The Battle for the brains: why immigration policy is not enough to attract the highly skilled
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Citation for published version (APA):
THE BATTLE FOR THE BRAINS

WHY IMMIGRATION POLICY IS NOT ENOUGH TO ATTRACT THE HIGHLY SKILLED

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The Battle for the Brains

Why immigration policy is not enough to attract the highly skilled

Brussels Forum Paper Series

March 2009

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Selective migration policies are proliferating among migrant destination countries of the developed world. Canada, Australia, the United States, New Zealand, Germany, Great Britain, France, the Netherlands, Ireland, and the Czech Republic have devised special visas and programs to attract scientists, highly-skilled engineers, medical professionals, computer programmers, and information technology professionals from developing countries such as India and China. The proliferation of these immigration policies has set up a competitive dynamic. Germany’s Independent Commission on Migration to Germany, led by Rita Süssmuth, described it in terms of a “battle for the brains.”

This competition has taken on a transatlantic dimension as European policymakers call for policy changes with explicit reference to their competitors across the Atlantic. For example, French President Nicolas Sarkozy has argued that “the most qualified migrants, the most dynamic and competent ones head to the American continent, while immigrants with little or no skills come to Europe” (Bennhold 2006).

Not only do EU member states wish to compete with the United States and Canada for the highly skilled, they have initiated new selective immigration policies that copy elements of the Canadian-style point system as well as the U.S. temporary H1-B visa for high-skilled workers.

This paper examines the contemporary debate in Europe about implementing selective migration policies often modeled after immigration policies found in North America. We argue that there are several different kinds of selective immigration policies, but that success in attracting highly-skilled migrants may be less a matter of picking the right technical approach and more a function of the interplay of larger economic trends, educational systems, research funding, recognition of professional qualifications, and other social factors.

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1 “Es ist ein weltweiter, ‘Wettbewerb um die besten Köpfe’ entstanden [A battle for the Brains], der durch die gestiegene Mobilitätsbereitschaft dieser Personen verschärft wird” (BMI 2001).
With the new Millennium, there came a gradual shift in the European perception of migration. By and large these are the outcomes of demographic, economic, and—as a consequence—labor market developments in most European countries. These translate into growing demand for people willing to perform menial work on the one hand and a demand for specialists and skilled workers in general on the other. As far as the first category of migrants is concerned, the stance has not fundamentally changed, although the EU member states and, in their wake, the European Commission, acknowledge that this need exists. But in as far as this should lead to the importing of workers from third countries this should be done in a very controlled manner aimed at the migrants’ return after a predetermined period of time. As to the second category of migrants, a much clearer shift in policy ambitions has become evident.

It was German Chancellor Gerhard Schröder who proclaimed in February 2000 that Germany should start recruiting IT specialists by means of the so-called “Green Card” through which up to 20,000 three- to five-year work permits would be issued to foreign IT workers. Not long after this suggestion was made, political debates broke out over the need for a general overhaul of German refugee and immigration policies. The 2001 Süssmuth Commission report set out to organize a new consensus on immigration in Germany and pointed to an international competition for the best talent. This was a marked break with the past in a country whose leaders until then had always underscored that “Germany is not a country of immigration.” Echoing debates on television and elsewhere in the media a commentator in the leading weekly DIE ZEIT formulated this paradigmatic change

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2 This German temporary visa for high-skilled workers differs fundamentally from its American namesake. In the United States, “Green Cards” refer to immigrant visas for permanent residence, and most immigrants acquire Green Cards by virtue of their family ties instead of employment.

To this end, it introduced preferential access to the nationals of a specific set of countries—for example, those European countries that are not (yet) members of the European Union, Canada, and India when applicants from these countries score a minimum of 25 points on a number of criteria (MPV/IOM n.d.). Out of a maximum total score of 66, up to 15 points are granted for level of education, six for work experience, and another six are added for working and living in the Czech Republic. Interestingly, knowledge of languages is also valued (maximum of nine points) by the system, but these languages need not be Czech or Slovak (Ibid).

January 2002 saw the introduction by the United Kingdom of its “Highly-Skilled Migrants Programme,” which provides for one-year permits that can be renewed indefinitely. Selection is based on a point system, with the key criteria to include age and years of education. In March 2006, the U.K. Home Office outlined a point system for permanent immigration of high-skilled migrants who apply as individuals or skilled workers with a job offer from employers (U.K. Home Office 2006). Launched in February 2008, the point system “combines more than 80 pre-existing work and study routes into the United Kingdom into five tiers; points are awarded on workers’ skills to reflect aptitude, experience, age, and also the demand for those skills in any given sector” (U.K. Home Office 2008).  

From 2004 on, the Dutch government has been busy removing obstacles for the recruitment of such migrants by offering them and their employers a quick one-stop-shop for the paperwork and by eliminating labor market testing for well-paying jobs (45,000 euro per annum or more and 25,000 for graduates from Dutch universities). Access for researchers has been made easier, and since late 2007, graduates of Dutch universities can remain in the country for one year to look for employment. This is a first step away from the exclusively demand-driven labor migration approach of old.

