educated in the origin countries

Labour migration is in most cases driven by a will to improve the living conditions of a family. Either family members migrate together with or shortly after the breadwinner or they stay in the home country. The last situation is the most frequent in temporary migration schemes as well as in long-term migration before family reunion takes place. Remitting money is therefore the true motive behind such migrations. Money remitted is mainly used to increase consumption levels, to enhance the social status of the family and to invest in housing, but also to improve the family's human capital in terms of access to health and education. To what extent does the emigration of the breadwinner contribute, through remittances and other mechanisms, to improve the quantity and quality of school education of their children left behind? This is a much-debated issue and research findings seem context-specific rather than universal, and mostly inconclusive.

Remittances are considered to help poor families to lighten budget constraints that hamper education, and to afford the direct costs of enrolment (school expenses, transportation, etc.) as well as its opportunity costs (enrolled children cannot enter the labour market and earn an income). At country level remittances, which are in a number of developing countries among the largest sources of external income, raise the level of investments in education as well as the various positive externalities education brings to long-run economic development and human progress. In this sense, "migration is development".^{xxv}

Evidence of education fostered by remittances through the likelihood of enrolment and the reduction of early dropout were actually found in a variety of contexts.^{xxvi} Girls may benefit more than boys^{xxvii}. It was also found that financial shocks in the origin country, such as the devaluation of its currency and the correlative appreciation of migrant remittances, do not boost consumption as much as investments and the accumulation of human capital.^{xxviii} Moreover, as already indicated, a process of ideational, or educational remittances is triggered by which migrants transfer to their communities of origin pro-education values they are exposed to in the host society.

But other evidence points in the opposite direction and suggests that migration produces a number of adverse effects on education in the origin country. The emotional problems resulting from the long separation of children from one or both of their parents can have a negative impact on educational outcomes.^{xxix} Moreover, in contexts where migration is mostly low-skilled, it may incite children to regard migration as a more efficient avenue to success than education, and a culture of emigration may develop; why should one make efforts and spend time and money to gain a diploma if migrating brings a bigger income?^{xxx}

Migrants at school in the destination countries

With migrant flows and movements of family reunion gaining momentum in recent decades, the proportion of students with an immigrant background has significantly increased in the primary and secondary schools of many migrant-receiving countries. PISA surveys reveal that between 2006 and 2015 at the age of 15, this proportion has increased from 9.4% to 12.5% on average in OECD countries (Table 7).^{xxxi} The situation varies greatly from country to country within the OECD. Spectacular increases were recorded in countries such as Luxembourg (from 36.0% to 52.0%), Switzerland (from 22.4% to 31.1%), the United States (from 15.2% to 23.1%), the United Kingdom (from 8.6% to 16.7%), Ireland (from 5.6% to 14.4%), Italy (from 3.8% to 8.0%), and Spain (from 6.9% to 11.0%). In other countries the proportion of migrants has stagnated, for example in France (13.0% in 2006 and 13.2% in 2015) or even decreased (from 23.0% to 17.5% in Israel). The few data available outside OECD show contrasted situations, from a slight decrease in Russia (from 8.7% to 6.9%) to what could be a world record in Qatar where persons with an immigrant background at age 15 are now a majority (from 40.5% in 2006 to 55.2% in 2015).

Origin of the students	2006	2015	Change 2006-2015
Non-immigrant	90,6%	87,5%	-3,1%
Immigrants	9,4%	12,5%	3,1%
Second generation immigrants	5,0%	7,1%	2,1%
First generation immigrants	4,4%	5,4%	1,0%

Source: OECD (2016), PISA 2015 Results (Volume I): Excellence and Equity in Education, PISA, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264266490-en>

How do secondary-school students with a migrant background perform at school, compared to natives? In OECD countries and the EU member states in particular, the former are disadvantaged: their average scores are lower and dropout rates are higher. A number of reasons explain their low scores in relative terms. The migrant condition is one of them: having a lower social status, being concentrated in mostly migrant neighbourhoods

with limited exposure to the host society’s culture, speaking the origin country’s language at home, and not benefitting from parental teaching support are amongst the best documented factors of weak school performance. As shown in Table 7, the migrants’ disadvantage at school is particularly marked in the first generation (when the students themselves are born abroad) and diminishes, but still persists in the second generation. However, once controlling for differences in the family’s social status, the difference between migrants and non-migrants is halved but still persists (20 points score see Table 8).

Table 8: Performance in science of students with an immigrant background compared with non-migrants in OECD countries in 2015*			
Score differences between non-immigrant students and	Immigrants	Second generation immigrants	First generation immigrants
Before accounting for students’ socio-economic status	43	31	53
After accounting for students’ socio-economic status	31	20	40
* Average score of non-migrant students = 500			
Source: PISA 2016			

Apart from the factors at play at family level, the education system and the social structure of the host country contribute to explain why students with an immigrant background are disadvantaged. Factors as diverse as the spread of pre-school education (strongly linked to the acquisition of language skills), the prevalence of the single-school (where migrant and non-migrant students engage with each other in the classroom), or a high level of income redistribution in the society are recognised to mitigate the impact of social inequalities on education performance.^{xxxii} In Germany, it was suggested that a significant gap in the second generation is not only due to social conditions, but also to the specificities of the country’s education system: late entry age (6 years, when much of the child’s development has already taken place) and half-day pattern that reduces interaction with teachers.^{xxxiii}

At this stage, a word must be said about language diversity, which lies at the core of the debate. While practising the language of the origin country within the family can turn into either a handicap or an asset, it is regarded in most Western countries as a handicap at school. As a result, the children’s cognitive development that the foreign language would permit is neglected.^{xxxiv} Dropout rates in OECD countries are generally higher among migrants than natives and increase with age at arrival, a fact that points to weak language acquisition as a strong factor.^{xxxv} The Programme for International Assessment of Adult Competencies (PIAAC) provides an adult literacy indicator based on tests of the respondents’ ability to find information in written material of varying complexity. In all the countries, immigrant adults have lower literacy skills than natives.^{xxxvi} The study does not compare the parents’ literacy scores with the school performances of their children, but one can reasonably assume that there is a link.

