

## GLOBAL COMPETITION FOR SKILLED WORKERS

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Over the past two to three decades employment growth in the industrialized countries has largely been in the services sector especially in the so-called “knowledge industries”. The growth has been very notable in many areas, from health and medical workers to professionals in financial services, hotels and tourism, to ICT engineers and computer graphics designers. Slow or negative growth rates of the labour force, ageing, and labour market rigidities caused by policies in the advanced countries have all contributed to a rise in demand for foreign skills and talents. The stakes are clearly high for all. Countries which fail to attract foreign talents and skills risk not only falling behind in the in the global competition for new intelligent products and services, but also maintaining the standards of living their populations have been used to.

The current competition for the highly skilled has naturally raised alarms that it will further aggravate the problems of developing countries in creating a critical mass of professionals and technical workers needed to raise productivity in agriculture and industry, to manage public policies for more effective governance, and to expand education. Infusions of capital alone do not suffice to break out of under-development. A critical mass of native people with the skills necessary to create new knowledge or to transform imported knowledge into viable technologies for production, to design and create new products and services, and to make these competitive in the global market is an essential condition for progress. The huge investments already made by many developing countries to develop such human capital are now at risk because of the new migration phenomenon.

Recent changes in policies and legislation in Europe and in Asia suggest that there is now more recognition than before of the necessity to use immigration to achieve economic ends as well as meeting the demands of aging societies. Earlier policies adopted to assuage fears about displacement of native workers are giving way to employer-driven immigration schemes to bring in foreign managers and specialists on grounds that they are needed to spur research and innovation. At the same time many governments have taken measures to reduce bureaucratic impediments to processing applications for immigration and are launching active recruitment programmes to target countries.

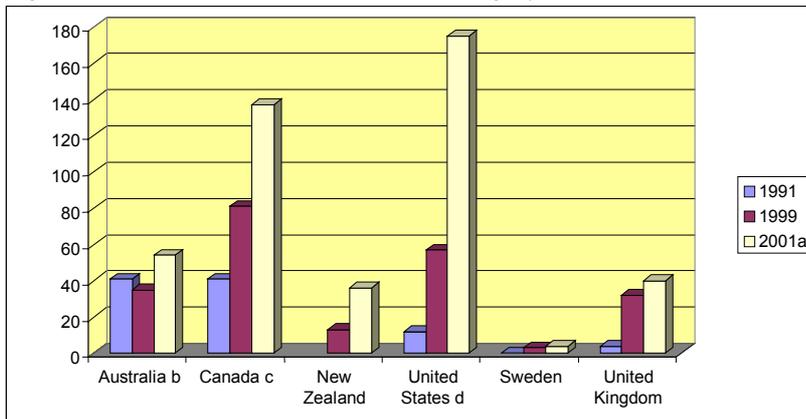
### **Trends in the migration of the highly-skilled**

Recent estimates of the differential rates of emigration among the skilled and the less skilled show that the former are moving across borders in ever growing numbers. Docquier and Rapoport estimated, for example, that the worldwide average emigration rates amounted to 0.94 percent for the low skilled, 1.64 percent for the medium skill and 5.47 percent for the high skill workers. Over the period 1990 to 2000 they reckoned that the worldwide average rate of emigration of skilled workers had risen by 0.75 percentage point, against only 0.06 percentage point for low skill and 0.41 for medium skill workers.

Table 1 below shows that over the decade of the 1990s the annual admissions of skilled immigrants to the traditional countries of immigration (Australia, Canada, New Zealand and the US) as well as to Sweden and the United Kingdom have grown very rapidly. The admissions to the US grew 14.6 times over the decade while that to the UK rose ten times. However the two north American countries of immigration, the US and Canada, together accounted for as much as 70 percent of the admissions of skilled immigrants into these six countries.

Figure 1 below shows that immigrant admissions progressively became more and more skilled, accounting for more than half of all admissions by 2001 in Australia, Canada, and New Zealand. The percentage share of the skilled in US immigration has not risen despite large absolute increases in numbers but the growth of admissions under temporary schemes has been huge. Much of the growth has been due to temporary admissions under H 1B visas. In 2000 the US accounted for over 56 percent of admissions to these countries under similar temporary schemes.

Figure 1 Growth of Admissions of the highly skilled



What do we know about the direction of these growing movements of people? Are movements largely related to flows of trade and direct foreign investments and thus involve largely north-north and north-south movements? Since much of the world's least developed regions have very little share of the global markets for goods and capital, are these regions also not participants in the global market for the highly-skilled?

Although admittedly fragmentary the available evidence tends to suggest that the movement of the highly skilled is more global than the movement of merchandise trade or capital. The origins of highly skilled migration include many of the world's least developed countries. This has justified concerns about "brain drain" and reopened the debate about its consequences on the ability of LDCs to catch up. Nevertheless the largest numbers still involve north-north movements.