The French government also unveiled legislation in 2006 that would facilitate the migration of the highly skilled while making immigration more difficult for the unskilled. As then-French Interior Minister and now President, Nicolas Sarkozy, argued, “We no longer want immigration that is inflicted [on us],” (…) “We want selected immigration” (Quoted in Samuel 2006). “Une immigration choisi, une intégration réussie” (Sarkozy Blog, June 7, 2005). The new law establishes a three-year “skills and talents” residence permit aimed at attracting scientists, IT experts, and artists who, as Sarkozy put it, could “contribute to the economic dynamism of our country” (Samuel 2006). The Immigration and Integration Act of July 24, 2006 created three new types of three-year residence permits for highly-skilled workers, those who are sponsored by French employers and seasonal workers. Foreign students who graduate with a French master's degree will have up to six months after graduation in order to find a job, after which they will be given a work permit.

In early 2007, Ireland, one of the few European countries where immigration during the past years was generally applauded due to a booming economy, decided that special measures to attract the highly skilled had become necessary. It now is possible to remain in the country...
Not only do European states compete among themselves for talent; they also understand that this competition is global and includes long-standing players like Australia, Canada, and the United States.

for six months upon graduation from an Irish university to look for employment. The job offered should have a remuneration of at least 30,000 euro per year. Other immigrants must find a job paying 60,000 euro or more to obtain a permit allowing employment in all sectors of the economy (if earning less, labor market testing applies). Further criteria, e.g. based on educational level or age, are not applied. (Department of Enterprise, Trade and Employment, 2008).

A UN survey of member state perceptions of migration and migration policies reflects the changing views of these European governments regarding labor migration, as summarized in Table 1. It shows that, in 1996, European governments tended to view immigration as generally too high (with the exception of Central European countries that at the time had limited experience with immigration) and in a number of cases do so at present. Without exception, all would like the numbers of highly-skilled migrants to be higher.

This almost universal paradigmatic change invariably comes with reference to the American and especially the Canadian point-based models as the suitable means by which to attract and retain highly-skilled immigrants.

### A common approach?

Not only do European states compete among themselves for talent, they also understand that this competition is global and includes long-standing players like Australia, Canada, and the United States. Together with the growing integration of the EU’s internal labor market, this global competition provides an impetus for a common EU approach.

Following consultations after launching its Green Paper on an EU approach to managing economic migration in January 2005, the European Commission, in its Policy Plan for Legal Migration, proposed an EU-wide Green Card program (which was renamed the Blue Card in October 2007), suggesting that coordinated action strengthens the competitive advantage of Europe over other potential destination countries or regions. Europe would thus be better able to achieve the ambition of having turned the continent by 2010 into a knowledge-based economy as formulated in the Lisbon Agenda in 2000.

### The EU Blue Card

In a 2007 proposal for a Council Directive, the European Commission outlined the contours of a joint approach for attracting highly-skilled

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<th>Table 1. What Selected Governments Consider Desirable Regarding Migration in General and Regarding Highly Qualified Migration in 1996 and 2007</th>
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Source: UNPD (2008)
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workers. On the one hand, the proposal aims to allow member states to remain in control of admission to their labor markets, but on the other hand the new rules should help make Europe a desirable destination for people who are attractive to other countries as well. These two ambitions have resulted in the following proposal (COM 2007, 637 final).

The targeted migrants are defined as those third-country nationals who possess higher education qualifications or who have three years of professional experience. Their admission is conditional on having a work contract or binding job offer. This creates a demand-driven system. Furthermore, remuneration should be at least three times as high as the national minimum income. This condition is waived for those who have obtained a university degree in the EU and are under 30. The Blue Card is valid for two years (or if the contract is of shorter duration, that period plus three months) and renewable, provided the original criteria are still met.

To make the Blue Card attractive, it allows for immediate family reunification (also for those who are coming temporarily) and access to the labor market for spouses. It furthermore becomes easier to qualify for long-term residence status—which puts the migrant nearly at par with EU-nationals in their freedom of movement—by allowing the migrant to accumulate the required five years by working in several member states. The Cards combine residence and work permits, and applications should be dealt within a 30-day fast-track procedure. Third-country nationals already living in the EU can adjust their status should they qualify. Lastly, a maximum three-month period of unemployment is allowed.

While the proposed Blue Card Directive has been the subject of discussions in the European Parliament and European Council, it has not yet been adopted. Likely changes to the original proposal include a prolonged initial validity of the Card to three years and a lower income threshold (possibly 1.5 times the national minimum).

Meanwhile, the United States might be missing the boat as its immigration system has become outdated and unable to deal with economic needs. As Craig Barrett, chairman of computer chip maker Intel, said, “The European Union took a step recently that the U.S. Congress can’t seem to muster the courage to take. By proposing a simple change in immigration policy, EU politicians served notice that they are serious about competing with the United States and Asia to attract the world’s top talent to live, work, and innovate in Europe. With Congress gridlocked on immigration, it’s clear that the next Silicon Valley will not be in the United States” (Barrett 2007).

Which approach is better in the Battle for the Brains: North American or European? European governments would be well advised to not expect that a simple emulation of the practices of traditional immigration countries will bring the talented immigrants they crave, as a detailed description in the next section of the methods of attracting and retaining highly-skilled migrants in Canada, Australia, and the United States indicates. In the last section, we return to Europe to ask whether—even if perfect migration policies can be devised—these are enough to succeed in the global competition.
3 THE EXAMPLES OF CANADA, AUSTRALIA, AND THE UNITED STATES

As European states increasingly look to the classical immigration states, they are finding a variety of approaches. Selective migration policies may be very explicit as in the case of states that have adopted point systems to select permanent migrants (e.g., Canada and Australia) or they may be more implicit with the introduction of temporary high-skilled visas and/or the use of labor market criteria for certain skills in the determination of visa applications (e.g., the United States). Moreover, selective migration policies, whether explicit or implicit, vary significantly in terms of the selection criteria and who does the selecting. While Canada and Australia both use point systems, they have taken different approaches in terms of the selection objectives and criteria as well as the participants in the selection process.