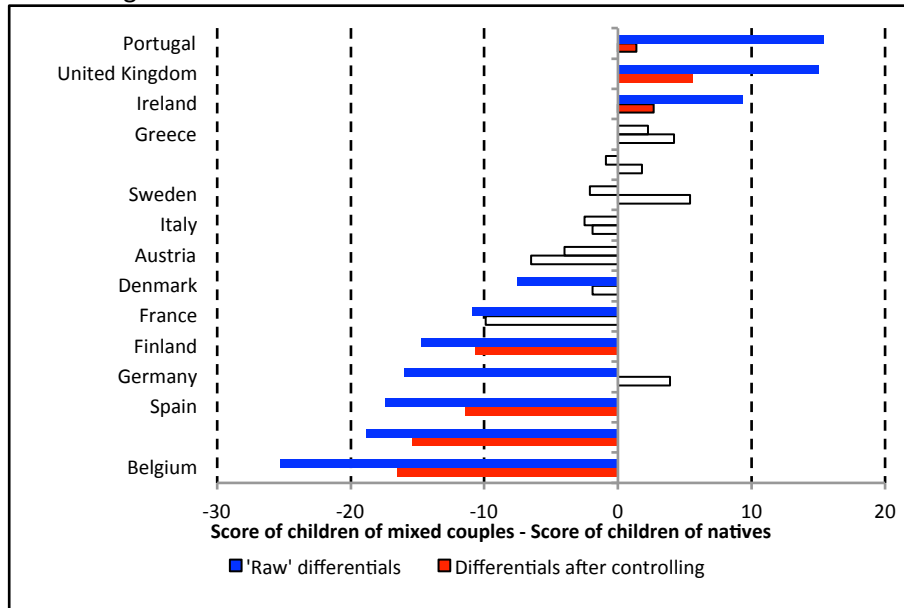
Another way of looking at multilingualism would be possible, however. Through immigration, languages that were barely spoken in Europe have become new European languages: there are now some five million native

Arabic speakers in the EU; three million Turkish; one million Chinese and Russian, etc. Some of these new languages are in use in more than one European state and even across the entire European Union. In this sense, they have become European languages. But, at the same time, they are minority languages. They are spoken in families and in circles of friends sharing a common origin: but they are rarely shared beyond this. Moreover, they are often viewed as a handicap at school and seldom taught. For example, in France in 2014, 2,111 foreign language posts were created: 2,092 teachers for EU languages (mostly English); 15 for Chinese; 2 for Russian; 2 for Arabic; and none for Turkish. In many cases, speaking these languages is perceived negatively by society; they are seen as markers of low integration, and speaking a foreign language can become a source of shame for migrants. But if one considers other dimensions of integration, the handicap may be turned into an asset. For example, it can be a collective asset for the host society if that language is used to extend business activities to foreign markets (Arab States; Turkey, Russia, China...); to enhance security (intelligence, phone tapping...); to enrich cultural production, etc.

A sensitive, policy-relevant question is whether the presence of immigrant students in the classroom is detrimental to native students. This is a common claim of populist, anti-immigration parties in the West, where school segregation is on the rise in large migrant-receiving cities. In OECD countries, in neighbourhoods with a high concentration of migrants, non-migrant and migrant students are increasingly enrolled in separate schools. This trend does not result from public policies which stick to the single-school model, but from social dynamics of avoidance. Because of the above-mentioned relative disadvantage of students with a migrant background, under-performing schools are developing in migrant neighbourhoods and tend to be deserted by natives. In Amsterdam, The Hague, Rotterdam and Utrecht, 14.1% of primary schools were classified migrant under-performing schools in 2007. In these schools, teachers had to spend more time bridging linguistic gaps between students than teaching the subject matter itself the course itself.^{xxxvii}

But what does evidence suggest about the way diversity in the classroom affects its average level of performance? A statistical analysis of 2009 PISA raw data on school performance and social background for nearly 120,000 students in the EU15 revealed that while high numbers of immigrants are indeed found in under-performing schools, they are not causing the schools to underperform. As illustrated on Figure 9, the correlation disappears once controlling for socio-economic characteristics of the students. It is the socio-economic composition and not the ethnic makeup that explains school performance.^{xxxviii}

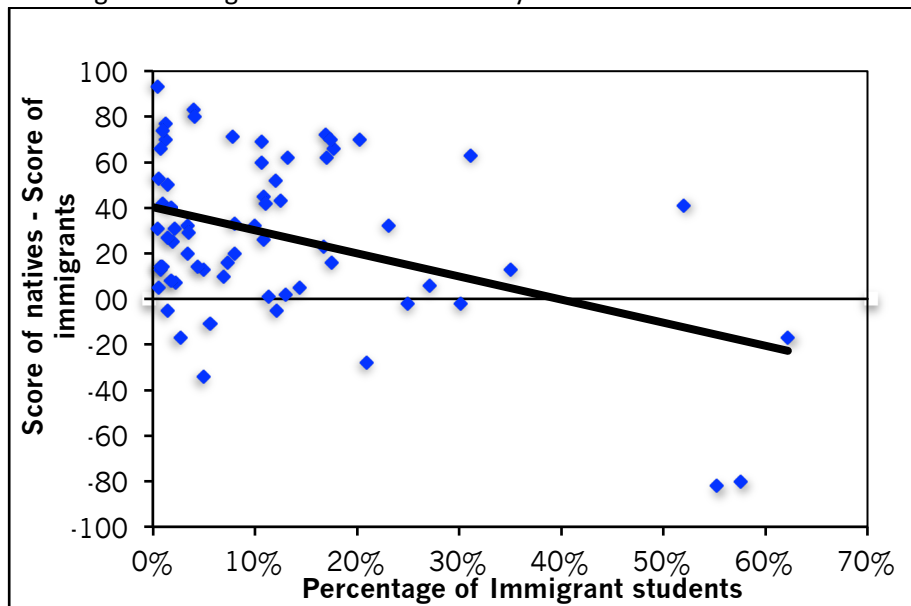
Figure 9: Average differential in reading performance by country of residence and origin before and after controlling for structural characteristics (*), 2009 (**)



Notes: (*) The following structural characteristics were controlled for: sex, parents' educational and occupational level, PISA Index of home cultural possessions and type of family; (**) No significant values are marked in blank.

Source: Sara Bonfanti and Anna Di Bartolomeo, Stereotype 8: "Our children suffer from having immigrants in class", in Philippe Fargues (Ed.) 2014, Is what we hear about migration really true? Questioning eight stereotypes, MPC Report, <http://cadmus.eui.eu/handle/1814/31731>

Figure 10: Proportion of immigrant students at age 15 and average difference in science performance between non-migrant immigrant students at country level - PISA 2015



Source of the data: PISA 2016 (see Annex B)