The most complete and the most up to date estimates on the educational attainment of those reported in the 2000 round of censuses as foreign-born in 29 OECD countries were recently reported by OECD (Dumont and Lemaitre, 2004). In the 29 OECD countries some 36.3 million persons (46 percent of the total foreign-born populations) come from another OECD country. Some 6.4 million or 17.6 percent are reported to have tertiary level of education but the proportions vary greatly from one country to another.

The UK has 3.3 million expatriates in other OECD countries and among them 1.26 million (or 41 percent) are tertiary education graduates. Germany has 2.93 million expatriates in other OECD countries and of these 865,255 (or 30.4 percent) are tertiary education graduates. The US has a smaller number of expatriates in OECD countries, some 809,540, and among them half are tertiary education graduates. The other countries

with large populations of tertiary educated expatriates in OECD countries are Canada (417,750), Mexico (472,784), France (348,432), Poland (328,058), Italy (300,631), and Japan (281,664). Those with small percentages of tertiary education graduates are Mexico (only 5.6 percent), Turkey (6.4 percent), and Portugal (6.7 percent).

Origin countries outside the OECD account for almost 47 million of the total number of the foreign-born in the OECD region. The biggest communities originate from the former USSR, former Yugoslavia, India, the Philippines, China, Vietnam, Morocco, and Puerto Rico. According to the OECD study, the former USSR accounted for the largest expatriate community with tertiary level education with 1.3 million, followed by India with 1 million.

Other studies and indicators provide further insights into what is happening in the movement of the highly skilled. It was for example estimated that about 80 percent of global admissions under the category of intra-company transferees take place among members of the OECD. In a Trans-Atlantic Round Table on High Skilled Migration in 2001 in Brussels it was cited that some 83,000 scientists and engineers left Europe for the US during the 1990s. Still another study reported that the UK accounted for 32 percent of foreign trained physicians in Canada and 39 percent of those in Australia.

Statistics are very scanty on south-south movements of the highly-skilled although it is often assumed that the flows are also significant, and especially so in regions where some agreement already exist on free movement for purposes of employment. In the Caribbean the CARICOM accord provides for the free movement for employment of university graduates. Similar selectivity of concessions on free movement is provided for in the protocols to regional cooperation agreements in the Andean countries, in MERCOSUR, and in ECOWAS in West Africa. Anecdotal evidence also indicates that south-north movements like flows of African doctors and nurses have triggered secondary south-south movements to make up for emerging shortages including from other regions (e.g. Cuban doctors in South Africa).

In sum, what we find

- o Globally there has been rapid growth of volume and spread of the migration of the highly-skilled.
- o South-north flows have risen rapidly
- o North-north flows and south-south movements – may have been rising as well but lack comparable statistics
- o Highly skilled migration is hurting the poorest countries.

### **Approaches to attracting skills**

What is an optimal policy for a country seeking to use immigration as a means to meet supply deficits for the highly-skilled? Are some governments pursuing optimal policies by introducing employer-driven schemes for attracting the world's best trained professionals? Given the known positive externalities that come from inflows of human capital to what extent should states facilitate and even subsidize such forms of immigration?

In the following we briefly survey how states are presently addressing the question of how to attract foreign skills. The approaches adopted by countries to attract foreign skills can be broadly distinguished from each other according to their objectives

- a. *Human capital* approach, associated with the traditional immigration countries particularly Canada, aims to enrich a country's stock of skilled human resources over the long term. It typically provides the prospect of permanent residence as an incentive, together with the right to full mobility in the labour market and eventually naturalization when one acquires all social and political rights enjoyed by citizens. Countries differ on how they translate the approach into specific admission policies or programmes or in the criteria used for deciding on admissions, with some adopting transparent criteria that allocate specific points for various human capital characteristics, others specifying the

need for applicants with “extraordinary abilities” in certain fields, and still others leaving the matter to administrative discretion of immigration authorities.

- b. *Labour-market needs* approach, the most common adopted, aims to provide a solution to cyclical shortages for skills in the labour market by the temporary admission of foreign workers with the requisite experience and qualifications. While countries differ on whether employers or the government determines needs and how much flexibility they offer for adjusting length of stay, the common element in this approach is the time-bound character of the admission, without settlement of the worker and his or her family envisaged. Most Asian labour-receiving countries view the issue only from this standpoint, and see the need for the option to repatriate foreign workers when unemployment rises.
- c. *Business incentives* approach is one aimed at encouraging trade and foreign investments by facilitating the entry and stay of investors, executives and managers, including their family members. Some countries have offered permanent residence status to investors who bring in a minimum amount of capital and employ a certain number of workers, but most countries simply offer facilitated temporary admission.
- d. *Academic-gate* approach is one aimed at drawing talents from the pool of foreign students graduating from local educational institutions and encouraging them to stay and work or do research. This is seldom formally stated as a policy but some countries notably the United States have been very successful in tapping into this rich pool of self-selected talents, most having done undergraduate schooling in their origin countries but completed PhDs in American universities.

