III. International migration: economic context and implications

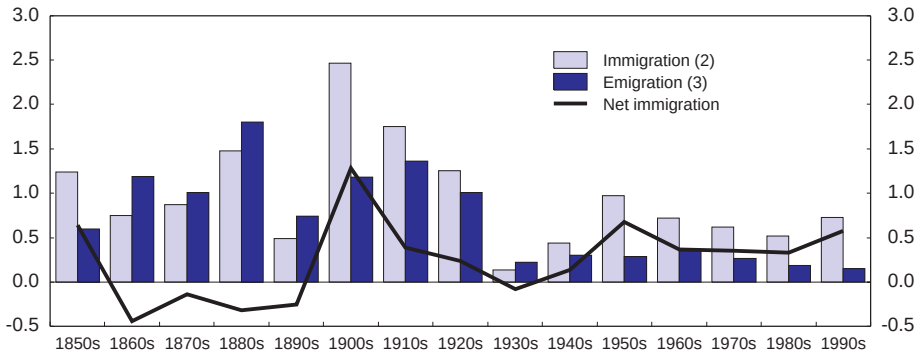
Introduction

During most of its history Canada has received large numbers of immigrants, and a policy of encouraging immigration has been an important element of the country's growth strategy. The foreign-born share of the population reached 18.4 per cent in 2001 (up from 14.7 per cent 50 years earlier) and is higher than in nearly all other OECD countries. Canada traditionally receives mainly permanent immigrants: on average in 2000-02, 235 000 of them were admitted each year, about ¾ per cent of the population. There is also some temporary immigration, but the net flow is relatively small. Emigration, directed mainly to the United States, has risen in the 1990s, but – at about 0.2 per cent of the population – remains much smaller than immigration (Figure 21). Thus, net migration is positive, as it has been almost continuously during the past century, and now represents about 70 per cent of annual population increase, a proportion that is set to rise further, assuming unchanged fertility rates.

Public opinion toward immigration tends to be more positive in Canada than in most other OECD countries (Bauer *et al.*, 2000). This favourable attitude is helped by the fact that most immigrants are skilled and are expected to integrate as their predecessors did in the past. Moreover, the level of illegal immigration remains modest and less of an issue than in other OECD countries thanks, in part, to Canada's geographical distance from source countries and sharing a border only with the United States. Thus, the authorities are generally perceived as being effectively in control of admissions. Public support for immigration policy tends to weaken during recessions, as was the case for example in the early 1990s, and has proved vulnerable to incidents that undermine public confidence in policy integrity. Similarly, it was negatively affected by security concerns in the months after 11 September 2001. But these effects tend to be temporary.

In Canada, immigration and the labour market have complex institutional environments. Under the Canadian Constitution, immigration is an area of shared jurisdiction between the federal and the provincial/territorial governments. Bilateral immigration and labour market agreements further define the respective roles and responsibilities. Therefore, close collaboration and partnerships with

Figure 21. **Immigration, emigration and net migration**
As a percentage of population, average annual rate, by decade[1]



1. Estimates of inter-censual flows. Decades are defined as intervals between census dates (April 1991-April 2001, and so on).
2. Includes only permanent immigration.
3. Total emigration (of Canadian-born and foreign-born permanent residents) net of returning Canadians.

Source: Statistics Canada.

provinces and territories are essential to moving forward on immigration initiatives and related labour market issues.

This chapter examines the economic implications of international migration for Canada. It discusses immigration policy to the extent that its main elements – immigrant selection and the programmes supporting immigrant settlement and integration – influence the economic outcomes of immigrants in the Canadian labour market and their broader impact on the economy. While recognising that the ultimate objectives of immigration policy are not only economic, the chapter investigates the potential welfare effects, not only for the immigrants themselves – presumably positive – but also for the receiving population, which are more difficult to identify and to quantify. The economic implications of emigration from Canada are also discussed in the context of the increasing mobility of highly skilled workers, particularly within the North American labour market.

Immigrant selection policies

Present selection policies emphasise skills and adaptability

Canada's current immigration legislation envisages three main categories of permanent immigrants: economic immigrants, which include skilled workers,

business immigrants and a few smaller categories; the family reunion class; and refugees (see Annex IV). In 2002 skilled workers and their families represented 54 per cent of all immigrants admitted, with business immigrants comprising another 5 per cent (both numbers include dependants as well as the principal applicants). The share of the family class was 28.5 per cent, and refugees made up most of the remainder (some 11 per cent) (Table 22). Skilled workers are selected on the basis of a "points system", where points are assigned on the basis of immigrant characteristics, and applicants are admitted if total points reach a minimum threshold. Thus, obtaining zero points for one characteristic does not disqualify an applicant if enough points are obtained for the others. However, to meet the definition of skilled worker, the applicant must have one year of experience in a skilled occupation in the last ten, making zero points for experience an effective bar. The new Immigration and Refugee Protection Act and the related regulations that came into effect in June 2002 have revised the points system, increasing the weight of education and language skills, eliminating occupation-specific criteria and stressing immigrant adaptability instead (see Annex IV).

There are three specific programmes for business immigrants aimed, respectively, at investors, entrepreneurs and self-employed persons. They are intended to attract immigrants who, by using their entrepreneurial skills and/or investing capital, will make a positive economic contribution. Hence the requirements in terms of capital invested and number of jobs created. In terms of meeting formal requirements the programmes seem to have been relatively successful.[45] However, it is difficult to assess whether the jobs created have been truly additional and, more generally, whether the programmes have in fact helped foster immigrant entrepreneurship on a sustained basis. Part of the problem may be inherent to the policy's rationale: immigrant entrepreneurs are supposed to set up a business upon arrival in Canada, although initially they lack much of the local knowledge required and more than half of them speak neither English nor French. Naturally, most will tend to choose a business activity in the ethnic enclave of a large city and probably take over an existing small business rather than start a new one. Between the mid-1980s and the late 1990s the programmes seem to have provided an avenue for relatively well-to-do immigrants from Hong Kong (China) who would not have qualified as skilled workers (half of business immigrants came from there). The overall number of business immigrants has declined since 1997.

In line with its long humanitarian tradition Canada receives significant numbers of refugees. Since 1978 it follows a policy of admitting a steady flow every year, as well as responding to emergency situations. In the last few years between 24 000 and 30 000 refugees have been admitted annually (between 11 and 13 per cent of all permanent immigrants). In proportion to the population the refugee influx is in line with the average of other OECD countries (Figure 22). Close to half of them were selected from abroad, sponsored by the government or by private organisations, while the rest are people who requested protection after

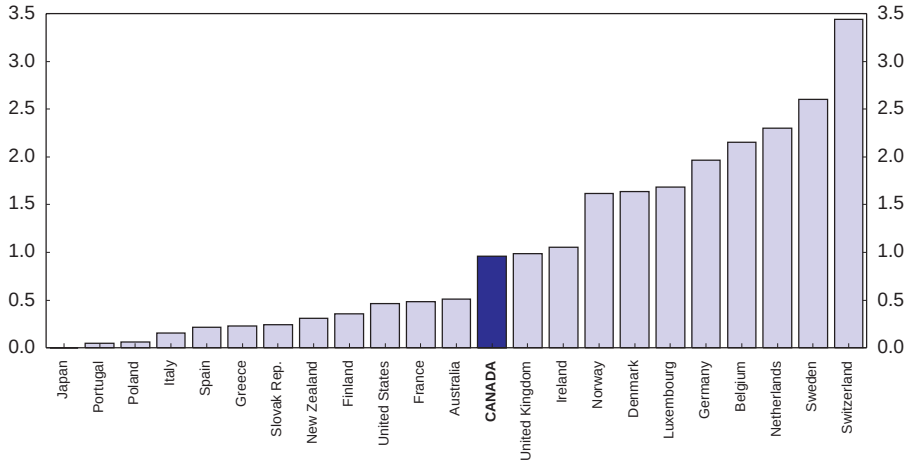
Table 22. **Actual and planned immigration by entry category**

Immigrant class	Average 1996-2000		2001		2002		2003 plan
	Level	Per cent	Level	Per cent	Level	Per cent	
Family class	**58 993**	**28.5**	**66 646**	**26.6**	**65 277**	**28.5**	**59 000-64 500**
Immediate family	40 740	19.7	45 385	18.1	42 775	18.7	. .
Parents and grandparents	18 253	8.8	21 261	8.5	22 502	9.8	. .
Economic immigrants	**119 375**	**57.8**	**155 596**	**62.2**	**138 528**	**60.5**	**132 000-147 000**
Skilled workers	99 127	48.0	137 119	54.8	123 379	53.9	121 000-131 000
Principal applicants	43 317	21.0	58 860	23.5	53 448	23.3	. .
Spouses and dependants	55 810	27.0	78 259	31.3	69 931	30.5	. .
Business immigrants	16 567	8.0	14 580	5.8	11 041	4.8	7 000-9 000
Principal applicants	4 618	2.2	4 082	1.6	3 047	1.3	. .
Entrepreneurs	2 222	1.1	1 612	0.6	1 177	0.5	. .
Investors	1 376	0.7	1 766	0.7	1 235	0.5	. .
Self-employed	1 020	0.5	704	0.3	635	0.3	. .
Spouses and dependants	11 950	5.8	10 498	4.2	7 994	3.5	. .
Provincial/territorial nominees	402	0.2	1 274	0.5	2 127	0.9	2 500-4 000
Live-in caregivers	3 279	1.6	2 623	1.0	1 981	0.9	1 500-3 000
Other immigrants[1]	**2 384**	**1.2**	**210**	**0.1**	**164**	**0.1**	**900-1 000**
Refugees	**25 940**	**12.5**	**27 894**	**11.1**	**25 122**	**11.0**	**28 100-32 500**
Government sponsored	8 215	4.0	8 693	3.5	7 504	3.3	7 700
Privately sponsored	2 628	1.3	3 570	1.4	3 055	1.3	4 200
Landed in Canada	11 808	5.7	11 891	4.7	10 544	4.6	13 000-15 600
Dependants abroad[2]	3 288	1.6	3 740	1.5	4 019	1.8	4 500-5 000
Total	**206 692**	**100.0**	**250 346**	**100.00**	**229 091**	**100.0**	**220 000-245 000**

1. Includes Post-determination refugee claimants, Deferred removal orders and Retirees.
2. Dependants of a refugee landed in Canada who live abroad.

Source: Citizenship and Immigration Canada.

Figure 22. **Inflows of asylum seekers into selected OECD countries**
Per thousand of population, average 1992-2001



Source: OECD, *Trends in International Migration*, SOPEMI 2002.

landing in Canada and whose refugee status has been recognised. The number of claimants has increased substantially over the last few years. The recognition rate, about 49 per cent in 2002, is one of the highest among OECD countries. After a preliminary determination that their claims have a credible basis, refugee claimants are considered temporary residents while their claim is under consideration. They are allowed to work and have access to basic health coverage and to some public assistance. Once their status has been recognised, they have 180 days to apply for permanent residence. The new legislation has streamlined the procedure for assessing asylum claims, prescribing shorter processing times, even for applicants who arrive without papers, and rationalising the appeals process.

Net inflows of temporary foreign workers are relatively modest compared to those of permanent immigrants, and the number present in Canada in 2001 was not much greater than it was in the previous (1990) cyclical peak. By contrast, in Australia and New Zealand – like Canada, traditional countries of permanent immigration – the number of immigrants admitted on a temporary basis has recently been increased considerably, and the latter now represent about half of the overall immigrant inflow. Normally a Canadian employer wanting to hire a foreign worker needs to make a job offer and to obtain from the labour department (Human Resources Development Canada) an opinion that the job cannot be filled

by a permanent resident or citizen. Certain categories of workers – including entrepreneurs and intra-company transferees – are exempted from this requirement. In addition, information technology workers and a few other occupations benefit from facilitated procedures. This is also the case for some broader categories (professionals, traders and investors) under the North American and the Canada-Chile free trade agreements. Temporary workers from the United States (mostly professionals) and from Mexico (most of them lower skilled) represent about one-quarter and one-tenth of the total, respectively. The 2002 legislation has introduced measures to speed up the authorisation process. Moreover, workers initially admitted with a temporary permit, who can obtain extra points for their Canadian experience if they subsequently apply for permanent resident status as skilled workers, can now receive landed status while in Canada.

Canada also receives substantial numbers of foreign students. Their number has risen substantially in recent years, more than doubling between 1995 and 2001, and they now outnumber temporary workers. Foreign students can be allowed to work under certain conditions, and their spouses can obtain temporary work permits. After graduation, they can obtain temporary authorisation to work in their field of study for one year (two in New Brunswick under a new pilot programme). Under the present points system it can be relatively difficult for them to qualify for permanent immigration as skilled workers if they do not have work experience in their field, even though they may have high academic qualifications and a job offer. They can, however, meet the requirement to have a year of work experience by staying in Canada as temporary workers.

Every year the government sets a target or "planned" range for total admissions of permanent immigrants, broken down into planned ranges for the individual entry classes. The immigration plan for 2003 envisages between 220 000 and 245 000 new arrivals (see Table 22), only slightly above the plan for 2002, with 60 per cent of the total in the economic class. In the past, the annual plans have usually been met with a reasonable degree of accuracy.[46] The government has indicated a medium-term objective of raising immigration to one per cent of the population, which would mean admitting over 300 000 new immigrants a year. However, annual planned levels are being set below that objective because they also take into account the absorption capacity of the Canadian economy and the resources available, not only for processing applications but also for supporting immigrants' integration. In particular, it is felt that to absorb larger numbers of immigrants it would be necessary to achieve greater progress in this latter area, for example addressing the issue of credentials recognition and moving toward a more balanced geographical distribution of immigrants. These issues are discussed further below.

The immigrant selection process and the refugee scheme use considerable public resources, but a significant share of the cost is covered by processing

fees.[47] Most applications are examined through the missions Citizenship and Immigration Canada maintains in source countries. Processing times can differ significantly across immigrant categories (and also across country missions). For example, until recently family class applications were usually processed in less than a year, while for skilled-worker applications the average time was over two years and reached four years in some countries. In 2002 the total backlog of applications represented 500 000 individuals, 60 per cent of which were skilled workers principal applicants and their dependants. Recognising that long processing lags risk discouraging some of the more qualified applicants, the government has recently assigned a higher priority to skilled worker applications and will fast track those with job offers. The creation of an easier entry route for temporary workers seems to go in the same direction. In addition, the more selective admission standards introduced in 2002 are already contributing to reducing the backlogs.

Learning from experience: past immigration policies and their effects

The composition of immigrant flows has changed dramatically, partly as a result of selection policies

The size and geographical composition of migration flows has undergone significant changes over the course of the country's history, reflecting both global migration trends and the evolution of immigration policy. The most profound change occurred in the mid-1960s, when an admissions policy that limited access to immigrants of European stock was replaced with one selecting them according to their skills (see Box 2). Australia and the United States, two other traditional settlement countries, implemented a similar shift around the same period, although in the latter family reunification, rather than skill-based selection, has been the main immigration channel.

The composition of immigrant flows has changed considerably as a result. A most obvious result of the removal of race-based selection rules in the mid-1960s was the dramatic change in *source-country composition*, with the progressive reduction in the share of European immigrants and a rise in those of developing countries, especially Asian countries (Figure 24). The skill level of immigrants has also changed significantly. The new cohorts of immigrants have higher levels of *education* than earlier ones, but on average have not gained ground relative to the Canadian-born, remaining slightly ahead of them according to some measures (Figure 25). But there are important differences across entry categories. Over 80 per cent of skilled worker principal applicants admitted in 2001 had a university degree, against an average of 25 per cent in the 1980s. For family-class immigrants the percentage was much lower (20 per cent), but still above the Canadian average, which is 15.4 per cent. It was lower (9 per cent) for refugees.[48] The *occupations* declared by immigrants at entry –

Box 2. The evolution of Canadian immigrant selection policies

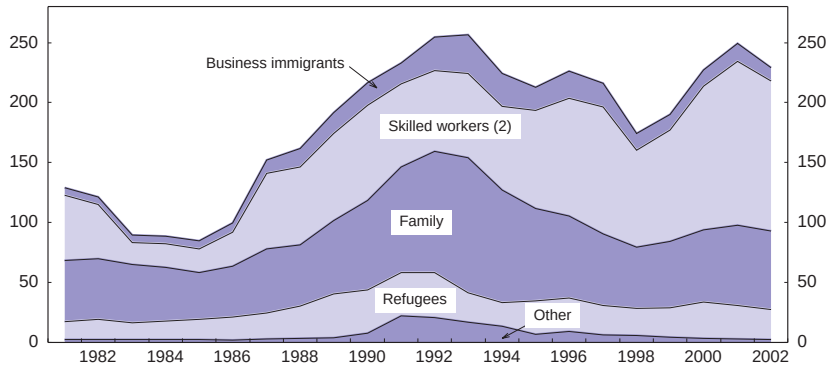
In the late nineteenth century the central goal of immigration policies was to contribute to population growth and to the settlement of the western provinces. Recruitment agents initially sought mainly farmers, but over time immigrants were increasingly steered also toward railway construction, manufacturing and mining. From the start recruitment was selective in terms of race and countries of origin, with a preference for immigrants from Britain, the United States and North-western Europe. After World War I the government started to take into account current labour market conditions in setting immigration targets. Thus, the inflow was virtually brought to a halt during the 1930s depression. When it resumed in the post-war period, the supply of immigrants from the traditional ("preferred") countries had declined, while inflows from Eastern and Southern European countries had become predominant. Although most of these immigrants were unskilled, they were readily absorbed by the fast-growing post-war Canadian economy. By the late 1950s, however, it was felt that the insufficient supply of skilled labour was increasingly constraining growth, and a conflict developed between the desire to use immigration to increase the skill level of the labour force and the hitherto prevailing race-based selection criteria.