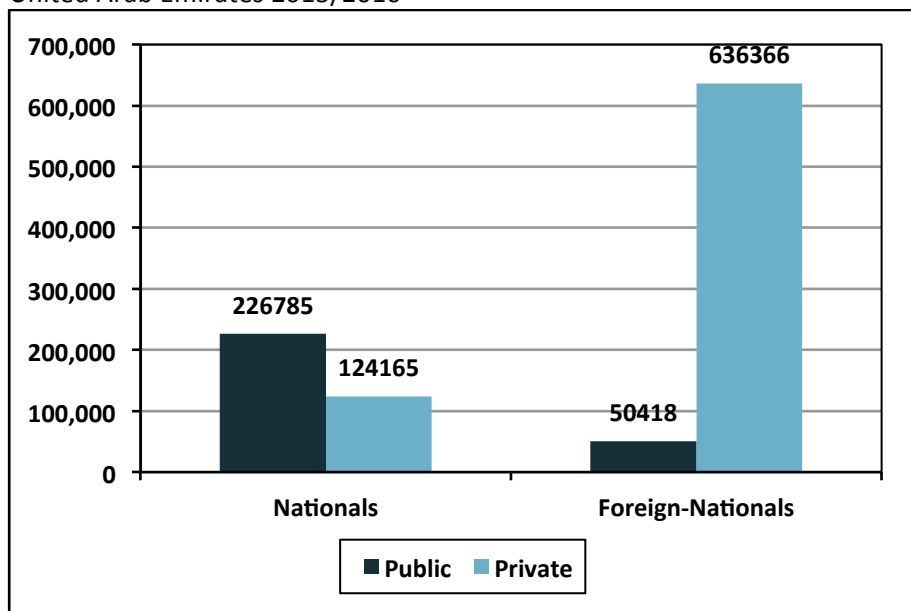
Another finding of the 2015 PISA surveys is worth mentioning: students with an immigrant background scoring lower than natives constitute a predominant, but not universal, situation in OECD countries. Indeed, there is a significant negative correlation between the percentage of students with an immigrant background and their disadvantage compared with non-migrants: when all countries are plotted on the same graph, the higher the proportion of migrants the lower their disadvantage (Figure 10). Moreover, in 12 of the 65 countries covered by the survey migrants score better than natives (Table 9). Half of these are countries in which the proportion of migrant students is amongst the world's highest: Qatar, United Arab Emirates, Singapore, Macao, Australia and Canada. In the last four countries, not only are non-migrants scores well above the OECD average, but migrants' scores are also even higher; an advantage that results from the points system that selects the most educated migrant parents. In Qatar and the United Arab Emirates, where instead nationals have much lower average scores in science than in OECD countries, the fact that migrant students gain better results must be related to their education in separate schools.

Table 9: Countries grouped by Percentage of Immigrant students and differences in science performance between immigrant and non-immigrant students – PISA 2015			
Percentage of Immigrant students	Performance of migrants compared with non migrants		
	Migrants score significantly below natives (> 30 points)	Migrants score slightly below natives (0 to 30 points score)	Migrants score better than natives
Low ($\leq 3\%$)	Turkey, Thailand, Malaysia, FYROM, Kosovo, Peru, Chile, Czech Republic, Dominican Republic, Algeria, Tunisia, Colombia, Brazil, Slovakia, Bulgaria, Mexico, Japan	Uruguay, Georgia, Lithuania	Hungary, Moldova
Average (5% to 12%)	Estonia, Italy, Spain, Greece, Norway, Netherlands, Denmark, Slovenia, Iceland, Finland	Russia, Latvia, Argentina, Portugal, Lebanon, Costa Rica, Croatia, Trinidad and Tobago	Malta, Montenegro, Jordan
High ($\geq 13\%$)	United States, Luxembourg, France, CABA (Argentina), Switzerland, Belgium, Sweden, Austria, Germany	Kazakhstan, Ireland, New Zealand, Hong Kong, Israel, United Kingdom	Qatar, United Arab Emirates, Singapore, Macao (China), Australia, Canada

Finally, there is a tendency for migrant communities to establish their own diaspora schools with or without the support of their origin country's government. The 500 French primary and secondary schools managed in 135 countries by the French Ministry for National Education^{xxix}, the web of British international schools, and Hispanic schools in the US belong to this category. This is also the case of the worldwide network of schools created by the Hizmet movement, inspired by the doctrine of Islamic preacher Fethullah Gülen. In the United States and in Western Europe, where Hizmet schools are mostly attended by children of Turkish origin, they follow the local secular curriculum.^{xi} Other diaspora schools operate in Gulf States such as Qatar and the United Arab Emirates where foreign-nationals are a demographic majority at school ages. Influential migrant communities from India and other countries have opened private English-speaking schools with an apparently better academic level than local public schools. Apart from the vast majority of foreign-nationals, these foreign

schools are attended by one third of UAE national students (Figure 11). We lack the statistical evidence on children’s performances in diaspora schools to evaluate their educational and social impact.

Figure 11: Pre-school, primary and secondary school students by nationality and educational sector in the United Arab Emirates 2015/2016



Source: United Arab Emirates, Federal Competitiveness and Statistics Authority, <http://original.fcsa.gov.ae/EnglishHome/tabid/96/Default.aspx#refreshed>

Educating refugees

Refugees represent 8% of the international migrant stock globally. They are one of the world’s most vulnerable groups of population. More than half of their school-age children are *de facto* denied the fundamental right to education. The UNHCR estimates that over two thirds of the 6 million refugee children under its mandate are out of school, a proportion that grows from 50% at primary education level to +84% and 99% respectively at secondary and university levels. Out-of-school children are at high risk of becoming a lost generation. The UNHCR stresses that more than half of them are found in just seven countries: Chad, DR Congo, Ethiopia, Kenya, Lebanon, Pakistan and Turkey.^{xii} Not all refugee children are exposed to the same circumstances, however. Much depends upon time and place.

According to time, three stages of a refugee’s life must be distinguished: the cross-border movement, the establishment in a first asylum country, and the long-term settlement in case return to the homeland does not happen. In the first stage, during the journey from home to a safe shelter abroad, children are all kept out of school. This can last anything from a few hours or days to several months. At best, in places of transit, temporary and informal forms of education can be experimented, such as e-learning or mobile schools. How

efficient are they? We do not have sufficient data to know. Moreover, we have anecdotal accounts of the physical and mental damage caused by the flight from home but no systematic data to assess its magnitude and durable impact on the child's education.

The second stage starts at the moment when refugees reach a place of asylum where they can settle, at least temporarily: the 'first asylum country'. There, the situation of refugee children regarding education varies enormously according to the country. Is it party to the 1951 Refugee Convention? Economically developed? Politically stable? Culturally close to the refugee's home country? Etc. All these aspects impact the quantity and quality of school education available for refugees. Another important factor is the setting where refugees are accommodated: is it a dedicated camp where they stay alongside fellow citizens (and can be educated in their own language) or a village or urban neighbourhood where they live amidst local citizens (and must be educated in the host country's language)? A third stage may start when time passes and plans for, or hopes of return gradually vanish: refugees can progressively integrate into the host society or be resettled and granted long-term status in a third country, or fall in protracted refugee situation.^{xiii}

A key question relating to the asylum country is whether it is, or is not, party to the 1951 Refugee Convention. Indeed Article 22 of the convention stipulates that: "1. The Contracting States shall accord to refugees the same treatment as is accorded to nationals with respect to elementary education. 2. The Contracting States shall accord to refugees' treatment as favourable as possible, and, in any event, not less favourable than that accorded to aliens generally in the same circumstances, with respect to education other than elementary education and, in particular, as regards access to studies, the recognition of foreign school certificates, diplomas and degrees, the remission of fees and charges and the award of scholarships."^{xliii}

A cursory glance at the world's distribution of actual refugee populations and states' membership of the 1951 Refugee Convention, reveals a patent global discrepancy between states' position regarding international refugee law and their actual commitment to hosting (and often protecting) refugees. Almost half (46.6%) of the world's refugees (UNHCR) are staying in countries that are not signatories of the Refugee Convention or that have a geographic limitation that *de facto* excludes them from its provisions (Table 10). The world's three largest receivers of refugees are not parties (or with limitations) and among the countries that host more than half a million refugees, only two are parties (Table 11). Should UNRWA refugees be included in the counting, we could say that the majority of refugees are not living in countries that have signed the Refugee Convention.