In general, selective migration policies can be grouped into three models:

- the “human capital” model based on state selection of permanent immigrants using a point system as practiced by Canada;
- the “neo-corporatist” model based on state selection using a point system with extensive business and labor participation, as practiced by Australia; and
- the “market-oriented” model based primarily on employer selection of migrants, as practiced by the United States.

These models are ideal types, with Canada on one end of the spectrum, the United States at the other, and Australia in between. Moreover, these ideal-type models are just that; policy implementation often diverges from the model, whether it is a growing role for state selection in the United States or a growing role for employers in Canada, as has been evident in recent policy proposals and changing state practices.

Canada

Canada’s selective migration policy goes back to immigration recruitment policies predating World War II. But the explicit selective migration strategy based on a point system began in the 1960s and was implemented in 1967 with the creation of the Department of Manpower and Immigration and immigration regulations that set out a point system that sorts applicants according to age, education, language ability, and skills (Green and Green 1999; Triadafilopoulos 2008). Canada’s 1976 Immigration Act established three categories of admission: family, humanitarian (refugees), and “independent” applicants selected by a point system. It also required the government to plan immigration levels on an annual basis and made immigration and planning immigration a shared responsibility with the provinces—with a further special devolution of selecting economic immigrants to Quebec (O’Shea 2009). The Act’s new immigration regulations, which went into force in 1978, allocated a maximum number of 80 points in seven categories: age (10); education (12), with one point for every year of schooling until high school graduation; language ability (10); occupational demand (15); specific vocational preparation (15); experience (8); and personal suitability (10). Individuals who surpassed 50 points became eligible to gain permanent residency.

In the 1990s, Canadian immigration authorities developed what has come to be known as the “human capital model,” with the objective of attracting “well-trained flexible individuals…who have experience in the labor force” should be able to “adapt to rapidly changing labor market circumstances” (Hiebert 2006, cited in Hawthorne 2006). The point system was recalibrated in 1993 to give more points for education and to more heavily weigh post-secondary education in the number of points given. Then, in 1998, the government
issued a white paper that explicitly called for a selection process that would emphasize "human capital" factors of education, language ability, and experience in any skilled occupation and would eliminate assessments of labor market demand (O’Shea 2009). The human capital model was subsequently realized with the 2002 Immigration and Refugee Protection Act that put in place the current point system, which allocates a maximum number of 100 points in six categories: education (25); ability in English and/or French (24); work experience (21); age (10); arranged employment in Canada (10); and adaptability (10). Individuals who surpass 67 points are eligible to gain permanent residency under the independent admissions category. The human capital factors of education and language comprise almost half (49) of the 100 possible points in the system while work experience and a job offer account for less than a third.

In 1996, the Canadian government set a policy that came to be known as the “60/40 split,” in which immigration authorities set recruitment targets to yield 60 percent of immigrants through the economic stream and 40 percent through family reunification and refugees (O’Shea 2009). Immigration authorities have largely met this target as immigrants selected through the point system comprised roughly 55–60 percent of the 200,000 to 250,000 immigrants that arrived in Canada each year in the subsequent decade (CIC 2006).

Australia

Like Canada, Australia has three categories of admission: family, humanitarian, and “independent” applicants who, since 1973, have been selected by a point system for permanent immigration. At one time, Australia took an approach that was similar to the Canadian “human capital” model but abandoned it in 1996 due to high rates of unemployment among economic stream migrants. At that time Australia adopted a more skills-specific approach based on labor market assessments and more rigorous credential screening and English language testing before migration (Hawthorne 2006). Moreover, the government works with industry and labor to determine which immigrants are needed by the Australian economy, and it shapes immigration policy similarly to how some European governments (e.g. Scandinavian, Dutch, and Austrian) work with industry and labor organizations to set industrial and labor policies in arrangements that have come to be known as “neo-corporatism” (see e.g. Schmitter and Lehmbruch 1982).

The General Skilled Migration program is open to people who are not sponsored by an employer, have skills in particular occupations required in Australia, and are under the age of 45. Under this program, there are various sub-visa classes with differing requirements depending on whether one is already in Australia or not and whether one has a sponsoring relative in Australia. The point system used in the Skilled Independent Migrant Visa program, which is open to applications from those without a sponsor and may be lodged from outside of Australia, allocates a maximum number of points in 10 categories: age (30); English language (25); skills (60); specific work experience (10); Australian work experience (10); Australian educational qualification (e.g. Ph.D., MA, etc. earned in Australia) (25); Occupation in Demand or job offer (20); fluency in an Australian community language (5); living and studying in a regional Australian/low population growth metropolitan area (5); and spouse or interdependent partner skills (5), for a total of 195 possible points. Individuals who surpass 120 points are eligible for permanent residency, and those who reach 100 points are placed in a “pool” of applications for two years. Those individuals in the pool may increase their scores by regional sponsorship or changes in the Occupation in Demand list.
The U.S. government has not pursued an explicit selective migration strategy based on a point system, but certain provisions of U.S. immigration law have long encouraged both permanent and temporary high-skilled migration.

