



## **SOCIOECONOMIC AND DEMOGRAPHIC PROFILES OF IMMIGRANTS IN NEW BRUNSWICK**

by

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## EXECUTIVE SUMMARY

This document is one of five complementary documents on immigration to the four Atlantic provinces. The structure of this report for New Brunswick parallels those for Nova Scotia, Newfoundland and Labrador, and Prince Edward Island. The main objectives of this immigration project were to (a) collect and tabulate data on various aspects of immigration to New Brunswick, (b) analyze those data to highlight the socio-economic, demographic and geographic dimensions of immigration to the province, (c) identify gaps in knowledge necessary to implement immigration attraction, integration and retention strategies in New Brunswick, and (d) write a report bringing together all of these elements.

Following previous literature, the term “immigrant” in this study refers to all foreign-born individuals who are permanent residents of Canada. The primary data sources for this study were Citizenship and Immigration Canada (CIC) and Statistics Canada. Much of the required data were not available in the public domain and had to be acquired via specific data-sharing agreements with Statistics Canada and CIC or via the Internet Data Library System (IDLS) or by outright purchase from Statistics Canada. An adjustment in the original contract was warranted because some of the required data were not available. The period of analysis for this study is 1981-2005.

The CIC data are based on the landing documents of immigrants and are for immigrant inflows, which were available mostly for 1981-2005 at the time of writing, although some were available until 2006. The Statistics Canada data are drawn from the five population censuses conducted during the period, the latest of which was in 2001. These data provide information on the resident immigrant population and also on non-immigrants. Thus, whenever a comparison of immigrant inflows with resident immigrants and non-immigrants was required, the period of analysis ended in 2001.

### General immigration trends

Unlike Ontario and British Columbia, New Brunswick is an immigrant-scarce province with a share of Canada’s immigrant population that falls well short of its share of the national population. As of 2001, immigrants made up 3.1 percent of the total New Brunswick population compared to over 18 percent of the Canadian population. New Brunswick attracts less than 1 percent of total immigrant inflows, a figure that has trended down since the mid-1980s. Current and projected demographic trends in the province indicate that, as is the case with many other Canadian provinces, positive population growth can only be sustained through immigration. New Brunswick, whose population declined by 1.4 percent during 1996-2001, would have suffered a 1.8 percent decline in its population without immigration during this period. Immigrants have also been a relatively small but important source of growth in the labour force. In the 1981-1991 period, immigrant inflows into the labour force were 7-9 percent of non-immigrant inflows (which themselves were due to young New Brunswick residents entering the

workforce and to internal migration of working age individuals from other provinces, net of losses to retirement and out-migration). However in the 1996-2001 period, immigrant inflows were 25 percent of what was significantly smaller growth in the non-immigrant labour force. Preliminary figures from the 2006 Census indicate continued cause for concern. Even with immigration, New Brunswick's population grew by only 0.1 percent in the 2001-2006 period. This is markedly less than for Canada as a whole, which grew by 5.4 percent between 2001 and 2006. Further, the number of elderly people (defined as individuals aged 65+) exceeded 100,000 for the first time in New Brunswick history. In 2006, 14.7 percent of the New Brunswick population was aged 65 and over, one percentage point higher than for Canada as a whole.

### **Countries of origin and settlement patterns**

While the United States and the United Kingdom have remained among the top five major source countries of immigrants destined for New Brunswick over the 1981-2005 period, the relative importance of China and Vietnam as immigrant source countries has increased.

Immigration to the province is primarily to the three counties that contain New Brunswick's three main cities. The county receiving the most immigrants was York (containing Fredericton), which had 12 percent of New Brunswick's population in 2001 but 20 percent of the province's immigrants and 29 percent of recent immigrants. The second most important destination for immigrants was Saint John County (containing the city of Saint John), followed by Westmorland County (containing Moncton). Also, 70 percent of recent immigrants were located in a CMA/CA, compared with 60 percent of all immigrants and 52 percent of non-immigrants. Interestingly, 8 percent of recent immigrants were located in more rural areas not influenced by CMA/CA, according to the Statistics Canada definition. (See the notes accompanying Chart 4 on page 16 of this report for further explanation.) This compared with 4 percent of immigrants overall and 2 percent of non-immigrants.

### **Demographic profile**

The age profile of immigrants to New Brunswick is tilted towards the lower age groups. More than 60 percent of principal applicants arriving each year during 1994-2005 were between 25 and 44 years of age, and between 7-15 percent were aged 15-24. Another 9-19 percent were aged between 45 and 64, depending on the year. However in all years, the number of new immigrants aged 65 or more was extremely low.

### **Reliance on government transfer payments and services**

Since the start of the study period (1981), immigrants have relied less on government transfers than has the native-born New Brunswick population. Receipt of government transfers (as a percentage of total income) for recent immigrants has been markedly lower than for non-immigrants. However, the difference in receipt between non-immigrants and recent immigrants has narrowed substantially through the 1990s,

although it remained lower for all immigrants than for non-immigrants, partly because immigrants are relatively younger at the time of arrival, so do not receive such age-related transfers as Canada Pension Plan and Old Age Security payments for some time after entry.

## **Labour market outcomes and skills**

In terms of labour market outcomes, compared to non-immigrants, immigrants in New Brunswick have attained higher education levels, earn higher employment income, and have lower unemployment rates. Recent immigrants are even more highly educated; in 2001, 45 percent of recent immigrants had a degree compared to 12 percent of non-immigrants. The proportion of recent immigrants with a degree has also increased steadily over time, reflecting the increasing focus on skills evident in the federal government's immigration policy. Recent immigrants have higher labour force participation than is the case both for all immigrants and for non-immigrants, but they also have higher unemployment rates. This was not the case before 1991, when the unemployment rates of recent immigrants were actually lower than for non-immigrants.

The number of highly skilled immigrants has followed an upward trend since the early 1980s, and became the most common skill category of immigrants to New Brunswick in 1992. Through the late 1990s, highly skilled immigrants numbered approximately 150 persons per year, compared with 50 immigrants each in the medium- and low-skilled categories. Following a downturn in 2003, the numbers of skilled immigrants intending to settle in New Brunswick increased again in 2004 and 2005. At the same time, both medium- and low-skilled immigrant numbers reached their lowest levels of the entire sample period, again due partly to the strong skills bias inherent in the Canadian immigration points-based system.

One issue of some concern is that the labour market outcomes of recent arrivals (those who arrived within five years of a census year) have worsened since 1981. A possible cause, as indicated by some researchers, is the non-recognition of immigrants' educational credentials and experience as more immigrants now come from non-traditional source countries.

## **Highly skilled immigrants**

Among highly skilled immigrants in New Brunswick in 2001, 70 percent were professionals, 27 percent were middle and other managers, and 3 percent were senior managers. The proportion of professionals in New Brunswick who are immigrants is small and has declined over time. Over the 1991-2001 period, the number of non-immigrant professionals grew by 22 percent, but the number of immigrant professionals grew by only 5 percent.

The service sector is the primary industry of employment for New Brunswick's immigrant professionals and managers. Of immigrants employed in 2001, 75 percent of senior managers, 83 percent of middle and other managers, and 86 percent of

professionals were employed in the service sector, with the most important sub-sector being education, followed by health care and social assistance.

## **Business immigration**

Business immigration is a potentially potent source of economic growth as it brings entrepreneurship, capital, innovation and expertise into the provincial economy. Like highly skilled immigrants, most business immigrants to New Brunswick come from the UK (55 percent) followed by continental Europe (18 percent). Interestingly, unlike in Nova Scotia, few business immigrants in New Brunswick come from the United States. Two-thirds of business immigrants are employed in the service sector, with 'other' services the important sector of employment, followed by business services and then health services. Agriculture is the next most important industry for business immigrants after services, with about 10 percent of immigrants self-employed in that industry. Business immigrants are more likely to be male, with 157 male immigrants for every 100 female immigrants. Another measure of business immigration is money invested in the province through the Entrepreneur Program. Since the mid 1990s, investments made in New Brunswick through this program have been extremely variable. Over the years 1995-2005, investment ranged from zero in 1997, 1998 and 2001 to over \$1.5 million in 2005.

## **Retention of immigrants**

Overall, if New Brunswick intends to retain immigrants, its policy must boost immigration in a way that not only counters adverse demographic trends over the long term but also manages the composition of skills to match the evolving needs of the province. The Provincial Nominee Program (PNP) is a step in that direction. However, increasing immigration without adequately retaining immigrants will only ensure that the gains from immigration do not last. Our findings indicate that retention rates for recent immigrants to New Brunswick have been in the 65-70 percent range since 1981. In the light of this finding, more research should be conducted on who leaves the province in the years after their immigration and the reasons for it. It seems likely that policies that facilitate the economic and social integration of immigrants in New Brunswick will be critical. Such policies should focus on the quality of settlement services and on expediting the process of foreign credential recognition.

## **International Students**

International students enrolled in Canadian educational institutions are an increasingly important source of both revenue and human capital for government and the economy. Over the 2001-2005 period, China was the most common country of origin for such students in each year of the period, followed by the US. The other top 10 source countries have varied from year to year, but India, Japan, Korea, France and Mexico have been in the top ten consistently during the period. The number of international students in New Brunswick increased from less than 900 in 1996 to almost 3000 in 2005. A little less than half of these students were studying at institutions outside

New Brunswick's three main cities in 2005, such as satellite campuses of the main universities as well as community colleges in smaller urban centers.

### **Some research gaps on immigration trends in New Brunswick and suggestions for future research**

The information presented in this report needs to be enhanced through surveys and additional research to inform policymakers about the economic impacts of immigrants and how best to attract immigrants and retain them. All this information will help the province formulate immigrant retention policies. Research is needed in the following key areas:

- Immigrant inflows to New Brunswick are low, and the largest category of immigrants by visa category has been the family class despite the successes of the Provincial Nominee Program in attracting skilled immigrants to the province. Targeted immigrant recruitment should be investigated as a means of attracting immigrants to New Brunswick.
- Retention rates have historically been in the range of 70 percent, and for Atlantic Canada as a whole, have varied significantly by visa category. More research should be conducted into 1) which immigrants are choosing to leave the province, and 2) the reasons for their decisions to move rather than stay. Are immigrants any different in this regard from other New Brunswick residents, particularly younger individuals?
- It is also important to gauge the extent to which the human capital of skilled immigrants from non-traditional sources is being lost through underemployment or if they are pushed into low-skill, low-wage employment because their foreign-earned credentials are not recognized.
- Information is also lacking on what specific factors deter business immigration to New Brunswick or how enterprises set up by immigrants perform and what difficulties they face.

In addition, systematic research is also needed to explore what mix of skills should be encouraged to meet current shortages and projected labour market needs of the province. Research on the effects of immigrants on the earnings and employment of non-immigrants, as well as their effects on the public treasury, can also provide useful information to understand their role in the economic development of New Brunswick.

The data that will help fill the above research gaps are either lacking or are difficult to access. Therefore, additional information will have to come from surveys, which can provide the input for both quantitative and qualitative analyses of these issues so effective policies can be formulated.

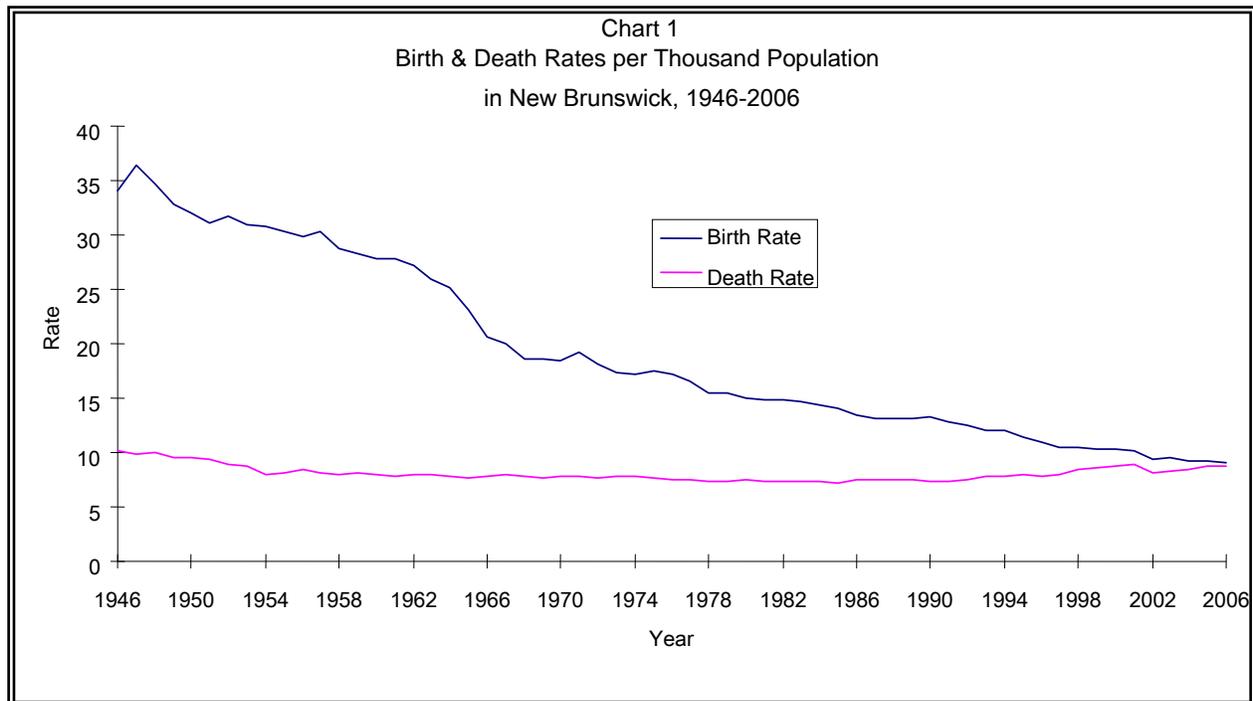
## I. INTRODUCTION

According to the 2001 Census, the natural increase in population between 1996 and 2001 slowed across Canada, making immigration the major source of population growth in the country. As Chart 1 shows for New Brunswick, this pattern continues a trend that has been clearly evident since the end of World War II. Birth rates have declined steadily from 35 per 1000 population in 1946 to 10 per 1000 population in 2006. Over the same period, death rates have remained largely unchanged at about 10 per 1000 population. Further, projections show that the natural component of population growth will actually turn negative in 15-20 years across many provinces as deaths outnumber births. If present patterns of interprovincial migration also prevail, this implies that immigration will be the only factor behind population growth in some regions / provinces of the country. Indeed, according to the 2001 Census, Nova Scotia, Newfoundland and Labrador, Saskatchewan, and New Brunswick all experienced declines in population during the 1996-2001 period.