Table 10: Distribution of refugees by the host country's Refugee Convention status - End of 2015

Convention status of the host state	Number of states	Number of refugees	%
Full party	144	8,601,289	53.4%
Geographic limitation to refugees from Europe	4	2,586,349	16.0%
Not party	53	4,933,789	30.6%
Total	201	16,121,427	100.0%

Source of the data: UNHCR

The Syrian refugee crisis that started in 2011 is a case in point. Fleeing life-threatening conditions in Syria, some 5 million^{xliv} refugees have crossed their country's border to find shelter in one of its neighbours: Turkey, Lebanon, Jordan or Iraq.^{xlv} These states are not parties to the Refugee Convention (or party, in the case of Turkey, but with a geographic limitation to Europe that excludes the refugees that Turkey actually receives from the Middle East). They have a charity-based, as opposed to a rights-based, approach to the problem.^{xlvi} Refugees are admitted as "guests": they enter legally, but for a limited period of time. During this period they have little or no social and economic rights, including the right to education. Once their entry visa expires, they lose the right to stay and they must choose between falling into limbo and trying to leave. So, what access to schooling do Syrian children actually have in in these countries?

Table 11: Refugee Convention status of the countries hosting more than half a million (UNHCR) refugees - End of 2015

Country of asylum	Refugees (UNHCR)	Convention status
Turkey	2,541,352	Limitation to refugees from Europe
Pakistan	1,561,162	Not party
Lebanon	1,070,854	Not party
Iran	979,437	Party
Ethiopia	736,086	Party
Jordan	664,118	Not party
Kenya	553,912	Party

Source of the data: UNHCR

In Lebanon, where 487,615 Syrian children aged 3-18 years were registered with the UNHCR at the end of 2016, enrolment rates were 15% at pre-primary school age (3-5), 47% at primary school age (6-14) and 4% at secondary school age (15-18).^{xlvii} In Iraq, survey data in the governorate of Erbil suggest that around two thirds of primary-school age Syrian refugee children were formally or informally enrolled in 2016 but no one at high school age. In the governorate of Sulaymaniyah, a similar situation was found with enrolment rates at primary-school level reaching 54% for boys and 61% for girls among Syrian refugees (vs. 109% in the host communities), and respectively 2% and 11% at high school level (vs. 124% and 119% in the host communities).^{xlviii} The situation seemed better in Jordan, where a 72% enrolment rate of Syrian refugees was recorded at the beginning of 2016/2017. The main obstacles faced in this country by Syrian children of school age were out of school were distance to school, underage employment in agriculture and services, and lack of regular residency documents.^{xlix}

In Turkey at the end 2016, an estimated 60% of Syrian school-age children were enrolled (grades 1 to 12), two thirds of them in regular Turkish schools and the rest in temporary education centres (TECs) set up for Syrian refugees but teaching in the Turkish language. A 40% increase in enrolment over just one year could be attributed to a pro-active policy of the Turkish Ministry of National Education towards Syrian refugees in particular to the following: construction of schools; free provision of learning support materials; scholarships, language programmes, etc.¹ Around one million Syrian refugees did not stay in the first asylum countries they had found at the border of Syria, but travelled to Europe, most of them risking their lives smuggled by sea from Turkey to Greece. The desire of a future for their children features prominently in the reasons that explain their move. Indeed, the Charter of Fundamental Rights of the European Union stipulates that (Article 14) “Everyone has the right to education ... This right includes the possibility to receive free compulsory education” and EU asylum law provides that minor children of asylum seekers must be enrolled 3 months after the asylum claim was lodged.

Integrating refugee children in the host country’s schools is at the same time a solution and a problem, as it requires strong accompanying measures. Acquiring proficiency in the teaching language of the host country is an overwhelming issue given that refugees are not native speakers. Intensive language courses are therefore a necessity, but a time- and resource-consuming condition of success. Moreover, language is not the only problem. Because refugees hope to return home and their presence in a country of asylum is meant to be temporary, the choice of what to teach them is a strategic question. What curriculum should apply: that of the host country or of the home country? Put in other terms, should education aim at local integration or at smooth repatriation? It becomes a burning issue in the refugee status determination period, when neither refugee families nor the public administration know what response will be given to asylum claims.

Finally, a word must be said about protracted refugee situations. Refugees’ long-term settlement with no full integration can indeed produce a variety of outcomes, from widespread destitution to unexpected educational benefits. Let us focus only on the last case. A first example shows that refugee children can receive a better education in their country of asylum than what was available in the country of origin. From the 1980s, to the early 2000s, Iran received 3 to 4 million Afghan refugees fleeing occupation and civil war in their homeland. Half of them still live in Iran. A quick comparison of old (30 years and over in 2005) and young (15-29 years) generations--the first grown up in Afghanistan and the second in Iran--eloquently shows the educational benefit of the move: the proportion of illiterate drops from 55.4% above 30 years of age to 29.8% below.

Interviewed refugees stress the better quality of education in Iran compared with Afghanistan (e.g. schools accessibility, size of classes, teaching methods, etc.).^{li}


The most protracted refugee situation, which is that of Palestinians under the mandate of UNRWA, offers a second example. After they lost their land and most of their physical capital, Palestinian refugees had no better long-term strategy than building strong human capital. International aid and the foresight of UNRWA were instrumental in developing this strategy. From the early 1960s until the present day, education of one of the world's youngest populations has continuously been the main activity of the international agency.^{lii} As a result, Palestinians are among the most educated people in the Arab region.

By way of conclusion: filling research gaps

In many regards, education and international migration work in synergy. On the one hand, education raises both individuals' expectations and their opportunities, and their aspirations as well as their ability to fulfil them in a variety of places. On the other side migration increases the material and non-tangible resources that make education desirable and attainable for the migrant and their children. Does this mean that sound policies should work towards increasing education and migration in parallel? No, because there are notable differences between the two.

The first difference regards frequency: education tends to become universal, while international migration remains exceptional, largely because no place is better than home for most people. The second regards perception: education is (almost) universally praised and desired, while migration is often seen with reluctance in migrants' host societies. Students are regarded as hopefuls, but immigrants as intruders. School education is often vested with a mission of building national identity while immigration is regarded as a threat to identity. In brief, the school's open doors contrast with walls being erected to bar the route to migrants. In this highly sensitive context, robust knowledge is needed for states to carry out informed policy-making and for citizens to construct their own unbiased views. For this, unanswered questions must be addressed.