These are not mutually exclusive approaches as many countries already have diverse portfolio of policies, but differences lie in the importance they attach to each approach. The traditional countries of immigration, in particular Canada and Australia, have adopted preference schemes which attach explicit value to human capital, but over the last decade they have also experimented with using immigration to attract financial investments.

What may be optimal policies depend on the benefits states seek to maximize. If the objective is to satisfy *labour market needs* it would be necessary to cap admissions at levels that do not cause displacement or unemployment in any particular occupation. Even here there are complications because ‘needs’ are not evenly distributed throughout geographic space. On the other hand it will be more difficult to use other criteria like wage stability for setting caps on admissions. If the objective is to build up human capital stock, where does one establish a limit?

### **From restrictions to facilitation**

The growing competition for the highly skilled has brought about a rethinking of the way foreign worker policies should be administered. The main change appears to be a shift away from simply easing restrictions (referred to as facilitation ) to one of offering incentives (i.e. lower income taxes). Since most countries started with restrictions – quotas on sectors, occupations or firms, short duration of work permits, labour market certification, minimum salaries, restrictions on changing employers, restrictions on employment of spouses, limits to extension of permits, obligation to return before change of status, language skills, etc. – the first steps to reform is to remove the restrictions. Hence today ones sees that more and more countries are exempting the highly-skilled from various forms of such restrictions. A popular one is that of doing away with labor market tests or certifications and leaving the policy to be driven by employers. Another is giving the spouses of skilled workers an equal access to the jobs market.

In response to industry pressures the US Congress, towards the end of 1998, passed the “American Competitiveness and Work Force Improvement Act “ which provided a provisional increase in the number of

H-1B visas from 65,000 to 115,000 per year in 1999 and 2000. It made H-1B visas fully portable meaning that workers may switch employers as soon as a new employer files a petition with the INS. The former law necessitated the approval of a petition before a worker could change employers. It allowed H-1B workers to stay beyond 6 years if their green card applications have been in processing for at least a year. One year extensions may be granted until the employment visa is approved and adjustment of status is final. It also raised the training fee levied on employers from \$500 to \$1000 which go to DOL and NSF programmes that support education and training for native born students and workers.

In 1998 Germany started a series of reforms to its immigration laws and regulations which included exemptions of foreign managers and specialists (who are not EU citizens) in the employ of a multinational corporation operating in Germany from labour-market testing. In 2000 Germany introduced its *Greencard Scheme* which required certain high standards for education and credentials and a salary offer of 100,000 DM or more. The scheme has not attracted the number of applicants expected and has since been widely considered a failure. In the same year France passed a law that established the new categories of “scientist visa” and “scientist resident”. An applicant must obtain a “protocol d’accueil” (welcome protocol) from an accredited French institution which must guarantee that it will cover the social insurance of the applicant during his or her period of stay. Once such a protocol is obtained the formal process of obtaining a visa is limited to a medical examination. Canada has defined 7 areas where workers were particularly needed and provided blanket labour certification for all who qualified. It also allowed spouses of “strategic” workers to work without labour certification. Canada has lost through emigration many of its qualified citizens to the US. To tempt them to return it at one time charged returnees no income tax for three years, but the policy has since been changed because of suspicion that it actually encouraged people to work south of the border for a while to avail of the tax exemption later.

### **Incentives and active recruitment**

The use of incentives rather than simply easing restrictions is still new and recent, and may also reflect the relative attractiveness of a country vis a vis other candidate destinations for the highly skilled. Norway introduced a novel scheme in 2002 which gave foreign specialists or skilled workers a “job seekers permit” valid for three months to come to Norway to look for work. The Province of Quebec in Canada is presently offering five-year income tax holidays (credits) to attract foreign academics in health sciences to teach in the province’s universities. In some Scandinavian countries where long established welfare systems are supported by relatively high rates of income taxes, reduced income tax rates are now being offered to foreign specialists.

Active international recruitment especially by state bodies is another strategy for getting a steady supply of highly skilled workers. In November 2000 the UK and Spain signed an Inter-Governmental Agreement for the recruitment of Spanish nurses, and this was later expanded to include Associate Specialists and GPs. The UK today has targeted recruitment programmes to specific countries using similar inter-governmental agreements including Switzerland, Italy, Greece, Bulgaria and India.

Other incentives offered by countries is to facilitate integration of the skilled workers through such means as recognition of their professional qualifications, and individualized language learning assistance for the workers and their family members. In France, the *Fondation National Alfred Kastler* assists foreign scientists to adjust to everyday life.