This does not bode well for provinces such as New Brunswick, given that the bulk of immigration flows to Canada gravitate towards the major population centres in Ontario, Quebec and British Columbia. As a result, these provinces have become “immigrant abundant” in that they account for a much greater share of Canada’s immigrant population than they do of the national population. On the other hand, the relatively small immigrant flows coming into provinces such as New Brunswick have made them relatively “immigrant scarce” in that their share of the immigrant population is significantly lower than the national share.

Recently released figures from the 2006 Census indicate that New Brunswick’s population – including immigrant inflows - barely changed in the 2001-2006 period, increasing by only 0.1 percent. This compared with a population growth of 5.4 percent for Canada overall. Further, Statistics Canada's Quarterly Demographic Estimates over the first half of 2007 indicates that the natural increase in each of the four Atlantic provinces has now turned negative. Without immigration inflows to the province in this period, outflow of New Brunswick residents to other provinces, particularly the West, would have resulted in even more marked population declines.

New Brunswick is also characterized by an aging population; according to recently released figures from the 2006 Census, the number of elderly people (defined as individuals aged 65+) exceeded 100,000 for the first time in New Brunswick history, with 14.7 percent of the New Brunswick population aged 65 and over in 2006, one percentage point higher than for Canada as a whole. The continuing decline in fertility rates has meant that the number of children aged under 15 in New Brunswick was 47 percent lower in 2006 than in 1966, a rate of decline second only to that in Newfoundland and Labrador. The Canadian rate was a 15 percent decline in the population of children over the same 30-year period.



Source: Statistics Canada, CANSIM tables.

An important implication of the above patterns is that provinces such as New Brunswick could soon experience significant contractions in population. This has raised concerns about the adverse economic impacts on the province both overall and in terms of exacerbating regional imbalances in the standard of living within the province. A declining population in New Brunswick would slow the rate of growth of human capital formation, as well as physical capital formation, both of which would impact adversely on the well-being of the resident population. Shortages in the availability of skilled workers, a decline in innovators, and shrinking markets of goods and services are all important consequences of a declining population. In fact, shortages of workers in skilled trades are already evident in New Brunswick and in the rest of Canada. Just as importantly, there are also pronounced shortages of skilled workers in most health care professions, particularly in rural areas.

Such longer term demographic projections and more immediate skill shortages raise the question of what role immigration and immigration policy can play in Canada's future economic development in general and that of less well-off provinces such as New Brunswick in particular. It is not surprising, therefore, that the New Brunswick government has recognized the need to boost immigration to the province in the form of skilled workers and entrepreneurs through programs such as the Provincial Nominee Program instituted in conjunction with the federal government in 1999. The PNP fast-tracks immigration for prospective immigrants who have guaranteed job offers or investment capital and who have been identified and scrutinized by the province.

Important issues also arise from the perspectives of not only attracting, integrating, and retaining new immigrants to the province but also from the perspective of their impact on labour markets, economic growth, and public finances. Unfortunately, research-based knowledge is lacking on the economic role of immigrants in New Brunswick, which is essential for policy formation and implementation.

This project is an effort toward building a broader and deeper stock of knowledge relating to the many economic issues that immigration to New Brunswick raises. Our special interest is to outline the economic dimensions of immigration because our primary focus is on the role of immigration in promoting economic growth and development in the region. This report is organized as follows: Section II defines the objectives underlying the project, while Section III outlines the methodology used. Section IV presents a statistical outline of the economic, demographic and geographic characteristics of immigration to New Brunswick since 1981, while Sections V and VI review in greater detail the nature of economic immigration to New Brunswick. Section VII reviews the statistics on international students in New Brunswick, while Section VIII summarizes our major findings and suggests areas for future research.

## **II. OBJECTIVES OF THIS STUDY**

The primary objectives of this study include

- the collection and tabulation of data on immigration to New Brunswick for the period 1981-2005, with a focus on economic immigration
- a descriptive analysis of the data to highlight the socioeconomic, demographic and geographic dimensions of immigration to New Brunswick
- the identification of some gaps in research that can provide necessary information to implement immigrant attraction, integration and retention strategies in New Brunswick
- a written report that brings all these elements together.

To meet the above objectives, the study analyzed the relevance, implications and effectiveness of immigration as a potential economic development avenue to address demographic and socioeconomic challenges faced by Atlantic Canada in general and New Brunswick in particular.

## **III. METHODOLOGY**

Following previous literature, the term “immigrant” is used in this study to refer to all foreign-born individuals who are permanent residents of Canada. To meet the objectives of the study, we tried to ensure that the approaches used for data collection and their analyses were reliable and easy to replicate. The primary data sources for this study were:

- Citizenship and Immigration Canada (CIC)
- Statistics Canada

Some data used in this study were obtained from the web sites of the above government sources. However, much of the required data was not available in the public domain and had to be acquired through different channels. Some data were made available to the authors under the specific data sharing agreements of the Metropolis project team with Statistics Canada and CIC. Some Statistics Canada data were accessed through the Internet Data Library System (IDLS). Being a member of the Canadian Association of Research Libraries Data Consortium (CARLDC), the Patrick Power Library at Saint Mary's University shares this access with the University of Western Ontario under the Data Liberation Initiative (DLI). Some data were also purchased from Statistics Canada through a customized request, while some were provided by them as a courtesy, for which we are grateful.

While we acquired most required data through different channels, we could not obtain all, due partly to the unavailability of some provincial data and partly to the resource commitments of Statistics Canada to other internal priorities at the time of this analysis. Accordingly, the original contract for this project was modified.

The analysis we conducted is based primarily on descriptive tools. A distinction was made between immigrants destined for New Brunswick and those who actually stayed in the province. Among those who stayed, separate data were also analyzed for more recent immigrants, i.e., those who arrived within five years before a population census, when possible. Some parts of the analysis also use data on the non-immigrant population to facilitate comparisons with immigrants.

The period of analysis of this study is 1981-2005. CIC data are based on the landing documents of immigrants and are for immigrant inflows. These are available for the entire period of analysis, and some are available until 2006. The Statistics Canada data are drawn from the five population censuses conducted during the period, the latest of which was conducted in 2001. The census data provide information on the resident immigrant and non-immigrant populations. Thus, whenever a comparison of immigrant inflows with resident immigrants and non-immigrants was required, the period of analysis ended in 2001.

#### **IV. AN OVERVIEW OF IMMIGRATION TO NEW BRUNSWICK**

This section analyzes annual immigration trends in New Brunswick over the period 1981-2005, with some figures available until 2006. These trends are based on micro data obtained from the Landed Immigrant Data System (LIDS) provided by CIC. Statistical profiles of immigrants resident in the province are also analyzed at five-year intervals along a range of socioeconomic, demographic, and geographic variables. These profiles are based on the Public Use Microdata Files (PUMF) obtained from the

1981, 1986, 1991, 1996, and 2001 Canadian population censuses conducted by Statistics Canada. These micro data were accessed through IDLS and CARLDC. The 2 percent individual sample was used. The microdata files include a weight variable to allow estimates of the population. However, for confidentiality reasons, Statistics Canada suppresses any variable frequency that falls below 25. Finally, following the definition of immigrants found in immigration literature, foreign-born individuals are viewed as immigrants and Canadian-born as non-immigrants.

Immigration matters fall under federal jurisdiction although provinces can (as New Brunswick and other provinces have done with their Provincial Nominee Programs) enter into intergovernmental agreements to tailor immigration to suit perceived provincial needs. However, the broad contours that define who is admitted are largely set by the federal government. Under federal regulations, immigrants permitted to enter and stay in Canada can do so as refugees, family immigrants, or economic immigrants. In addition, individuals can also enter as provincial nominees according to criteria agreed on through provincial-federal arrangements.

#### IV. 1 The Composition of Immigrants

##### Summary Points

- As of 2005, family class immigrants comprised the largest category of immigrants destined for New Brunswick, accounting for almost 60 percent of the total inflow in 2005, followed by skilled immigrants (23 percent), and refugees (about 13 percent).
- The number of skilled immigrants in 1998 was the largest since 1989 but has declined steadily since then both in absolute terms and as a proportion of total immigrant inflows.
- Business immigration makes up very little of the immigrant inflows to New Brunswick. Business immigrants were around 5 percent of total principal applicants through the 1990s, but the number of immigrants officially classified as new business immigrants in the 2002-2005 period has been negligible, partly because New Brunswick classifies all immigrants through the Provincial Nominee Program to be skilled immigrants even if they are business people or entrepreneurs.

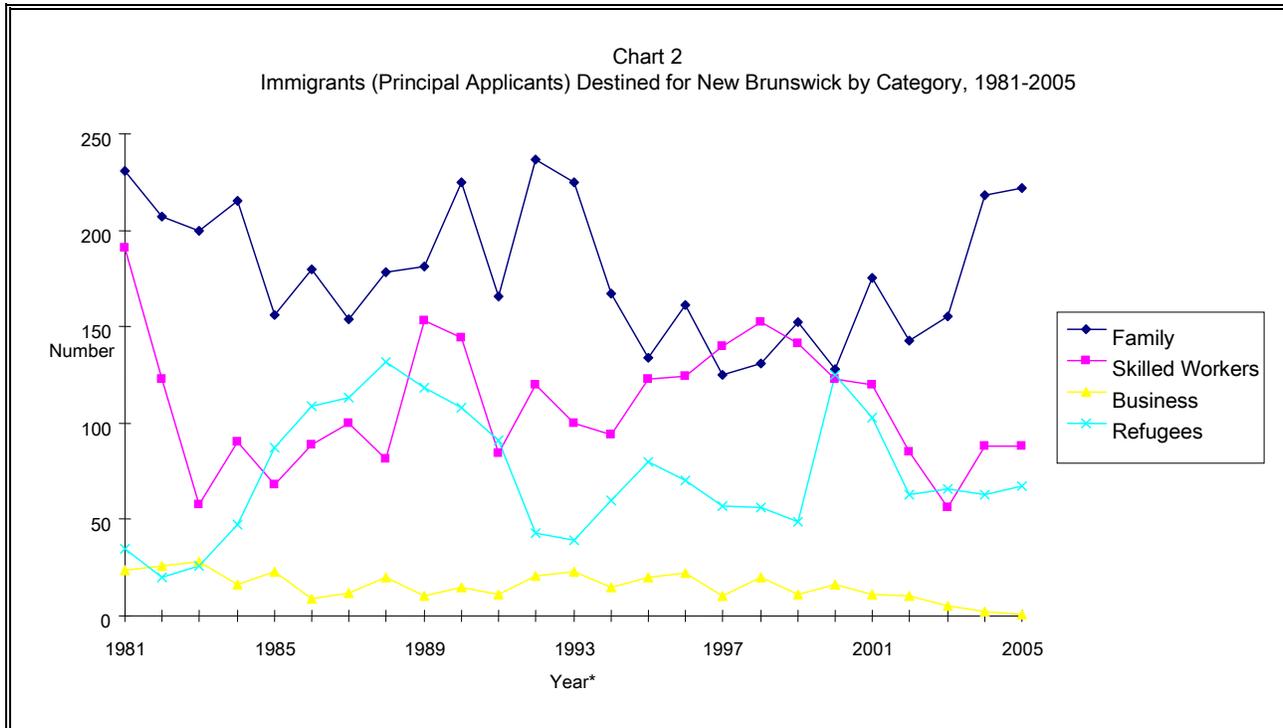
**Refugee class** immigration reflects Canada's commitment to humanitarian principles, while **family class** is intended to foster family re-unification – that is, facilitating individuals to enter Canada if they have close relatives who are already permanent residents/citizens. **Economic immigrants**, on the other hand, are chosen for their expected direct positive economic contribution to Canada through the skills, expertise, entrepreneurship, or capital they bring with them. The economic class category comprises two major sub-categories: skilled workers and business immigrants. In this study, the primary (but by no means exclusive) focus is on economic immigrants.

Trends in the annual immigration inflows (of principal applicants) by class of immigrant destined for New Brunswick over the 1981-2005 period are illustrated in Chart 2. This Chart shows the composition of the inflow of new principal applicant immigrants to New Brunswick by visa category for each year of the period. The recent increase in immigrant inflows in 2004 and 2005 is an encouraging sign, but it remains to be seen whether this pattern will continue. Table A1 (Appendix, Page 55) provides the raw numbers underlying Chart 2.

Immigrants entering in the family class of migration to Canada made up the largest category of immigrant flows to New Brunswick over the 1981-2005 period. Each year, around 150-200 principal immigrants enter the province in the family class, constituting between 35 and 55 percent of all immigrants. The proportion of immigrants in the family class trended down through the 1990s, and in 1998 and 1999, family class immigrants numbered fewer than skilled immigrants. However, in 2004 and 2005, family class migration reached the highest level since the early 1990s and constituted almost 60 percent of total immigrants in these years.

Though somewhat volatile, the number of immigrants to New Brunswick entering in the skilled class has tended to trend upward over the period and peaked at 42 percent of all immigrants in 1997 and 1998. In a pattern that is of some concern, however, the number of skilled immigrants has declined from that point in absolute terms and as a proportion of the total number of immigrants. By 2005, only 23 percent of New Brunswick's immigrant inflow was in the skilled class.

Although only eight immigrants entered on business visas over the three year period 2003-2005, the decline relative to that in previous years is due largely to the fact that New Brunswick classifies all immigrants through the Provincial Nominee Program to be skilled immigrants even if they are business people or entrepreneurs. However, what is notable in the statistics is that the number of immigrants arriving on business visas has been consistently low over the entire sample period, not just since the introduction of the PNP in New Brunswick in the early 1990s.