The first unanswered question we encountered is 'how much education is transferred through migration?' Comparing the distribution by education attainment of migrants to OECD countries on one side, and their population of origin on the other, we were able to demonstrate that, at world level, migrants to rich countries are typically more educated than the average person left behind in the origin country. However, this finding suffers several deficiencies. It reflects only part of migration because only OECD data provide migrants by origin and level of education. Migrants to non-OECD countries may well have a different educational profile. Organising and analysing data on migrants to non-OECD countries would disclose an important facet of global migration.^{liii} Moreover, a discrepancy between OECD and UNESCO statistics on population distribution by educational attainment at country level limits the scope of any conclusions on where education is a driver of migration and where it is not. Harmonising statistics would make it possible to better understand migrants' selection by education. Finally, it is not only the quantity of education, but also its quality that matters. Identifying which skills circulate on which routes and mapping the flows of international migration by type of education would bring critical knowledge.



The second unanswered question, which is symmetrical to the previous one, is ‘how much education is gained through migration?’ We have seen that close to half of the international migration flows worldwide take place at school or university age. Separating cases where education stops before (or at the moment of) migration and cases where it continues after, in the destination countries, would shed light on the complex linkages between international migration and human capital building at both origin and destination. It would allow the balancing of the controversial issue of skills tapped (‘brains drained’) by migration with the largely overlooked phenomenon of educational opportunities offered by migration. *Ad hoc* processing of school statistics should make it possible to advance knowledge on this matter.^{liv}

The third unanswered question – ‘how much is non-migrants’ education affected by migration?’ –complements the other two. Migration produces externalities. Its education-related benefits and costs for those who have not migrated have been identified without any strong conclusions. The net result of pluses and minuses on school enrolment in migrants’ families and communities in origin countries has not been firmly established. In the same vein, we cannot conclude what makes diversity of origins in the classroom an asset and what makes it a liability. These two questions do not require new data as much as a new approach of existing data (household surveys for the first, PISA surveys for the second).

Finally, the nagging question of how to mitigate the educational consequences of the largest refugee crisis since World War II, which is currently unfolding across the Middle East and beyond, must be urgently addressed. Creativity is needed to gather and analyse all kinds of data collected in countries of first asylum and along the way from conflict areas to safe havens.



ANNEX A

Percentage of population aged 25 years and over with a tertiary education (ISCED 5 of higher) among immigrants in OECD and in their origin country - ca 2010

Country	Origin	Migrants	Country	Origin	Migrants	Country	Origin	Migrants
Albania	7.9%	11.6%	Ethiopia	0.8%	33.8%	Peru	18.9%	31.9%
Algeria	8.0%	16.8%	Fiji	12.3%	25.0%	Philippines	21.6%	51.0%
Andorra	18.2%	32.3%	Finland	31.3%	24.5%	Poland	19.8%	23.7%
Anguilla	17.8%	33.5%	France	24.1%	35.4%	Portugal	10.9%	6.4%
Argentina	12.4%	35.9%	Georgia	29.0%	24.3%	Puerto Rico	23.4%	16.0%
Armenia	32.0%	35.3%	Germany	23.7%	31.7%	Qatar	20.3%	15.5%
Aruba	16.4%	43.4%	Ghana	3.1%	36.0%	South Korea	29.7%	49.6%
Australia	35.5%	48.5%	Greece	20.4%	14.8%	Moldova	20.9%	40.2%
Austria	18.0%	29.1%	Guatemala	4.2%	9.8%	Romania	11.9%	25.4%
Azerbaijan	21.5%	48.5%	Guyana	0.2%	27.0%	Russia	58.7%	31.7%
Bahamas	11.6%	33.6%	Honduras	5.8%	12.5%	Rwanda	3.6%	47.6%
Bahrain	15.2%	48.5%	Hungary	18.6%	30.0%	Saint Lucia	10.2%	22.1%
Bangladesh	4.2%	32.5%	Iceland	28.9%	35.0%	Samoa	3.9%	10.9%
Barbados	1.1%	28.2%	Indonesia	6.6%	36.7%	Saudi Arabia	16.0%	60.5%
Belarus	51.7%	25.6%	Iran	18.3%	51.3%	Senegal	2.7%	11.8%
Belgium	29.4%	33.1%	Ireland	31.2%	26.3%	Serbia and Mon	15.6%	14.0%
Belize	8.4%	21.9%	Israel	42.0%	43.0%	Seychelles	7.7%	20.5%
Benin	2.2%	47.1%	Italy	11.3%	12.0%	Singapore	35.8%	45.2%
Bermuda	32.3%	38.3%	Japan	34.5%	54.4%	Slovak Republic	16.3%	13.0%
Bhutan	4.5%	30.5%	Jordan	12.0%	45.1%	Slovenia	21.2%	13.0%
Bolivia	20.5%	15.2%	Kazakhstan	19.9%	19.6%	South Africa	5.5%	54.7%
Bosnia-Herzegovina	7.7%	13.5%	Kenya	2.2%	41.1%	Spain	25.0%	18.0%
Brazil	10.4%	32.0%	Kuwait	8.5%	60.4%	Sri Lanka	13.9%	31.4%
Bulgaria	20.8%	14.4%	Kyrgyzstan	16.2%	21.6%	Suriname	3.9%	36.8%
Burkina Faso	1.0%	31.7%	Latvia	24.2%	40.7%	Sweden	28.7%	44.2%
Cambodia	1.5%	16.2%	Lebanon	15.4%	34.1%	Switzerland	33.7%	27.0%
Cameroon	1.4%	49.6%	Lesotho	1.7%	65.6%	Syria	5.8%	37.1%
Canada	45.3%	42.1%	Lithuania	27.3%	22.7%	Tajikistan	10.6%	23.2%
Cayman Islands	31.7%	18.6%	Luxembourg	30.9%	26.7%	Thailand	13.7%	36.0%
Chad	3.2%	43.7%	Malaysia	8.3%	55.7%	Macedonia	12.2%	9.4%
Chile	18.2%	33.7%	Maldives	1.7%	43.4%	Togo	2.6%	40.9%
China	8.8%	44.2%	Mali	2.4%	13.5%	Tonga	6.2%	11.3%
Hong Kong	17.3%	42.3%	Malta	12.1%	14.7%	Trinidad and Tobago	9.7%	32.5%
Macau	13.3%	26.3%	Mauritius	4.0%	26.7%	Tunisia	12.4%	13.8%
Colombia	11.3%	28.0%	Mexico	13.9%	6.7%	Turkey	11.1%	7.5%
Costa Rica	20.6%	27.4%	Mongolia	18.0%	55.9%	Uganda	4.4%	42.6%
Croatia	16.1%	13.3%	Mozambique	2.2%	27.9%	Ukraine	38.1%	28.3%
Cuba	12.2%	24.7%	Namibia	2.3%	58.2%	United Arab Emirates	18.0%	42.6%
Cyprus	29.9%	22.2%	Netherlands	28.3%	34.8%	United Kingdom	35.3%	23.0%
Czech Republic	15.5%	29.0%	New Zealand	33.4%	31.2%	United Rep. of Tanzania	1.4%	44.4%
Congo, Dem. Rep.	5.4%	44.1%	Norway	30.1%	36.8%	United States	39.0%	55.3%
Denmark	32.7%	37.7%	Oman	14.0%	61.5%	Uruguay	10.4%	28.2%
Dominica	5.0%	24.2%	Pakistan	6.6%	34.9%	Venezuela	17.4%	42.9%
Dominican Republic	12.2%	13.8%	Occup. Palestine	21.2%	46.3%	Vietnam	6.7%	24.4%
Ecuador	11.5%	17.6%	Panama	15.9%	35.8%	Zambia	14.5%	54.9%
Salvador	9.6%	8.7%	Paraguay	8.4%	33.0%	Zimbabwe	1.5%	12.9%
Estonia	34.2%	35.8%						