“Human capital factors” of language and education account for only a bit over a quarter of the total points for a Skilled Independent Migrant Visa. Moreover, only university education received in Australia counts. In contrast, one can earn over half of the total number of points from skills, specific work experience, Australian work experience, and an Occupation in Demand.

With respect to skills, Australia has developed a highly calibrated approach through which the Department of Immigration and Multicultural Affairs (DIMA) identifies desired occupations and skills in the Skilled Occupation List and Employer Nomination Scheme Occupation List. Australia gives applicants between 40–60 points depending on the listing of their occupation and their credentials, which are assessed by an identified credential-assessing authority. DIMA continually revises this list in consultation with employers and unions in order to target labor market needs sector by sector, skill-set by skill-set. Regional economic needs are also taken into account as Australian states and territories can in effect sponsor applicants who enter their data in a “Skill Matching Database.” Out of the 120,060 people Australia selected in its 2004–2005 migration program, 77,880 were selected on the basis of their skills as opposed to family ties or for humanitarian reasons (Birrell et. al. 2006).

United States

The U.S. government has not pursued an explicit selective migration strategy based on a point system, but certain provisions of U.S. immigration law have long encouraged both permanent and temporary high-skilled migration. Immigration, however, is dependent on a job offer for the potential migrant by an employer, who by virtue of that offer in effect selects individual migrants within the broad policy guidelines and criteria established by the U.S. government. The Immigration Act of 1990 nearly tripled permanent residence (“Green Cards”) for immigrants who are sponsored by employers up to an annual limit of 140,000. The then-existing H1 visa program, which enabled migrants of “distinguished merit or ability” to fill temporary jobs as long as they established intent to return home, was also revised by the 1990 Act by establishment of the H1-B visa (capped at 65,000) that enabled employers to offer permanent jobs to migrants in “specialty occupations” on a three-year, one-time-renewable visa, after which migrants could adjust their status to permanent resident. By opening permanent jobs to temporary visa-holders, the program gave much more flexibility to employers to hire migrants for any job that might come open in the future. High-tech professionals and engineers acquired an increasing share of employer-sponsored Green Cards and H1-B visas as the 1990s tech boom took off.

During the mid 1990s, U.S. policymakers considered explicit selective migration strategies advocated by academics (Borjas 1990), policy think tanks (Papademetriou and Yale-Loehr 1996), and the non-partisan U.S. Commission on Immigration Reform (USCIR 1995: xix-xxi). As the U.S. Congress discussed this explicit selective migration strategy in 1996, legislative provisions for altering legal immigration policy were split from those directed at illegal migration, and only the latter were enacted into law.

Subsequent legislation enacted in 1998 and 2000 expanded the H1-B program, increasing the quota of visas from 65,000 to 115,000 in 1999 and to 195,000 in 2001, but then expired after three years, returning the quota to 65,000 in 2004. In 2005, the U.S. Congress created an “advanced degrees exemption” that allocates 20,000 additional H1-B visas for applicants with advanced degrees from U.S. universities. The number of H1-B visa holders increased from 240,947 in 1998 to 431,853
The United States’ implicit selective migration strategy yields more highly-skilled workers than all of the point-system programs of other countries combined.

in 2006. In the first five business days of April 2008, employers filed some 163,000 applications for the 65,000 H1-B visas to be issued for the 2009 fiscal year. The quota of the additional 20,000 H1-B visas for those with advanced U.S. degrees was also quickly met. U.S. Citizenship and Immigration Services then randomly selects applications for processing to meet the quota.

The H1-B program has enabled an increasing share of high-skilled workers within not only temporary migration flows but, as H1-B visa holders adjusted to permanent resident status, permanent immigration flows as well. Many of those leaving their H-1B status within the total six-year term did not necessarily leave the United States—between 20 and 50 percent of H-1B visa holders adjusted their status to permanent resident alien (received a “Green Card”) each year in the 1990s (Lowell 2000). The net effect is that there has been a flow of high-skilled migrants who essentially immigrate to the United States on a temporary visa and then obtain a Green Card after three or six years.

Given that then-Senator Barack Obama supported the Comprehensive Immigration Reform Act of 2007 (U.S. Senate 2007), and that the Democratic Party platform calls for passage of comprehensive immigration reform in the first year of an Obama administration, an attempt to resurrect some version of the proposal by the new administration and the U.S. Congress is likely. The bill had many provisions to increase skilled migration but died in the U.S. Senate on June 28, 2007. Had this legislation been enacted into law, it would have authorized more temporary high-skilled migration under the H-1B visa; exempted from the annual H-1B visa cap those who have earned a master’s or higher degree from an accredited U.S. university; made it easier for more foreign graduate students studying in the United States and other temporary migrants with advanced degrees to adjust their status to permanent resident alien; increased the number of employment-based permanent immigrant visas (“Green Cards”) to 450,000; and, perhaps most significantly, introduced a point system to select more permanent immigrants on the basis of education and skills. Interestingly, the confidential March 28, 2007, powerpoint presentation the White House showed key Congressional leaders to introduce the point-system provision into the reform package specifically referenced the Canadian and Australian immigration systems as models (White House 2007). However, passage of comprehensive immigration reform as it was initially envisioned in 2006–2007 is becoming less likely with the collapse of the U.S. real estate market, the financial market crisis, and an economic recession that increasingly appears to be both deep and long-lasting.