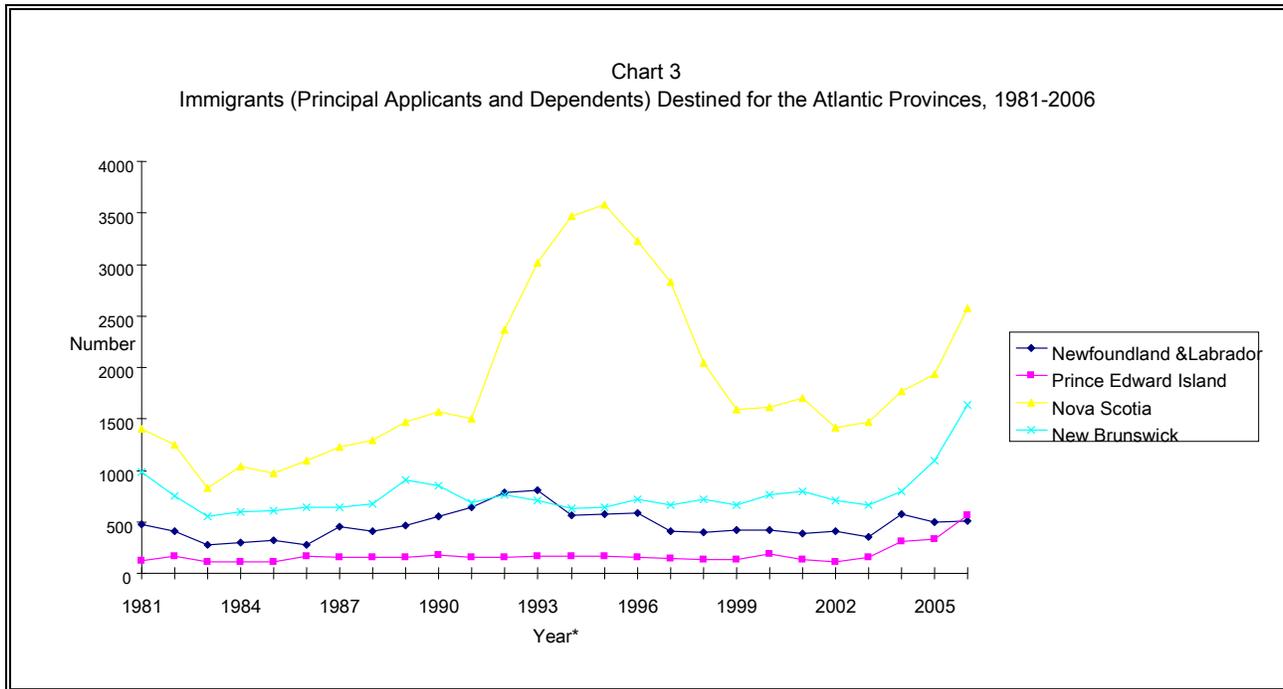
Source: PRDS, microdata, CIC.

## IV.2 Broad Demographic Trends

### Summary Points

- New Brunswick's share of annual immigration into Canada has generally been in the 0.5-0.7 percent range, although it reached a low in 1993 when only 0.3 percent of immigrants settled in New Brunswick. The province's share of immigrants increased to 0.6 percent in 2006. However, the proportion of New Brunswick's population that are immigrants has fallen steadily from 3.9 percent in 1981 to 3.1 percent in 2001.
- New immigrants accounted for about half of the modest population growth in the province during 1981-1986. In 1986-1991, only 11 percent of population growth was due to immigration, as the number of new immigrants to the province fell and the non-immigrant population grew by over 12,000. Similarly, immigration contributed 18 percent of total population growth in the 1991-1996 period. However, during 1996-2001, New Brunswick's population fell by 1.5 percent, but a substantial decline in domestic population was offset by new immigrant inflows: without new immigrants, this decline would have been 1.8 percent.
- For the period 1981-2001, the age profiles of New Brunswick's non-immigrant population and of newcomers to the province indicate that at time of their arrival, immigrants were younger than the resident non-immigrant population, and this age difference has widened over time.

Chart 3 shows annual inflows of principal applicants and dependents into each of the Atlantic provinces. In contrast to the more volatile immigrant inflows into Nova Scotia, the inflow of new immigrants to New Brunswick has been relatively steady overall but the last two years of the period 1981-2006 averaged a little over 700 principal applicants and family members per year. More recently, intended new arrivals increased to approximately 1100 in 2005 and 1640 in 2006. It remains to be seen whether the increase to the historical trend will be sustained.



Source: PRDS, microdata, CIC.

In terms of total immigration flows into Canada, New Brunswick gets a very small percentage of arrivals, and this share has fallen over time. Only 0.6 percent of new immigrants chose to locate in New Brunswick in the 1981-1985 period, and this proportion fell steadily to only 0.28 percent of new immigrants by 1993. New Brunswick's share of new immigrants increased modestly to 0.4 in 2005 and 0.6 in 2006, but this share is still quantitatively small (and is also consistently less than the comparable share going to Nova Scotia). New Brunswick's immigrant inflow as a proportion of current provincial population is also small relative to that of other provinces outside Atlantic Canada – particularly Ontario, Quebec, Alberta and British Columbia. This pattern, if allowed to continue, will exacerbate the emerging regional population imbalances in the country alluded to in the Introduction.

Table 1 shows that immigration has been an important component of population growth in New Brunswick. During the 1981-1986 period, immigrant inflows to the province were 27 percent of the population growth from other sources (internal migration and natural growth). In the 1991-1996 period, immigration contributed close to the same

proportion of New Brunswick's total population growth, as was the case for 1981-1986. (Data for 1986-1991 are not available for New Brunswick.) However, during 1996-2001, New Brunswick experienced a marked population decline of almost 1.4 percent, or close to 10,000 people. Without the offsetting impact of new immigrant inflows to New Brunswick, this decline would have been 1.7 percent.

Period	1981-1986	1986-1991	1991-1996	1996-2001
End of period population	701,855	716,495	729,630	719,715
Population change (1)	12,480	14,640	13,135	-9,915
Change without immigration	9,830	NA	10,555	-12,490
Recent immigrants (2,3)	2,650	NA	2,580	2,575
Contribution of immigration to change in total population as a percentage change in non-immigrant population $[(2/1) \times 100]$ (4)	27.0	NA	24.4	20.6

Sources and notes:

1) For end of year population, Statistics Canada Catalogue number 97F0009XCB2001001. These data are not adjusted for undercoverage.

2) For recent immigrant data: a) in 2001 census, Statistics Canada Catalogue number 97F0009XCB-2001004, b) in 1996 census, Statistics Canada Catalogue number 93F0023XDB96003, c) in 1986 census, Census 1986 PUMF-microdata, individual file, variable used: year of immigration and immigrant status indicator. Data on recent immigrants in the 1991 census are not available in the census PUMF.

3) Recent immigrants include those who arrived within five years prior to the census date.

4) Census data are different from the estimates of population provided by the Demography Division of the Statistics Canada. Please see the Appendix A1 for more explanation.

\*Measures what percentage of population decline was averted by new immigrants. Absolute value of (1) is used in the denominator.

It should be understood that the above table shows only the contribution of **recent** immigrants to the population growth. Immigrants also make their contribution to population growth through reproduction and/or through migration from other provinces of Canada. Overall, immigrants constituted 3.1 percent of New Brunswick's population in 2001, a figure that had declined steadily from 3.9 percent in 1981. Consideration of these factors is beyond the scope of this report. However, it is evident in the above numbers that if population growth due to natural factors and net interprovincial migration of non-immigrants remains negative, expansion of immigration will very likely be an important demographic policy tool in counteracting that effect.

Age group	Immigrants arriving 1981-1985	Non-immigrants in 1986	Immigrants arriving 1986-1990	Non-immigrants in 1991	Immigrants arriving 1991-1995	Non-immigrants in 1996	Immigrants arriving 1996-2000	Non-immigrants in 2001	Immigrants arriving 2001-2005	Total population in 2006
15-24	18.22	23.46	20.19	19.49	9.62	17.58	9.10	16.45	10.48	15.09
25-44	52.56	39.64	58.37	42.33	59.91	40.49	66.98	36.95	66.79	32.19
45-64	16.56	22.54	13.09	23.43	26.09	27.36	21.05	30.87	19.38	35.12
65+	12.66	14.36	8.35	14.75	4.37	14.57	2.87	15.73	3.35	17.60
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Sources and notes: 1) Immigrant data are from PRDS, microdata, as provided to AMC under contract by CIC. Principal applicant is based on variable "f\_stat2", and an immigrant's age is based on variable "fage". 2) Non-immigrant data are based on Canadian population censuses (PUMF, 1986-2001, individual files), Statistics Canada. For the period 1991-2001, the non-immigrant data are based on the variable "immigrant status indicator", while for 1986, these are based on the variable "year of immigration" since the "immigrant status indicator" was not provided with 1986 census. Hence, 1986 data also include non-permanent residents. For 2006, non-immigrant data are not available. Hence, total population data based on the 2006 census are used for that year as they emulate non-immigrant data (Statistics Canada catalogue number: 97-551-XCB2006005).

The demographic implications of population growth due to natural increase or new immigration can be very different. Much depends on the age profile (and fertility) of immigrants. Table 2 compares the age distributions of immigrant and non-immigrant residents of New Brunswick. The aging of the New Brunswick population is evident in the figures, particularly in terms of the declining proportion of the population in the 15-24 age group. While immigrants to New Brunswick are consistently younger on average than other residents, the gap in the age distributions between immigrants and non-immigrants appears to have widened over the period: the proportion of new immigrants in the 25-44 age group increased from 53 percent in 1981-1985 to 67 percent in 2001-2005, while the proportion of new immigrants in the 65+ category fell from 13 percent in 1981-1985 to 3 percent in 2001-2005.

These facts support the conventional wisdom that younger people are more likely to migrate than older people because 1) they have a longer time available in their lives to reap the benefits of their investment in migration, 2) economic and business immigrants qualify in part based on their age at time of migration as well as their skills and language fluency and 3) they are less tied to their place of origin. Thus, recent immigrants typically will not be heavy users of such age-related components of Canada's social security system as Canada Pension Plan, Old Age Security benefits, and health care as more than 75 percent of immigrants arriving in 2001-2005 were less than 45 years of age on arrival.

### IV.3 Where Immigrants Come From

#### Summary Points

- While the United States and United Kingdom remained on the list of the top five immigrant source countries throughout the 1981-2005 period (in terms of principal applicants only), the number of immigrants from the UK showed a marked decline after 1986-1990.
- The US was the main source country for immigrants to New Brunswick until 1996-2001 but has since been overtaken by China. Vietnam and Germany were in the list of the top five source countries over the period 1981-1995 but were replaced by immigrants from India and various other countries such as Morocco, Congo and Korea, in different years.

Table 3 shows the top five source countries for immigrants to New Brunswick in terms of principal applicants and dependents, as well as principal applicants only. Typically, fewer than half of all immigrants to New Brunswick originate in these five countries, suggesting that New Brunswick's immigrants come from a wide range of countries and regions. Since the early 1990s, the mix of top five source countries has shifted from the United States, the United Kingdom, and other European countries toward the Asian countries, although the US and UK remained in the top five source countries throughout the period. China has become one of the main source countries for New Brunswick's immigrants, but the proportion of China's immigrants to Canada settling in New Brunswick is similarly very small. The general patterns are comparable whether principal applicants are considered alone or with their dependents.

An important part of the reason for the shifting source country composition of immigrants to Canada since the 1970s was the shift in immigration policy in 1967 away from the system of 'preferred countries' that favored immigrants from Western Europe and toward a points-based system that emphasized age, language fluency and skill levels regardless of source country. In conjunction with the growing economic development in countries such as China and India, Asian countries have come to dominate the inflows of immigrants to Canada. Finally, the presence of large francophone population in the province perhaps explains the large inflow of immigrants from Congo, Morocco and Vietnam, which are all francophone countries.

Table 3: Top Five Source Countries of Immigrants Destined for New Brunswick, by Year, 1981-2005																
	1981-1985		1986-1990		1991-1995		1996-2001		2002		2003		2004		2005	
	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count
<b>Principal Applicants</b>																
Rank																
1	USA	752	USA	549	USA	458	USA	338	USA	42	China	54	USA	79	China	71
2	UK	278	UK	244	China	157	China	290	China	42	USA	53	China	60	USA	67
3	Germany	165	Vietnam	176	UK	120	India	91	UK	25	India	25	UK	32	Korea	59
4	Vietnam	91	Poland	132	Germany	99	UK	88	India	22	Congo	24	Congo	22	India	34
5	Hong Kong	76	Germany	122	Vietnam	97	Morocco	85	Morocco	19	UK	21	Philippines	19	UK	23
Total for 5 countries		1362		1223		931		892		150		177		212		254
Province total		2041		2249		1924		2291		370		391		471		545
<b>Principal Applicants and Dependents</b>																
Rank																
1	USA	1121	USA	758	USA	660	China	519	China	79	China	73	USA	105	Korea	193
2	UK	533	UK	532	China	289	USA	490	USA	60	USA	69	China	85	China	105
3	Germany	321	Poland	214	Hong Kong	259	Bosnia-Herzegovina	223	India	58	India	58	UK	68	USA	95
4	Vietnam	204	Vietnam	210	UK	208	Morocco	202	UK	45	Congo	47	Congo	43	India	58
5	Hong Kong	148	Germany	189	Vietnam	199	India	168	Colombia	44	UK	39	Afghanistan	40	Afghanistan	57
Total for 5 countries		2327		1903		1615		1602		286		286		341		508
Province total		3499		3710		3419		4320		705		665		793		1092

Source: Permanent Resident Data System (PRDS, CIC).

#### IV.4 Where Immigrants Go

##### Summary Points

- York County, which contains the provincial capital of Fredericton, had 12 percent of the New Brunswick population in 2001 but was home to 20 percent of immigrants and 29 percent of recent immigrants (those arriving between 1996-2001). Similarly, Saint John County, which contains the city of Saint John, had 10 percent of the New Brunswick population in 2001 and 11 percent of all immigrants in the province but 14 percent of recent immigrants. In contrast, Westmorland County, which contains Moncton, had 17 percent of the population, 16 percent of immigrants and 15 percent of recent immigrants.
- The counties of Gloucester, Restigouche, Kent and Northumberland contained very small proportions of recent immigrants in 2001; together they had 28 percent of New Brunswick's population but only 12 percent of immigrants and 4.6 percent of recent immigrants.
- Immigrants are more concentrated in urban areas than non-immigrants: while 52 percent of non-immigrants resided in CMA/CAs, the corresponding figures for all immigrants and recent immigrants were 60 percent and 70 percent, respectively. As well, 8 percent of recent immigrants lived in areas with no CMA/CA zone of influence, compared to 4 percent of all immigrants and 2 percent of non-immigrants. This finding is important for population planners interested in developing new immigrant destinations that are smaller and predominantly rural as a means of reversing the declining trend of rural populations.

Table 4 shows the geographic distributions of immigrant and native-born populations in the 2001 census year, as well as of recent immigrants (who arrived between 1996 and 2001 and were in the province at the time of 2001 census). Figures are presented as the proportion of that group living in a particular county in New Brunswick. The particular county in which each of New Brunswick's three major cities is found is also indicated in the table. More detailed annual data on intended destinations of new arrivals are also included in Table A1 for the period 1994-2006.