Source: UNESCO for the origin population; OECD for migrants



ANNEX B (Part 1)

Science performance differences between immigrant and non-immigrant students, and socio-economic status

Country	Percentage of Immigrant students in PISA 2015	Science performance score				Difference between immigrant and non-immigrant students					
						Before accounting for students' socio-economic status			After accounting for students' socio-economic status		
		Non-immigrant students	Immigrant students	Second Generation	First Generation	Between non-immigrants and immigrants	Between non-immigrants and second generation immigrants	Between non-immigrants and first generation immigrants	Between non-immigrants and immigrants	Between non-immigrants and second generation immigrants	Between non-immigrants and first generation immigrants
OECD											
Australia	25.0	512	514	523	505	-2	-10	7	-5	-14	5
Austria	20.3	510	440	447	428	70	63	82	46	38	57
Belgium	17.7	516	450	454	447	66	62	69	43	38	46
Canada	30.1	530	531	533	530	-2	-3	0	-2	-7	4
Chile	2.1	449	418	447	408	31	2	41	23	7	28
Czech Republic	3.4	495	463	477	450	32	18	45	24	2	45
Denmark	10.7	510	441	441	441	69	69	70	51	48	56
Estonia	10.0	539	507	507	510	32	32	29	31	31	36
Finland	4.0	535	452	464	443	83	71	92	65	50	77
France	13.2	506	444	456	419	62	50	87	32	21	51
Germany	16.9	527	455	461	434	72	66	93	50	42	76
Greece	10.8	461	417	424	404	45	38	58	23	18	30
Hungary	2.7	477	494	507	476	-17	-30	1	-4	-5	-2
Iceland	4.1	478	398	424	387	80	54	91	66	43	76
Ireland	14.4	505	500	501	500	5	4	5	8	6	8
Israel	17.5	473	456	471	414	16	2	58	4	-6	33
Italy	8.0	485	452	463	444	33	21	40	19	11	24
Japan	0.5	539	447	c	c	93	m	m	83	m	m
Latvia	5.0	492	478	481	466	13	10	26	20	16	37
Luxembourg	52.0	505	464	463	466	41	42	39	13	13	13
Mexico	1.2	418	340	c	331	77	m	87	63	m	68
Netherlands	10.7	517	457	462	438	60	55	79	33	28	50
New Zealand	27.1	519	513	507	517	6	11	2	6	3	8
Norway	12.0	507	455	464	446	52	43	61	35	28	42
Portugal	7.3	503	488	503	475	16	0	28	16	7	23
Slovak	1.2	465	395	400	389	70	65	76	73	58	89
Slovenia	7.8	520	449	464	427	71	55	93	45	29	66
Spain	11.0	499	457	471	454	42	28	45	28	16	31
Sweden	17.4	508	438	454	417	70	54	90	49	37	64
Switzerland	31.1	527	464	462	467	63	65	60	41	40	41
Turkey	0.8	427	414	436	c	13	-9	m	31	9	m
United Kingdom	16.7	516	493	503	485	23	14	32	18	7	28
United States	23.1	506	474	482	456	32	24	50	6	-3	20
OECD average	12.5	500	456	469	447	43	31	53	31	20	40

ANNEX B (Part 2)

Country	Percentage of immigrant students in PISA 2015	Science performance score				Difference between immigrant and non-immigrant students					
						Before accounting for students' socio-economic status			After accounting for students' socio-economic status		
		Non-immigrant students	Immigrant students	Second Generation	First Generation	Between non-immigrants and immigrants	Between non-immigrants and second generation immigrants	Between non-immigrants and first generation immigrants	Between non-immigrants and immigrants	Between non-immigrants and second generation immigrants	Between non-immigrants and first generation immigrants
Partners											
Albania	0.6	m	m	m	m	m	m	m	m	m	m
Algeria	1.0	377	335	335	m	42	42	m	43	43	m
Brazil	0.8	404	338	335	342	66	69	62	66	66	66
Bulgaria	1.0	450	376	c	c	74	m	m	68	m	m
CABA (Argentina)	17.0	485	423	429	414	62	57	71	16	10	24
Colombia	0.6	418	365	347	c	53	70	m	63	73	m
Costa Rica	8.0	422	401	398	409	20	24	13	6	7	5
Croatia	10.8	480	454	454	455	26	26	24	15	15	16
Cyprus*	11.3	434	433	447	428	1	-13	6	-4	-12	0
Dominican Rep	1.8	336	295	282	313	40	54	23	31	38	22
FYROM	2.0	387	362	375	335	25	12	52	29	14	61
Georgia	2.2	414	408	408	c	7	6	m	9	8	m
Hong King	35.1	529	516	518	513	13	11	16	3	1	3
Indonesia	0.1	405	c	c	c	m	m	m	m	m	m
Jordan	12.1	412	417	418	414	-5	-6	-2	-2	-2	-1
Kosovo	1.5	380	353	333	374	27	47	6	28	43	12
Lebanon	3.4	392	372	343	398	20	49	-5	20	57	-12
Lithuania	1.8	477	469	478	438	8	-1	39	13	8	30
Macao (China)	62.2	519	535	536	535	-17	-17	-17	-22	-22	-21
Malta	5.0	468	501	472	514	-34	-4	-46	-12	5	-19
Moldova	1.4	430	435	438	c	-5	-8	m	4	-1	m
Montenegro	5.6	412	423	425	420	-11	-12	-8	-4	-5	-2
Peru	0.5	398	367	c	c	31	m	m	33	m	m
Qatar	55.2	377	458	427	470	-82	-51	-93	-81	-54	-92
Russia	6.9	489	480	481	478	10	8	11	7	6	9
Singapore	20.9	550	579	589	573	-28	-39	-23	-6	-24	4
Chinese Taipei	0.3	533	c	c	c	m	m	m	m	m	m
Thailand	0.8	424	410	407	c	14	16	m	-3	5	m
Trinidad and To	3.5	432	403	381	432	29	51	0	28	48	1
Tunisia	1.5	390	340	330	c	50	60	m	55	62	m
United Arab Em	57.6	394	474	461	482	-80	-67	-88	-79	-68	-86
Uruguay	0.6	437	431	c	c	5	m	m	18	m	m
Argentina**	4.4	433	419	422	413	14	11	20	1	-3	9
Kazakhstan**	13.0	457	455	457	449	2	0	8	0	-1	3
Malaysia**	0.9	445	431	421	c	14	24	c	2	5	c

Source: OECD (2016), PISA 2015 Results (Volume I): Excellence and Equity in Education, PISA, OECD Publishing, Paris.