Comparison and new developments

How do Canada’s “human capital” model, Australia’s “neo-corporatist” approach, and the United States’ market-based employer selection approach stack up in terms attracting the highly skilled? Although Canada and Australia have explicit selective migration strategies to shape flows so that a majority of permanent immigrants enter on the basis of skills determined by point systems, the share of those who gained entry into the United States based on skills become comparable when one adds temporary visas. In 2004, employment-based permanent resident Green Cards were given to 72,550 immigrants (and 82,780 dependents) (DHS 2005a). In addition, there were 386,821 H1-B visa holders and 314,484 intra-company transferees entering on L1 visas (a category that firms often use to bring in high-tech workers, especially in years that the H1-B visa cap had been reached). In the end, the United

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5 DHS 2006, Table 26.

6 DHS 2005, Table 26.
The lopsided flows of highly-skilled migrants to the United States, in comparison to flows to Australia and Canada, demonstrate that states using point systems with more regulated labor markets might not be as effective in generating the expected flows of the highly skilled.

States’ implicit selective migration strategy yields more highly-skilled workers than all of the point-system programs of other countries combined. If successful recruitment of the highly skilled over time is measured in terms of a more highly-educated foreign-born population (non-citizen immigrants and immigrants who have naturalized), the picture is somewhat different. A greater percentage of the foreign-born population of Canada and Australia has tertiary education than that of the United States (see Table 2).

Nevertheless, the lopsided flows of highly-skilled migrants to the United States, in comparison to flows to Australia and Canada, demonstrate that states using point systems with more regulated labor markets might not be as effective in generating the expected flows of the highly skilled as less-explicit selective migration strategies embodied in piecemeal temporary visa programs within countries that have more liberal labor markets and liberal immigration policies in general.

Despite its success in attracting a relatively high proportion of highly-educated migrants, the Canadian government recently changed immigration policies to move away from the “human capital” model by adopting features of the employer demand-driven approach of the United States and the “neo-corporatist” approach of Australia. Over the past few years, concerns have grown that pending applications to the skilled-worker migration program that grew to 500,000 represent a backlog waiting on decisions for up to 68 months (O’Shea 2009) and mounting evidence that highly-educated migrants were not fully using their education and skills in the jobs that they managed to get (see discussion below).

In 2007, the Canadian government responded by introducing the new Canadian Experience Class, which gave priority to applications for those working in Canada on temporary visas for at least two years as well as for foreign students who had completed their degrees in Canada. These priority visas would be processed within 12 months, and each visa granted would be one fewer available to those in the existing backlog of applications submitted by those who had achieved the point system numerical threshold of 67 without Canadian work experience or Canadian university education. Hence, the proportion of temporary high-skilled workers admitted has increased dramatically, giving the Canadian flows of high-skilled migrants more of the character of the United States, in which predominately temporary migrants then adjust status to permanent residence. In February 2008, the government introduced legislation as part of the budget that restricted the processing of new applications to those who had at least one year of experience in Occupations in Demand, as identified in a list of 38 occupations, had a job offer, or were already working or studying in Canada. It is estimated that only 20 percent of the applications

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<td>Canada</td>
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being received since the cutoff date of February 27, 2008, meet this criterion, and 80 percent of the applications received will be returned (O'Shea 2008). With the introduction of this requirement, the Canadian point system may be skewed toward human capital factors but, in practice, it operates much more like that of the Australian model based on an occupational skills list.

Interestingly, the Australian Minister for Immigration and Citizenship announced in December 2008 that given the economic conditions precipitated by the global financial crisis, the Australian government would make the General Skilled Migration program even more targeted by shifting “the focus of the program toward ‘demand-driven’ outcomes, in the form of employer and government-sponsored skilled migrants” (Evans 2008, 1). Part of the problem is that the skilled migration program brought skilled migrants with occupations identified as being in demand on the Skilled Occupation List, but the mix was far from optimal. In the previous three years, almost half of the visas issued went to applicants in five occupations. Over the past three years, the skilled migration program delivered 28,800 accountants, 6,500 cooks, and 2,800 hairdressers while during the same time it delivered only 800 bricklayers, 600 plumbers, and 300 carpenters (occupations that are particularly in high demand in the regions of Australia outside of the Sydney and Melbourne metropolitan areas). Moreover, employers found recruiting temporary skilled migrant visa applicants quicker and more responsive to their needs. This led to a doubling of the temporary skilled migrant visas issued from 48,600 in 2004–2005 to 110,600 in 2007–2008, which exceeded the number of skilled migrants entering on permanent visas for the first time. Beginning January 1, 2009, the government stipulated the following preference order in processing skilled visa applications: 1) employer-sponsored visas; 2) state- or territory government-sponsored visas; 3) occupations on the critical skills list; 4) occupations on the Migration Occupations in Demand List; and 5) all other applications (Evans 2008, 5). The upshot of these changes is that Australia, like Canada, is moving to a higher proportion of skilled migrants entering on temporary visas and selected by employers, such as in the United States.