It is well known that immigrants – particularly recent immigrants – are much more likely to reside in Canada's larger urban centres. Similarly, immigrants to New Brunswick are relatively more likely to live in counties where the major cities of Fredericton, Saint John, and Moncton are located than are non-immigrant residents. For example, York County has 12 percent of New Brunswick's population but 20 percent of its immigrants and 29 percent of its recent immigrants. Saint John County is home to 10 percent of the population, 11 percent of immigrants, and 14 percent of recent immigrants. At the other end of the spectrum, Gloucester, Restigouche, Kent, and Northumberland counties together had 28 percent of New Brunswick's population but only 12 percent of immigrants and 4.6 percent of recent immigrants. Because of the decline in primary industries in those counties, economic opportunities are more limited, reducing the appeal of these regions to immigrants and non-immigrants alike. These counties are

also more rural, which may make these regions less attractive as immigrant destinations given the main source countries from which New Brunswick's immigrants come. Related to this, Westmorland County (which contains the city of Moncton and the town of Sackville) has the largest share of New Brunswick's population of any county (17 percent) but only 16 percent of immigrants and 15 percent of recent immigrants. Similarly, adjacent Albert County (which contains Riverview) has 4 percent each of immigrants and non-immigrants.

Based on data contained in Table A1, about 78 percent of the immigrants destined for New Brunswick during 1996-2001 indicated the three counties of York, Westmorland and Saint John as their intended destination. However, Table 4 indicates that at the time of the 2001 census, only about 58 percent of these arrivals still in the province were living in these three counties. They also represented only 46 percent of the immigrants originally destined for these counties during 1996-2001. Therefore, that 22 percent of recent immigrants were destined for other areas of New Brunswick but 42 percent of recent immigrants still in New Brunswick in 2001 were resident in other counties is of interest and should be a subject of future research owing to a growing interest among Canadian population planners in developing new immigrant destinations outside larger urban centres. One explanation may be that those immigrants initially settling in the more populous counties are also more likely either to move to other areas of New Brunswick or to leave the province entirely.

Chart 4 shows that that while 52 percent of non-immigrants live in CMA/CAs, 60 percent of all immigrants and 70 percent of recent immigrants live in CMA/CAs. Those who live outside of a CMA/CA are mainly in areas that are either moderately or weakly influenced by a CMA/CA, according to Statistics Canada's measure of CMA/CA influence (Metropolitan Influence Zones, MIZ). (See the notes accompanying Chart 4 on page 16 for further explanation of MIZ.) Interestingly, 8 percent of recent immigrants live in areas that have no CMA/CA influence compared to 4 percent of immigrants overall and only 2 percent of non-immigrants. Figures from the 2001 census indicate that 8 percent of recent immigrants live in Carleton County, a county not adjacent to any metro area, compared with 5 percent of all immigrants and 5 percent of non-immigrants<sup>1</sup>. Table A3 provides data on the absolute numbers of immigrants and non-immigrants in each region.

In general, the particular settlement patterns of immigrants pose a major policy challenge not simply because the pull of urban centres is strong for immigrants and non-immigrants alike but also because of subsequent out-migration by the immigrants who currently live in New Brunswick. This issue is addressed in the next section.

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<sup>1</sup> The presence in rural areas of business operations run by large New Brunswick-based corporations explains much of this phenomenon. For example, McCain Foods in Florenceville, Carleton County employs over 200 IT workers, many of them immigrants.

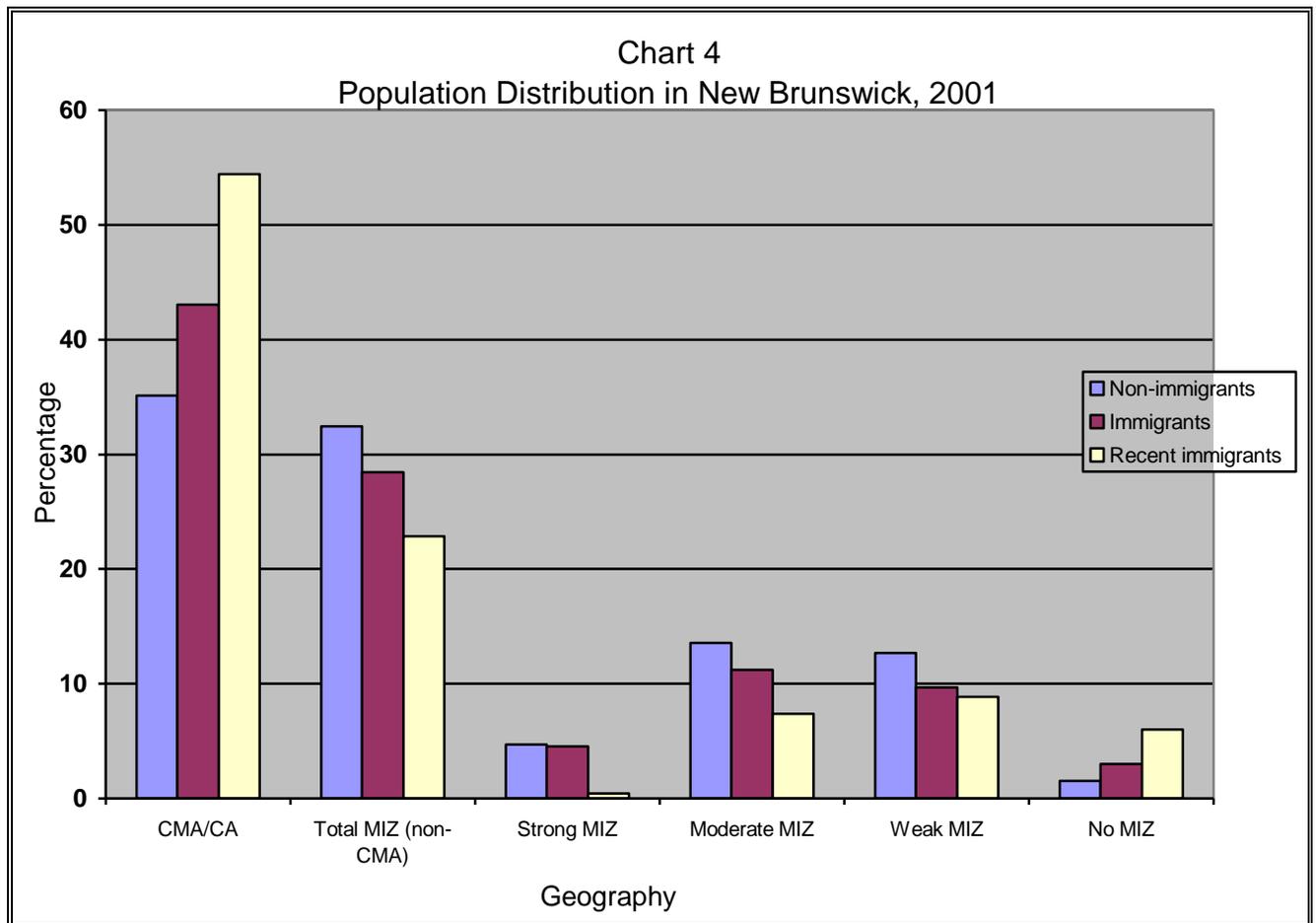
Table 4: Geographic Distribution of New Brunswick Population by Immigrant Status, 2001

CENSUS METROPOLITAN AREA	POPULATION	NON-IMMIGRANTS	IMMIGRANTS	RECENT IMMIGRANTS <sup>1</sup> (1996-2001)
<b>All New Brunswick</b>	<b>719710</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b><u>Metro</u></b>				
Saint John County (Saint John)	75195	10	11	14
Sunbury County	25710	4	4	3
Kings County	63890	9	12	8
Albert County	26470	4	4	2
Westmorland County (Moncton)	122400	17	16	15
York County (Fredericton)	86435	12	20	29
<b><u>Metro Adjacent</u></b>				
Charlotte County	27020	4	7	9
Kent County	30970	4	4	1
<b><u>Non-Metro Adjacent</u></b>				
Northumberland County	50155	7	4	2
Carleton County	26895	4	5	8
Victoria County	20915	3	3	2
Madawaska County	34850	5	5	5
Restigouche County	35410	5	2	1
Gloucester County	81760	12	2	1
Queens County	11635	2	2	0

\*Differs from the PUMF data due to different sample size and post census adjustment made by Statistics Canada.

\*\*Based on Statistics Canada classifications.

<sup>1</sup> Immigrants arriving between 1996 and 2001 and still present in New Brunswick. Source: Non-immigrant data are from 95F0495XCB01001-NS-NE, Statistics Canada (B20/20 format). Immigrant data are from Census 2001 Target Group Profile, Statistics Canada (customized tabulations in B20/20 format).



Source and notes: Based on census 2001 Table CO-0861, 2001 Basic Profile. We thank the Rural Secretariat for providing us these tables. MIZ = Metropolitan Influenced Zone. Strong MIZ can be interpreted as a region outside of a CMA/CA strongly influenced by the CMA/CA in terms of the importance of the CMA/CA's labour market. Moderate MIZ is a region moderately influenced by the CMA/CA, while weak MIZ is only weakly influenced by the CMA/CA. Immigrants in regions classified as No MIZ live in rural or remote areas well outside of the influence of any CMA/CA. For a detailed explanation of the MIZ classification system, please see Chuck McNiven, Henry Puderer and Darryl Janes. 2000. Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ): A description of the Methodology , Statistics Canada catalogue no. 92F0138MIE, no. 2000-2.

### **Case Study: Eastern Canadian Immigration Job Consultants**

(based on a report submitted to the Rural Secretariat by Matthew Stranach)

- In 2002, the number of investors, entrepreneurs, and self-employed individuals intending to settle in New Brunswick was lower than in every province except Prince Edward Island and Newfoundland and Labrador and was markedly lower than for Nova Scotia.
- A married couple from The Netherlands who settled in Carleton County in 2000 began operation of Eastern Canada Immigration Job Consultants Ltd (ECIJC) in late 2003, with particular emphasis on recruiting truck drivers.
- ECIJC facilitates immigration of individuals from Western Europe to rural New Brunswick (in particular, Carleton County). The company seeks out qualified applicants who wish to migrate to Canada and helps them integrate quickly into the community. ECIJC arranges housing, SIN numbers, trucking licenses, Medicare cards, and school access.
- Given that 6000 vacancies for long-haul truckers were identified in Atlantic Canada alone, ECIJC focused initially on attracting individuals from Europe who were fluent in English and had at least five years' relevant experience.
- The company brought in qualified workers on one-year temporary visas; workers were then encouraged to apply for permanent residency.
- In 2003-2004 alone, over 30 clients and their families settled in rural New Brunswick, while another 45 applications were pending.
- Two barriers to success of this program were identified: 1) truck driving is not classified as a skilled trade according to National Occupation Classifications; and 2) the long waiting period during which applications for permanent residency are processed creates significant uncertainty.

## IV.5 The Retention of Immigrants

### Summary

New Brunswick's record in terms of retaining the immigrants it manages to attract has been relatively steady. The inflow of new immigrants in each five-year period between 1981 and 2001 has also been stable, with a retention rate of those new arrivals in the range of 67–70 percent for each sub-period for which data are available.

If immigration is to make a lasting contribution to the New Brunswick economy, it is just as important to retain recent arrivals as it is to attract new entrants. Table 5 shows that retention of recent arrivals has been broadly consistent. Of those immigrants who arrived in New Brunswick between 1981 and 1986, 70 percent remained in the province at the end of this period. The retention rate of arrivals in the 1986-1991 period is not available but remained at the 70 percent level for immigrants arriving between 1991 and 1996. In the most recent census period, retention rates of new immigrants fell modestly to 67 percent. Since out-migration rates are likely to be highest in the first years after arrival, retention rates of more established immigrants might be expected to be higher. The factors influencing the out-migration decisions of recent immigrants should be the subject of future research.

Other evidence for Atlantic Canada suggests that out-migration occurs across all categories of immigrants and schooling levels. Specifically, a study by the Atlantic Provinces Economic Council (APEC, 2001) found that more than 70 percent of refugees destined for Atlantic Canada over the 1980-1995 period had out-migrated, while the corresponding rate was 55-60 percent for business immigrants and about 45 percent for skilled workers. More recent figures for the updated period 1988-2003 indicate modest improvements in retention rates: for refugees the net out-migration rate is 66 percent, and 34 percent of economic principal applicants and 45 percent of all economic applicants are net out-migrants. The rates for family applicants and business applicants are lower again: 17 percent and 30 percent, respectively.

We would like to compute these rates for individual provinces in Atlantic Canada, but data required for these computations were not available at the time of writing. However, it is likely that the numbers for Atlantic Canada also reflect the pattern of out-migration from New Brunswick. Greater economic opportunities in large urban centres such as Toronto, Montreal and Vancouver, combined with the presence of ethnic clusters in those centres, exert a strong pull on immigrants in New Brunswick, except perhaps on those with secure employment and/or social ties to the region. The lack of adequate recognition of foreign credentials in the professions and trades and inadequate resources for settlement support also likely affect the retention rate of immigrants. The loss of economic immigrants is equivalent to a reduction in the provincial economy's human capital, with damaging implications for long-term growth.

Period	New Immigrants arriving in New Brunswick**	New immigrants residing in New Brunswick at the end of period**	Retention rate (%)
	(1)	(2)	(3)=(2)/(1)x100
1981 – 1986	3759	2650	70
1986 – 1991	3955	NA	NA
1991 – 1996	3669	2580	70
1996 – 2001	3835	2575	67

\*Retention rates may be slightly higher than reported because no provision can be made for deaths among new arrivals

\*\*Data for the census year in columns 1 and 2 are only for the first five months.

Source: Data in column (1) are based on PRDS - microdata while those in column (2) are based on Canadian population censuses obtained from the following sources:

1. For 1996-2001 data, Statistics Canada Catalogue number 97F0009XCB-2001004.

2. For 1991-1996 data, Statistics Canada Catalogue number 93F0023XDB96003.

3. For 1981-1986 data, Statistics Canada population census 1986, PUMF-microdata. Data are unavailable for the 1986-1991 period.

Variables used: "prov" in PRDS. "province" and "year of immigration" in Censuses.

## V. IMMIGRANTS IN THE LABOUR MARKET IN NEW BRUNSWICK

Immigrants represent a vital human resource that can bring major economic and other benefits to New Brunswick. One way to assess how immigrants are doing in the economic sphere is to look at their contributions to the quantity and quality of human capital in the province and how they compare to the native born in terms of both various labour market outcomes and the level of their dependence on social transfers. We examine these in turn.