In 1962 Canada eventually abandoned country of origin and race as selection criteria and moved to skills as the key trait for economic immigrants. A points system was introduced in 1967 for that purpose, while immigrants in the family class and refugees were not points-tested. In addition to general characteristics (age, education, language skills), it assigned points according to the immigrant's specific occupation (see Table A2 in Annex IV). In certain periods additional requirements were introduced.[1] The system was designed to allow the government to fine-tune both the total number of immigrants (by setting annual targets) and their skill composition (through the attribution of occupation-specific points) to prevailing labour market conditions.[2] However, since the applications of family-class immigrants received priority in processing, the skill-assessed component was determined as a residual and was squeezed whenever the annual targets were reduced (or the eligibility criteria for the family and refugee classes were relaxed). This is what happened, for example, after the recession of the early 1980s (Figure 23). While the fundamental features of this system (no discrimination on the basis of country of origin, selection of certain categories based on a points system, overall annual targets) are still in force, some important elements have evolved, particularly since the mid-1980s. *First*, after 1986 the government stopped adjusting the annual immigration targets in light of current labour market conditions and started to set them according to longer-term demographic or economic considerations. Targets were progressively increased, in spite of the early-1990s recession. *Second*, in the early 1990s eligibility criteria for the family class were tightened, with the result that the share of skill-assessed immigrants started to increase. *Third*, in the parameters for the attribution of points there was a shift in emphasis from sector-specific to general skills. This change, which started in the mid-1990s and was completed with the new legislation enacted in 2002, reflected the growing evidence that in a fast-changing economy immigrants' adaptability,

Box 2. **The evolution of Canadian immigrant selection policies** (*cont.*)

rather than possession of skills in immediate short supply, is the key to their successful integration. Taken together, these changes indicated a move from short-term or sector-specific labour market considerations toward longer-term growth and demographic objectives.

Figure 23. **Permanent immigrants to Canada by entry class**[1]
Annual flows, thousand persons



1. Data for all categories include both principal applicants and dependants.
2. Including provincial nominees.

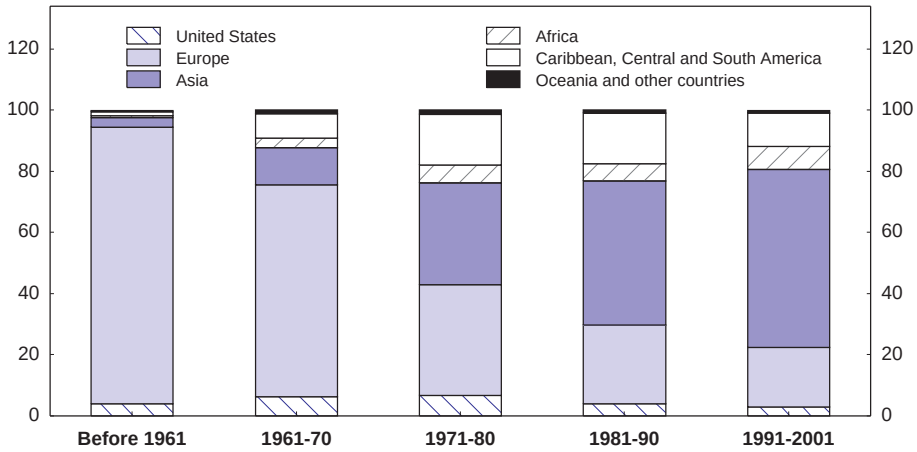
Source: Citizenship and Immigration Canada.

1. For example, in 1982-86 the government limited the admission of economic immigrants to those with pre-arranged employment.
2. Occupation-specific points were assigned according to a list of occupations prepared by the labour department based on the Canadian Classification and Dictionary of Occupations (CCDO) at the seven-digit level of detail.

which need not correspond to those actually taken up in Canada – have also shifted toward those requiring greater skills (Figure 26), an evolution that has broadly matched the shifts in the composition of jobs created by the Canadian economy. On the other hand, their average *language skills* have not been improving (Figure 27), a fact connected in large part to changes in their source-country composition. As expected, the proportion of immigrants who can speak neither

Figure 24. **Source countries of the foreign-born population in 2001 by period of immigration**

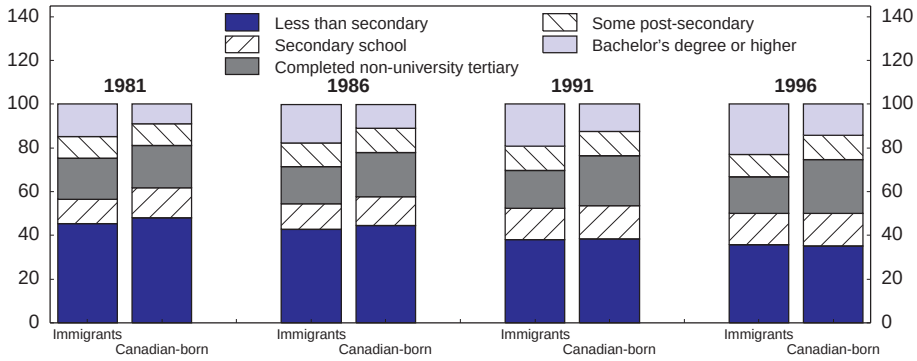
Per cent of total



Source: Statistics Canada.

Figure 25. **Educational attainment of recent immigrants and of the Canadian-born**

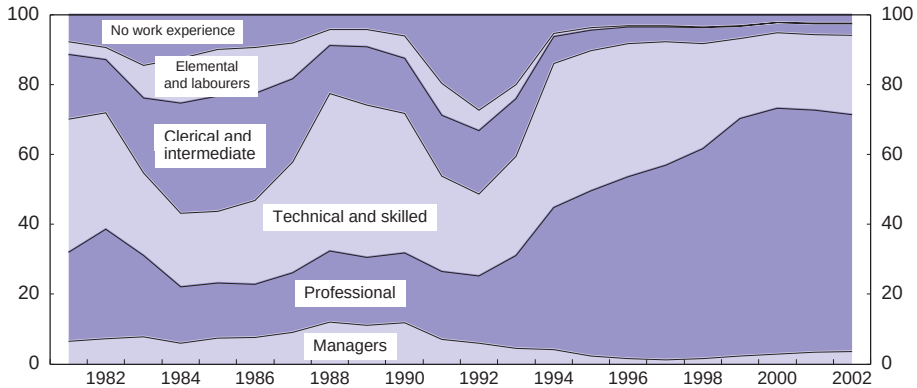
Per cent composition[1]



1. Recent immigrants are defined as those who arrived in Canada in the five-year period prior to each census. The comparison is age-adjusted: the shares for recent immigrant population are recalculated using the same age structure as the Canadian population.

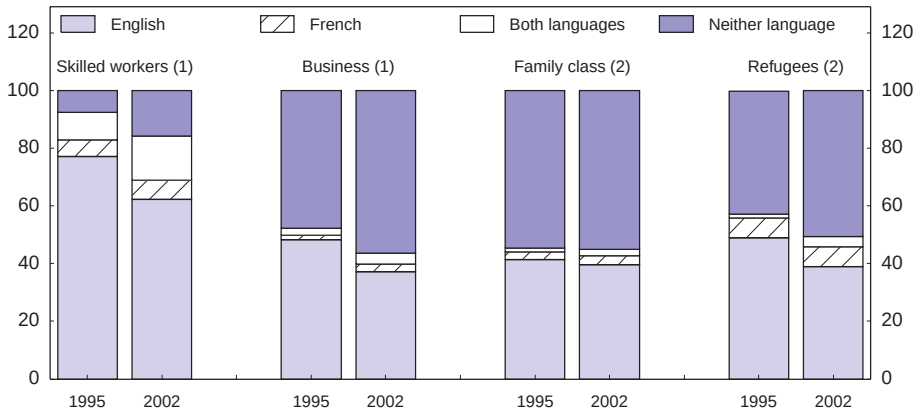
Source: Zhao *et al.* (2000).

Figure 26. **Immigrants' occupations declared at arrival, by skill level**
Skilled workers, principal applicants, percentage of total[1]



1. Percentage shares are calculated out of the total of adult immigrants (over 15 years old) who declared an intention to work. Occupations are classified by skill level, based on the National Occupation Classification (NOC).
Source: Citizenship and Immigration Canada.

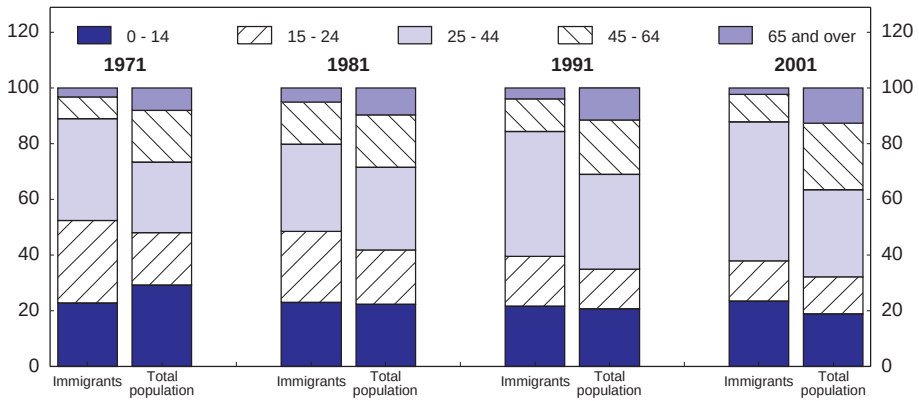
Figure 27. **Language skills of immigrants upon arrival by entry class**
Per cent composition



1. Principal applicants.
2. Principal applicants and dependants.
Source: Citizenship and Immigration Canada.

English nor French is higher among refugees and family-class immigrants, but it is also surprisingly high among business immigrants. Language skills presumably improve once the immigrants have settled in Canada, but there is little information on how quickly fluency is achieved, since available statistics measure only self-reported language abilities. Finally, immigrants tend to be younger, on average, than the Canadian population (Figure 28), and although for both groups the average age has been rising over time, the difference has increased.

Figure 28. **New immigrants and Canadian population: composition by age group**
Per cent[1]



1. The immigrants considered are those who immigrated in the year indicated. Data on the total population are based on the Census held the same year.

Source: Statistics Canada; Citizenship and Immigration Canada.

Changes in immigration policy were not alone in influencing the composition of immigrant flows over time, as they interacted with a host of other factors, both on the demand side (*e.g.* rewards for skills in the Canadian labour market) and on the supply side (*e.g.* demographic, political and economic changes in source countries). These factors also need to be taken into account, particularly when comparing the effects of immigration policies in different countries (see Box 3).

The main determinants of immigrants' economic outcomes

The skills immigrants possess when they arrive interact with conditions in the local labour market to determine their economic outcomes. For immigrants, as

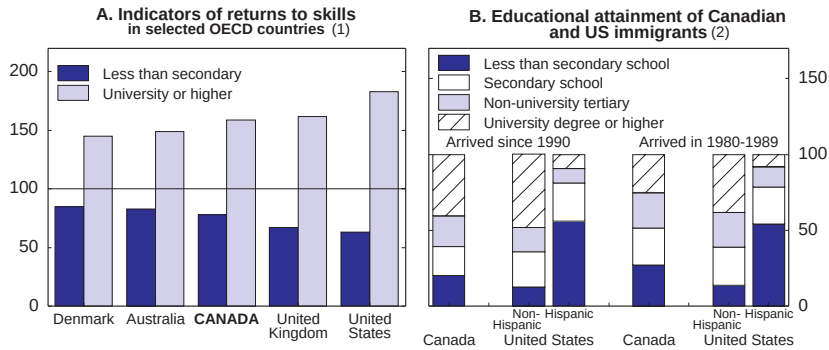
Box 3. Immigrant self-selection and cross-country comparisons

To the extent that immigration responds to economic incentives, wage differentials – corrected for travel and adjustment costs – can be expected to be the main determinant of the direction and size of immigration flows between two countries. However, economic theory has also tried to analyse the determinants of the composition of immigration flows. As Borjas (1987 and 1994) has shown, immigrants self-select, and if the destination country has higher returns to skills than the source country – that is, for example, if more educated workers receive a comparatively larger wage premium – the more skilled will have a stronger incentive to move, and this will be reflected in a greater share of them in the overall flow. The opposite will happen if the destination country has comparatively lower returns to skills. This theoretical framework has also been used to analyse return migration (former immigrants who go back to their country of origin) and on-migration (those who move on to a third country after accumulating human capital and/or wealth), as well as the determinants of the composition of immigrant flows to alternative destination countries. In the latter case, however, self-selection mechanisms interact with the immigrant selection policies in place in each country. The latter, if based on skills, can be thought of as "truncating" the skill distribution out of which immigrants are allowed to self-select. Other factors (geographical proximity, historical links) can also have an effect.

For example, immigrants to Canada are, on average, more highly educated than those entering the United States and have better language skills. However, these differences are entirely accounted for by the much larger proportion of Latin American immigrants that the United States receives. If they are excluded, US immigrants have higher education (see Figure 29, Panel B). Based on these findings it may appear that the Canadian points system has raised the skill level of immigrants relative to that of their US counterparts mainly by affecting their source-country mix, rather than by selecting more skilled individuals from each source country. However, this interpretation, suggested by Borjas (1993), is incomplete, for several reasons. *First*, historical and geographical factors, more than selection policies, explain why the United States attracts large numbers of immigrants from Latin America, many of which, in any case, enter illegally. Thus, it cannot be assumed that in the absence of the points system similar flows would have reached Canada. *Second*, as stated above, immigrants (or applicants) self-select according to the rewards given to skills in the potential destination countries as compared with their source country. Canada has a lower return to skills than the United States, reflecting both smaller wage differentials in favour of workers with higher education and greater income redistribution by the state (Figure 29, Panel A). Therefore, it can be expected, *ceteris paribus*, to attract less skilled immigrants than the United States. Thus, it is not surprising to find that, from each source region, the average education level of immigrants to the United States was equal or higher than that of immigrants to Canada (Borjas, 1993). This does not necessarily mean that the Canadian points system was ineffective. For the categories to which it was applied, it presumably filtered out the lower part of the skill distribution, but probably did so out of a distribution of self-selected applicants from each source country that already had lower average skills than that of would-be immigrants to the United States.

Box 3. **Immigrant self-selection and cross-country comparisons** (*cont.*)

Figure 29. **Returns to skills and skill level of immigrants**



1. Relative earnings of males aged 30-40 with income from employment, by level of educational attainment (upper secondary and post-secondary non-tertiary education = 100). Data refer to 1999 for Australia, Canada and Denmark; to 2001 for the United Kingdom and the United States.
2. Foreign-born persons of both sexes aged 25-64. Data refer to 2001 for Canada, to March 2002 for the United States.

Source: Statistics Canada; US Census Bureau; OECD (2002e).

for the Canadian-born, levels of education are positively correlated with labour market outcomes, but the returns to education – that is, the earnings advantage enjoyed by workers with more years of schooling or an academic degree – tend to be lower for foreign-educated immigrants than for the Canadian-born. This is in part because Canadian employers do not value foreign educational credentials, particularly from countries they know little about, as much as they do their domestic counterparts. For similar reasons, according to most empirical studies, foreign work experience appears to receive little or no reward in the Canadian labour market. Moreover, because migration represents a fracture in an individual's work career, recent immigrants tend to have considerably lower job tenure than Canadian-born workers, which also helps explain their initial earnings handicap (Zhang, 2002).[49] On the other hand, the return to Canadian work experience is higher for immigrants than for the Canadian-born, although it is difficult to separate this effect from the more general process of assimilation after arrival, which also involves other forms of human capital investment.

An important factor behind the lower valuation received by foreign qualifications is connected with inadequate language skills. Empirical studies indicate

that, for equivalent schooling and experience, immigrants who are not fluent in either English or French have an earnings gap of around 10-12 per cent relative to those who are; the gap is higher for those who completed their education prior to immigration (Chiswick and Miller, 2002).[50] Moreover, language skills are complementary with other skills: immigrants who speak the local language are able to extract a much higher return from their years of education and from work experience in the country of origin. These gains are even larger for immigrants whose mother tongue is English or French or who normally speak it at home.[51] This represents an important qualification to the previously mentioned findings on the value of foreign education and work experience. An immigrant's age at the time of arrival in Canada also matters, because, like language, it interacts with most of the other factors mentioned above. Immigrants who arrive at a younger age accumulate most of their work experience in Canada and in some cases receive part of their education there, which facilitates their assimilation. They also face fewer difficulties in learning the local language and adopting the local culture. Indeed, it is found that the returns to education and experience for people who immigrated as children are equal to or even higher than those earned by the Canadian-born. Moreover, these immigrants seem to face no disadvantage for not having English or French as their mother tongue or for belonging to a visible minority (Schaafsma and Sweetman, 2001).

To the extent that it is not connected to the immigrant's language skills, the lower return to education and work experience acquired abroad could be the result of genuine imperfect transferability of these credentials to the Canadian labour market, of risk-averse behaviour on the part of employers given uncertainty as to their actual worth, or of outright discrimination. It is usually difficult to distinguish between these alternative explanations. Some empirical studies using direct measures of literacy and numeracy skills have found that the levels of such skills are lower for immigrants from some source regions than for Canadian-born workers with nominally equivalent educational qualifications, even after controlling for mother tongue, and that these differences account for at least part of the earnings gaps not explained by standard measures of education (Finnie and Meng, 2003). It is also reasonable to assume that certain professional skills are less transferable than others. In addition, immigrant characteristics connected to ethnicity, such as language skills and certain cultural differences, may condition the transferability of qualifications in ways that are often difficult to distinguish from discrimination. An interesting issue in this regard is whether, after controlling for education and other characteristics, Canadian-born visible minorities (the term used in Canada to denote non-white ethnic groups) have lower earnings than white Canadians. The evidence on this is mixed, but even studies that find an earnings gap indicate that it is not very large (except for Aboriginals, who are not immigrants) and that differences across the various visible minorities are very relevant.[52] Conversely, immigrants from Western Europe or other English-speaking countries perform as well as the Canadian-born or better.

Thus, if there is a handicap due either to discrimination or to cultural obstacles to integration, it seems to affect mainly immigrants who are also of visible minorities, rather than immigrants or visible minorities *per se*.