What is required for an optimal policy aimed at building human capital is more difficult to assess. If inflows of human capital has positive externalities what should determine the level of admissions that would maximize benefits?

These issues assume concrete form when policies are translated into programmes. For example, Singapore has a blueprint for bringing the country into the 21<sup>st</sup> Century through the development of priority industries.

The problem is that 40 percent of its workforce still has less than secondary education. The Government has already set a target to bring up the current ratio of scientists and engineers per 10,000 workforce (currently estimated at 66) up to comparable levels elsewhere like 98 for Japan and 74 for the US. For the life sciences alone the Government has already set aside a S\$ 60 million Life Sciences Manpower Development Fund. The Government nevertheless still foresees the need to bring in foreign research scientists.

### **Academic gates to pool of foreign talents**

Some countries notably, the US, the UK and France, have made good use of their established reputation as centres for higher education and research to attract the world's best and brightest. The advantages to such a strategy are evident. First is the lower cost of entering the labour market. Foreign students and scholars constitute a substantial pool of current and prospective highly skilled migrants, and are self-selected. They would already possess the language skills to qualify as students. Secondly, foreign graduate students, unlike native graduate students with better work opportunities, provide a ready supply of cheap research assistants. And to top it all, many foreign students in North America and the Pacific are made to pay the full cost of their education and hence provide universities with an additional source of finance.

Many European countries have high ratios of foreign to total student population. It has been estimated that 80 percent of all foreign students in the OECD countries go to only five countries (the US, UK, Germany, France, and Australia).

Countries are endeavoring now to encourage the best foreign graduates to stay and work through various adjustments in their student visa regulations. It is now possible for students to change their student visas to work permits in countries like Australia (may even apply on-line), Canada, France, Ireland, Japan, Korea (up to maximum of 3 years), New Zealand (added points if the qualification is gained in NZ), Czech Republic, Switzerland and the US. Some countries have been offering loans and subsidies to finance the completion of graduate studies by promising candidates. Understandably, study abroad is rapidly becoming a precursor to migration. In the US the National Science Foundation reported that 88 percent of Chinese PhD recipients were still in the US five years after they graduated. There are however interesting differences. Among the Korean PhD graduates only 11 percent of stayed.

### **Attracting skills at different levels of policy-making**

Policies may be adopted as part of obligations to harmonize policies under regional agreements like NAFTA or CARICOM, or because of commitments to multilateral treaty regimes. In the European Union member states can still pursue their respective admission policies for third country nationals as for example Germany's "green card" programme, even as they bind themselves to allow free movement within their territories of citizens of other member states. And they may at the same time be signatories to a multilateral regime like the General Agreement on Trade in Services (GATS) which aims to liberalize the movement of service providers including professionals from all state parties.

There are today a number of regional accords which have a significant impact on reducing the barriers to the free movement of labour, especially the highly skilled, across national borders. The movement of labour is approached in a wide variety of ways. Of these the most developed in terms of free movement of labour are those of the European Union and the lesser-known Australia New Zealand Closer Economic Relations (ANZCERTA). By obliging states to follow and observe treaty commitments some, though not all, of these regional treaties do impinge on state rights to regulate entry and stay of individuals and to unilaterally change policies on admission and treatment of nationals of other state parties. However the more general situation is where treaties still provide considerable scope for state parties to regulate access to employment and the conditions of employment.

## **A multilateral framework for policy-making (GATS trade in services )**

The GATS agreement from the Uruguay Round represents the first multilateral and legally enforceable agreement on the international trade in services. Its central objective is the progressive liberalization of trade in services which is seen by many developing countries as a promising avenue for expanding exports where they have some comparative advantage. They have particularly in mind Mode 4 on the provision of services through the movement of natural persons, in other words workers.

Up to the time of this writing commitments of countries to GATS Mode 4 have been little different from what the countries already offer under different schemes to facilitate the movement of executives and managers, specialists, engineers and other skilled service providers. The developing countries have not succeeded in getting further commitments from the advanced countries to liberalize admission of less skilled service providers. The developed countries have more commitments in GATS under modes of (1) cross-border supply, (2) consumption in the territory of the supplier, and (3) commercial presence abroad than under mode 4. Developing countries have more commitments to (4) the delivery of services abroad (for example the Philippines, Thailand, China, and Brunei have more commitments under GATS Delivery of services by natural persons abroad). In contrast, Australia and Canada have significantly more commitments to liberalization of services through the mode of commercial presence than through the movement of persons.

In brief, the GATS framework provides no guaranteed access for mode 4 suppliers. Its added value is to transform the policies countries are already pursuing with respect to facilitating admissions of the highly skilled into multilateral commitments. By and large mode 4 allows countries to keep or impose restrictions, and by itself contains no specific provisions for facilitated entry.

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