In short, European policymakers seek to adopt selective migration policies practiced by the United States, Canada, and Australia, but these countries have taken different approaches: a point system emphasizing education and language in the Canadian “human capital” model; a point system emphasizing skills in demand that are selected by industry and labor in the Australian “neo-corporatist” model; and allowing employers to select temporary migrants who can then be sponsored by the employer for permanent residence as in the United States’ market-based approach. Recently, however, the distance between these ideal-typical models is narrowing as the current Canadian government abandons processing applications selected by its human capital-weighted points system in favor of temporary migrants selected by employers and those on narrow occupational lists. While the United Kingdom and the Czech Republic have adopted Canadian- and Australian-style point systems, and policymakers in other European states are considering following suit, they may reconsider their decisions in light of recent Canadian and Australian moves away from selecting immigrants using point systems toward more “demand driven” approaches that allow employers to do the selecting.

In sum, European policymakers seek to adopt selective migration policies practiced by the United States, Canada, and Australia, but these countries have taken different approaches.
The United States enjoyed a spending boom... Migration thus was the human capital sister of large-scale imports of goods and capital.

Much has been made of the limited success of the German “Green Card” at the beginning of the century and the specificities of its making. The wave of IT workers that many German policymakers had anticipated did not materialize, particularly the migration of Indian computer programmers who opted to go to the United States instead (the H1-B cap had just been lifted at the time), where they had greater options to adjust to permanent residency status and open their own businesses (Werner 2001, 323). However, just after the introduction of the new program to recruit IT specialists, the IT bubble burst and demand for IT specialists diminished sharply. Some IT companies, which had claimed they needed thousands of immigrant specialists, took not a single one (Kolb 2004). This example gives us a hint about the limits of just looking to the technical construction of the immigration systems. Even an optimal design of the recruitment system will not provide success if there is no demand due to a downturn of the economy, failing acceptance of credentials, or intense prejudice. Moreover, public complaints by employers about a scarcity of talents for recruitment do not always translate to real recruitment when the talents are there. In the next section, we look into some important structural differences between the United States and Europe that can explain the large discrepancies in the number and skills of the migrants. We point to four important structural ramifications where North America and Europe differ.

**Economic Factors: Expansive policies in the United States vs. European stability and enlargement**

While policymakers focus on devising new immigration policies, the success or failure of those policies may depend more on economic conditions in general. For example, U.S. fiscal and monetary policies differed sharply from European policies over the last decades. In Alan Greenspan’s long tenure as the chairman of the U.S. Federal Reserve, from 1987 to 2006, the United States enjoyed a spending boom, driven by expansive easy-money policies of the Federal Reserve and a large and rising trade deficit, funded to a great deal by East Asian Central Banks that excessively bought U.S. bonds. Migration thus was the human capital sister of large-scale imports of goods and capital. Under U.S. President George W. Bush, a large household deficit was added, leading to even more growth and demand for workers. The long and unprecedented U.S. boom was built on these foundations—until the ground under it shifted in 2008. The large number of immigrants to the United States—from Latin Americans working as low-paid laborers to Indian IT experts and European academics—was part of this extraordinary boom. It may well die down with the financial crisis; remittances to Mexico are already showing a decline.

On the other hand, Europe in these years bound itself to a stability pact that limited public spending to make the euro a strong currency and to silence fears about inflation and the delicate construction of a multinational currency. With the accession of the 12 new member countries in 2004 and 2007, the European Union went into a large-scale stabilization and development process aimed at convergence. This stability export resulted in investment outflows to the new member states instead of large inflows of workers to the more developed old member states. The same process had taken place in the 1980s and 1990s with respect to Southern Europe, particularly to Spain, which then became Europe’s No. 1 immigration country at the beginning of the century. Thus, the economic dynamics shifted to the East and to the South, instead of migration to the industrial core countries. The concentration of new automobile plants in Slovakia, built by European and Japanese companies, is a striking example of this strong trend. It contrasts to the
The Battle for the Brains
Why immigration policy is not enough to attract the highly skilled

situation at the U.S.-Mexican border where the outflow of capital is accompanied by the outflow of workers from Mexico and Central American countries to the United States. Broad macroeconomic trends may be crucial factors for the migration of the highly skilled. However, more specific issues, such as the employment and educational opportunities for immigrants, their spouses, and children may be even more important to individuals' decision-making.

**Employment Opportunities: Openness of professional markets and “brain waste”**

Selective migration strategies may not necessarily achieve their intended economic objectives if the highly skilled who have migrated are not able to put their skills to work in appropriate jobs. In many cases, migrants who have been selected by point system-based selective migration policies fail to find or maintain employment in their profession or, if so, at a level that takes full advantage of their skills (Birrell et. al. 2006; Hawthorne 2006). In some cases, those with high levels of engineering or technical skills do not have sufficient language skills in order to work effectively in the receiving country. In other cases, highly skilled migrants find it very difficult to acquire the professional credentials necessary to practice their profession. These factors give rise to the proverbial taxi driver with a Ph.D.—a phenomenon that highlights the broader challenge of adequate placement that, in turn, undermines the intended economic impact of selective migration policies.

Business executives still largely operate in countries of their mother tongue, although there are more and more exceptions. Thus the largest German bank and the largest German company are today led by a Swiss and an Austrian manager—a limited opening. Since English is the lingua franca in today’s world, the pool of potential elite immigrants is much larger for the United States.