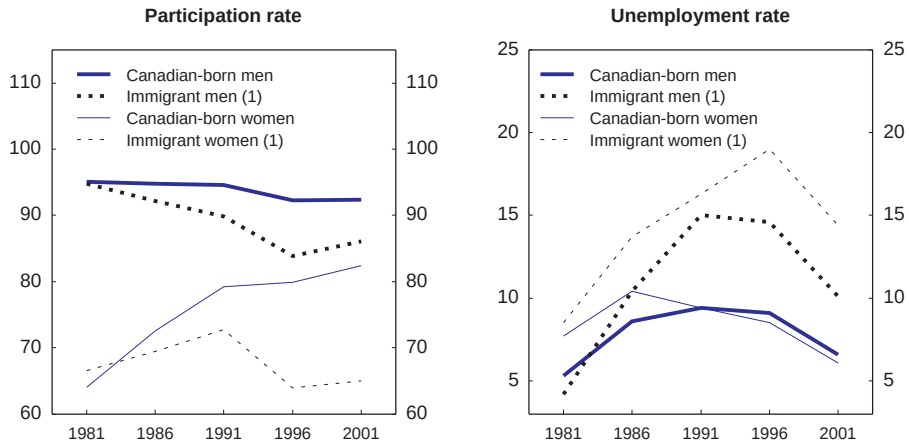
Immigrants' economic performance deteriorated until recently

Immigrants' integration in the host-country labour market, both in Canada and in other immigrant-receiving countries, has traditionally followed a well-known pattern. Initially the newly arrived immigrants face a disadvantage *vis-à-vis* Canadian-born workers of comparable age and education, due to their lack of certain country-specific skills (in particular, language skills), local work experience and labour market knowledge. This disadvantage typically shows up in higher rates of unemployment, lower earnings and greater receipt of public transfers. Over time, however, as they learn the local language, acquire local work experience and upgrade their skills, immigrants gradually catch up to the natives' employment rates and earnings levels and even surpass them if they possess superior skills and/or greater motivation to succeed. Thus, the negative "entry effect" is gradually offset by a positive "assimilation effect". Indicators of economic performance for immigrants to Canada have broadly conformed to this pattern.

In the 1980s and at least until the mid-1990s, however, the performance of immigrants in the Canadian labour market showed a progressive deterioration. From the point of view of immigration policy, the fact that this negative trend appeared to parallel what was observed in the United States was seen as a source of concern, since it seemed to put in question the effectiveness of Canada's skill-based selection policy. The deterioration was reflected in lower participation rates and higher unemployment rates (Figure 30), as well as lower earnings profiles; and it was observed for all entry categories (Figure 31, Panel A).[53] The groups that in the past had performed better were those who lost more ground in relative terms: male workers, principal applicants in the economic immigrant categories (who are individually selected according to the points system), workers with a university degree and those with better language skills at arrival. For example, the employment earnings of economic principal applicants entering in 1980 had been about 25 per cent above the Canadian average (not adjusted for age and education) after one year in Canada and 35 per cent above after five years.[54] Those of immigrants entering in 1990 were almost 20 per cent lower than the Canadian average after one year and only slightly above them after five. Immigrants arriving in the early 1990s not only had lower starting earnings and employment rates, but also appeared to catch up more slowly than the previous cohorts. Also immigrants who had arrived earlier experienced a slower earnings catch-up during that period. The patterns shown in the charts are not adjusted for age structure and education levels, which differ not only between immigrants and the average Canadian population, but also across immigrant cohorts. However, econometric studies controlling

Figure 30. **Participation and unemployment rates of recent immigrants and of the Canadian-born**

Per cent; age group 25-44



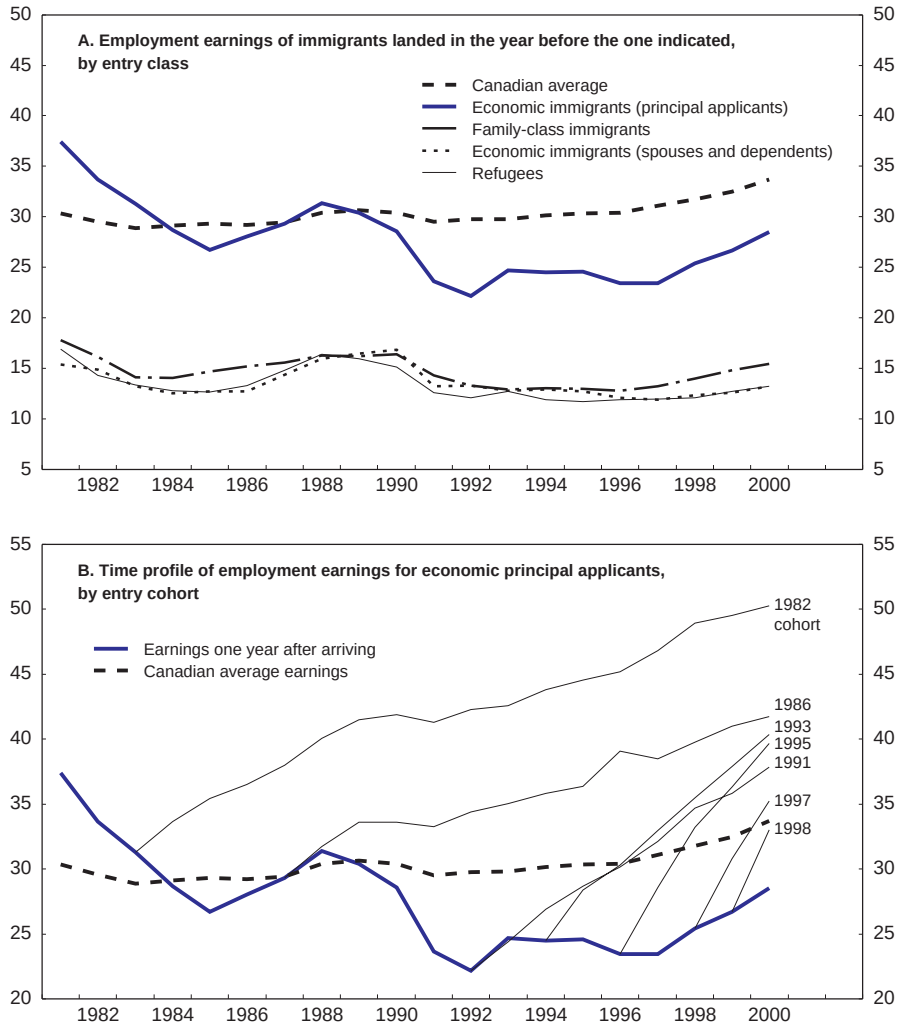
1. Immigrants landed within the previous five years.
Source: Statistics Canada, various Censuses.

for age and education (Baker and Benjamin, 1994; Bloom *et al.*, 1995) also found clear evidence of a deterioration over time across immigrant cohorts with respect to both earnings and unemployment probabilities. The relative decline seems to have been particularly pronounced during recessions. Moreover, the pace of earnings assimilation relative to Canadian-born workers of comparable age and education was found to have become considerably slower over the 1980s and early 1990s, not only for the most recent arrivals but also for earlier cohorts.

Since the mid-1990s, however, some signs have emerged that the negative trend has stopped and may have started to reverse, although evidence of this is still tentative. The latest immigrant cohorts have higher participation and lower unemployment rates and, although their starting earnings remain significantly below the Canadian average, they seem to be catching up more rapidly. Recent econometric studies controlling for immigrant characteristics (Grant, 1999; Hum and Simpson, 2002) seem to confirm this. However, the evidence as to the extent of the recovery is mixed. The data shown in Figure 31 probably overestimate it, since the comparison between skilled workers and the Canadian average does not control for the level of educational achievement, which has risen dramatically for that immigrant category over the last few years. Census data

Figure 31. **Initial earnings and catch-up profiles of immigrants relative to the Canadian average**

Constant dollars, 2000 prices, thousands



Note: The data shown are elaborations based on the IMDB longitudinal database, which links immigrant entry records with tax records filed by immigrants in subsequent years. Average earnings for the Canadian population are calculated from the Canada Customs and Revenue Agency Tax Files. Earnings comparisons between immigrants and the population average, as well as between different immigrant cohorts, are not adjusted for education levels, age and other demographic characteristics.

Source: IMDB (Citizenship and Immigration Canada and Statistics Canada); Canada Customs and Revenue Agency.

indicate that in 2000 the earnings gap between immigrant university graduates and their Canadian-born counterparts (over 50 per cent for men aged 25-54 arrived one year earlier, almost 30 per cent for those who had been in Canada for 10 years) was still larger than in 1990 (Statistics Canada, 2003a). And low-income rates for immigrant households continued to increase during the 1990s, while they were falling for non-immigrants (Picot and Hou, 2003).

From a policy standpoint it remains very important to correctly assess the evolution of immigrant economic success and to understand to what extent its underlying determinants are connected to immigrant characteristics, to the functioning of the Canadian labour market, or to both. A substantial body of economic literature, in Canada and elsewhere, has been devoted to these issues. The stylised facts described above have led researchers to test two main explanations, not necessarily mutually exclusive. The first one is that there has been a deterioration in the "quality" of immigrants, whether reflected in their observable or unobservable characteristics. The second is that changes in the Canadian labour market – as a result of either macroeconomic conditions or structural factors such as technological progress – have had a particularly adverse effect on immigrants, possibly in connection with some characteristics that made them more vulnerable than Canadian-born workers.

The fact that recent immigrants get a lower return from their education than the Canadian-born in terms of earnings, and that the difference increased between 1981 and 1996, especially for more recent immigrants (Reitz, 2001), could be consistent with the first explanation. There is evidence that immigrants from regions other than Northern Europe and the United States get less skilled jobs than Canadian-born workers with similar educational levels, and that this under-utilisation of their measured skills became more severe for the cohorts arriving in the 1980s and early 1990s (Thompson, 2000). Those immigrants also experienced lower participation rates during that period, a phenomenon not observed among male immigrants from the more traditional source countries. Of course, what appears as skill under-utilisation could be due to a decline in the average relative "quality" of immigrant education, not adequately measured by years of schooling or academic qualifications, or to changes in some other immigrant characteristics complementary to education, such as language skills. Indeed, immigrant language skills have declined over the past two decades, mainly as a result of the shift in the source-country mix, but also, in the 1980s, due to the expansion of the family class at the expense of the skill-assessed economic immigrant classes. At the same time, structural changes in the composition of labour demand (for example, a greater emphasis on communication skills in a knowledge-based economy) may have reduced the value of the immigrants' typical mix of skills in the eyes of employers. The fact that the return to work experience acquired before immigration has also declined (Green and Worswick, 2002) lends some indirect support to this hypothesis.

However, there is also substantial evidence that the deterioration of immigrants' relative position is connected to the weak conditions that prevailed in the Canadian labour market during the 1980s and the first half of the 1990s. In this period Canada experienced two protracted recessions, a low average rate of job creation and rising unemployment. The position of the more vulnerable categories in the labour market, among which recent immigrants, weakened. This was the case also for highly skilled immigrants, partly as a result of the fact that during the 1980s and 1990s growing numbers of Canadian-born university graduates were entering labour market reflecting rising educational levels and female participation rates. Some econometric studies show that, when the aggregate unemployment rate is higher, the probability of unemployment rises more for immigrants than for natives, and their relative earnings position also deteriorates (McDonald and Worswick, 1997 and 2000; Aydemir, 2002). This differential effect is probably due to employers' reluctance to lay off more senior workers, in whom they have invested greater firm-specific human capital, and possibly to the fact that discriminatory or risk-averse behaviour in hiring is less costly in a recession than in a tight labour market. Indeed, similar patterns have been found for young workers and for Canadian-born visible minorities. The above mentioned studies also show that the rate of immigrants' earnings assimilation – that is, the speed at which they catch up – is negatively correlated to macroeconomic conditions.[55] In the early 1990s, two additional factors probably helped to weaken the labour market position of recent immigrants: *first*, the number admitted continued to be rise substantially throughout the recession, in contrast with previous practice; *second*, a large proportion of them continued to settle in Toronto, where the downturn was especially pronounced.

In sum, both structural changes and economic conditions seem to be part of the story. The finding that immigrant performance started to turn around in the second half of the 1990s, when macroeconomic conditions improved would seem to be consistent with the latter explanation. However, the recovery in relative earnings has been at best partial, which suggests that structural changes, probably interacting with the evolving mix of immigrant characteristics, have been responsible for an important part of the observed deterioration.

Implications for selection policy

The analysis of immigrant outcomes over the past 20 years suggests a number of conclusions for immigration policies. The evidence on the main factors that influence immigrant assimilation supports the direction of the recent changes in selection policies, which emphasised general skills and adaptability and raised the standards for the assessment of language skills. Some issues, however, deserve further consideration. F*irst*, the selection policy could do more to target younger immigrants, who tend to be the most adaptable. At present, applicants in

the 21-49 age range get maximum points. Moreover, as an indirect effect of the points assigned for higher education and work experience, applicants between 30 and 49 probably have an advantage within that range. By comparison, Australia takes a much more aggressive approach, assigning top points to the 18-29 age range and setting an age ceiling at 45. *Second*, although language assessment has been tightened, as long as language remains just one factor in the point system it is possible to offset a low language score with high points for other factors. Other countries (*e.g.* New Zealand) make a minimum standard of language knowledge a condition for admission. Given the growing importance of language skills, both directly and through their effect on the transferability of other skills, such an alternative approach could be considered. *Third*, research seems to show that foreign work experience has limited value. Although these results should be taken with caution – especially given the qualification that, when combined with good language skills, foreign experience does matter – assigning the same number of maximum points for work experience as for education and making one year of work experience a necessary condition for admission as skilled worker may be excessive. And, *fourth*, Canadian immigration policy could make greater use of temporary work permits, not only to address skills shortages in specific professions, but also as a way of "feeding" the permanent immigration flow with workers who have already gained Canadian work experience and adjusted to the local way of life. The same argument applies, to some extent, to foreign students.

Immigrant integration policies

The evidence of the difficulties encountered by recent immigrants in the labour market have also led the government to focus greater attention on its policies and programmes designed to support their integration. Foremost among the issues that have attracted attention is that of immigrant credentials recognition. But the range of relevant policies is much wider, including not only integration programmes and entitlement to public services – which are discussed in this section – but also the question of the geographical distribution of immigrants within Canada, which is addressed in the next. More generally, it is increasingly recognised that the host country's institutional context – in particular, its labour market institutions and educational system – is at least as important as immigrant selection policies in determining immigrants' economic outcomes (Reitz, 1998).

Immigrants have full access to health care and social benefits

Immigrants with the status of permanent resident have a right to equal access to employment, except in the public sector. They also have the same access to public education, health care and social benefits (including employment insurance) as Canadian citizens, as well as to all other public services. They pay taxes like other Canadians and are eligible for the same tax benefits. Eligibility for

most services and benefits applies from when the permanent immigrant arrives. However, in the case of health care four provinces (including British Columbia, Ontario and Quebec, which receive the largest numbers of immigrants) impose a three-month waiting period. To cover this period, resettled refugees receive essential and emergency health services through the Interim Federal Health Program, while other immigrants are asked to pay for private insurance. Refugee claimants receive coverage through the Interim Federal Health Program, but once they are recognised as Convention refugees or persons in need of protection, they have access to provincial health systems.

To be eligible for an old-age pension after age 65 an immigrant needs to have resided in Canada for at least ten years. For those who qualify, the Old Age Security (OAS) component of the pension is proportional to the number of years of residence in Canada, but the Guaranteed Income Supplement (GIS) is not, and tends to offset the shortfall for those who have been in Canada for less than 40 years. Immigrant workers – like all Canadians – also contribute to the Canada or the Quebec Pension Plan, whose benefits are based on years of contribution, with no minimum number of years. Canada has agreements with more than 30 countries to allow residents who worked and paid contributions abroad to claim pension benefits.

As with other countries that encourage permanent immigration, Canada offers relatively easy access to citizenship. Permanent residents can become citizens after they have been in Canada for three years. A large majority of them do so: at the time of the 2001 census, 84 per cent of all the immigrants who had arrived before 1998 and were still in the country had obtained citizenship. And most of them tend to make use of this possibility quite soon after they become eligible: 79 per cent of those who arrived in 1991-95 and 57 per cent of those who arrived in 1997-98 were already Canadian citizens by 2001.

The federal and provincial governments run several immigrant settlement programmes

A number of government programmes are in place to facilitate the integration of immigrants. The Immigrant Settlement and Adaptation Program (ISAP) aims to provide direct, essential services (such as reception, orientation, translation and interpretation, counselling and employment-related services) for newly arrived immigrants. The Host Program helps immigrants make contact with their local communities. And the Language Instruction for Newcomers to Canada (LINC) provides basic language training. These programmes are managed at the federal level by Citizenship and Immigration Canada (CIC), except in those provinces whose agreements on migration with the federal government also cover immigrant settlement. But the actual delivery of services is, in most cases, carried out through provincial and local administrations, private businesses, non-profit organisations, educational institutions and community groups. In addition to funding,

CIC provides the entities involved with orientation, benchmarks (for example, for language teaching) and support facilities.

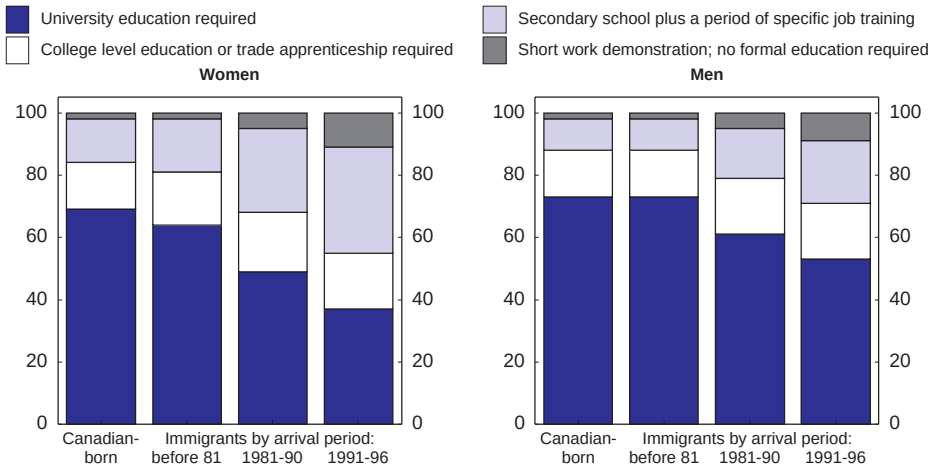
Specific support programmes exist for refugees whose status has already been recognised. Government-assisted refugees receive income support from the federal government for up to one year, and are eligible for essential initial services such as temporary accommodation, orientation and information. In the case of privately sponsored refugees, the sponsors undertake to provide them with financial assistance and guidance for the first 12 months. Both categories are eligible for emergency medical assistance and basic orientation, including referrals to settlement and other general services. On the other hand, refugee claimants whose status has not been finally determined are not eligible for federal integration and settlement services, but have access to medical coverage (which is federal) and to provincial welfare assistance, and can obtain a temporary work permit to support themselves.