### V.1 Labour Force Growth

#### Summary Points

- Immigrants have been a modest but increasingly important source of labour force growth in New Brunswick.
- Immigrant contribution to the New Brunswick labour force over the 1981-1991 period was in the range of 5 percent of non-immigrant labour force growth. In the economic downturn of the early 1990s, new immigrants' contribution to the provincial labour force was steady, while growth from other sources contracted substantially.
- Non-immigrant growth in the labour force continued to decline in the 1996-2001 period, meaning that an even larger proportion of total labour force growth in New Brunswick was due to immigration.

Labour force growth is an increase in the quantity of human capital and therefore contributes to improving an economy's productive capacity and the standard of living of its residents in the long term. Table 6 gives the net growth in New Brunswick's labour force over the 1981-2001 period, as well as the contribution of new immigrants to that growth. Of the substantial increases of 24,000 and 29,500 people in the New Brunswick labour force in the 1981-1986 and 1986-1991 periods, respectively, relatively small contributions were from inflows of new immigrants. In each period, immigrant inflows were approximately 5 percent of labour force growth from other sources (net natural increase and net migration from other provinces). However, with the marked slowing of labour force growth from domestic sources in 1991-1996, new immigrant inflows actually increased to almost 18 percent of net domestic inflows. Although the provincial labour force continued to increase in the 1996-2001 period, the size of the increase was again significantly smaller than in previous periods. With the steady level of new immigrant inflow to the labour market, this source of growth was over 26 percent of growth from other sources. Given recent trends, immigration will likely continue to be an important source of growth in the provincial labour force.

Period	Total growth of labour force	Growth due to new immigrants	Growth without new immigrants <sup>1</sup>	Immigrants' contribution to labour force growth as a % of growth in non-immigrant growth
	(1)	(2)	(3)	(4)=(2)/(3)x100
1981-1986	24080	1055	23025	4.58
1986-1991	29515	1325	28190	4.70
1991-1996	8115	1215	6900	17.61
1996-2001	5840	1215	4625	26.27

<sup>1</sup>Attributed to natural growth and net interprovincial migration. New immigrants are those who arrived during the listed period.

Source: Calculations based on Statistics Canada publication 97F0012XCB2001003.

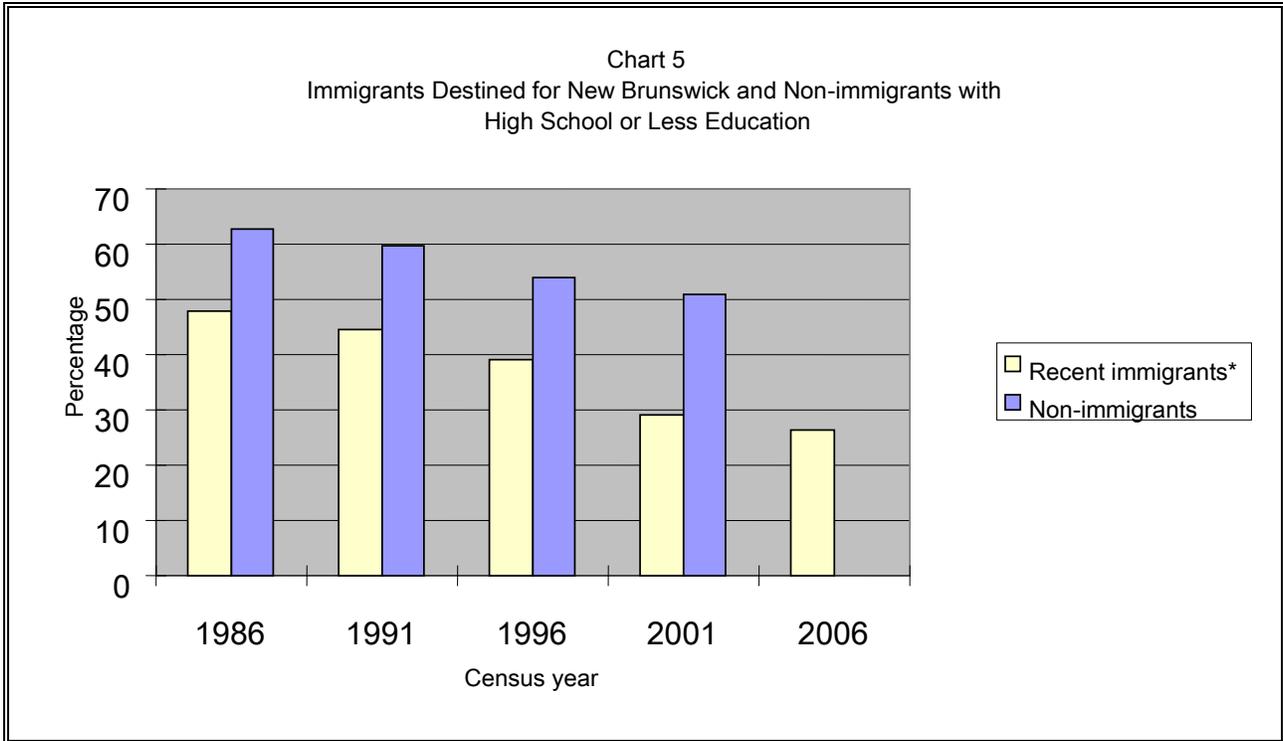
## V.2 Human Capital

### Summary Points

- The education level of immigrants to New Brunswick compared favourably on average with that of non-immigrants over the 1981-2001 period.
- While the education level of non-immigrant residents displayed only modest increases on average since 1986, the percentage of recent immigrants with a degree increased from 20 percent in 1986 to 50 percent in 2001. This change reflects at least in part the federal government's increasing preference for skilled immigrants.

Economic growth and living standards are driven by increases in both the quantity and quality of human capital. How do immigrants contribute to the growth in the quality and quantity of New Brunswick's human capital? While schooling and labour market experience measures are typically used to reflect quantity, quality is more difficult to assess because data on the quality of human capital are typically unavailable. Labour market outcomes can, however, give some indication of human capital quality in terms of earnings by skill level. This section compares the human capital characteristics of immigrants to New Brunswick to those of non-immigrants by looking at schooling levels of the two groups over the period 1986-2001.

Charts 5 and 6 present the proportions of non-immigrants and recent immigrants who have, respectively, high school education or less and a university degree or more. Overall, recent immigrants to New Brunswick have been more highly educated than non-immigrant residents over the full sample period. Of equal interest are the patterns over time in the educational attainment of these two groups. For non-immigrant residents of New Brunswick, the percentage of people with high school or less fell from 62 percent in 1986 to 51 percent in 2001, while the percentage of people with a university degree or more increased from 8 percent to 12 percent over the same period. In contrast, the proportion of recent immigrants with high school or less fell from around 50 percent in 1986 to 27 percent in 2001, while the percentage of recent immigrants with a university degree more than doubled from 20 percent to 50 percent over the same period. This likely reflects in part the increasing preference for more highly educated immigrants through the immigration points system.

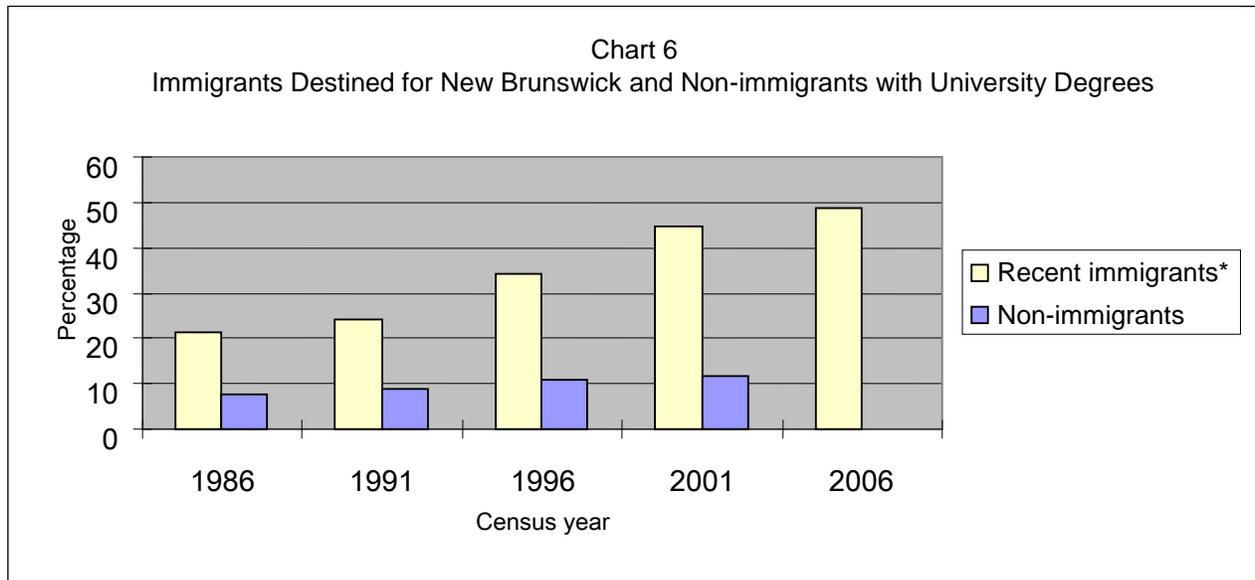


\*Those who arrived within five years of the census year.

Source: 1) PRDS – microdata (CIC), for immigrants. Variables used: "prov", "ed\_qua", "fage". High School or Less Education = None + Secondary or less.

2) Canadian population censuses (PUMF, 1986-2001, individual files) for non-immigrants. Variables used: "province or territories", "immigrant status indicator", "age", "highest level of schooling". For the 1986 census, "place of birth" is used instead of "immigrant status indicator" because the latter is not available to determine whether the individual is a non-immigrant. High School or Less Education = less than grade 5 + grades 5-8 + grades 9-13 + secondary school graduation certificate.

Both the immigrant and non-immigrant samples are restricted to those 25 years or older. Non-immigrant data from the 2006 census are not yet available.



\*Those who arrived within five years of the census year.

Source: 1) PRDS – microdata (CIC), for immigrants. Variables used: "prov", "ed\_qua", "fage". High School or Less Education = None + Secondary or less.

2) Canadian population censuses (PUMF, 1986-2001, individual files) for non-immigrants. Variables used: "province or territories", "immigrant status indicator", "age", "highest level of schooling". For the 1986 Census, "place of birth" is used instead of "immigrant status indicator" because the latter is not available to determine whether the individual is a non-immigrant. High School or Less Education = less than grade 5 + grades 5-8 + grades 9-13 + secondary school graduation certificate.

Both the immigrant and non-immigrant samples are restricted to those 25 years or older. Non-immigrant data from the 2006 census are not yet available.

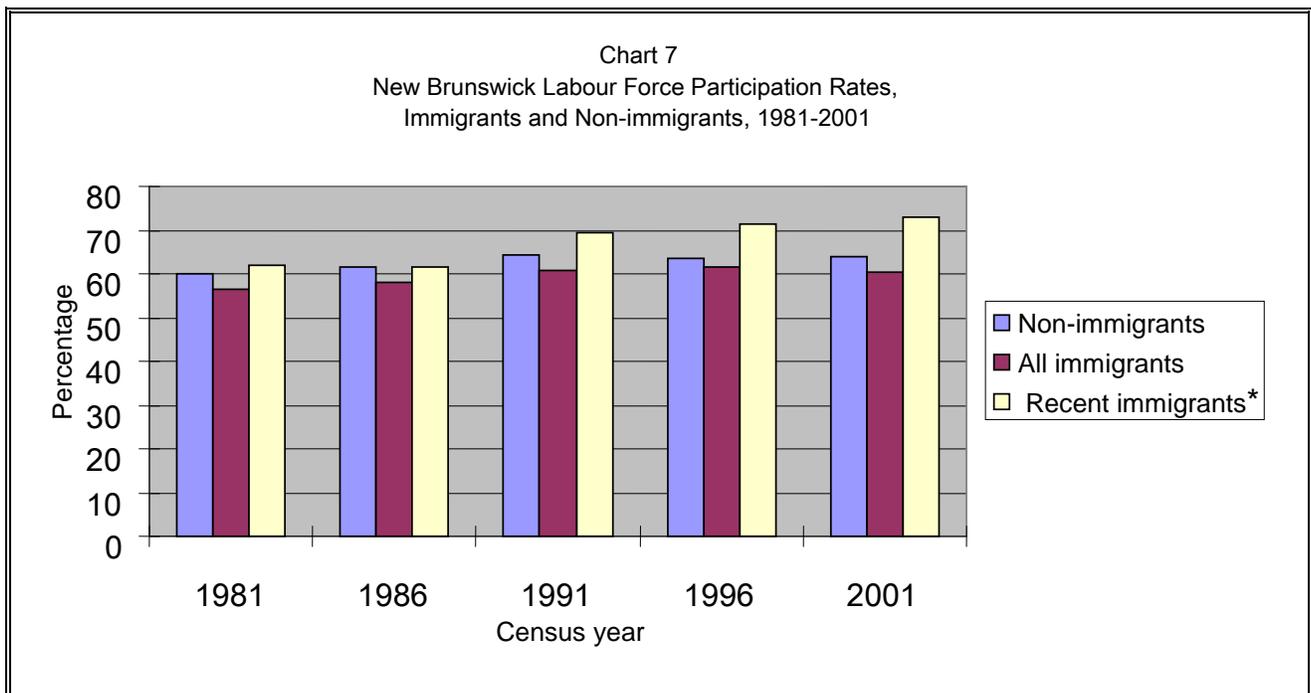
The findings of this section point to increasing skill levels among immigrants in general. More significantly, they show that the educational level of immigrants is generally superior to that of non-immigrants in New Brunswick. As we note later in our discussion of economic immigrants, they are also engaged in high-skill occupations in greater proportions than non-immigrant residents of New Brunswick. While human capital characteristics represent a potentially higher economic contribution, is that potential being fully realized? It may not be if the quality of human capital that immigrants bring with them is not recognized, resulting in overqualified workers working in lower paying occupations. In the absence of the data in requisite detail, however, it is impossible to assess the extent to which this is happening. Nevertheless, actual labour market outcomes can give us a sense of how immigrants perform in those labour markets. This question of potential is addressed in the next subsection.