ⁱ United Nations 1998, Department of Economic and Social Affairs, Statistics Division, Recommendations on Statistics of International Migration, Revision 1, Statistical Papers Series M, No. 58, Rev. 1, New York, 1998, ST/ESA/STAT/SER.M/58/Rev.1

ⁱⁱ United Nations 2011, Department of Economic and Social Affairs, Population Division, International Migration Report 2009: A Global Assessment, New York, December 2011, ST/ESA/SER.A/316

ⁱⁱⁱ International Organization for Migration, International Migration Law Glossary on Migration, Geneva 2004

^{iv} <http://www.unhcr.org/3b66c2aa10>

^v <https://www.unrwa.org/palestine-refugees>

^{vi} Ian Goldin, Geoffrey Cameron and Meera Balarajan 2011, Exceptional People; How Migration Shaped Our World and Will Define Our Future, Princeton University Press, Princeton 2011

^{vii} Two series are plotted on Figure 3: before correction and after correction. Indeed two sources are used for this graph: UNESCO (horizontal axis) and OECD (vertical axis). These two sources are not consistent with each other. In countries covered by the two sources (i.e. OECD member states), the proportion with tertiary education provided by UNESCO was found to be on average 1.316 times higher than the same indicator provided by the OECD. It is not clear whether this discrepancy is due to different methodologies or different dates, but one might assume that the same average discrepancy would have been found in non-OECD countries if they had been included in the OECD dataset. Because only the OECD dataset provides the proportion with tertiary education among migrants in OECD destination countries (vertical axis), a correcting factor of 1.316 should be uniformly applied to this series when plotted against the proportion with tertiary education among non-migrants in the origin countries which only UNESCO provides for all the world's countries (horizontal axis) in order to make origin and destination comparable.

^{viii} Statistics South Africa, Population census 2011, http://www.statssa.gov.za/?page_id=3839

^{ix} See for example Lucie Cerna, Immigration Policies and the Global Competition for Talent, Palgrave Macmillan, 2016; Talent, Competitiveness and Migration, Bertelsmann Stiftung and Migration Policy Institute (eds.), The Transatlantic Council on Migration, Verlag Bertelsmann Stiftung, Gütersloh 2009?

^x Andrew Mountford, Can a brain drain be good for growth in the source economy? Journal of Development Economics, 1997, vol. 53, issue 2, pages 287-303; Oded Stark, Christian Helmenstein and Alexia Prskawetz 1997, A Brain Gain with a Brain Drain, Reihe Ökonomie / Economics Series, Institut für Höhere Studien (IHS), No. 45

^{xi} Alarcón, Rafael G. 2000, Migrants of the Information Age: Indian and Mexican Engineers and Regional Development in Silicon Valley, Working Papers, Center for Comparative Immigration Studies, University California, San Diego, (<http://escholarship.org/uc/item/2811q36q#page-1>); Maimunah Ismail, Mageswari Kunasegaran, Roziah Mohd Rasdi, 2014, Evidence of reverse brain drain in selected Asian countries: human resource management lessons for Malaysia, Organizations and Markets in Emerging Economies, VOL. 5, No. 1(9):31-48. <https://www.cceol.com/search/article-detail?id=235909>

^{xii} See for example, Riccardo Faini 2007, Remittances and the Brain Drain: Do More Skilled Migrants Remit More?, World Bank Econ Rev (2007) 21 (2): 177-191

^{xiii} Albert Bollard, David McKenzie, Melanie Morten, Hillel Rapoport, 2009, Remittances and the Brain Drain Revisited: The Microdata Show That More Educated Migrants Remit More, IZA Discussion Paper No. 4534 October 2009; See also Frédéric Docquier, Hillel Rapoport, Sara Salomone 2011, Remittances, Migrants' Education and Immigration Policy: Theory and Evidence from Bilateral Data, IZA DP No. 6104, November 2011

^{xiv} Julia Bredtmann, Fernanda Martínez Flores, Sebastian Otten, 2016, Remittances and the Brain Drain: Evidence from Microdata for Sub-Saharan Africa, IZA DP No. 10367, November 2016

^{xv} Schiff, Maurice. 2006. "Brain Gain: Claims About its Size and Impact on Welfare and Growth Are Greatly Exaggerated." In C. Özden and M. Schiff (eds.), *op. cit.*, pp. 201-227; Akira Shimada 2013, Does Migration Encourage Human Capital Formation in Labor-Sending Country? *Journal of Economic Integration*, Vol. 28, No. 4 (December 2013), pp. 632-649

^{xvi} The mechanism of social remittances was discovered by Peggy Levitt, *Social Remittances: Migration Driven Local-Level Forms of Cultural Diffusion*, *International Migration Review*, Vol. 32, No. 4 (Winter, 1998), pp. 926-948; and *The Transnational Villagers*, Berkeley, University of California Press, 2001; see also Philippe Fargues, *The Demographic Benefit of International Migration: Hypothesis and Application to Middle Eastern and North African Contexts*, World Bank Policy Research Working Paper 4050, 2006, Marcus Böhme 2012, *Migration and Educational Aspirations – Another Channel of Brain Gain?*, Kiel Working Paper No. 1811 | November 2012 Kiel Institute for the World Economy, Hindenburgufer 66, 24105 Kiel, Germany; Michel Beine and Khalid Sekkat, 2013, *Skilled migration and the transfer of institutional norms*, *IZA Journal of Migration* 2013, 2:9.