The recognition of foreign credentials remains a problem

A key issue emerging from the analysis of immigrants' performance in the labour market is the difficulty they find in obtaining recognition of their foreign educational credentials and work experience. For example, an immigrant wanting to be admitted to a profession would have to obtain recognition of his/her professional education, of any applied training or work experience and of any certification exam taken. If any of these qualifications is not recognised by the competent licensing body, it will need to be repeated in Canada. Since the cost can be prohibitive, many immigrants end up accepting low-skill jobs and never using the specific human capital obtained in their home countries. This seems to be confirmed by Census data on the occupations held by highly-skilled immigrants, especially women (Figure 32). There is anecdotal evidence that these barriers are greater in Canada than in the United States, partly because more professions and trades are regulated, but also as a result of a more conservative attitude of Canadian employers *vis-à-vis* foreign work experience. To the extent that this problem reflects restrictive practices by professional organisations, discrimination or lack of information on the part of employers – rather than genuine differences in the quality or the relevance of foreign qualifications – it involves welfare losses both for the immigrants themselves and for the Canadian economy.

This issue is particularly complex because in Canada professions and trades are regulated at the provincial level (through legislation in the case of trades, by delegation of authority to self-regulating bodies in the case of professions). The obstacles to labour mobility deriving from the multiplicity of jurisdictions affect the Canadian-born as well as immigrants but can be more obstructive for the latter due to their lack of familiarity with the system. Some progress in

Figure 32. **Skill level of jobs held by immigrant and Canadian-born university graduates aged 25 to 64**
1996, percentage distribution



Source: Statistics Canada, 1996 Census.

eliminating them has been made through the implementation off the Labour Mobility Chapter of the 1994 Agreement on Internal Trade (see Chapter II).[56]

Both the federal and several provincial governments seem to have recognised the importance of addressing this issue, particularly for a country targeting highly skilled immigrants. The federal government has created the Canadian Information Centre for International Credentials (CICIC), which functions as a sort of information clearing house and referral service to support the recognition and portability of Canadian and international educational and occupational qualifications,[57] and Quebec, British Columbia, Alberta and Ontario have set up or supported the establishment of specific credential evaluation services. Visa officers now encourage immigrants to contact such services before they arrive in Canada, and federal and provincial agencies provide accessible information on qualification standards in the various professions. Moreover, a number of professional organisations have taken steps to make the credentials recognition process more transparent.[58] Recognition of academic and other "paper" credentials may not be sufficient, however. Employers stress the importance of on-the-job experience, as confirmed by a recent survey (Sangster, 2001) and tend to discount foreign experience, particularly when obtained in countries very different from Canada.

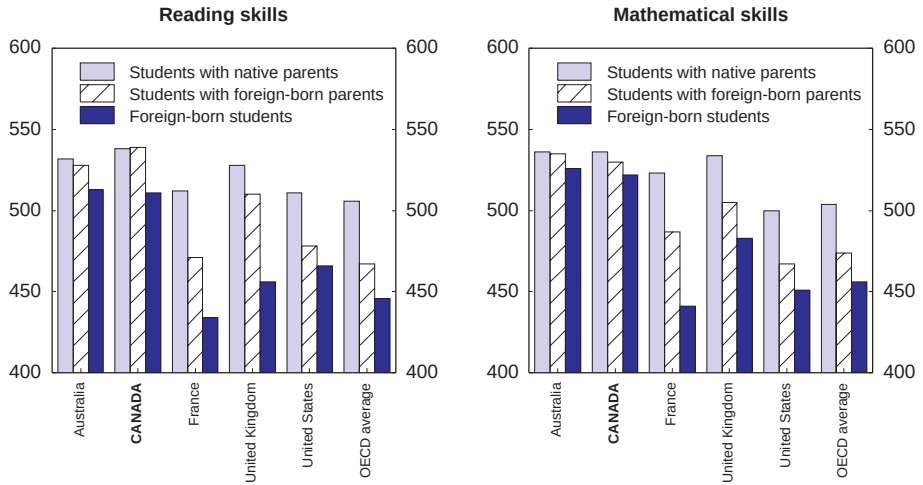
Efforts are also being made to facilitate the re-training of immigrants whose academic qualifications are inadequate for access to professions and trades in Canada.[59] A specific aspect of re-training concerns specialised language training, a need not met by most language courses on offer (Brower, 1999). When they arrive, many skilled immigrants need not only to upgrade their general language proficiency but also to acquire profession-specific language skills for complete skills recognition. A promising initiative to address this issue has recently been undertaken in Ontario.[60]

The policies being followed seem to be going in the right direction. A recent survey (Ontario Ministry of Training, Colleges and Universities, 2002) showed that, although highly skilled immigrants in general continue to encounter significant difficulties in entering professions in Canada, those who received advance information on licensing requirements, have better profession-specific language skills and have used credentials assessment services are more likely to be working in their chosen professions. Specialised agencies are probably the most efficient way to handle credentials evaluation, but the validity of their assessments cannot be imposed on individual educational institutions, professional bodies and employers, and will ultimately depend on their reputations. Nevertheless, public authorities should continue to urge the self-regulating bodies to make their licensing practices more transparent and to make sure they are not used in a discriminatory way.

The educational system helps immigrants integrate

The educational system seems to do a relatively good job of fostering the integration of immigrants, both with regard to those who arrive as children and to Canadian-born children of immigrant parents. Moreover, several studies have found that second-generation immigrants of all ethnic groups tend to exceed the levels of educational achievement of other Canadians, and do not display the persistent segmentation along ethnic lines found in the United States (Boyd, 2002; Guppy and Davies, 1998). Children of immigrant parents have an initial disadvantage in terms of reading, writing and mathematical skills relative to those of Canadian-born parents but fully overcome this gap by the end of elementary school (Worswick, 2001). This favourable picture seems to be broadly confirmed by the results of the OECD PISA comparative study on the performance of 15 year-olds (OECD, 2001b) (Figure 33). That study indicated that foreign-born students do experience a disadvantage relative to their Canadian-born counterparts, but the gap is much smaller in Canada than in most other OECD countries. Indeed, foreign-born students in Canada outperformed the average student with non-immigrant parents in the OECD in both reading and mathematical skills. Immigrants also seem to make ample use of the opportunities offered by the educational system for upgrading their human capital.

Figure 33. **Relative performance of 15 year-old immigrant students**
Mean scores



Source: OECD, *Knowledge and Skills for Life: First Results*, from PISA (2001).

According to 2001 Census data, a higher proportion of immigrants aged 20 to 34 who arrived in the last 10 years attend school, as compared to other residents of the same age, both among men and women.

The geographical distribution of immigrants

Immigrants have become increasingly concentrated in large cities

Immigrants are highly concentrated in cities and have become more so over the past 20 years (Table 23). Nearly three-quarters of new immigrants are now settling in Toronto, Montreal and Vancouver, which together have about one-third of Canada's population. A predominantly urban and selective settlement pattern is not unique to Canada; it is found to a similar degree in the United States. Geographic concentration reflects not only initial settlement decisions, but also subsequent migration patterns: immigrants who move between provinces tend to go predominantly to the two that already have the highest immigrant concentrations (Ontario and British Columbia). Some of the other provinces "lose" a high proportion of the immigrants who initially settled there. For example, it is estimated that by 1995 the Atlantic provinces had seen a net outflow of 35 per cent of immigrants

Table 23. **Geographic distribution of immigrants and of visible minorities**

	Immigrants arrived since 1991	Population	Foreign-born			Visible minorities (Foreign-born and native)		
	Share of total		As a proportion of population					
	2001	2001	1981	1991	2001	1981	1991	2001
Canada	100.0	100.0	16.0	16.1	18.4	4.7	9.4	13.4
Newfoundland and Labrador	0.1	1.7	1.9	1.5	1.6	0.5	0.8	0.8
Prince Edward Island	0.0	0.5	3.7	3.2	3.1	0.6	1.0	0.9
Nova Scotia	0.6	3.0	5.0	4.4	4.6	1.7	3.4	3.8
New Brunswick	0.2	2.4	3.9	3.3	3.1	0.6	1.2	1.3
Quebec	13.4	24.0	8.2	8.7	9.9	2.6	5.6	7.0
Ontario	55.8	38.1	23.6	23.7	26.8	6.4	13.0	19.1
Manitoba	1.8	3.7	14.2	12.8	12.1	3.9	6.9	7.9
Saskatchewan	0.6	3.2	8.7	5.9	5.0	1.8	2.6	2.9
Alberta	7.1	9.9	16.3	15.1	14.9	5.3	9.4	11.2
British Columbia	20.2	13.1	23.1	22.3	26.1	8.4	14.2	21.6
Yukon Territory	0.0	0.1	12.4	10.7	10.6	2.1	2.7	3.6
Northwest Territories	0.0	0.1	6.0	6.6	6.4	1.5	3.5	4.2
Nunavut	0.0	0.1	. .	1.9	1.7	. .	0.9	0.8
Ten largest CMAs[1]	89.0	50.4	. .	25.3	29.2	. .	. .	23.9
Montreal	11.8	11.4	. .	16.4	18.4	5.2	11.0	13.6
Toronto	43.3	15.7	. .	38.0	43.7	13.6	25.8	36.8
Vancouver	17.7	6.5	. .	30.1	37.5	13.9	24.0	36.9

1. Census metropolitan areas. The ten largest are: Toronto, Montreal, Vancouver, Ottawa-Hull, Calgary, Edmonton, Windsor, Winnipeg, Hamilton and Kitchener.
Source: Statistics Canada.

who had arrived since 1980 and Saskatchewan of 45 per cent, with much higher proportions (50 to 65 per cent) for business immigrants and refugees (Citizenship and Immigration Canada, 2000). Concentration in certain cities reflects in part job-creation trends but is also driven by the tendency of newcomers to settle where immigrant communities from the same source countries already exist. There is evidence that in the case of Toronto and Vancouver, which receive the largest inflows of immigrants relative to their population, the size of these inflows is larger than what could be expected given local labour market conditions, and is also out of line with internal migration flows (Figure 34). Their magnitude seems to be better explained by the fact that they already have large concentrations of immigrants. This behaviour reflects the economic support ethnic communities can provide (such as information about jobs and business opportunities), as well as a desire to preserve ethnic ties and culture. In the case of family class immigrants, this inertia is virtually built into the system. While the support provided by ethnic networks probably facilitates new immigrants' initial integration, it is an open question whether in the long run the very "sheltering" they offer may slow down the acquisition of crucial country-specific human capital, in particular language skills.

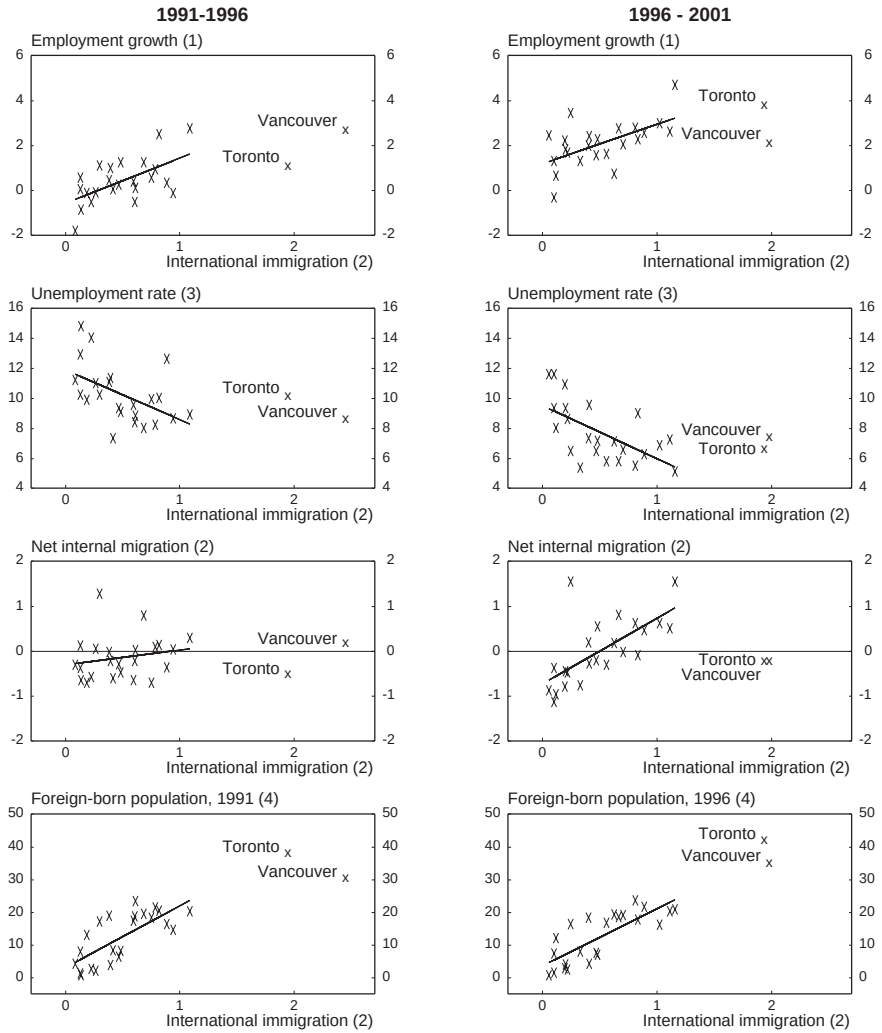
A high degree of geographic concentration of immigrants can have other undesirable effects. If it is a result of inertia, it will negatively affect the employment prospects of both immigrant and Canadian-born workers in some regions while skill shortages persist in others.[61] It can also add to congestion in cities and put under strain the capacity of local administrations to provide immigrant integration, health and education services. The Toronto, Montreal and Vancouver metropolitan areas all had net outflows of Canadian-born inhabitants between 1996 and 2001.[62] This is not sufficient evidence of a displacement effect, but, together with the declining public acceptance of immigration in those cities, it suggests that some of these negative effects may already be present.

Provinces are making considerable efforts to achieve a more balanced distribution

However, the policy tools available for steering immigrants toward a more balanced settlement pattern are quite limited. Under the Canadian Charter of Rights and Freedoms permanent residents have full mobility rights. Even though the government can influence the initial assignment of some immigrant categories (such as government-sponsored refugees), a policy of greater dispersion will have little effect unless provinces and local communities increase their ability to retain them. This involves both immigrant selection and integration policies. In Canada, immigration policy is a shared responsibility between the federal government and the provinces. The federal government sets the general legislative framework, defines the immigrant categories and is responsible for health, safety and security matters. Within this framework the provinces have some degree of autonomy as regards the selection of certain categories of immigrants and in

Figure 34. **Immigration rates for Toronto, Vancouver and other CMAs**

Correlation with employment growth, unemployment rate, internal migration and share of foreign-born population



Note: Data refer to 25 Census metropolitan areas. The lines indicating the correlation of the two variables shown in each chart are drawn based on 23 CMAs, excluding Toronto and Vancouver.

1. Annual percentage growth.
2. Average annual inflow as a percentage of population.
3. Annual average.
4. Stock in the indicated year.

Source: Statistics Canada.

Box 4. Decentralisation of responsibilities for immigrant selection and integration: the case of Quebec

Quebec was the first among the Canadian provinces to negotiate an agreement on immigration with the federal government (in 1978). It is also the province with the broadest responsibilities in this domain. The present agreement, signed in 1991, gives the provincial government extensive powers in the selection of immigrants as well as responsibility for running immigrant integration programmes.

The Quebec government uses its own points system to select skilled workers and also has its own investor programme (with more attractive conditions than its federal counterpart). It is allowed to select the refugees to be settled in Quebec among those who apply from abroad, once the federal government has determined their refugee status. And it has its own immigration offices in source countries to process applications. The federal government sets the admission rules for family class immigrants and has a joint decision on temporary immigrants (workers and students). Overall, the provincial government is able to select over 60 per cent of the immigrants who settle in the province. It uses its selection powers to choose the immigrants considered most suitable for settlement in the province, emphasising in particular French language skills. This has influenced the source-country composition of immigrants, with higher shares from Africa, the Middle East and Latin America. The Quebec government has indicated the objective of raising the share of immigrants who speak French at arrival to 50 per cent in 2003, from about 45 per cent in 2000-01. Partly as a result of this focus on French-speaking immigrants, but also as a result of a reduction in Quebec's target level of immigration, its share of total Canadian immigrants has declined to 15 per cent, from 20 per cent in the 1980s. The retention rate (the proportion of immigrants who stay in the province after initial settlement) has continued to decline, but less than in other provinces except Ontario and British Columbia. Retaining immigrants has traditionally been a problem for Quebec, which also faces negative interprovincial migration of native-born Canadians. And retention rates are generally lower for refugees, who in Quebec represent a larger proportion of immigrants (about 20 per cent, against a national share of 11 per cent). Specific integration programmes are aimed at them, including an effort to encourage their settlement in communities outside the Montreal metropolitan area. Nevertheless, 86 per cent of all immigrants still go to Montreal. For the selection of skilled workers the Quebec points system, like the present federal version, emphasises education and adaptability, having already shifted from occupation-specific to general skills in 1996. While there are encouraging signs on immigrants' integration (Renaud *et al.*, 2001), an improvement in their economic performance is not yet visible: although the unemployment rate of immigrants to Montreal has declined, in 2001 both its level and the difference relative to that of the Canadian-born remained much higher than in other cities (Statistics Canada, 2003b).

managing programmes to support their integration. The first province to take an active role in this area and the one that has developed it furthest is Quebec (see Box 4). Over the last ten years, most other provinces and territories have also signed agreements on migration with the federal government. Most of them have established "nominee programmes", which allow them to nominate a certain number of skilled immigrants. They are using these programmes to increase the number of immigrants they receive and in some cases to cover specific skill shortages.