### V.3 Labour Market Outcomes

#### Summary Points

- Labour market outcomes (labour force participation rates, unemployment rates, and employment income) for immigrants in New Brunswick differ from those of non-immigrant residents in a number of important respects: immigrants on average are less likely to be unemployed, have higher labour incomes, and receive lower amounts of government transfers.
- Recent immigrants have markedly different labour market outcomes compared to both non-immigrant residents and to immigrants who arrived earlier. Recent immigrants on average are more likely to be in the labour force, are more likely to be unemployed, have lower earned incomes, and receive lower levels of government transfers. While part of the difference is likely due to recent immigrants being younger and less experienced, it may also be due to a lack of recognition of recent immigrants' educational credentials.
- Receipt of government transfers by recent immigrants was relatively low in the 1981 and 1986 census years, but the average amount of transfers received was more than double these levels in 1996 and 2001, narrowing the gap with the average amount of transfers received by non-immigrants.
- Although immigrants appear to be holding their own in labour markets and appear not to be a drain on the public purse, their potential economic contribution to the New Brunswick economy is likely not being fully realized.

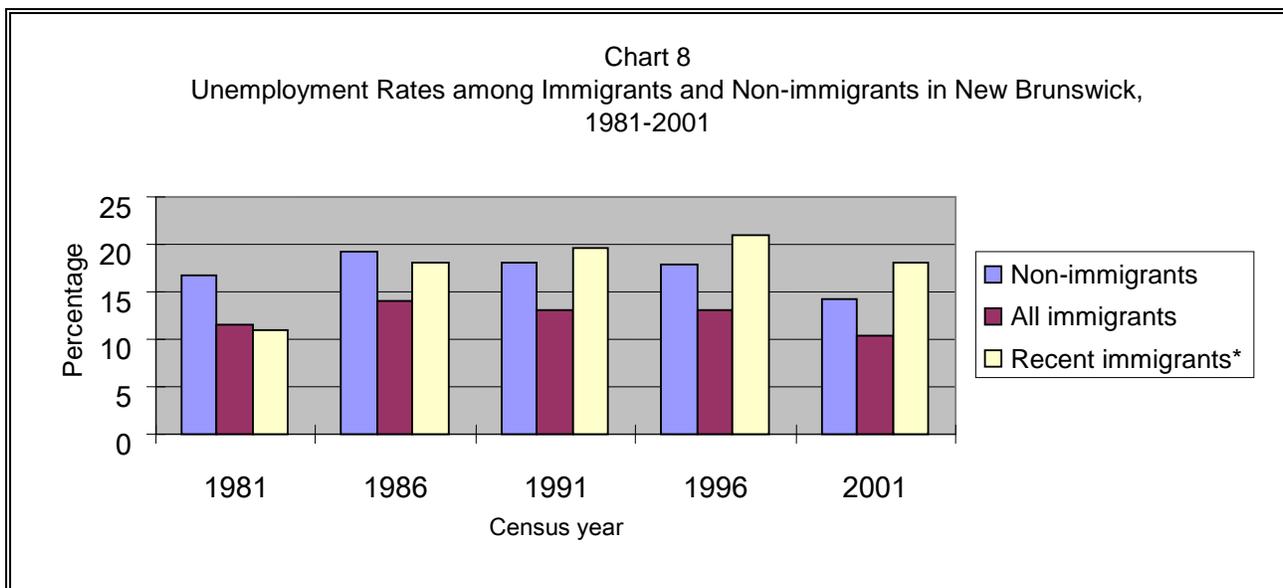
Chart 7 displays the labour market participation rates among non-immigrants and immigrants for the census years 1981-2001. Over the 1981-2001 interval, labour force participation rates of non-immigrants averaged 2-5 percentage points higher than those of the entire immigrant population aged 15 and over. On the other hand, recent immigrants (arriving within five years of each census year) have participation rates as high as or higher than those of non-immigrants, with an increase in the 1991-2001 period. By 2001, recent immigrants in New Brunswick had a 9 percent higher labour force participation rate than non-immigrants and 12 percent higher than immigrants overall. It would then follow that the gap between recent immigrants and earlier arrivals is even larger, although this figure is not reported in Chart 7.



\*Those who arrived within five years of the census date.

Source: Based on "Historical Labour Force Activity (Based on the 1971 Concepts) (8), Immigrant Status and Period of Immigration (10), Age Groups (18), Marital Status (7) and Sex (3) for Population 15 Years and Over, for Canada, Provinces and Territories, 1971, 1981 to 2001 censuses - 20% Sample Data". Ottawa: Statistics Canada, March 25, 2003. Census of Canada. Catalogue number 97F0012XCB2001003. Data are reported in Table A2.

Chart 8 provides the unemployment rates among immigrants and non-immigrants for 1981-2001. While the unemployment rate among the entire immigrant population has generally been substantially lower than that of non-immigrants, recent immigrants have experienced significantly higher unemployment rates than non-immigrants. Changes over time in the unemployment rate of recent immigrants relative to non-immigrants may be explained in part by the changing composition of immigrants by source country. In 1981, when the US, UK, and Germany were the top three immigrant source countries, the unemployment rate of recent immigrants was lower than for non-immigrant residents. By 1991, the unemployment rate of recent immigrants was higher than for non-residents, and in 1996 and 2001, the difference in the unemployment rate between these two groups was even higher. These changes coincide with the increasing importance of China and other countries in Asia as source countries for New Brunswick's immigrants.



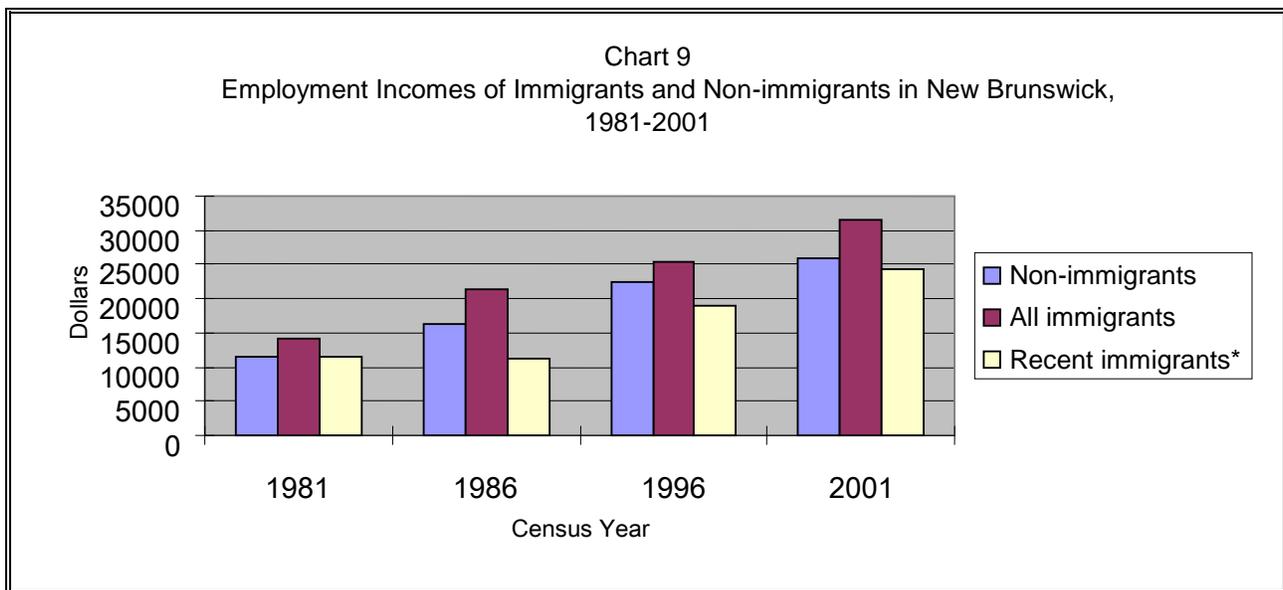
\*Those who arrived within five years of the census year.

Source: Based on "Historical Labour Force Activity (Based on the 1971 Concepts) (8), Immigrant Status and Period of Immigration (10), Age Groups (18), Marital Status (7) and Sex (3) for Population 15 Years and Over, for Canada, Provinces and Territories, 1971, 1981 to 2001 Censuses - 20% Sample Data". Ottawa: Statistics Canada, March 25, 2003. Census of Canada. Catalogue number 97F0012XCB2001003. Data are reported in Table A2.

Chart 9 presents data on employment earnings over the 1981-2001 interval. Interestingly, while immigrants overall earned more on average than non-immigrant New Brunswick residents in each census year, immigrants arriving within five years of the census year earned consistently less than non-immigrants. Again this is likely due in part to recent immigrants being younger and less experienced, though even controlling for such factors, recent immigrants earn less than comparable non-immigrant Canadians. Of comparable importance is the rate of increase of earnings of these recent immigrants as they become established in the local labour market. While this fact is considered in great detail at the national level, future studies should examine trends in earnings for

particular groups of immigrants, such as those who live in New Brunswick and the other Atlantic provinces.

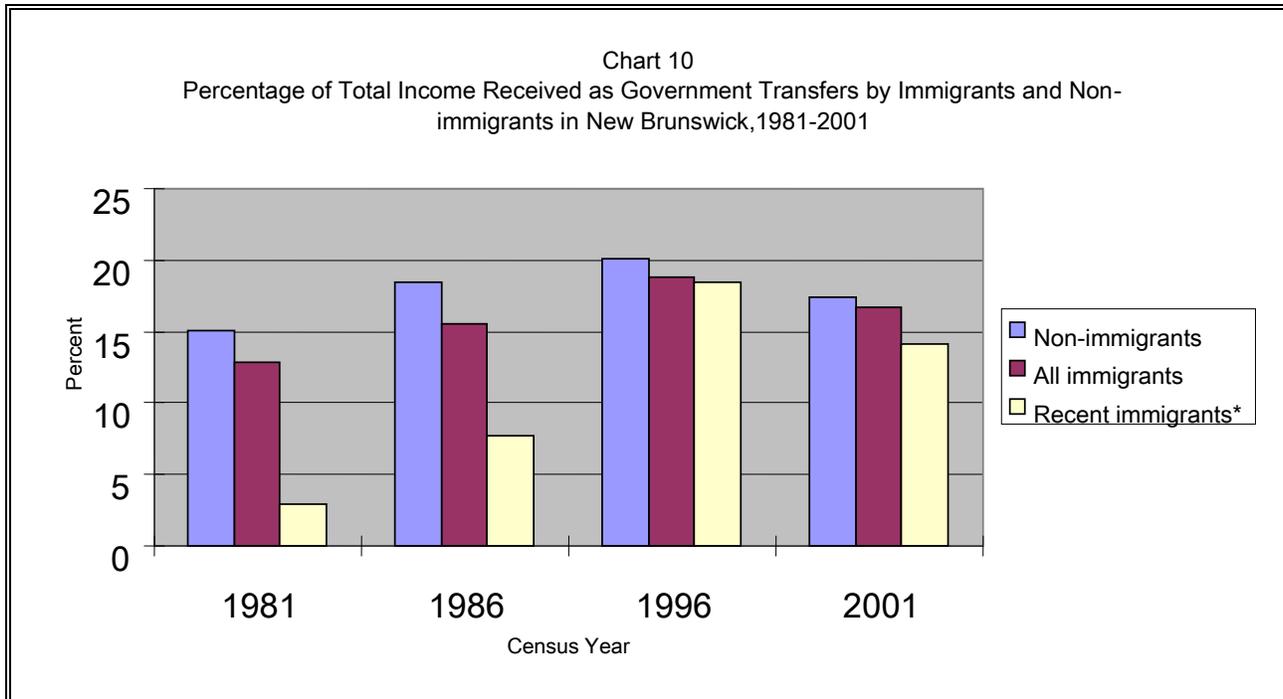
In general, the above findings on income disadvantage of recent immigrants in relation to non-immigrants, and also on their rising unemployment rates, indicate that newer immigrant arrivals face some difficulties in their labour market adjustments in New Brunswick despite their higher educational attainments than those who arrived in the past. One such difficulty may be the lack of recognition of the educational credentials of new immigrant arrivals, a large number of whom arrive from developing countries in Asia.



\*Those who arrived within five years of the census year. Data on recent immigrants in the 1991 census were not available in the census PUMF for New Brunswick.

Source: Special tabulations by authors based on Canadian population censuses (PUMF, 1981-2001, individual files).

Chart 10 shows the average level of receipt of government transfers (from all government sources) expressed as a proportion of total income from all sources. On average, an immigrant receives lower government transfer payments than a non-immigrant. Average receipt of transfer payments increased over the period from 1981 to 1996 and then declined again in 2001 for both groups. Although the pattern is similar for recent immigrants, the magnitude of the changes is much larger. The percentage of total income as government transfers for recent immigrants has been consistently lower than for non-immigrants, although the large gap in the receipt of transfers in 1981 and 1986 was significantly narrowed as the receipt of transfers by recent immigrants more than doubled in 1996 from 8 percent to 18 percent of total income. (Data on receipt of transfers by recent immigrants in 1991 is not available, so figures for this year are excluded.) The lower government transfer receipts of new arrivals are likely due in part to their younger age, which makes them ineligible for Canada Pension Plan and Old Age Security income.



\*Recent immigrants are those who arrived within five years of the census year. Data on recent immigrants in the 1991 census were not available in the census PUMF for New Brunswick.

Source: Special tabulations by authors based on Canadian population censuses (PUMF, 1981-2001, individual files).

Overall, the evidence presented in this section suggests that labour market outcomes for immigrants are generally superior to those of non-immigrants: lower unemployment rates, higher levels of earned income, and lower receipt of government transfers. However, this is not true of recent immigrants, who appear to be facing greater difficulty in their labour market adjustment than those who arrived in the past. On the other hand, recent immigrants rely less on social transfers for income support than both the native born and immigrants in general. Although immigrants appear to be both holding their own in labour markets and not a drain on the public purse, their potential economic contribution to New Brunswick's economy is likely not being fully realized. This becomes more apparent in the next section, in which we review various aspects of economic immigration to New Brunswick.