In the recent ambitious discourses about countries competing to attract the best and the brightest from outside that we quoted above, the potential of immigrants already in the country are often forgotten. Immigrants often face a downgrading upon coming into a new country—a problem not only for them but for the immigration country, as it does not make optimal use of the existing qualification of the workforce. It is particularly interesting that such problems are mounting in Canada—a country that has developed an elaborate point system based on language and qualifications (Schmidtke 2008). "Brain Waste" can be explained by various factors: diplomas not recognized, missing social networks that informally lead to qualified jobs, stereotypes about certain countries of origin, or habitus traditions that are expected in professions or standardized systems in all countries, and not governed by any state or professional bodies.

State- or profession-controlled exams and accreditation requirements in many countries regulate not only law but also the medicine and education fields, effectively excluding all outsiders. Exceptions are sometimes granted in case of scarcity, e.g., of medical doctors. Many Central and Eastern European countries require a further exam for professors after the Ph.D., the habilitation. (In Germany this requirement has been abolished but the practice continues.) Centralized recruitment systems à la Française are difficult to pass for foreigners.

In both the United States and in Europe, professional sectors vary with respect to their accessibility for immigrants. Law has a particularly low rate. It is nation-based, and in the United States even partially state-based. Additional exams are required if a lawyer wants to operate in another state. On the other extreme, Information Technology seems to be quite an open field since it is based on standardized systems in all countries, and not governed by any state or professional bodies.

These factors give rise to the proverbial taxi driver with a Ph.D.—a phenomenon that highlights the broader challenge of adequate placement that, in turn, undermines the intended economic impact of selective migration policies.
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countries. While non-Europeans are clearly suffering most from such problems, the above figure from the Swiss Census demonstrates that even among Europeans, an interesting ranking can be discovered. This ranking is also related to the categories of immigration. Clearly, refugee groups are more disadvantaged than labor migrants.

American universities as immigration machines versus underfunded European universities

As the above discussion of the Canadian, Australian, and American experiences indicates, the highly skilled often initially migrate as students rather than workers. In the postwar era, universities in the United States expanded tremendously. They were able to raise students’ fees much faster than income growth, to profit from enlarged government research funding (particularly the Defense Department), and from the effects of a competitive system where the choice of a university is important for the later career and societal status, as exemplified by the elite schools attended by presidents George H.W. and George W. Bush, Bill Clinton, and Barack Obama (some because of their special abilities, some because of family connections). Mounting acquisition of university capital paralleled immigration trends, with rich and able students from all over the world trying to study at U.S. universities. The rise of English as the dominant world language also was an important factor to the popularity of American universities.

On the other hand, the American school system did not keep pace. It expanded in quantity but not in quality. The U. S. Education Trust concluded that “the United States is now the only industrialized country in which young people are less likely than their parents to earn
The Education Trust’s fear is that this is “going to have a dramatic impact on our ability to compete,” although American universities can choose from a world-wide pool of well-qualified students, and thus make good for the deficiencies of many American schools.

In contrast to this, most European countries have under-funded their public university systems such that a large student body confronts a limited number of professors. American teaching loads amount to less than half of the teaching loads in Germany, making American universities more attractive for both students and professors. Having to serve many students per professor, European universities are less likely to try to woo foreign students, particularly if they see them as an additional burden. Great Britain and the Netherlands are the exception; they follow the American strategy and attract paying students from outside.

Whereas American, British, and Australian universities have attracted large numbers of students from Asian countries and have the resources to recruit them, Continental European universities are much less active. They do not charge tuition, they are obliged to take in high numbers of students from their own countries, and their entrepreneurial freedom is limited by rigid state controls and traditional systems of state officialdom. They do not have the funds to send their agents to Hanoi or Beijing. Thus American universities, in contrast to Continental European universities, function as immigration machines. Australian universities now have one-third of their students enrolled in programs from outside the country. Foreign students are Australia’s third largest source of income from foreign countries (IOM 2008, 113). High fees do not discourage Asian students (IOM 2008, 112).

Students in their formative age are ideal immigrants. They contributed $15.5 billion to the American economy, two-thirds of this sum coming from abroad (Open Doors 2008). It is somewhat ironic that students study at the expensive American universities when many European universities are largely free of any charge. If European universities want to compete, they must change to become more entrepreneurial, better funded, better organized and more service-oriented, more accessible, and corporate image-oriented. More and more countries see a productive link between the education of foreign students and offering them jobs after their studies. Three-quarters of Chinese students between 1975 and 1999 did not return to their home country (IOM 2008, 118 ff.).

A further difference between the United States and Europe is the high amount of research funding in the United States, particularly by the Defense Department, and the entrepreneurial organization of research in U.S. universities. Whereas northern European countries are largely competitive with the United States with research funding, the low level of funding in Southern Europe makes the EU a lot less competitive.

**Social Factors: Tolerance**

A country with a strong economy may offer lucrative employment and excellent educational opportunities to prospective highly-skilled migrants but they may still opt to go elsewhere because of the life these migrants envision for themselves and their families in that country. That is, immigration policies and economic opportunities might not be enough. Social factors such as a high degree of xenophobia or intolerance of minorities (or even prospective immigrants’ perception of such intolerance) may be crucial to decisions of highly-skilled migrants, especially the best educated.
Mandatory integration courses and tests may send a negative signal to all immigrants regardless of their skills and education.