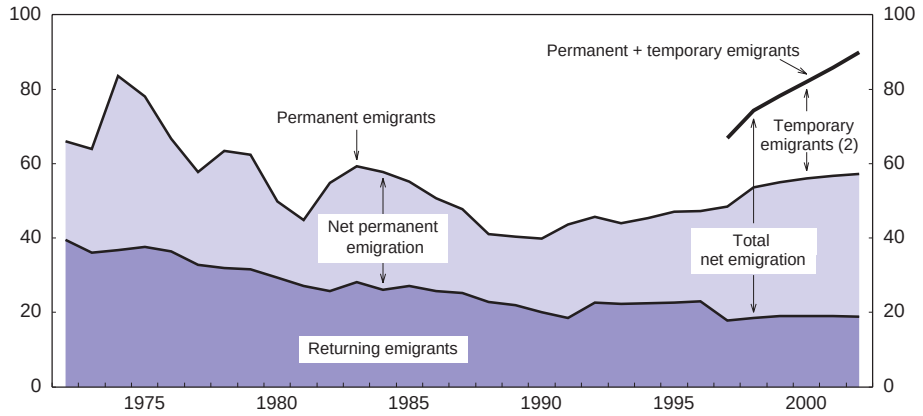
Most provincial nominee programmes are of limited size so far. The largest is Manitoba's, which has been successfully used since 1997 to increase the number of skilled immigrants coming to the province and to settle some of them in rural areas. The selection of candidates based on the specific skills needed in the province is combined with assistance in finding employment, and emphasis is being put on supporting immigrant integration, in co-operation with local communities. The federal Minister of Citizenship and Immigration has recently suggested tying work permits for skilled temporary immigrants to a commitment to work for three to five years outside the main cities, after which they would be eligible for permanent status. The success of these efforts is likely to be greater with skilled immigrants, for whom it is easier to line up jobs, than with refugees. Retaining immigrants will remain a greater challenge in smaller communities as compared to medium-sized cities, which offer a greater variety of opportunities and where ethnic clusters can more easily reach a critical size.

Emigration from Canada

Canada is also a source country of migration. Both emigration and immigration flows were extremely high as a percentage of Canadian population in the second half of the nineteenth century, at a time when Canada and large sections of the United States were still being settled and labour mobility was therefore extremely high (see Figure 21 above). Because of the stronger attraction of the United States, net flows were negative for Canada for most of that period. Since the beginning of the twentieth century, with only the exception of the 1930s, emigration has been significantly smaller than total immigration, on average by a ratio of one to six in the post-war period. Moreover, emigration rates showed until recently an almost continuous downward trend (Figure 35). But the outflow started to pick up again in the early 1990s.

Historically, a large fraction of Canadian emigration has been directed toward the United States: on average, about one-third for temporary emigrants and one-half for permanent ones since 1980. Emigration to the United States has often received particular attention from Canadian policymakers, in part because of a periodic concern about a "brain drain". This issue was widely debated in the 1960s, when large outflows coincided with a sizeable lag in the development

Figure 35. **Emigration from Canada, 1972-2002**
Annual data, thousand persons[1]



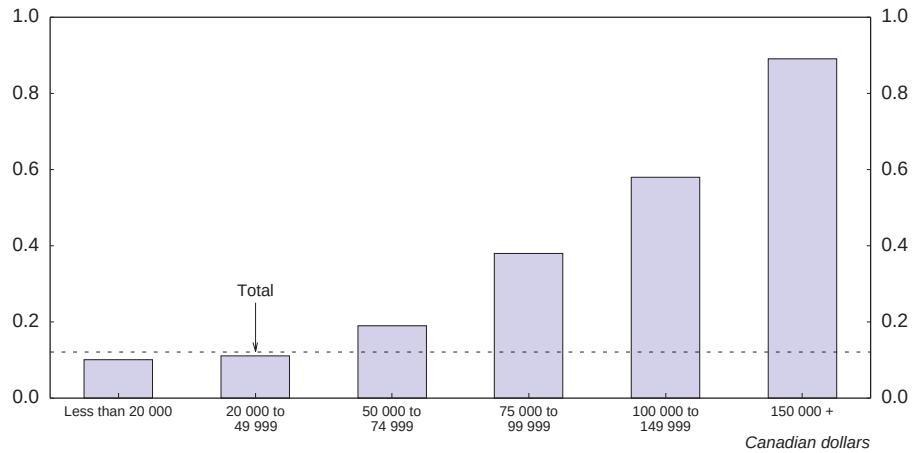
1. Periods from 1 July (of previous year) to 30 June.
2. Estimates of temporary emigrants are available only from 1997.
Source: Statistics Canada.

of Canadian academic and research institutions relative to their US counterparts. It has emerged again in recent years, since the US leadership in the ICT revolution has been accompanied by a rise in emigration of highly skilled workers to that country. Academic studies have also focused on emigration to the United States, partly because of data availability. Indeed, data quality is one of the main problems faced in studying Canadian emigration: as no direct record of emigrants is taken, emigration statistics are obtained combining multiple indirect sources and some unverifiable assumptions.

The composition of emigration to the United States by age and educational achievement has often been cited as an indication that Canada is suffering from a brain drain. Canadian tax filers who moved to the United States are more likely to come from the higher income brackets (Figure 36). Moreover, emigrants tend to be better educated than the average population: about half of those over the age of 16 who emigrated to the United States in the 1990s had a university degree, against only 18 per cent for the corresponding age group in the Canadian population. A Survey of 1995 Canadian university graduates (Frank and Belair, 1999) found that 1.5 per cent of respondents were living in the United States in 1997, a figure not out of line with the overall proportion of Canadians living there,[63] but the percentage was considerably higher (12 per cent) for those with a PhD degree. And these figures do not include Canadians who complete their tertiary studies in the

Figure 36. **Emigrants from Canada by income level**

Tax filers who ceased to reside in Canada in 1996, as a percentage of all 1995 tax filers by income group



Source: Zhao *et al.* (2000).

United States. The above-average education of emigrants is partly connected to the fact that they tend to be young (over half of them fall in the 25-44 age group, against 30 per cent for all Canadians). But it must be recalled that the same features are common to all migrants, including Canadian immigrants and inter-provincial migrants, since young, well-educated and higher-income individuals in general tend to be more mobile. The main reason why Canadians who migrate to the United States are mostly highly skilled, however, is probably self-selection, driven by the higher wage premium for more highly educated workers (as discussed in Box 3 above) and a less progressive tax system. Moreover, in the United States this wage premium increased substantially in the 1980s and the 1990s, while it remained virtually unchanged in Canada, where the increased demand for university-educated workers was offset by an increase in supply (Murphy *et al.*, 1998; Heisz *et al.*, 2002). Some sector-specific factors have also influenced the propensity to emigrate. In the 1990s workers moving to the United States tended to be concentrated in certain knowledge-intensive professions. For example, in 1996-97 physicians, nurses, natural scientists and engineers had higher-than-average emigration rates (Table 24). Indeed, for physicians and nurses, the number of permanent emigrants to the United States exceeded not only that of

Table 24. **Emigration to the United States and total immigration, for selected professions**

Annual averages, in per cent of 1996 labour force by occupation

	Emigration to the United States[1]			Immigration (total)[1]		
	1986-89	1990-95	1996-97	1986-89	1990-95	1996-97
Physicians	0.25	0.45	0.78	0.69	0.70	0.51
Nurses	0.13	0.31	0.33	0.34	0.39	0.16
Teachers – post-secondary	0.13	0.17	0.13	0.38	0.49	0.35
Teachers – except post-secondary	0.06	0.07	0.06	0.25	0.32	0.23
Computer scientists	0.06	0.08	0.07	0.55	1.53	4.11
Engineers	0.27	0.31	0.27	1.01	2.11	5.21
Natural scientists	0.22	0.30	0.39	1.28	2.32	6.49
Managers	0.09	0.13	0.12	0.44	0.56	0.70
All other occupations[2]	0.06	0.05	0.03	1.23	0.92	0.72
All occupations	0.07	0.08	0.06	1.06	0.86	0.80

1. Permanent migration.
2. Includes cases where occupation was not identified.

Source: Zhao *et al.* (2000) and Citizenship and Immigration Canada.

immigrants from that country but also briefly the number of such immigrants to Canada from all countries. The exodus of these medical professionals during the mid-1990s was probably related to the health spending cutbacks enacted by most provinces in those years. At least for physicians, the outflow seems to have abated toward the end of the decade (Barrett, 2001).

A significant part of the recent increase in emigration is accounted for by temporary migrants. For those going to the United States, one explanation of this trend is the introduction of simplified procedures for obtaining temporary work permits under the FTA and later the NAFTA.[64] But this is not the whole story: temporary emigration to other countries has risen just as fast as that to the United States in the 1990s. Interestingly enough, while the share of migration to the United States has remained approximately constant, the geographical composition of the flows to the remaining countries (both of permanent and temporary migrants) shifted from Europe toward Asia in the past decade, mirroring the earlier changes in immigrant sources. While this undoubtedly reflects the rising importance of trade links with Asian economies, it probably also signals substantial return migration.

Although there are no reliable comprehensive statistics on the composition of emigrants, there is indirect evidence that former immigrants represent an important component. For example, DeVoretz *et al.* (2002), using data from

the 2001 Hong Kong census, show that about 34 000 people born in Hong Kong (China), Macao or mainland China who had been in Canada at the time of the 1996 census (14 per cent of all pre-1996 immigrants from Hong Kong, half that percentage considering all those from China as well) had returned to Hong Kong by 2001.[65] What is particularly interesting is how those who returned self-selected: half of them had post-secondary degrees, against 26 per cent of those who stayed in Canada; 59 per cent of them were in the 20-39 age bracket, against 43 per cent for those who stayed; and they earned 2.3 times as much, on average, as those who stayed.[66] There are also former immigrants who choose to move on to a third country. According to US immigration data, in the 1990s the non-Canadian-born accounted for about 30 per cent of all immigrants to the United States whose last country of permanent residence was Canada, a much larger share than that of the foreign-born in the overall Canadian population (18.4 per cent in 2001).

The increase in emigration toward the United States reflects to a large extent the growing economic integration within NAFTA and rising labour mobility of the highly skilled. But the fact that the increase in labour flows has been asymmetrical points to a number of underlying factors, some of which may have been temporary, while others are structural. Among the temporary factors was the unfavourable relative performance of the Canadian labour market during most of the 1990s, which however has been reversed in the last few years. In addition, as mentioned above, the outflow of some categories of professional workers was influenced by occupation-specific factors (*e.g.* in the health sector). But there are also structural reasons why the net flow of highly skilled workers between Canada and the United States has always been negative, which also explain why the imbalance widens when – for other reasons – the overall mobility of the highly-skilled increases. F*irst*, having higher levels of labour productivity the United States can offer higher wage and salary levels. S*econd*, returns to skills are higher in the United States than in Canada. This tends to bias the composition of emigrants toward the highly skilled (as mentioned in Box 3 above). T*hird*, given the US labour market's larger relative size, it offers a greater variety of outlets for specialised skills, and much more information about job opportunities travels northward than southward across the border. And, *fourth*, personal tax rates are lower in the United States than in Canada, particularly for higher income brackets. Their counterpart is a higher level of public spending in Canada, and greater availability of publicly provided health care, tertiary education and other social services, but it is doubtful that this fully offsets the higher tax rates from the point of view of those Canadian emigrants who are in the higher income brackets. In other words, because Canadian taxation and public spending involve a greater degree of income redistribution, they tend to reinforce the effect of the lower pre-tax reward to skills that characterises Canada's labour market.

The economic impact of migration

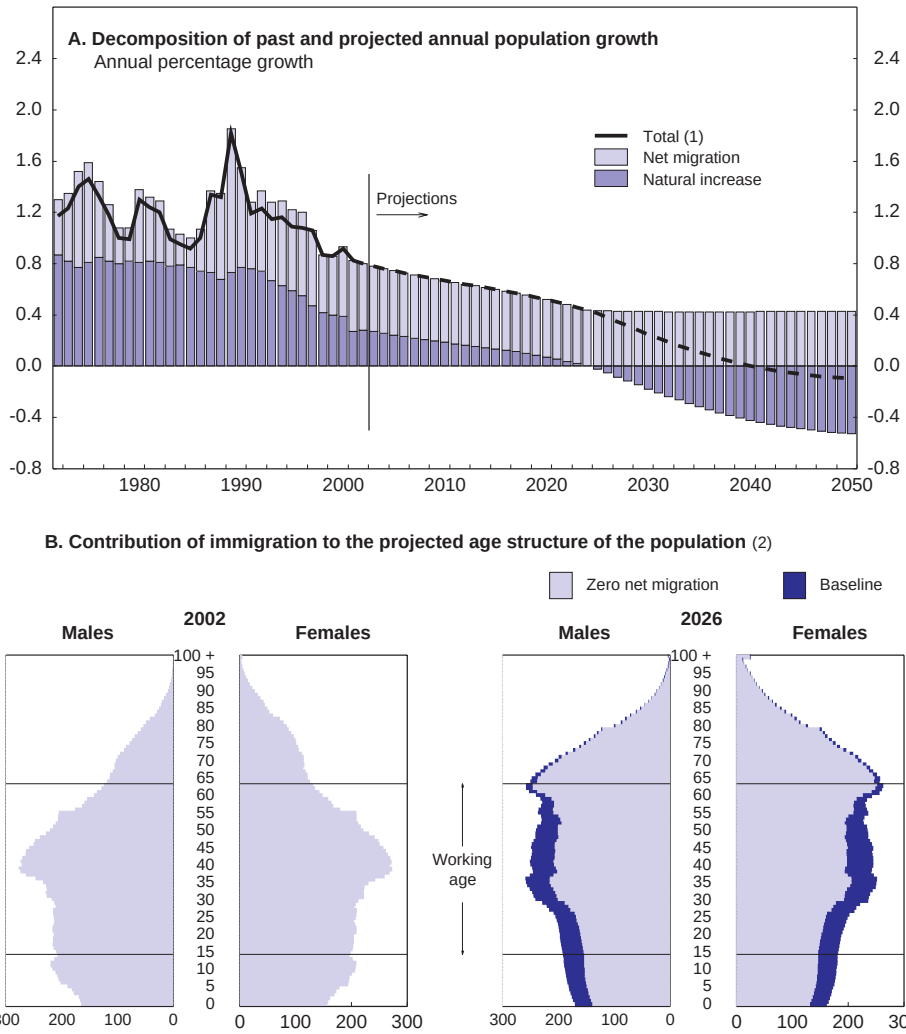
There is a wide consensus among economists that the main economic gains from international migration accrue to the immigrants themselves. But public discussions usually focus on the question whether, in addition to these, there are also gains to the destination country.[67] For such a discussion to be meaningful, in this context "the country" should be defined as the pre-existing residents, including earlier immigrants but excluding the new arrivals whose effect is being assessed.[68] There are three main channels through which immigration can affect the economic welfare of existing residents: *via* the supply of factors of production and its impact on the return to existing factors; *via* effects on economic efficiency (*e.g.* through economies of scale or other types of spillover effects); and *via* immigrants' net fiscal impact. Since most immigration is permanent, the focus of analysis will be on the long-run effects, although in some cases short-term effects are relevant. Since the demographic effects of immigration are important for each of the channels mentioned above, they are discussed first.

Immigration contributes to population growth, but has a limited impact on ageing

The contribution of net immigration to Canadian population growth has risen steadily since the 1950s, mainly as a result of the slowing rate of natural increase. While in the early post-war period it accounted for about a quarter of total population growth, that share has risen to over two-thirds (Figure 37, Panel A).[69] According to baseline official projections, which assume fertility rates unchanged at present levels and life expectancy continuing to rise according to recent trends, deaths would start to exceed births around 2025, after which the population would continue to grow only if there is a net inflow from abroad (Statistics Canada, 2001). Assuming constant immigration around current levels and emigration moving in proportion with the population, the Canadian population would peak at slightly over 37 million around 2040 and then start to decline slowly. In the absence of migration the population would grow very little until 2020, and by 2050 would be 4 million smaller than present levels.

Because most immigrants are young, immigration can also help to offset the impact of population ageing. Of all new immigrants entering in 2002, 64 per cent were in the 15-44 age range, against 44 per cent for the Canadian population. But the impact on overall ageing trends is relatively small if changes in the annual flow of immigrants within a "reasonable" range are considered. Nevertheless, cumulative effects over long periods of time are not negligible: the proportion of people 65 and over in the population, which increased from 7.6 per cent in 1961 to 12.7 per cent in 2002, would double by 2051 assuming current net migration levels; it would rise by 4 percentage points more under zero migration. Immigrants' younger age also means that they have a stronger effect on the working-age population than on total population (Figure 37, Panel B). In coming decades, as the

Figure 37. **Contribution of immigrants to population growth**



1. Total population increase may differ from the sum of components due to a statistical residual.
2. The 2026 chart shows the population age structure under the baseline projection and under an alternative scenario with zero net migration. The baseline assumptions are: *a)* fertility rates constant at 1.48, slightly below the level observed in 1997; *b)* life expectancy rising by 4.5 years for males and by 2.8 years for females between 1996 and 2026; *c)* permanent immigration constant in absolute terms at the target level for 2000 (225 000); *d)* no net temporary immigration (stock of temporary residents constant at the 2001 level); *e)* emigration growing in proportion to the population. The age distribution of immigrants and emigrants is assumed to be in line with historical averages. In the zero net migration scenario net overall migration is set equal to zero. The other assumptions are unchanged.

Source: Statistics Canada.

baby boom generation retires, Canada's working-age population is expected to grow more slowly than the overall population. At present levels of net migration, it is expected to peak at 23.5 million around 2016 (9 per cent larger than in 2002) and then gradually decline (by about 3 per cent over the next 30 years). However, it would start shrinking already around 2010 if net immigration were to stop entirely and would then decline by almost 30 per cent over the following four decades (see also Figure 10 in Chapter I).

The effects of immigration on income distribution are probably negligible

According to standard economic theory, an inflow of labour not accompanied by a parallel inflow of capital will tend to lower the local wage rate if immigrant labour is a relatively close substitute for the native factor of production; if wages are not flexible downward, unemployment will result. However, empirical studies, both in Canada and elsewhere, have usually found it difficult to confirm this prediction by comparing cities or regions with different immigration rates, in part because immigrants tend to be attracted precisely to the areas where most jobs are being created. Moreover, in a world with mobile capital, any effects of immigration on local wages would normally be short-lived.[70] The available studies on Canada find relatively small effects of immigration on wages and unemployment levels, consistent with the results in the US literature.[71] DeVoretz and Laryea (1998) find no displacement or wage effects of immigration on Canadian-born workers at the aggregate level but some negative effects in industries that use a higher-than-average proportion of foreign-born workers. Potentially more relevant are the effects of immigration on the relative wage levels of different types of labour. For the United States, Borjas *et al.* (1992) estimated that the large 1980s immigration flows (whose skill content was lower than that of the US-born population) could explain about a quarter of the increase in the wage gap between skilled and unskilled workers in that period. A similar analysis has not been conducted for Canada.[72] It would probably not find equally large effects, since in Canada immigrants have higher skill endowments relative to natives than in the United States.