## VI. SKILLED AND BUSINESS IMMIGRANTS IN THE NEW BRUNSWICK ECONOMY

Skilled workers and business immigrants make up the so-called “economic” immigrant class. CIC defines this class as “people who may become permanent residents because they are able to become economically established in Canada.” ([www.cic.gc.ca](http://www.cic.gc.ca))

“Business immigrants are people who can invest in, or start businesses in Canada and are expected to support the development of a strong and prosperous Canadian economy. The Business Immigration Programs seek to attract to Canada

people experienced in business. Business immigrants are selected based on their ability to become economically established in Canada.” ([www.cic.gc.ca](http://www.cic.gc.ca))

CIC also divides business immigrants into three classes: investor, entrepreneur, and self employed. Investors are experienced persons who must demonstrate business experience, have a minimum net worth of \$800,000, and make an investment of \$400,000. Entrepreneurs are experienced persons who will own and actively manage business in Canada that will contribute to the economy and create jobs. Entrepreneurs must have business experience and a minimum net worth of \$300,000 and are subject to conditions on arrival in Canada that include creation of at least one job for original Canadians. Finally, the self employed are persons who must have the intention and ability to create their own employment by operating a business in Canada. They are also expected to contribute to the cultural or athletic life of Canada.

While New Brunswick abides by national objectives that allow immigration on humanitarian grounds for refugees and others for family re-unification, the need to foster economic immigration suited to the long-term needs of the province is paramount. Immigration policy falls under federal jurisdiction, but all provinces can (and do) work out special arrangements for promoting immigration perceived to be in their interest. The province of Quebec has had such an arrangement for many years, and New Brunswick’s Provincial Nominee Program began in late 1999. The New Brunswick PNP reflects this new thinking towards enhancing the positive impact of immigration in the smaller provinces of Canada that traditionally have attracted relatively few immigrants.

Since increased economic immigration is an important policy objective in New Brunswick, it is important to examine it in detail. Therefore, this section analyzes data from a number of sources to shed light on the various dimensions of economic immigration to New Brunswick. Our discussion will be divided into two parts – one dealing with skilled workers and the other with business immigrants. Again, it should be reiterated that immigrants to New Brunswick through the PNP are classified as skilled immigrants even if they immigrate through the business/entrepreneur category of the PNP (as of 2005, 60 percent of PNP immigrants were in the business category). Because of the expedited timing of PNP files, the vast majority of business applicants destined to the province have applied through the PNP since it came into effect.

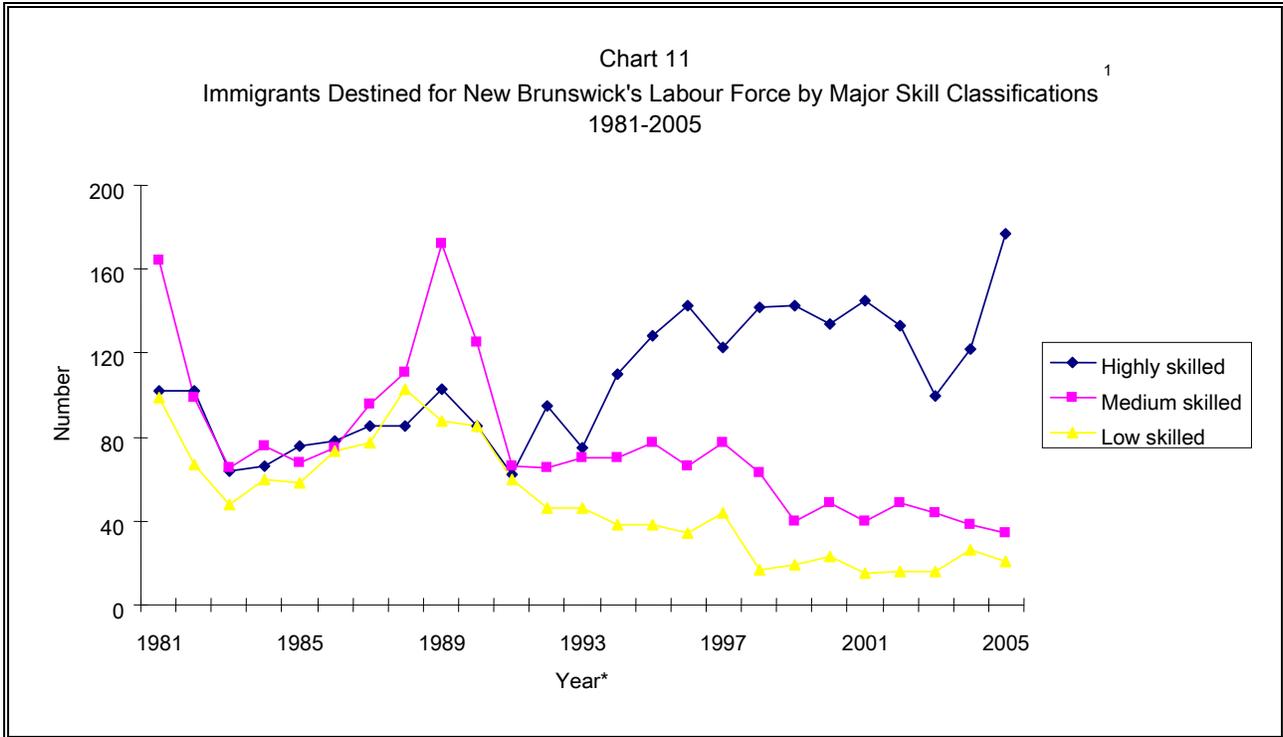
While LIDS provides data on the arrival of immigrants under the skilled and business classes, no direct data are available on their economic performance. However, the economic performance of immigrants who practiced different occupations in Canada can be assessed. Since this section of the study focuses on immigrants who can establish themselves economically in Canada, census data are analyzed only for those who worked as professionals and managers. The occupational matrix prepared by Human Resources and Social Development Canada (HRSDC) lists these two occupations among the top in terms of their educational and skill requirements. Finally, to assess the performance of immigrants in the business sector, data are analyzed for those who declared themselves “self-employed” on the census questionnaire.

## VI.1 Immigration of Highly Skilled Workers

### Summary Points

- Since 1992, the number of highly skilled immigrants (managers and professionals) destined for New Brunswick has exceeded those of medium- and low- skilled immigrants.
- The inflow of medium- and low-skilled immigrants has been declining since 1989, while the inflow of highly skilled immigrants has been trending up since the early 1980s.

LIDS provides data on the occupational classifications of immigrants destined for the labour force according to the five classifications used by HRSDC to derive the three occupational groups of “highly skilled”, “medium-skilled”, and “low-skilled” immigrants. Chart 11 provides annual trends of these three occupational groups of immigrants destined for New Brunswick’s labour force, showing that throughout the period 1981-2005, highly skilled immigrants (managers and professionals, i.e., groups “O” and “A”) comprised a significant proportion of those destined for the labour force in New Brunswick. In fact, the number of highly skilled immigrants has trended up since the early 1980s and became the most common skill category of immigrants to New Brunswick in 1992. Through the late 1990s, highly skilled immigrants numbered approximately 150 persons per year, compared with 50 immigrants each in the medium- and low-skilled categories. Following a downturn in 2003, the numbers of skilled immigrants intending to settle in New Brunswick increased again in 2004 and 2005. At the same time, the number of both medium- and low-skilled immigrants reached their lowest levels of the entire sample period, due at least in part to the strong skill-bias inherent in the Canadian immigration point system.



<sup>text 1</sup> National Occupational Classifications (NOC) were further classified as highly skilled = "O" and "A"; medium skilled = "B", low skilled = "C" and "D". Detailed definitions of NOC are provided in A5. Source: PRDS – microdata (CIC). Variables used: "NOC2", "PROV".

## ***Where Immigrant Managers and Professionals Work***

### **Summary Points**

- About 70 percent of highly skilled immigrants in New Brunswick in 2001 were professionals, 27 percent were middle and other managers, and 3 percent were senior managers.
- As of 2001, immigrant professionals and managers were overwhelmingly engaged in the service sector. The most important employer of highly skilled immigrants is the education sub-sector, which alone accounted for more than 20 percent of highly skilled immigrants' employment in 2001. Health care and social assistance was the second most important sector.
- The level of non-immigrant professionals grew by over 20 percent during 1991-2001. In contrast, immigrant professionals grew by only 5 percent over the same period. The slow growth of immigrant professionals in the past decade is reflected in part by a relative decline in the proportion of immigrants employed as physicians, dentists, and veterinarians, the occupational group where immigrants have been most concentrated.

Table 7 depicts the distribution of managers (subdivided into two subgroups) and professionals by industry of employment in New Brunswick in 2001. These immigrants may or may not have entered New Brunswick in the 'skilled' immigrant visa class so may or may not be included in Chart 9. However, their current occupations are described as highly skilled occupations as they conform to the HRSDC definitions. Several facts emerge from this table. First, immigrant professionals and managers are overwhelmingly engaged in the service sector: 75 percent of senior managers, 83 percent of middle managers, and 86 percent of professionals are employed in the service sector. Almost 40 percent of immigrant middle and other managers are employed in wholesale/retail trade and in accommodation and food services. Another 13 percent of immigrants employed as middle or other managers are in public administration. For immigrants employed as professionals, the two most important industries of employment are education and health care/social assistance, together accounting for around 50 percent of the total number of immigrant professionals. Only 148 immigrants were employed as senior managers in public administration, wholesale/retail trade, and professional, scientific and technical services.

Table 7: Immigrant Managers and Professionals in New Brunswick by Industry of Employment, 2001

Industry	Managers				Professionals	
	Senior		Middle & Other		No.	%
	No.	%	No.	%		
<b>Agriculture, Mining and Utilities</b>	<b>0</b>	<b>0.0</b>	<b>37</b>	<b>2.8</b>	<b>74</b>	<b>2.1</b>
<b>Construction Industry</b>	<b>0</b>	<b>0.0</b>	<b>74</b>	<b>5.6</b>	<b>37</b>	<b>1.1</b>
<b>Manufacturing Industry</b>	<b>0</b>	<b>0.0</b>	<b>37</b>	<b>2.8</b>	<b>37</b>	<b>1.1</b>
<b>Service Industries:</b>	<b>111</b>	<b>75.0</b>	<b>1109</b>	<b>83.3</b>	<b>2996</b>	<b>86.2</b>
Wholesale & Retail	37	25.0	259	19.5	37	1.1
Transportation, Warehousing, Information & Culture	0	0.0	74	5.6	185	5.3
Finance & Insurance	37	25.0	37	2.8	74	2.1
Real Estate, Rental & Leasing	0	0.0	0	0.0	0	0.0
Professional, Scientific, & Technical	37	25.0	74	5.6	555	16.0
Administration Support, Waste Management & Remediation	0	0.0	111	8.3	37	1.1
Education	0	0.0	111	8.3	1035	29.8
Health Care & Social Assistance	0	0.0	74	5.6	703	20.2
Arts, Entertainment & Recreation	0	0.0	37	2.8	111	3.2
Accommodation & Food Services	0	0.0	295	22.2	0	0.0
Other (excluding Public Administration)	0	0.0	37	2.8	259	7.5
<b>Public Administration</b>	<b>37</b>	<b>25.0</b>	<b>74</b>	<b>5.6</b>	<b>332</b>	<b>9.6</b>
<b>Other (not specified)</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>TOTAL</b>	<b>148</b>	<b>100</b>	<b>1331</b>	<b>100</b>	<b>3476</b>	<b>100.0</b>

Source: Special tabulations based on the Canadian population census (PUMF, 2001, individual file). Variables used: "Immigrant Status Indicator", "Occupation – Employment Equity Designations – Based On The National Occupational Classification", and "Industry – Based On The 1997 North American Industry Classification System [NAICS]".

Table 8 provides the occupational distribution of highly skilled immigrants employed as professionals in New Brunswick for the 1991, 1996 and 2001 census years. Statistics Canada cautions that some numbers in Table 8 may be inaccurate due to the miscoding of some occupations; however, the data do permit comparisons between immigrants and non-immigrants and also between these groups and recent immigrants.

Overall, immigrants constitute a small but significant proportion of total professionals in New Brunswick. However, over the 1991-2001 period, the number of non-immigrants employed as professionals grew by 22 percent, a faster rate than the number of immigrants employed as professionals, which grew by only 5 percent. The net result was that the proportion of immigrants employed as professionals fell from 8 percent to 7 percent. The slow growth of immigrant professionals over the decade from 1991 to 2001 is reflected in part by a relative decline in the proportion of immigrants employed as physicians, dentists, and veterinarians, the occupational group where immigrants have been most concentrated. In 2001, 17 percent of this group were immigrants, down from 21 percent in 1991. Quantitatively, immigrant professionals are most likely to be employed as teachers and professors, but the immigrant share of this occupational group has remained fairly constant over the period, even though the absolute number of teachers and professors actually declined between 1991 and 2001.

There was significant growth in the numbers of non-immigrants employed in most occupational groups, including business and finance occupations, computers and information systems, and health-related occupations. In particular, the number of non-immigrants employed in computers and information systems occupations increased by around 167 percent over the period 1991-2001. While the number of immigrants employed in these occupations almost doubled over the same period, immigrants constituted only around 6 percent of these professionals in 2001. Most other occupational groups showed either modest or no growth at all in the number of immigrants employed in these jobs.

Table 8: Professionals in New Brunswick by Selected Occupations: Immigrants and Non-immigrants, 1991-2001 Censuses, New Brunswick			
PROFESSIONALS BY OCCUPATIONS	Census Year		
	1991	1996	2001
<b><i>Business and Finance</i></b>			
<b>Auditors, accountants &amp; other investment professionals</b>			
Non-immigrants	2,115	2,675	3,960
Immigrants	110	70	140
Recent immigrants	0	0	10
<b>Other professionals in business and finance*</b>			
Non-immigrants	530	880	1050
Immigrants	25	55	95
Recent immigrants	0	0	0
<b><i>Natural and Applied Science and related</i></b>			
<b>Engineers</b>			
Non-immigrants	2205	1895	2025
Immigrants	375	185	305
Recent immigrants	65	20	25
<b>Computer &amp; information systems</b>			
Non-immigrants	2,210	2,700	5,900
Immigrants	150	255	345
Recent immigrants	25	20	100
<b>Other scientists*</b>			
Non-immigrants	1185	1180	1255
Immigrants	180	130	130
Recent immigrants	5	20	20
<b><i>Health Professionals</i></b>			
<b>Physicians, dentists and veterinarians</b>			
Non-immigrants	1,005	1,145	1,305
Immigrants	270	285	270
Recent immigrants	15	30	25
<b>Other health professionals*</b>			
Non-immigrants	1080	1370	1680
Immigrants	95	95	100
Recent immigrants	0	5	0

Contd.