^{xvii} Morocco: Enquête nationale sur l'emploi, Haut Commissariat au Plan (Direction de la Statistique); Algeria: Office National des Statistiques, Emploi et chômage au 4^e trimestre 2010, http://www.ons.dz/IMG/pdf/emploi_chomage_2010.pdf ; Tunisia: Enquête Nationale sur la Population et l'Emploi (Direction des statistiques sur l'emploi; Egypt: CAPMAS; Palestine, PCBS, Labour Force Survey of 2012; Lebanon: UNICEF and Central Administration of Statistics, Labour Force Survey of 2009 (in Arabic); Jordan: http://www.dos.gov.jo/dos_home_e/main/index.htm

^{xviii} Association Nationale des Diplômés Chômeurs du Maroc. In 2012, two hundred of its members threatened to set themselves on fire if they were not offered a job by the government <http://observers.france24.com/fr/content/20120119-diplomes-chomeurs-rabat-s%E2%80%99immolent-obtenir-travail-rabat-cadres-annexe-sit-in-maroc>

^{xix} Costanza Biavaschi, Michał Burzyński, Benjamin Elsner, Joël Machado, 2016, *The Gain from the Drain: Skill-biased Migration and Global Welfare*, IZA DP No. 10275 October 2016

^{xx} See Paul Collier, *Exodus: How migration is changing our world*, Oxford University Press, 2013

^{xxi} Amartya Sen, *Development as freedom*, New York: Oxford University Press, 1999

^{xxii} In-depth examination of this argument is found in Michael A. Clemens 2009, *Skill Flow: A Fundamental Reconsideration of Skilled-Worker Mobility and Development*, Human Development Research Paper 2009/08, United Nations Development Programme; see also Michael A. Clemens, 2015, *Losing Our Minds? New Research Directions on Skilled Migration and Development*, IZA DP No. 9218, July 2015. The author concludes that "brain drain" is a derogatory term "just as appropriate for unbiased social science as it would be to describe female labour force participation as the "family abandonment"".

^{xxiii} William Easterly and Yaw Nyarko, *Is the Brain Drain Good for Africa? The Brookings Global Economy and Development working paper series*, Brookings, Washington, 2008, https://www.brookings.edu/wp-content/uploads/2016/06/03_brain_drain_easterly.pdf

^{xxiv} A case study of African medical doctors practicing in the United States found that 48% were born and educated in Africa, 44% born in Africa but educated outside, and 8% born outside Africa but educated in Africa. Çağlar Özden and David Phillips 2015, *What really is Brain Drain? Location of Birth, Education, and Migration Dynamics of African Doctors*, KNOMAD Working Paper Series 4

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- ^{xxviii} Dean Yang 2008, International Migration, Remittances and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks, *The Economic Journal*, Vol. 118, No. 528 (Apr., 2008), pp. 591-630
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- ^{xxx} Barbara Dietz, Kseniia Gatskova, Artjoms Ivlevs 2015, Emigration, Remittances and the Education of Children Staying Behind: Evidence from Tajikistan, IZA DP No. 9515, November 2015; Verónica Frisancho Robles and R. S. Oropesa , 2011, International Migration and the Education of Children: Evidence from Lima, Peru, *Population Research and Policy Review*, Vol. 30, No. 4 (August 2011), pp. 591-618; Andrew Halpern-Manners 2011, The Effect of Family Member Migration on Education and Work Among Non migrant Youth in Mexico, *Demography*, Vol. 48, No. 1 (February 2011), pp. 73-99
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- ^{xxxvi} OECD/European Union (2015), Indicators of Immigrant Integration 2015: Settling In, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264234024-en>
- ^{xxxvii} Fons Coomans, Dealing with Segregation in Education, <http://rwi.lu.se/app/uploads/2012/04/dealing-with-segregation-coomans.pdf>

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- ^{xxxix} Ministère de l'Éducation Nationale, Les établissements scolaires d'enseignement français à l'étranger <http://www.education.gouv.fr/cid258/les-etablissements-scolaires-d-enseignement-francais-a-l-etranger.html>
- ^{xl} Gulen Movement Hizmet, <http://gulen-movement.net/fethullah-gulen-movement/education/>
- ^{xli} UNHCR, 2017, Missing out. Refugee education in crisis, <http://www.unhcr.org/publications/education/57d9d01d0/missing-refugee-education-crisis.html>
- ^{xlii} UNHCR defines a protracted refugee situation alternatively as “refugee populations of 25,000 persons or more who have been in exile for five or more years in developing countries” or one in which “refugees find themselves in a long-lasting and intractable state of limbo. Their lives may not be at risk, but their basic rights and essential economic, social and psychological needs remain unfulfilled after years in exile. <http://www.unhcr.org/excom/standcom/40c982172/protracted-refugee-situations.html>
- ^{xliii} UNHCR, the 1951 Convention Relating to the Status of Refugees, <http://www.unhcr.org/3b66c2aa10>
- ^{xliv} 4,957,907 <http://data.unhcr.org/syrianrefugees/regional.php>
- ^{xlv} Israel, the fifth state bordering on Syria and still at war with it has taken no refugee so far.
- ^{xlvi} Charity-based support to refugees can specifically target children. This is the case with ‘Educate A Child,’ a programme launched by Her Highness Sheikha Moza bint Nasser of Qatar <http://educateachild.org/>
- ^{xlvii} Lebanon - Education - LCRP Dashboard - Jan to May 2016; http://data.unhcr.org/syrianrefugees/working_group.php?Page=Country&LocationId=122&Id=21
- ^{xlviii} Displacement as challenge and opportunity Urban profile: Refugees, internally displaced persons and host community - Sulaymaniyah Governorate and Garmian Administration, Kurdistan Region of Iraq August 2016, Erbil Governorate, Kurdistan Region of Iraq April 2016 <http://data.unhcr.org/syrianrefugees/documents.php?page=1&view=grid&Language%5B%5D=1&Country%5B%5D=103&Type%5B%5D=4&Search=%23education%23>
- ^{xlix} Jordan UNHCR operational update, February 2017 <http://data.unhcr.org/syrianrefugees/country.php?id=107>
- ^l UNHCR, Turkey: Education 3RP Dashboard 2016 December, http://data.unhcr.org/syrianrefugees/working_group.php?Page=Country&LocationId=224&Id=88#
- ^{li} Mohammad Jalal Abbasi-Shavazi and al. 2008, Second-generation Afghans in Iran: Integration, Identity and Return <http://areu.org.af/archives/publication/second-generation-afghans-in-iran-integration-identity-and-return>
- ^{lii} UNRWA educational staff of more than 20,000 runs close to 700 schools. ON UNRWA, see: Riccardo Bocco, Editor) 2009, UNRWA and the Palestinian Refugees: A History within History, Refugee Survey Quarterly (2009) 28 (2-3): 229-252. DOI: <https://doi.org/10.1093/rsq/hdq001>; Tjitske de Jong and Miriam Aced 2014, UNRWA's 'traditional' programmes as a catalyst for human development in Sari Hanafi, Leila Hilal and Lex Takkenberg (Ed.) UNRWA and Palestinian Refugees - From Relief and Works to Human Development, New York, Routledge, 2014 ; Husein Abdul-Hamid, Harry Patrinos, Joel Reyes, Jo Kelcey, Andrea Diaz Varela 2016, Learning in the Face of Adversity: The UNRWA Education Program for Palestine Refugees, World Bank Studies, Washington DC, 2016.

^{liii} Most population censuses routinely collect at individual level the country of birth and the level of education, making it possible to establish the distribution of migrants by origin and education. But most often the cross-tabulation is not done.

^{liiv} The student's place of birth is routinely recorded in many schools, though not commonly processed in education statistics.