Immigrants are especially able to bring entrepreneurial skills. Canada has specific programmes to attract immigrant investors and entrepreneurs, as discussed above. In addition, many immigrants who originally arrived under other entry classes eventually start a business. Unfortunately, statistics are available only on immigrants who choose self-employment (often alongside employed work), but not on entrepreneurs. Using longitudinal tax return data Li (2001) finds that the proportion of immigrants declaring self-employment income is relatively low in the first year after migration but doubles after four years and triples after ten. Immigrants as a whole are 1½ times as likely as the Canadian-born to be self-employed. In many cases immigrant entrepreneurial activity is facilitated by the existence of ethnic enclaves, which can help offset the language handicap but can also provide a network of business connections, a protected market and a source of cheap labour.

About 40 per cent of all self-employed immigrants from visible minorities work in retail trade or in the accommodation, food and beverage services sector, the typical businesses found in ethnic communities.[73]

Many immigrants also bring capital with them, either for investment or to bridge the initial settlement phase. The capital inflows attributable to immigrants are not negligible (on average, C$30 000 per immigrant since 1980, for a total annual inflow of 0.7 per cent of GDP). The size of the inflow was particularly high in the 1985-97 period, in coincidence with the arrival of large numbers of immigrants from Hong Kong. Ley (2000) reports evidence that a substantial fraction of their wealth was invested in real estate. From the point of view of welfare effects on the existing population, these inflows are largely irrelevant: the return to the immigrants' capital will accrue to them, and in a situation of very high capital mobility the return on other capital should be unaffected.[74] But in the short term capital inflows can have effects on asset prices: for example, in Toronto and Vancouver foreign investment in real estate contributed to raise property prices, resulting in capital gains for owners.[75]

Possible gains in economic efficiency from scale economies and spillover effects are hard to quantify

In Canada it is a widely held view that by increasing the size of the population, immigration allows the country to achieve economies of scale. This idea is rooted first of all in Canadian history. For a long time, population increase was seen as necessary not only to tap the country's large natural resources, but also to support the build-up of an adequate transport and communications infrastructure. There is some econometric evidence that the strong, immigration-induced increase in population between 1896 and 1913 had a substantial effect on per-capita income.[76] At that time, the country was still very sparsely populated and mostly rural, and there was presumably ample scope for achieving economies of scale connected to infrastructure and agglomeration. If such a scope still exists now, it is probably more limited. A study conducted more than ten years ago (Economic Council of Canada, 1991) found that potential economies of scale were still significant in the transport, communications and public utilities sectors and to a lesser extent in manufacturing. But the resulting overall gains from immigration were nonetheless small: it was estimated that an increase in population by one million (about 3 per cent) would raise income per capita by 0.1 per cent.[77] For a country facing the prospect of demographic decline at present fertility rates, an alternative way of looking at this issue is to ask how much immigrants would contribute by preventing the need to raise the per-capita cost of investment required to maintain the existing infrastructure. This type of calculation yields rather small estimates of the potential gains.[78]

A specific type of efficiency gain could be connected to immigration's effects on the functioning of the labour market. As mentioned above, Canada faces the prospect of the size of its labour force peaking around 2016. As discussed in Chapter I, there may be scope for faster labour force growth through participation gains, but it is limited. The labour force will also become older, and its rate of turnover will decline, as the new Canadian-born generations reaching working age are smaller. An older labour force and a lower turnover could imply an overall decline in geographical and occupational labour mobility, given that older workers are in general less mobile and more costly to retrain than new entrants. This could constrain productivity growth in a phase of rapid technological change requiring occupational reallocation. Immigration can alleviate this constraint by providing a steady flow of new labour market entrants.[79] At present, immigrants represent about 30 per cent of all new labour-market entrants (Beaujot, 2002). If the geographical pattern of immigrant settlement is consistent with that of employment growth – which, to a large extent, seems to be the case (see Figure 34 above) – immigrants can contribute to "greasing the wheels" of the labour market, offsetting natives' inadequate geographical mobility (Borjas, 2001). Once they are in Canada, immigrants are found to be as mobile geographically as the Canadian-born, but they are more mobile across occupations. In part, this reflects the fact that in their assimilation process they move up from the lower-skilled jobs taken initially, but immigrants' occupational mobility seems to remain higher even many years after migration and is higher than for Canadian-born labour market entrants (Green, 1999). Not surprisingly, the most skilled immigrants and those with better knowledge of Canadian languages are the most mobile.

Other sources of efficiency gains could be any favourable spillover effects connected to immigration. It is often argued that highly skilled immigrants have beneficial spillover effects because of the network externalities connected to human capital (having a larger pool of highly skilled individuals multiplies the opportunities for exchanges of knowledge and increases the scope for specialisation). Moreover, the greater cultural diversity and wider variety of consumption goods and services that usually accompany immigration can be seen as welfare improving. Canada's multiculturalism policy, adopted in 1971, is predicated on the idea that multiculturalism, if properly managed, is an important social and economic resource (Department of Canadian Heritage, 2002). However, needless to say, all these potential spillover effects are extremely difficult to quantify.

A possible spillover effect of immigration is on trade. The economics literature has found that, in a number of countries, immigrants contributed to developing trade links with their home countries.[80] The explanation is that, through their knowledge of their home country, immigrants can reduce the transactions costs that stand in the way of an expansion of trade.[81] This is likely to be important for establishing trade relationships with non-traditional trading partners. Existing studies for Canada confirm the existence of this type of effect. Looking at trade

and migration flows with the different trading partners, Head and Ries (1998) find that a 10 per cent increase in immigration raises exports by 1 per cent and imports by 3 per cent; the larger effect on imports could be attributed to a preference for home country goods on the part of immigrant consumers. According to these estimates, the effect is particularly large for immigrants from East Asia. These estimated effects appear rather large but could be biased upward by the fact that, during certain stages of development (*e.g.* the shift from a rural to an industrial economy), rising income levels in immigrant source countries can be associated both with expanding trade and with emigration.

Immigrants' fiscal impact is probably positive but depends on their economic outcomes

There are different ways of estimating the effects of immigrants on public finances. A *first* one is through a static calculation of the taxes paid and public goods, services and transfers received by foreign-born residents at a point in time. A study of this type was conducted by Akbari (1995), who made estimates for 1990. He concluded that immigrants' net contribution was positive, largely as a reflection of the relatively high income levels of earlier cohorts. However, the results of this type of study provide only limited indications as to the impact of present and future immigrants over their lifetimes.[82] A *second* methodology is to consider the present value of an average immigrant's net fiscal contributions over his/her lifetime and compare it to that of an average non-immigrant. For Canada, no studies of this type are available. This kind of calculation would in general give a positive estimate of the relative fiscal impact for those immigrants (a majority) who have completed their education before immigrating. Such an effect would be large in Canada, where education is heavily state-subsidised. A *third* approach is to compare the long-term effects of alternative demographic scenarios constructed on the basis of different immigration assumptions. Such a study was conducted in 1991 (Economic Council of Canada, 1991) but unfortunately has not been updated. It used demographic projections based on two alternative assumptions on the net immigration rate (0.4 and 0.8 per cent), combined with information on the age distribution of taxes and of public expenditure on health, education, pensions and social welfare. According to the results of the simulation, the projected increase in per-capita public expenditure connected to the rise in dependency ratios was 20 per cent smaller in the high-immigration scenario than in the low-immigration one after 25 years; about one-third of this gain was offset by lower per-capita income tax revenue and higher expenditure on immigrant-specific programmes. The net gains were found to be even larger after 50 years (30 per cent reduction of a much larger dependency-related expenditure increase, only minimally offset by taxes and other expenditures).[83] However, the simulation assumed that immigrants would differ from the existing population only with respect to their age structure, not for economic characteristics or their propensity to use individual public programmes at any given age.

Table 25. **Government transfers to immigrant and non-immigrant households**[1]
Average amount of transfer per receiving household in 1995 (Canadian dollars)

Category of household[2]	Age of household[3]				All households
	15-24	25-44	45-64	65 and over	
Canadian born	3 900	4 700	5 400	15 300	7 300
Earlier immigrant	3 700	4 800	5 400	16 100	9 100
Recent immigrant	4 100	5 400	5 700	11 600	6 100
1980s immigrants	4 100	5 300	5 600	12 700	6 200
1991-94 immigrants with others	4 400	5 600	6 800	12 700	6 900
1991-94 immigrants only	3 900	5 500	5 200	6 300	5 400

1. Data refer to all kinds of government transfers to households, including old age security, Canada and Quebec Pension Plan benefits and the Guaranteed Income Supplement, as well as Employment Insurance, student assistance and other programmes. Data are based on tax returns connected to the IMDB database.
2. A household is defined as Canadian-born if all its adult members (*i.e.* those aged 15 and over) were born in Canada, as immigrant otherwise. Immigrant households are classified according to the period of immigration of the most recently arrived adult member. The category "1991-94 immigrants with others" refers to households whose adult members include both immigrants who arrived in 1991-94 and others (either earlier immigrants or Canadian-born), while "1991-94 immigrants only" refers to households where all adult members are 1991-94 immigrants.
3. The age of the household is defined as the age of the oldest parent in the case of a family, as the age of the oldest member in the case of a non-family household.

Source: Citizenship and Immigration Canada (2001).

Looking at participation in specific public programmes, Baker and Benjamin (1995) find that immigrants are less likely than non-immigrants to receive Employment Insurance (EI) and Social Assistance (SA) benefits, although they are more likely to receive rent subsidies. This, however, does not apply to elderly immigrants, who are much more likely than their Canadian-born counterparts to have low income and to receive EI and/or SA. Differences with natives are largest in the early years after the immigrant arrives and tend to narrow with assimilation, probably reflecting a combination of learning, eligibility and evolving socio-economic conditions. However, the more recent immigrant cohorts show a generally higher propensity to participate in these programmes, in line with the more general deterioration in their economic performance.[84] Data on the total transfer payments received by recent immigrants as compared with their predecessors are consistent with this, although they do not allow the separation of such cohort effects from the entry effect (the fact that immigrants are more likely to need assistance in the early years after arrival) (Table 25). The proportion of SA recipients among recently arrived elderly immigrants is 20 per cent, twice as large as among the Canadian-born (Baker, 2002). Since most of them are likely to have been admitted under the family class, this seems to indicate problems with the enforcement of sponsorship agreements (under which the sponsor undertakes to support the applicant for 10 years, see Annex IV).

Conclusions

Canada has traditionally sought, selected and successfully integrated large numbers of immigrants. The goals of immigration policy have changed during the country's history. At present, together with long-term demographic objectives, they emphasise attracting immigrants with the types of fungible skills and adaptability that will facilitate their integration into a rapidly changing knowledge-based economy. Both the increase in the proportion of skill-assessed immigrants in the 1990s and the more recent shift toward general rather than occupation-specific skills are consistent with the finding that the younger, more adaptable and better educated immigrants are those who fit most easily into the Canadian labour market.

However, the economic gains associated with demographic objectives are not self-evident, since immigration flows of realistic proportions can have only a limited impact on population ageing trends. And while there may well be efficiency gains associated with a larger population – such as those connected to economies of scale or to spillover effects – it is hard to prove their existence or to measure their size. In any case, the goals of Canada's immigration policy are not only economic. In the choice to admit refugees, humanitarian motivations are of course prominent. In the case of family-class immigrants, an important goal is to support an effective and balanced long-term integration of immigrant families. But also for economic immigrants, their successful participation in the labour market is part of a broader objective to continue developing Canada as a successful, dynamic, multicultural society. Hence the considerable emphasis placed on immigrant integration programmes and the relatively generous eligibility conditions for social benefits and citizenship. In spite of this, there is evidence that, on the whole, immigrants do not represent a burden on public coffers.

That could change if the decline in the economic performance of immigrants observed in the 1980-95 period were to continue. There is some evidence that, as economic conditions turned around in the mid-1990s, immigrant performance has also started to improve, but it is still tentative and the recovery has been partial at best. Some concerns remain with respect to recent immigrants' lack of language skills, as these are becoming increasingly important in the Canadian labour market, and the difficulties they encounter in having their educational and work credentials recognised. These are areas that will require increased attention of policymakers.

The emphasis on the long-term sustainability of immigration policy seems to be paying off. It is significant that the policy enjoys a high degree of public consensus. Even factors that in other receiving countries have made immigration less easily accepted by the local population – such as the rising proportion of immigrants belonging to visible minorities and the heavy concentration in a few metropolitan areas – have had only a muted impact in Canada. This is probably attributable in part to the perception that the government is reasonably in control

of the number of arrivals – with the aid of Canada's distance from the main source regions, which helps contain illegal immigration – but also to the success of immigrant integration programmes, usually managed with the extensive participation of local communities.

As part of an increasingly integrated North American labour market, Canada is in direct competition with other destination countries in its attempt to attract highly skilled workers. For much the same reason, it has also traditionally suffered an outflow of its own university graduates to the United States. But overall emigration is not large, and a significant part of it seems to be of a temporary nature; typically, returning emigrants bring with them enhanced human capital and valuable personal connections. Overall, given that the order of magnitude of outflows remains smaller than that of inflows, Canada remains a net importer of highly skilled workers. But the greater return to skills in the United States will leave Canada vulnerable to emigration, particularly for those near the top of the skill distribution. In part, this is a consequence of differences between the Canadian and the US social model, which reflect long-standing social preferences. The outflow of a relatively small number of highly-skilled workers can be seen as a small price to pay for a widely shared set of goals regarding the distinguishing features of Canadian society. But emigration flows will need to continue to be monitored as a signal of relative economic success and of Canadian society's comparative attractiveness. Thus, global competitive pressures will continue to require a constant emphasis on cost-effectiveness in the public sector, so that tax rates do not need to be raised to levels that would negatively affect economic performance. These fiscal challenges are discussed in the next chapter.

Notes

1. The standard, national accounts measure of the saving rate shows an almost continuous downward trend since the early 1980s, but this trend disappears if a balance-sheet-based measure is used, which includes capital gains and losses. The latter measure would nevertheless show a significant decline in savings in the last three years as a result of the stock market decline.
2. If equity is measured at market value, the decline is even steeper until 1999, but there is some rise in the last three years due the fall in equity prices.
3. Part of this gap reflects measurement differences since passive job seekers (those who just scan a newspaper) are counted differently in the two countries. This widens the unemployment gap by around ¾ of a percentage point (Statistics Canada, 1998).
4. There is a large discrepancy between two measures of hours worked in the United States: 34.2 hours per week in 2001 according to the establishment survey, and 39.2 according to the household survey. The reasons for such a large discrepancy are not clear, but obviously have a large impact on the decomposition of the income gap (see Sharpe, 2003). All the US estimates in this Survey are based on the establishment data, which are thought to be more reliable, with some correction for multiple jobholding based on both establishment and household survey data.
5. In firm-level studies across several OECD countries, between 50 and 85 per cent of aggregate labour productivity growth was estimated to be due to productivity growth within individual firms, with a smaller contribution from entry and exit (low productivity firms dying, for example) and little being due to changes in market share (OECD, 2001a; Baldwin and Gu, 2002b). Firm-level growth accounted for a smaller – though still a majority – share of aggregate MFP growth, suggesting that differences in labour productivity growth at the level of the firm are partly due to differences in capital intensity developments.
6. There is a potential self-selection problem in making such a comparison, as only the most productive firms are likely to be able to export, so a non-exporter that lifts its productivity and then breaks into export markets will have its productivity growth attributed to the exporting group. Even so, three-quarters of exporters' labour productivity growth was generated by firms that exported continuously over this period, while only 10 per cent is due to previous non-exporters that began to export. The remaining 15 per cent is due to new firms that export. The MFP gap between exporters and domestically oriented firms is smaller than the labour productivity gap, indicating that exporters are more capital intensive on average, but even the MFP differential has widened over time.
7. If exporting leads to learning, then becoming an exporter should be of more benefit to domestic firms than to foreign-controlled firms, since foreign firms already have

mechanisms for transferring know-how across borders. Baldwin and Gu (2002a) find evidence that this is in fact the case.

8. Baldwin *et al.* (2001) find that the implementation of NAFTA caused a significant increase in plant-level specialisation in manufacturing: *i.e.* greater product line specialisation and longer product runs.

9. This is one of several conclusions from the OECD's *Growth Study* and is supported by more recent work by Scarpetta and Tressel (2002) for a panel of 23 industries in 8 countries, and by Gust and Marquez (2002). Tang (2002) provides similar microeconomic evidence for Canada.

10. This is confirmed by Djankov *et al.* (2002), who found that barriers to business start-ups in Canada were among the lowest of the 85 countries in their sample.

11. These indicators are based on equity limits, screening and approval procedures, management or control restrictions, domestic content rules, etc. Canada's restrictions are highest in the banking, fixed telecommunications, air and road transport and electricity sectors.

12. Rao and Tang (2002) find that MFP levels of Canadian-controlled manufacturers were on average 16 per cent lower than those of foreign-controlled firms between 1989 and 1995, although there was some limited catch-up over time.

13. In 1997, large plants (*i.e.* those with more than 500 employees) accounted for 33 per cent of US manufacturing employment, compared with 23 per cent in Canada (Baldwin, Jarmin and Tang, 2002).

14. For example, see Green and Riddell (1997), Baker and Rea (1996) and Green and Sargent (1998).

15. The standard benefit replacement rate of 55 per cent was reduced by one percentage point for every 20 weeks of regular or fishing benefits collected in the previous five years, down to a floor of 50 per cent.

16. Even so, the impact was as expected. The 1998 EI *Monitoring and Assessment Report* concluded that "some elements of the reform are having their intended effect. The intensity rule has started to reduce benefits for repeat claimants." (page 26).

17. For countries that look back over the past year's work history, qualifying periods are around 26 weeks of work over the previous year in the United States, Japan and the Netherlands, 4 out of the previous 8 months in France and 39 weeks in Ireland. Other countries look back further (typically 2-3 years), which in some respects makes it easier to qualify, but the number of required weeks of work *per year* is never as low as 12 and seldom below 20 (amongst the richer OECD countries, the lowest are 13 weeks in Switzerland and 17 weeks in Germany). (For countries with look-back periods other than 12 months, the qualifying period has been converted to the number of weeks *per year*. For example, a German worker must have worked for 12 months in the past three years in order to qualify, which is equivalent to around 17 weeks per year). See OECD (2002a) for the precise qualifying requirements.