Pioneered by the governments of Denmark and the Netherlands during the 1990s, obliging immigrants to integrate and expecting them to pass an exam to prove they have done so is gaining popularity in a growing number of EU member states (Michalowski 2007). As the chair of the European Union during the second half of 2008, France even proposed turning this into an element of a common European approach toward third-country nationals, but it found no unanimous support for it. Rethinking about national identity takes place in a growing number of countries as they confront under what conditions outsiders can become members (i.e. citizens or long-term residents).

The pivotal issues tend to be language skills and the more elusive notions of loyalty and identifications. The benefits of language skills for both the migrants and the receiving country are obvious. Less obvious are the benefits of making the acquisition of these skills mandatory, as usually is the case. Sanctions employed to enforce the mandatory character can be found in withholding residence rights, administrative fines, and contracts between immigrant and receiving state. The legal requirement for equal treatment subsequently makes it difficult or even impossible to exempt certain migrants from such obligations. Yet, that is not a selling point for coveted migrants who may seek employment in a setting where English is the lingua franca rather than in a country where the language may be exotic and virtually useless elsewhere.

In some instances, Islam is singled out in public and political discourse as a main hurdle for immigrants to become members of mainstream society; it presumably creates conflicting loyalties between Islam and the country of settlement, or between the Judeo-Christian (or secular) values of Europe and those of Islam (EUMC 2006a,b). Other discursive themes can have similar effects. Anecdotal evidence suggests the Indian IT specialists the German government was hoping to lure with its “Green Card” scheme in 2000 knew nothing about Germany other than the fact that a prominent member of the opposition campaigned against their arrival with the slogan “Kinder statt Inder.”

Indian IT specialist, Salil Tripathi, responded in The Wall Street Journal Europe, writing, “But whatever the outcome of that particular debate, Germany’s prospects for attracting Indian talent are vanishing fast. Germany was never a prime destination for Indian engineers in the first place, and ‘Kinder statt Inder’ is only going to make it harder to attract Indians. As one Chicago-based Indian software engineer wrote in an email: ‘They must be crazy if they think we are going to move to Germany, if this slogan represents their attitude.’” Back in India, Shuvam Misra, a software entrepreneur planning to set up overseas offices sometime in 2009, said: “We have too much to do that keeps us busy. Germany is not on the radar screen.”

This is not necessarily the discourse adopted by governments, but even when such sentiments are voiced by other politicians and are not firmly addressed, the image of Europe and its member states can be affected. This is even clearer with incidents of clear-cut racism and xenophobia. A number of European states have been confronted with extremist violence toward people presumed to be “foreigners” and, in some cases, these incidents have made headlines worldwide.

7 Children instead of Indians.
8 Salil Tripathi, May 2, 2000.
Lastly, discrimination in access to employment, goods, and services, even if not affecting coveted migrants, is likely to reduce the attractiveness of a country for newcomers. Rare are the migrants without contacts among compatriots already living and working in Europe who relay their own experiences at work, in shops, and at government offices. Moreover, Internet and other media afford prospective migrants a detailed—albeit perhaps biased—image of potential destination countries. Canada has been remarkably successful in projecting a positive image of its immigration system and practice to the world, even if its seasonal agricultural program denies the migrants basic social rights (Clarkson 2008, 426–433). Not all countries have been equally successful in their public relations. This may well be a considerable disadvantage in situations where the migrant is not the one asking for favors.
Giving a comparative overview of immigration policies in Europe, North America, and Australia presents a chance to consider the contexts and interrelations that are important to drive successes and failures. European policymakers are eager to implement point system schemes that are considered problematic in Canada and Australia. Similarly, some American voices urge the United States to reform its immigration policies and adopt a Canadian- or Australian-style point system. Others fear the transatlantic competition let loose by the European "Blue Card," even if it does not yet exist. The notion of a competition for the "best brains" has its merits in opening up the discussion for positive effects of immigration. This attraction should not hinder us looking critically at its logic and its implementation. Furthermore, it is ironic that so much positive emphasis is put on planning systems that are so strongly abhorred in all other economic fields after the demise of planned economies (Kolb 2008). In the unfolding economic crisis, planning becomes even more difficult, since plans need to rely strongly on an extrapolation of past trends, and the crisis is shaking up many assumptions that have been taken as a given. It is difficult to plan "creative destruction" (Schumpeter 1975), a driving characteristic of capitalism.

We have tried to broaden our analysis of immigration processes and selective migration policies, putting them into contexts of economic growth, educational systems, and the much less discussed fields of the acceptance of credentials, stereotypes, discrimination, and social contexts. The present economic crisis and the larger demographic trends are also important considerations. It is likely that migration processes in the future will be demand-driven and more specific. The time of bubble immigrations, tied to bubble economies, are over, at least for the foreseeable future. On the other hand, functioning and dynamic immigration, integration, and qualification machines like the American universities will become even more important in times of a decreasing pool of younger indigenous people due to the decline of birth rates. Europeans will have to readapt and reinvigorate their higher education systems.

Finally, with mounting cost pressures and budget problems, it becomes even more urgent to let all talents flourish and to abolish mechanisms that prevent immigrants from applying their skills and competing on equal terms. The EU model of free movement, built on a stable framework of equality of all European citizens, protections against exploitation, and each person's own responsibility for his or her career, can provide a guiding idea on how to construct a more open and more efficient migration system in the future. More free movement from beyond the EU’s borders, beginning with talented people, may offer the way to the future more than elaborately constructed planned "human capital" schemes do.
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