18. The correlation between regional unemployment rates in 1990 and 1997 was around 0.95. This is about the same as for similarly defined regions in Europe and well above levels in the United States (where the correlation was just 0.5) and Australia (0.6-0.7). The correlation for Canada is approximately the same for broadly defined regions (*i.e.* 10 provinces) and more narrowly defined ones (59 regions). See OECD (2000a) for details. A range of other evidence also points to greater labour mobility in the United States, which may go some way to explaining the unemployment gap between the two

neighbours. For example, VAR models typically show that a region-specific shock has a larger and more persistent effect on the regional unemployment rate than is the case in the United States. Further evidence is surveyed in OECD (1999) and in Obstfeld and Peri (1998). Part of the problem in Canada can be attributed to older workers in low-skilled resource-based industries having difficulty reintegrating into the labour market after severe layoffs in the 1990s (*e.g.* forestry in British Columbia and fishing in the Atlantic provinces).

19. This section is one input into the Organisation's follow up on Sustainable Development as mandated by the Ministerial Council in May 2001. Other environmental-related topics follow at the end of the chapter.

20. The magnitude of the future public pension challenge depends on the policy with regard to first-tier safety net benefit (OAS/GIS). If this is indexed to prices, then the real level of benefits will gradually fall as people retire with more wealth, so lowering their entitlement to means-tested benefits. On this assumption, spending on this tier would rise from 2.4 per cent of GDP in 2002 to a peak of 3.2 per cent in 2030 and decline thereafter. Spending on the C/QPP would rise from 2.5 to 3.6 per cent of GDP, giving an overall rise of only 2 percentage points of GDP, with no further increase in the period to 2050. Such a rise would be well below the average for all OECD countries and in any case is being pre-funded. Thus, it is only the increased spending from the safety-net pension that will create a need for extra financing and then by only 0.8 percentage point of GDP. If these pensions were indexed to wages instead of prices, then spending would rise a further 2½ percentage points of GDP by 2050.

21. Contributions to RPPs and/or RRSPs are limited to a total of 18 per cent of earnings up to specified dollar limits. The pre-2003 budget RPP and RRSP dollar limits of C$14 500 and C$13 500 will be increased to C$18 000 by 2005 and 2006, respectively. Corresponding increases will be made to the maximum pension limit per year for defined RPPs, bringing it to C$2 000 by 2005. The limits will be indexed to average wage growth for subsequent years.

22. For example, Canadian students also performed well in the Third International Mathematics and Science Survey (TIMSS) in 1995-96. Scores were above average in mathematics and science at grade 8, and for mathematics at grade 4. In PISA, significant differences between provinces remained after controlling for differences in students' backgrounds and family circumstances (Corak and Lauzon, 2003).

23. Teachers in Alberta and Quebec undertake a probation period of 1-2 years before being certified. Ontario and British Columbia, in contrast, certify teachers automatically on completion of a Bachelor of Education (Epp and Epp, 2000).

24. In 1997-98, teachers in Quebec were paid around 30 per cent more the OECD average for lower secondary school and 20 per cent more for upper secondary (in PPP-adjusted terms, excluding Hungary, Mexico, the Czech Republic and Turkey, for those with 15 years of experience). Pay scales were also high compared with other workers, as the ratio of salaries to per-capita GDP was also high by world standards (Ministère de l'Education, 2000). Teachers' salaries in the rest of Canada tend to be higher than in Quebec (See BC Ministry of Education statistics at http://www.bced.gov.bc.ca/schools/interprovincial/).

25. Approximately 43 per cent of adult Canadians perform at proficiency levels 1 and 2 in document, prose and quantitative literacy. At the other end of the spectrum, an unusually large proportion – around a quarter – performs at the highest levels (*i.e.* levels 4 and 5). See Table 2.2 of IALS (2000).

26. This can be seen from the unusually long tail in the distribution of scores in IALS; see Figure and Table 2.1 in IALS (2000). For example, the fifth percentile of test score distribution on both the prose and document literacy tests is lower in Canada than any other country except Poland and the United States. This problem is most serious amongst older Canadians.
27. Approximately 22 per cent of adult Canadians were in job-related education or training in 1997, with another 7 per cent in general training. This is well below rates in the United States, the United Kingdom and Germany, but better than in Italy (see OECD, 2002b; table C4.1). The average number of hours per participant in courses surveyed in the International Adult Literacy Survey was more than 300 in Canada, 50 per cent higher than the 18-country average.
28. In 2001, a 15 year-old Canadian could expect an additional 6.8 years of education, which is around the average for the G7 and slightly above the average for the OECD. However, at 0.8 per cent the graduation rate for advanced research programmes is below the OECD average (1.1 per cent), and well below the best performers (which can be as high as 2.5 per cent of people in the relevant age group; rates for the United States and the United Kingdom are about 60 per cent higher than Canada's). See OECD (2002e), Tables A12.1 and A2.1.
29. In 1997, young people from families earning C$25 000 or less were as likely to be attending university as those whose parents had C$25 000-C$50 000 in income, and not much less likely than those whose parents earned up to C$100 000 (Corak *et al.*, 2003).
30. The issues in this section are treated in considerably more depth in the OECD's *Review of Regulatory Reform* in Canada (OECD, 2002c).
31. Canada's restrictions amount to an effective 46.7 per cent cap on foreign ownership of a telecommunications carrier. Several other countries have restrictions on partially-state-owned incumbents, but few have restrictions on private companies. The other OECD countries with ownership limitations of privately owned telecommunications firms are Korea, Mexico and Turkey.
32. Gönenç and Nicoletti (2001) constructed synthetic indictors of the regulatory and market environment in the industry as an input to the OECD's regulatory database. Factors taken into account included, among others, ownership, route and fare regulations, authorisation of charter flights, market structure, number of international alliances and the number of third party (fifth and seventh freedom) carriers.
33. Early in 2001, Air Canada had a 90 per cent share of Canadian travel agency sales and a 75 per cent share of seat capacity in the domestic market. After merging with CAI, it became the sole carrier on the majority of the top 200 routes. In mid-2002, it was still estimated to have three-quarters of the market (Canada Transportation Act Review Panel, 2001 and Ward, 2002).
34. Cabotage is the right of a foreign airline to pick up local traffic in the course of international travel. The foreign ownership limit applies to voting shares, and the government has recently removed the 15 per cent restriction on ownership by a single party.
35. Trade between provinces was, not too long ago, at least ten times greater than between a province and a US state, after controlling for distance and differences in income (McCallum, 1995).
36. Tang and Rao (2001) found that R&D expenditures as a percentage of sales were around 50 per cent higher in Canadian-controlled manufacturing firms compared with foreign-controlled manufacturers. If foreign firms are assumed to be just as R&D intensive and if that differential is the same for non-manufacturers, the economy-wide R&D

rate would be higher by around 0.2-0.3 percentage point of GDP – but would still be well short of the OECD average.

37. A government study, which was based on survey responses from firms that used the tax credits, found each dollar of credit led to an additional $1.38 of research expenditure (a cost-effectiveness ratio of 1.38). Other studies referenced in that paper put the ratio at 0.83-1.73 or 0.11-0.67 depending on the sector (Department of Finance and Revenue Canada, 1997). This dollar-for-dollar response is in line with international evidence (Hall and van Reenen, 1999).

38. Performance with respect to other air pollutants has been mixed. Emissions of mercury fell by two-thirds between 1990 and 1995 (Environment Canada, 2001), and by 1992 lead had disappeared from urban air following a 15-year effort to remove lead additives from gasoline (CESD, 2000). However, emissions of carbon monoxide were reduced by only 3.2 per cent over the past two decades, though average concentrations in Canadian cities declined sharply thanks to tighter emissions standards for cars. The ground-level ozone annual average has been continuously increasing over the past 20 years (Figure 20).

39. The Canadian commitments under the 1991 Agreement were to establish a permanent national cap for SO_2 emissions of 3.2 million tonnes by 2000 and to reduce emissions of nitrogen oxides by 100 000 tonnes below the forecast level of 970 000 tonnes in 2000.

40. The federal, provincial and territorial ministers of environment and of energy signed the Canada-Wide Acid Rain Strategy for Post-2000 in October 1998.

41. The Ozone Annex calls for annual caps by 2007 of 39 kilotonnes of nitrogen oxides from fossil-fuel power plants in central and southern Ontario and of 5 kilotonnes in southern Quebec. It also calls for the alignment of fuel and emissions standards for vehicles with those in the United States.

42. There are over 1 300 monitoring stations covering well over 200 rivers and lakes, but there has been no attempt to aggregate the data nationally. Some provinces have created aggregate water quality indices that average the differences in a number of pollutants from desirable levels, but these suffer from applying the same weight to each pollutant, regardless of the damage caused.

43. This is especially the case in the lower Fraser River, Southern Ontario and the St. Lawrence in Quebec.

44. In 2000, the implicit carbon tax was US$ 265 per tonne of carbon for gasoline and US$ 165 for diesel.

45. According to official figures, in 1996-2000 immigrant investors invested over C$2.5 billion in Canada and immigrant entrepreneurs created 41 000 jobs, about four for each entrepreneur (Government of Canada, 2001).

46. The planned range was maintained unchanged at 200 000-225 000 between 1998 and 2001, despite undershooting in 1998 and 1999. In the next two years actual inflows overshot the mark, and starting in 2002 the planned range is being raised gradually every year.

47. The overall cost of federal immigration programmes (including both immigrant selection and integration) was about C$1.2 billion in fiscal year 2001-02 (including the cost of services provided by other departments), 44 per cent of which was covered by revenue (mostly immigrant processing fees and entry fees). Thus, the net cost was about

C$660 million, or about 0.5 per cent of total federal programme spending and 0.06 per cent of GDP (Citizenship and Immigration Canada, 2002).

48. These data refer to the population over 15 years old. However, these comparisons are not adjusted for age composition, unlike those presented in Figure 25.

49. Moreover, because of this interruption, studies that use potential experience (age minus years of schooling minus six) as a proxy for actual experience tend to overestimate both the initial earnings gap suffered by immigrants relative to comparable natives and the rate of earnings assimilation. Hum and Simpson (2002), using data on actual work experience from the Survey on Labour and Income Dynamics (SLID), find that it captures a significant part of the assimilation process.

50. In the Census data used in most empirical analyses of the effects of language skills, language proficiency is self-assessed. The respondent is asked only whether he/she is able to conduct a conversation in English and/or French and whether he/she normally speaks it at home. Information is also available regarding the respondent's mother tongue. Using 1991 Census data, in a study focussing on Canada's three main cities, Pendakur and Pendakur (1998) found that individuals whose mother tongue was neither English nor French, after controlling for education, place of birth and other demographic characteristics, had an earnings gap of between 10 and 17 per cent relative to those whose mother tongue was English.

51. These results may overestimate the degree of complementarity, since language learning behaviour responds to economic incentives. For example, Chiswick and Miller (1992) found that the immigrants whose other observable characteristics increase the likelihood of economic success are also those who invest more in improving their language proficiency. This is likely to be true also of unobservable characteristics.

52. Pendakur and Pendakur (2002) find an earnings gap of around 5 per cent in the 1970s and 1980s for Canadian-born visible minorities (excluding Aboriginals, for which it is much larger), rising to 15 per cent by 1996. They also show, however, that earnings differences across ethnic groups within the "white" population and across different visible minorities often exceed the gap between the white and the visible minority groups taken as a whole. On the other hand, Hum and Simpson (2000) find no significant differences except for Blacks (they do not consider Aboriginals). Wannell and Caron (1994) find that university graduates belonging to visible minorities have virtually the same earnings levels, but higher unemployment and lower participation rates than white Canadians.

53. Annual employment earnings are often used as a summary measure of economic success, but such comparisons may miss some important elements, since patterns of behaviour of immigrants and Canadian-born people with respect to the underlying determinants of earnings (participation and unemployment rates; proportion with full-time, full-year employment; hours worked; hourly wages) are likely to differ. It can be argued that wage differentials would provide a better measure of the economic opportunities available to immigrants than earnings, which could also reflect, for example, compensating variations in the number of hours worked. For this reason, some studies limit the analysis to full-time full-year workers.

54. To analyse this time dimension, either a sequence of Census data or a longitudinal database, which tracks a representative panel of immigrants over time, is usually required. The longitudinal Immigration Database (IMDB), which links immigrant entry records with their tax records in subsequent years, allows the economic performance of immigrants to be tracked, but does not permit comparisons with a Canadian-born

counterpart population with controls for the various characteristics that can influence performance. Another longitudinal database, the Longitudinal Survey of Immigrants to Canada (LSIC), modelled on its Australian counterpart, is currently under development.

55. McDonald and Worswick (1998) find that immigrants' lower job tenure relative to natives partly explains their lower earnings. During recessions this effect may be amplified if recent immigrants experience even greater difficulties in finding non-temporary jobs, which could contribute to a slower catch-up.

56. The stipulation of occupation-specific Mutual Recognition Agreements and the so-called Red Seal Program for skilled trades should ensure that, at least for the professions and trades they cover, recognition obtained in one province becomes portable.

57. For example, CICIC publishes information regarding employment in Canada for 133 regulated professions and trades on its web site. CICIC was established in 1990 following Canada's ratification of the 1979 UNESCO Convention on the Recognition of Studies, Diplomas and Degrees.

58. For example, the Canadian Council of Professional Engineers conducts evaluations of foreign credentials, though these are not binding on the provincial licensing bodies. And the Medical Council of Canada offers an examination to evaluate the competency level of foreign-trained doctors (Mata, 1999).

59. For example, some Ontario community colleges have instituted a streamlined procedure for assessing prior learning of midwives and physiotherapists, in order to facilitate access by foreign-trained candidates.

60. The Ontario Ministry of Training, Colleges and Universities, with funding assistance from the federal government, has developed the Specific Terminology, Information and Counselling project (STIC), which is intended to provide foreign-trained professionals with training manuals and self-assessment tools.

61. There is some evidence that immigrants to the three large cities have higher unemployment rates and lower earnings, relative to the Canadian-born, than those who settle in smaller cities and in the rest of Canada (Citizenship and Immigration Canada, 2001), but this is due at least in part to selection bias. Toronto, Montreal and Vancouver have higher concentrations of visible minority immigrants, while those from Europe tend to spread more evenly. And within each ethnic group, immigrants with weaker labour market prospects are probably more attracted by the presence of large ethnic communities in cities. Partly as a result of this, while on average immigrants are better educated than the Canadian-born, this is not the case in large cities, especially Toronto.

62. This does not reflect a move toward suburban areas further away from the city centre, since Canadian census metropolitan areas (CMAs) are broadly defined and include not only the city as an administrative unit, but also most of the surrounding suburban region.

63. According to the US Current Population Survey, 542 000 Canadian-born individuals were living in the United States in 1997, equal to 1.8 per cent of the Canadian population.

64. Workers in a number of professional occupations need only show proof of their qualifications and a job offer in order to gain entry to the United States, with no need for the employer to prove that US workers will not be negatively affected. Moreover, processing times have been reduced, and permits can be renewed without limit. Thus, it is likely that workers who would otherwise have used other temporary migration channels

(such as the US H1-B visas) or who intend to emigrate permanently have shifted to this new channel.

65. Canadian Census data seem to be consistent with this order of magnitude. The number of pre-1996 immigrants born in Hong Kong (China) had decreased to 198 000 by 2001, from 241 000 recorded by the 1996 census. Of course, the overall attrition also includes emigration to other countries and those who died in that period (probably a small number, considering that immigrants from Hong Kong arrived mainly after 1980 and few of them were old).

66. This would seem consistent with the pattern of self-selection found by Borjas and Bratsberg (1996) for return migrants from the United States to countries with higher returns to skills (*i.e.* with a more unequal income distribution than the United States, *e.g.* several Latin American countries).

67. Of course, there are also effects of emigration on the source country. Although they are potentially important, they are not discussed here.

68. Therefore, for example, if new immigrants earn more (or less) than existing residents over their lifetimes, the purely statistical effects on average income per capita should not be counted.

69. Counting also births to immigrants, the contribution would be even higher. Denton *et al.* (2000) estimate that over half of population growth between 1951 and 2001 can be attributed to immigrants in this broader sense. In principle, immigrants can contribute to population growth also by having more favourable vital statistics than the rest of the population, but in practice these effects are likely to be small. In Canada, the foreign-born tend to have similar fertility rates as the Canadian-born and slightly longer life expectancy.

70. In addition, a change in the supply of immigrant labour need not affect factor prices if it is absorbed by a shift in the product mix towards sectors more intensive in the type of labour now more abundant.

71. For the United States, economy-wide effects are usually found to be of the order of magnitude of a 1 per cent fall in non-immigrant wages for a 10 per cent increase in the proportion of the foreign-born (Friedberg and Hunt, 1995).

72. Using a production function approach, Laryea (1998) finds that while immigrant professionals tend to substitute for Canadian professionals, unskilled immigrants are complementary to Canadian-born skilled workers and professionals.

73. The higher propensity of immigrants to choose self-employment could be a reaction to the difficulties they encounter in obtaining skilled jobs matching their foreign qualifications. The fact that self-employed immigrants – whether or not they belong to a visible minority – earn substantially more than those working as employees would appear to be consistent with this interpretation. However, the difference in earnings is approximately the same as for the Canadian-born after controlling for age, education, language skills and sector of work (Li, 1997).

74. The requirement, under the immigrant investor programme, that the immigrant make an interest-free deposit with the government of C$400 000, recoverable after five years (see Annex IV), should be regarded as a tax.

75. Of course, immigrants influence the balance of payments also through their remittances, which are recorded as private current transfers. Such remittances reached C$2 billion in 2002, although that includes payments by all Canadian residents, not just immigrants.

76. Green and Sparks (1999), using an estimated VAR model, find that the population increase permanently shifted the path of per capita income upward by 5.7 per cent.

77. According to these estimates, based on existing sectoral studies, the elasticity of output to inputs was 1.2 on average for the transport, communications and public utilities sectors, and 1.03 for manufacturing. Given the weights of these sectors in Canadian GDP (respectively, 11 and 19 per cent), the study found that for the Canadian economy as a whole the elasticity would be 1.03. In the case of manufacturing it could be argued that economies of scale, if they exist, could also be exploited *via* trade. However, the size of the domestic market remains important. As discussed in Chapter II, plant size is an important factor explaining the difference in productivity between Canadian and US manufacturing firms.

78. Looking only at public infrastructure (and assuming that all of it would be still needed even with a lower population), its cost of maintenance can be approximated looking at capital consumption allowances in national accounts. In 2001, these were equivalent to 1.9 per cent of GDP for the general government. A one per cent decline in population would therefore raise the annual per-capita cost by one per cent, or 0.019 per cent of GDP per capita (about C$6).

79. In its Innovation Strategy (Government of Canada, 2002) the government identifies attracting highly skilled immigrants as an essential element – together with continuing to raise the quality and number of new graduates and providing opportunities for life-long learning – to ensure that the labour force can meet the challenges of a knowledge-based economy.

80. See, for example, the studies by Gould (1994) for the United States and Girma and Yu (2002) for the United Kingdom.

81. The studies (starting with McCallum, 1995) showing that Canadian provinces trade much more with each other and much less with US states located at comparable geographical distance from them – and, therefore, presumably having comparable transport costs – indirectly confirm the importance of such transactions costs. However, transactions costs result not only from a lack of information, but also from regulatory impediments to trade and exchange-rate variability.

82. The problem is that the analysis does not separate the effects connected to the composition of each immigrant cohort from age and time-since-arrival effects, partly because each immigrant cohort is not compared with an age-adjusted non-immigrant benchmark. On the one hand, the impact of recent immigrants is negatively conditioned by the fact that they are younger than the average Canadian population and are still suffering from the "arrival effect". On the other hand, the present impact of the immigrant cohorts who arrived in the 1960s and 1970s and had better economic outcomes than more recent immigrants is not a good guide to the impact of the latter. Whether the overall result is biased upward or downward is hard to say, since it depends on the net effect of those two biases.

83. Assuming unchanged age-specific profiles of taxes and expenditures, the simulation did not take into account other factors that could affect these age profiles (*e.g.* on the one hand, rising health costs; on the other hand, less-than-full income indexation of pensions).

84. Assimilation and cohort effects similar to these were found in studies on the United States (Borjas and Trejo, 1991), where, however, immigrants' rates of participation in welfare programmes are always higher than natives' and are highest just after arrival.

85. These OECD debt figures exclude the value of unfunded government pension liabilities in order to make them more internationally comparable. If these unfunded liabilities were to be included, as in the official Canadian figures, the corresponding debt reduction would be from 88 per cent of GDP in 1995 to 56 per cent in 2002.

86. The 2003 budget showed the five-year impacts of *some* policies, such as increased health-care spending, but did not have a fully revised medium-term projection that incorporated all budget measures.

87. These tax points represent changes made in 1977 in which the federal government dropped its income tax rates while all provinces increased theirs by an equivalent amount.

88. Provincial accounts of these trusts depend on individual accounting conventions at the provincial level.

89. Using Finance Canada's "rules of thumb" for cyclical sensitivity, a 1 per cent drop in the level of GDP would eliminate most of the contingency reserve – the fiscal balance would fall by around C$2.6 billion in the second year after the shock. The impact would be smaller if the monetary authorities respond by cutting interest rates by 50 basis points (which is the response encoded in the Taylor rule): the fiscal balance would then fall by C$2 billion. Thus, when the contingency and prudence reserve are combined, fiscal settings could absorb a GDP shock of perhaps 1½-2 per cent provided that monetary policymakers also respond.

90. An alternative definition of sustainable fiscal policy – the one used in fiscal gap analysis – is that the net present value of future primary surpluses at least covers the current level of net public debt. Several studies have concluded from fiscal gap calculations that baseline fiscal policy is sustainable, but with the gap falling to zero or into unsustainable territory under scenarios in which health-care spending continues to rise faster than wages: for example, see Matier, Wu and Jackson (2001), Kennedy and Matier (2003) and IMF (2003). Frederiksen (2002) shows an unsustainable fiscal gap under baseline policy, largely because his initial primary surplus is much lower than in other studies (it does not include resource royalties, such as oil and gas royalties in the western provinces).

91. Both these estimates are broadly in line with those of other studies, after taking account of differences in assumptions. See IMF (2003) and Robson (2001). The projected rise in pension costs in OECD (2001d) is much higher because it included the C/QPP but used a transitional 7.8 per cent contribution rate rather than the new rate of 9.9 per cent that will apply from 2003-04.

92. Real per-capita health care spending in the OECD has grown by an (unweighted) average of 3 per cent per year since 1980 (on a non-age-adjusted basis). The pace of growth picked up slightly in the 1990s, to 3.1 per cent (1990-2000).

93. IMF (2002) estimates per-capita health-care spending to be 20 per cent higher than would be expected given factors such as per-capita incomes, the age structure and life expectancy, although this estimate has a large standard error. Fraser Institute (2002) also concludes from several alternative age-adjustment methods that Canada is the highest spender among OECD countries with universal access systems.

94. Canadian physicians are paid less and work longer hours than their US counterparts. The average income of Canadian physicians was around C$105 000 in 2001 according to Statistics Canada, compared with US$195 000 (in 1998, according to the American Medical Association), which is 60 per cent higher in PPP-adjusted terms, though some other sources suggest a smaller gap. Studies from the early 1990s show that: *i*) fees for individual

procedures in the United States can be several times higher than those in Canada; *ii*) practice expenses, including malpractice premiums, are approximately the same in both countries as a proportion of income; and *iii*) the gap in net income is much lower than the gap in fees for procedures, implying Canadian doctors see more patients in order to boost their incomes (Welch *et al.*, 1993; Fuchs and Hahn, 1990; Buske, 1997).

95. The 70 per cent public funding consists of 45 per cent for CHA services and 25 per cent for provincial coverage over and above the CHA-mandated services.

96. For example, life expectancies at birth and at age 65 are high, premature mortality is low, infant health is good and work absences due to illnesses are low.

97. Over the 1990s, Canada invested 0.28 per cent of GDP in medical facilities and equipment, close to the 0.31 per cent in the other G7 economies but a little less than the OECD average of 0.34 per cent.

98. Ontario is encouraging groups of five or more family doctors to form networks in order to improve access to primary care, especially after hours. However, the reform is limited, as none of the pilot networks include health professionals other than doctors.

99. The Ontario government is considering changing its funding approach, but in a way that may not improve incentives to manage costs. It has proposed a mixture of population-based and institution-based funding. Local population information would be used to estimate the expected number of cases of each procedure or service; this would then be multiplied up by expected *institution-specific* costs per procedure. Hence, there would be little incentive to reduce costs as that would reduce next year's funding by an equal amount. See McKillop *et al.* (2001).

100. This is not exactly true: Canadians can buy care individually in the United States or any other country if they are willing and able to pay for it out of pocket.

101. Home care accounts for around 4½ per cent of provincial and territorial health spending, but the range is from 2 per cent in Nunavut to 10 per cent in British Columbia.

102. Of course, this would reduce their revenue-raising capacity and their effectiveness in curbing demand and increase administration costs. Rough estimates by Evans (2002) show that either 20 per cent coinsurance or a C$300 deductible could raise C$9 billion per annum, provided health-care spending was distributed evenly across the population However, in any year a high proportion of spending is accounted for by a small number of individuals, so many will not reach the C$300 deductible level, reducing the total amount raised. Similarly, exempting those in the lowest income decile and the permanently institutionalised population – who have minimal income but very high per-person health costs – would reduce coinsurance revenue by around a third, to C$6 billion. This is still a significant sum (6 per cent of total health-care spending) and assumes no change in behaviour by households, but is based on a fairly meagre exemption.

103. In December 2000, parental leave benefits were extended from 10 weeks to 35 weeks, effectively increasing the total maternity and parental leave time from six months to one year. As a consequence, the number of parents receiving EI parental benefits each month almost quadrupled to 123 000 by January 2002, while programme expenditure more than doubled to C$2.7 billion per year. See OECD (2000b) for details of parental and related benefits in other countries.

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Provincial and territorial social assistance benefits

	Constant 2001 Canadian dollars									Benefit level as percentage of ⅔ average income[1]		Percentage change in benefit
	1986	1990	1995	1996	1997	1998	1999	2000	2001	1991	2001	1995-2001
Newfoundland												
Single employable	5 056	4 851	4 836	2 752	1 200	1 206	1 204	1 679	3 070	31	15	–36.5
Person with a disability	–	9 727	9 291	9 141	9 068	9 022	8 938	8 807	8 656	61	43	–6.8
Single parent, one child	12 676	12 400	12 591	12 388	12 303	12 271	12 122	11 904	11 704	78	58	–7.0
Couple, two children	14 663	14 339	13 624	13 405	13 439	13 387	13 153	12 813	12 596	91	62	–7.5
Prince Edward Island												
Single employable	9 391	9 049	6 300	5 770	5 757	5 704	5 603	5 744	5 640	65	33	–10.5
Person with a disability	–	10 473	9 836	9 065	8 889	8 807	8 651	8 711	8 532	76	50	–13.3
Single parent, one child	12 945	12 631	11 811	11 266	10 800	10 375	9 778	9 844	9 564	91	56	–19.0
Couple, two children	18 969	18 665	17 735	16 360	16 409	15 715	14 715	15 005	14 521	135	86	–18.1
Nova Scotia												
Single employable	6 902	7 347	6 601	6 514	4 796	4 751	4 610	4 488	4 611	46	23	–30.1
Person with a disability	–	10 072	9 579	9 425	9 279	9 193	9 031	8 791	8 067	62	41	–15.8
Single parent, one child	11 952	12 230	11 806	11 616	11 436	11 140	10 700	10 304	9 284	76	47	–21.4
Couple, two children	14 387	14 976	13 944	14 962	15 153	14 696	13 486	13 195	13 474	93	68	–3.4
New Brunswick												
Single employable	3 402	3 627	3 461	3 445	3 431	3 399	3 339	3 250	3 168	23	16	–8.5
Person with a disability	–	9 497	7 164	7 131	7 216	7 185	7 058	6 870	6 696	59	35	–6.5
Single parent, one child	10 217	9 827	10 594	10 530	10 657	10 648	10 460	10 180	9 922	61	51	–6.3
Couple, two children	11 053	10 617	11 860	11 782	12 091	12 159	11 944	11 622	11 328	66	59	–4.5
Quebec												
Single employable	3 581	6 531	6 708	6 600	6 401	6 309	6 349	6 238	6 209	36	30	–7.4
Person with a disability	–	8 583	9 042	9 095	9 084	9 168	9 182	9 074	9 065	47	44	0.3
Single parent, one child	12 049	11 915	12 888	12 681	12 012	11 613	11 110	10 558	10 351	66	50	–19.7
Couple, two children	15 573	14 290	15 120	14 876	14 116	13 617	12 840	12 298	12 041	79	58	–20.4
Ontario												
Single employable	7 652	8 987	8 829	7 242	7 173	7 107	6 981	6 795	6 623	47	29	–25.0
Person with a disability	–	12 677	12 819	12 613	12 418	12 303	12 085	11 764	11 466	67	50	–10.6
Single parent, one child	13 706	16 553	15 994	13 134	12 955	12 508	11 879	11 381	10 861	87	47	–32.1
Couple, two children	17 060	21 719	20 595	16 971	16 741	16 036	15 041	14 277	13 452	115	58	–34.7

Provincial and territorial social assistance benefits (*cont.*)

	Constant 2001 Canadian dollars									Benefit level as percentage of ⅔ average income[1]		Percentage change in benefit
	1986	1990	1995	1996	1997	1998	1999	2000	2001	1991	2001	1995-2001
Manitoba												
Single employable	7 593	7 984	7 220	6 677	5 796	5 743	5 641	5 491	5 352	48	27	–25.9
Person with a disability	–	8 458	8 940	8 797	8 661	8 581	8 502	8 328	8 117	50	41	–9.2
Single parent, one child	11 370	11 362	10 773	10 600	10 436	10 015	9 424	9 204	9 363	68	48	–13.1
Couple, two children	17 773	20 083	18 753	16 800	15 543	14 670	13 688	13 181	12 847	120	65	–31.5
Saskatchewan												
Single employable	6 356	6 220	6 440	6 336	5 709	5 674	5 839	5 797	5 772	36	29	–10.4
Person with a disability	–	10 042	9 257	9 372	8 379	8 380	8 601	8 473	8 424	58	42	–9.0
Single parent, one child	13 042	12 627	11 606	11 419	11 243	9 966	9 995	9 700	9 401	73	47	–19.0
Couple, two children	18 295	17 511	16 550	16 283	15 097	14 526	14 495	13 813	13 332	101	67	–19.4
Alberta												
Single employable	9 045	5 999	5 286	5 201	5 151	5 176	5 084	4 949	4 824	34	22	–8.7
Person with a disability	–	7 419	7 365	7 247	7 165	7 172	7 228	7 572	7 380	42	33	0.2
Single parent, one child	13 43	11 248	10 277	10 110	10 037	9 854	9 569	9 201	8 741	64	40	–14.9
Couple, two children	19 690	16 573	16 347	16 084	15 911	15 522	14 739	14 233	13 425	94	61	–17.9
British Columbia												
Single employable	6 460	7 249	7 420	6 744	6 640	6 579	6 462	6 342	6 251	38	28	–15.8
Person with a disability	–	10 122	10 439	10 271	10 112	10 019	9 841	9 659	9 522	53	43	–8.8
Single parent, one child	11 635	12 945	13 376	13 160	12 903	12 459	11 837	11 446	11 103	68	50	–17.0
Couple, two children	15 891	16 110	17 058	16 784	16 416	15 723	14 748	14 109	13 534	85	61	–20.7
Yukon												
Single employable	7 676	9 381	8 827	8 685	11 853	11 744	11 536	11 230	12 045	44	55	36.5
Person with a disability	–	10 430	10 504	10 335	13 478	13 353	13 117	12 769	13 545	49	62	29.0
Single parent, one child	13 786	15 418	14 659	14 423	17 832	17 342	16 622	15 989	16 449	72	75	12.2
Couple, two children	21 122	22 849	22 097	21 742	25 683	24 904	23 741	22 732	22 786	107	104	3.1
Northwest Territories												
Single employable	–	–	12 638	12 352	7 798	8 005	8 958	8 720	8 731	–	34	–30.9
Person with a disability	–	–	14 315	14 332	10 332	10 301	11 213	10 915	11 091	–	43	–22.5
Single parent, one child	–	–	21 425	20 981	18 363	18 164	19 099	18 401	17 824	–	69	–16.8
Couple, two children	–	–	25 396	24 856	24 618	24 640	25 056	24 012	23 021	–	89	–9.4

Provincial and territorial social assistance benefits (*cont.*)

	Constant 2001 Canadian dollars									Benefit level as percentage of ⅔ average income[1]		Percentage change in benefit
	1986	1990	1995	1996	1997	1998	1999	2000	2001	1991	2001	1995-2001
Nunavut												
Single employable	–	–	–	–	–	–	10 738	10 453	10 188	–	41	–
Person with a disability	–	–	–	–	–	–	12 952	12 607	12 288	–	50	–
Single parent, one child	–	–	–	–	–	–	27 099	26 189	25 290	–	102	–
Couple, two children	–	–	–	–	–	–	32 048	30 818	29 567	–	120	–

1. Average income calculated as average hourly earnings of employees paid by the hour for each province, multiplied by 2 000 hours per year. "Employable" beneficiaries covers everyone except the disabled and others with young children.

Source: National Council of Welfare and Statistics Canada.

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BASIC STATISTICS OF CANADA

THE LAND

Area (thousand sq. km)	9 976
Agricultural area (1991, per cent of total area)	6.8

Population of major cities (thousands, 2002)	
Montreal	3 549
Toronto	5 030

THE PEOPLE

Population (2002)	31 363 847
Number of inhabitants per sq. km	3.1
Population, annual net natural increase (average 1998-2002)	108 850
Natural increase rate per 1000 inhabitants (average 1998-2002)	3.6

Labour force (2002)	16 441 301
Employment in agriculture	329 608
Immigration (annual average 1998-2002)	214 149
Average annual increase in labour force (1998-2002, per cent)	1.9

THE PRODUCTION

GDP (million of Canadian dollars, 2002)	1 154 949
GDP per capita (Canadian dollars)	36 824
Gross fixed investment per capita (Canadian dollars)	7 243
Gross fixed investment (per cent of GDP)	19.7

Origin of gross domestic product (2002, per cent of total)	
Agriculture, forestry and fishing	2.1
Mining and quarrying	3.8
Manufacturing	16.8
Construction	5.2
Public administration	5.6
Other	68.5

THE GOVERNMENT

Government current expenditure on goods and services (2002, per cent of GDP)	19.0
Government gross fixed capital formation (2002, per cent of GDP)	2.6
Federal government current revenue (2002, per cent of GDP)	16.9
Federal direct and guaranteed debt (2002, per cent of current expenditure)	242.5

Composition of Parliament (June 2003)	Number of seats	
	House of Commons	Senate
Progressive conservative	15	31
Liberal	169	63
New Democratic	14	..
Bloc Québécois	34	..
Independent	4	4
Canadian Alliance	63	1

THE FOREIGN TRADE

Exports (2002)	
Exports of goods and services (per cent of GDP)	41.1
Main goods exports (per cent of total)	
Agricultural and fish products	7.5
Energy products	12.0
Forestry products	9.0
Industrial goods and material	17.0
Machinery and equipment	23.5
Automotive products	23.4
Other goods	7.7
Main customers (per cent of commodity exports)	
United States	87.2
EU	4.4
Japan	2.1

Imports (2002)	
Imports of goods and services (per cent of GDP)	36.7
Main goods imports (per cent of total)	
Agricultural and fish products	6.1
Energy products	4.6
Forestry products	0.9
Industrial goods and material	19.3
Machinery and equipment	29.7
Automotive products	22.8
Other goods	16.5
Main suppliers (percent of commodity imports)	
United States	62.6
EU	11.2
Japan	4.4

THE CURRENCY

Monetary unit: Canadian dollar	

Currency units per US$	
Year 2002	1.570

Note: An international comparison of certain basic statistics is given in an annex table.

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

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The economic situation and policies of Canada were reviewed by the Committee on 12 June 2003. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 30 June 2003.

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The Secretariat's draft report was prepared for the Committee by Pietro Catte, David Rae and Richard Herd under the supervision of Peter Jarrett.

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The previous Survey of Canada was issued in September 2001.