Table 8 (Contd.): Professionals in New Brunswick by Selected Occupations: Immigrants and Non-immigrants, 1991-2001 Censuses, New Brunswick.			
	Census Year		
	1991	1996	2001
<b>Social Science, Education, Government Services &amp; Religion*</b>			
<b>Judges, lawyers, Quebec notaries</b>			
Non-immigrants	840	1,070	1,040
Immigrants	30	55	60
Recent immigrants	10	0	10
<b>Teachers and professors</b>			
Non-immigrants	13,455	13,560	12,340
Immigrants	1,050	1,070	945
Recent immigrants	105	115	75
<b>Other professionals in social science, education, government services and religion*</b>			
Non-immigrants	6900	7705	7865
Immigrants	425	595	500
Recent immigrants	50	50	50
<b>Arts, Culture, Recreation, and Sports</b>			
<b>Musicians and singers</b>			
Non-immigrants	240	415	420
Immigrants	55	60	40
Recent immigrants	10	10	0
<b>Other professionals in arts, culture, recreation, and sports*</b>			
Non-immigrants	1680	1925	2000
Immigrants	180	185	175
Recent immigrants	30	0	35
Recent immigrants	840	1,070	1,040

\*Computed total of all other professionals in the occupation. Health professionals exclude nurse supervisors and registered nurses.

Source: "Occupation - 1991 Standard Occupational Classification (Historical) (707B), Selected Labour Force, Demographic, Cultural, Educational and Income Characteristics (252) and Sex (3) for Population 15 Years and Over, for Canada, Provinces, Territories and Census Metropolitan Areas <sup>1</sup>, 1991 to 2001 Censuses - 20% Sample Data." Ottawa: Statistics Canada. Catalogue number 97F0012XCB2001048.

### ***Employment Income, Unemployment Rates and Country of Origin of Highly Skilled Immigrants***

Table 9 shows that of employed managers and professionals, an average immigrant manager earned 7 percent more than a corresponding non-immigrant manager in 2001. An immigrant senior manager earned 4 percent more on average, but since these individuals were relatively few, this has only a minor effect on the overall difference. An average immigrant professional earned almost 19 percent more than a non-immigrant professional on average, reflecting in part the occupational distribution within the professional class. Interestingly, unemployment rates for both immigrant managers and immigrant professionals were higher than for the corresponding non-immigrant groups. For the former group in particular, the unemployment rate among immigrants was more than 5 percent higher than for non-immigrants.

Table 9: Managers and Professionals in New Brunswick by Employment Income, Unemployment Rate, and Country / Region of Birth, 2001				
	Senior Managers	Other Managers	All Managers	Professionals
<b>Employment income (\$)</b>				
Immigrants	59,909	40,964	43,126	47,764
Non-immigrants	57,523	38,119	40,395	39,913
<b>Unemployment rate (%)</b>				
Immigrants	0.00	8.84	7.91	4.65
Non-Immigrants	3.10	2.62	2.68	2.92
<b>Immigrants' country / region of birth</b>				
United States	0	259	259	1370
United Kingdom	74	407	481	737
Germany	37	74	111	185
Netherlands	0	110	110	148
Other Europe	0	184	184	294
Asia	37	111	148	481
Other countries / regions	0	185	185	222
<b>Total immigrants</b>	<b>148</b>	<b>1330</b>	<b>1478</b>	<b>3437</b>
<b>Non-immigrants</b>	<b>3730</b>	<b>28,051</b>	<b>31,781</b>	<b>44,723</b>

Source: Special tabulations based on Canadian population census (PUMF, 2001, individual file).

Mean employment income is calculated only for those who were employed in the reference week and includes wages and salaries and self-employment incomes.

Unemployment rate = unemployed / (unemployed + employed)

Total immigrants & non-immigrants include employed, unemployed and not in the labour force.

Variables used: "Province or territory", "Place of birth", "Immigrant status indicator", "Labour Force Activity – In Reference Week", "Occupation – Employment Equity Designations – Based On The National Occupational Classification", "Wages And Salaries", "Self-Employment Income".

Table 9 also shows that the United States and the United Kingdom are the primary source countries of highly skilled immigrants, together accounting for 50 percent of managers and 61 percent of professionals. Among managers, the third most common source region was continental Europe, while among professionals, the third most common source region was Asia.

### ***Geographic Distribution of Highly Skilled Immigrants***

Table 10 shows the distribution of highly skilled immigrants by county of residence in New Brunswick. While highly skilled immigrants are found in all New Brunswick counties, they are concentrated in York and Westmorland counties (in which the cities of Fredericton and Moncton, respectively, are located). Comparing the distribution of managers to that of all immigrants reported in Table 4, the distributions are seen to be very similar. That is, managers are distributed across the province similar to the settlement patterns of immigrants to New Brunswick overall. For professionals, the largest concentrations of immigrants are again found in York and Westmorland counties. However, the distribution of professionals indicates that they are relatively more

concentrated in York and Westmorland counties than are immigrants in general and relatively less concentrated in Saint John County.

Overall, results of this section show that immigrant professionals and managers are distributed across all New Brunswick provinces but are most highly concentrated in the counties containing the cities of Fredericton and Moncton. Highly skilled immigrants earn more than highly skilled non-immigrants but are also somewhat more likely to be unemployed. As the previous section illustrated, the numbers of highly skilled immigrants grew at a slower rate than did the numbers of highly skilled non-immigrants between 1991 and 2001, suggesting perhaps a failure to retain skilled managers and professionals in New Brunswick. The loss of productive potential resulting from their departure is not known but needs to be explored in future work.

Table 10: Geographic Distribution of Highly Skilled Immigrants, New Brunswick, 2001				
County	Senior Managers	Other Managers	Total for Managers	Professionals
<b>Metro</b>				
Saint John	15	165	180	225
Sunbury	0	55	55	55
Kings	35	180	215	460
Albert	20	65	85	125
Westmorland	25	205	230	655
York	55	305	360	920
<b>Metro Adjacent</b>				
Kent	0	45	45	70
Charlotte	0	110	110	155
<b>Not Metro Adjacent</b>				
Queens	10	20	30	40
Northumberland	0	50	50	115
Carleton	20	40	60	65
Victoria	0	15	15	50
Madawaska	0	55	55	105
Restigouche	0	15	15	55
Gloucester	0	45	45	80
Rounding Error <sup>1</sup>	-32	-40	-72	262
<b>Total</b>	<b>148</b>	<b>1330</b>	<b>1478</b>	<b>3437</b>

Source: Census 2001 Target Group Profile, Statistics Canada (customized tabulations). 1. This is computed as the difference between totals in Target Profile data and the PUMF data (Table 9). Since the numbers in the table are rounded to the nearest 5 people for confidentiality reasons, totals may not necessarily add up to the actual number of immigrants in a particular occupational category in the province. These numbers (including any negatives) are intended to adjust the 'rounded' column totals so they equal the actual total numbers for New Brunswick as a whole.

## VI.2 Business Immigration

### Summary Points

- About two-thirds of self-employed immigrants in New Brunswick operate their businesses in the service sector, with 'other services', business services, and health services the most common. After service, agriculture has the next largest number of business immigrants, with more than 10 percent of the total of self-employed immigrants.
- Most self-employed immigrants are from the United Kingdom (55 percent), followed by continental Europe (18 percent). Notably, very few business immigrants come from the United States.
- The main counties of residence for self-employed immigrants are York, Kings, and Westmorland for men, and Kings, York, and Charlotte for women.

While data on the economic performance of business immigrants are not directly available, census micro data permit the analysis of the performance of self-employed immigrants, some of whom will have recently arrived in Canada as business immigrants. The self-employed reported under the census terminology are those who were actually running their own business, incorporated or unincorporated, at the time of the census. As the purpose of this section is to review the contribution of resident immigrants to New Brunswick's business sector, census data on the performance of self-employed immigrants will give a rough idea about the economic performance of these important immigrants. In the discussion that follows, the terms business immigrants and self-employed immigrants are used interchangeably.

Industry	Number
Agriculture	220
Other primary	37
Manufacturing	110
Construction	110
Transportation & storage	37
Communication & other utilities	0
Wholesale trade	0
Retail trade	111
Finance, insurance, & real estate	74
Business services	442
Educational services	0
Health & social services	295
Accommodation, food & beverage services	184
Other services	480
TOTAL	2101

<sup>1</sup> Data reported in this table are for those who reported as being self-employed in 2000. Source: Special tabulations based on Canadian population census (PUMF, 2001, individual file).

Variables used: "Province or territory", "Immigrant status indicator", "Class of worker", "Industry - based on the 1980 Standard Industrial Classification".

### ***The Distribution of Immigrant Businesspersons in New Brunswick by Industry and Country of Origin***

Table 11 shows the distribution of immigrant businesspersons by industry in the census year 2001. This table broadly indicates where in the economy the capital that such immigrants bring in is located, although data are not available on the amounts invested. Immigrant business people are most active in the aggregated category 'other services', followed by business services and then health services. Together, about 67 percent of self-employed immigrants work in the services sector. After services, agriculture is the next most important industry, with approximately 10 percent of business immigrants.

Table 12: Immigrant Businesspersons in New Brunswick by Country / Region of Origin	
Country	Number
United States	37
United Kingdom	444
Germany	37
Netherlands	0
Other Europe	148
Asia	74
Other	74
Total	814

<sup>1</sup> Data reported in this table are for those immigrants who reported to be self-employed in 2000. Source: Special tabulations based on Canadian population census (PUMF, 2001, individual file). Variables used: "Province or territory", "Immigrant status indicator", "Class of worker", "Place of birth".

Table 12 depicts self-employed immigrants in 2001 by country of origin. The United Kingdom has been the most common source, with approximately 55 percent of New Brunswick's business immigrants, followed by continental Europe, which has provided 18 percent of New Brunswick's business immigrants. Interestingly, very few self-employed immigrants are from the United States.

Table 13: Immigrant Businessmen and Businesswomen in New Brunswick by Geographic Distribution, 2001<sup>1</sup>

County	Men aged 15 years and over			Women aged 15 years and over			Grand Total
	Self-employed (incorporated)	Self-employed (un-incorporated)	Total Male	Self-employed (incorporated)	Self-employed (un-incorporated)	Total Female	
Saint John	65	50	115	20	15	35	150
Charlotte	10	60	70	0	95	95	165
Sunbury	20	25	45	10	25	35	80
Queens	25	0	25	0	15	15	40
Kings	60	115	175	20	105	125	300
Albert	15	35	50	10	35	45	95
Westmorland	60	100	160	20	70	90	250
Kent	0	25	25	0	35	35	60
Northumberland	15	40	55	0	25	25	80
York	85	150	235	35	80	115	350
Carleton	10	35	45	15	20	35	80
Victoria	10	0	10	10	0	10	20
Madawaska	15	10	25	0	30	30	55
Restigouche	10	20	30	0	0	0	30
Gloucester	20	40	60	0	25	25	85
<b>Total</b>	<b>420</b>	<b>705</b>	<b>1125</b>	<b>140</b>	<b>575</b>	<b>715</b>	<b>1840</b>

<sup>1</sup> Data reported in this table are for those who reported they were self-employed in 2000.

Source: Census 2001 Target Group Profile, Statistics Canada (customized tabulations in B20/20 format). The difference between the totals reported in Tables 11 and 13 could be because the geographic location of some respondents could not be identified by the census.

### ***Immigrant Businesspersons in New Brunswick by Type of Business, Gender and Geographic Distribution***

Table 13 shows for self-employed business immigrants the type of business set-up (incorporated or not) by gender and geographic distribution in 2001. This table also shows that the main counties of residence for male and female businesspersons differ somewhat. The main counties for men are York, Kings, and Westmorland, respectively, while for women, they are Kings, York, and Charlotte. Kings County is just north of Saint John County and includes the town of Sussex; Charlotte County is close to the Maine border and includes the town of St. Stephen. Other counties receive relatively small numbers of business immigrants. Thus, as for highly skilled immigrants, there is marked inequality in the distribution of business immigrants across New Brunswick's counties.

There is also a significant gender disparity in business immigration, with 157 immigrant businessmen for every 100 immigrant businesswomen at the provincial level. For both men and women, businesses are much more likely to be unincorporated than incorporated.

## ***Entrepreneurial Investment by Industry in New Brunswick***

An important category under business immigration is the immigrant entrepreneur category. CIC defines entrepreneurs as “experienced persons that will own and actively manage businesses in Canada that will contribute to the economy and create jobs. Entrepreneurs must demonstrate business experience, a minimum net worth of CDN \$300,000 and are subject to conditions upon arrival in Canada.” The previous section viewed all self-employed individuals as business immigrants. Therefore, given CIC’s definition of an entrepreneur, the self-employed in the census data could also include some entrepreneurs who manage their own business. However, since entrepreneurial immigrants are also required to present evidence of compliance with certain conditions established by the federal government, some industry-level data are available for the period 1995-2004 on the amounts of their investment. These data were obtained from CIC through special request and are presented in Table 14.

One factor that stands out above all is the extreme volatility of investment over time, which partly reflects the behaviour of business immigration over this period. Only \$30,000 was invested in 1995, but this rose to over \$900,000 in each of the years 1996 and 1997. In 1998, 1999, 2001, and 2004, however, there was no entrepreneurial investment at all. In 2005, investment surged to more than \$1.5 million, mainly in agriculture.

The available data indicate that relatively large investments were also made in agriculture in 1996, in retail, manufacturing, and building industries in 1997, and in accommodation services in 2000, 2003 and 2005.

Investment is by nature volatile, but in this case, the substantial fluctuations also likely reflect the small number of entrepreneurs, so small changes in their number can bring about large swings in investment. In light of this volatility, much caution is needed in drawing conclusions.

Table 14: Entrepreneur Program, Dollars Invested by Industry, New Brunswick, 1995-2005*							
	1995	1996	1997	2000	2002	2003	2005
<b>Services</b>							
Business Services	30,000			84,550			
Services Incidental to Construction				120,000			
Accommodation Services				610,000		353,280	376,690
Forestry Services							150,000
<b>Agricultural Industries</b>		648,000			70,900		1,000,000
<b>Wholesale</b>							
Food, Beverage, Drug and Tobacco		144,500					
<b>Retail</b>							
Food, Beverage and Drug		140,000					35,550
Automotive Vehicles, Parts & Accessories, Sales & Service			270,000				
<b>Manufacturing</b>							
Electrical and Electronic Products			333,000				
Food					30,000		
<b>Building, Developing and General Contracting</b>			360,000				
<b>Total</b>	\$ 30,000	\$ 932,500	\$ 963,000	\$ 814,550	\$ 100,900	\$ 353,280	\$ 1,562,240

Source: CIC, data warehouse extraction.

Note: There was no investment in New Brunswick industries through this program in 1998, 1999, 2001, and 2004

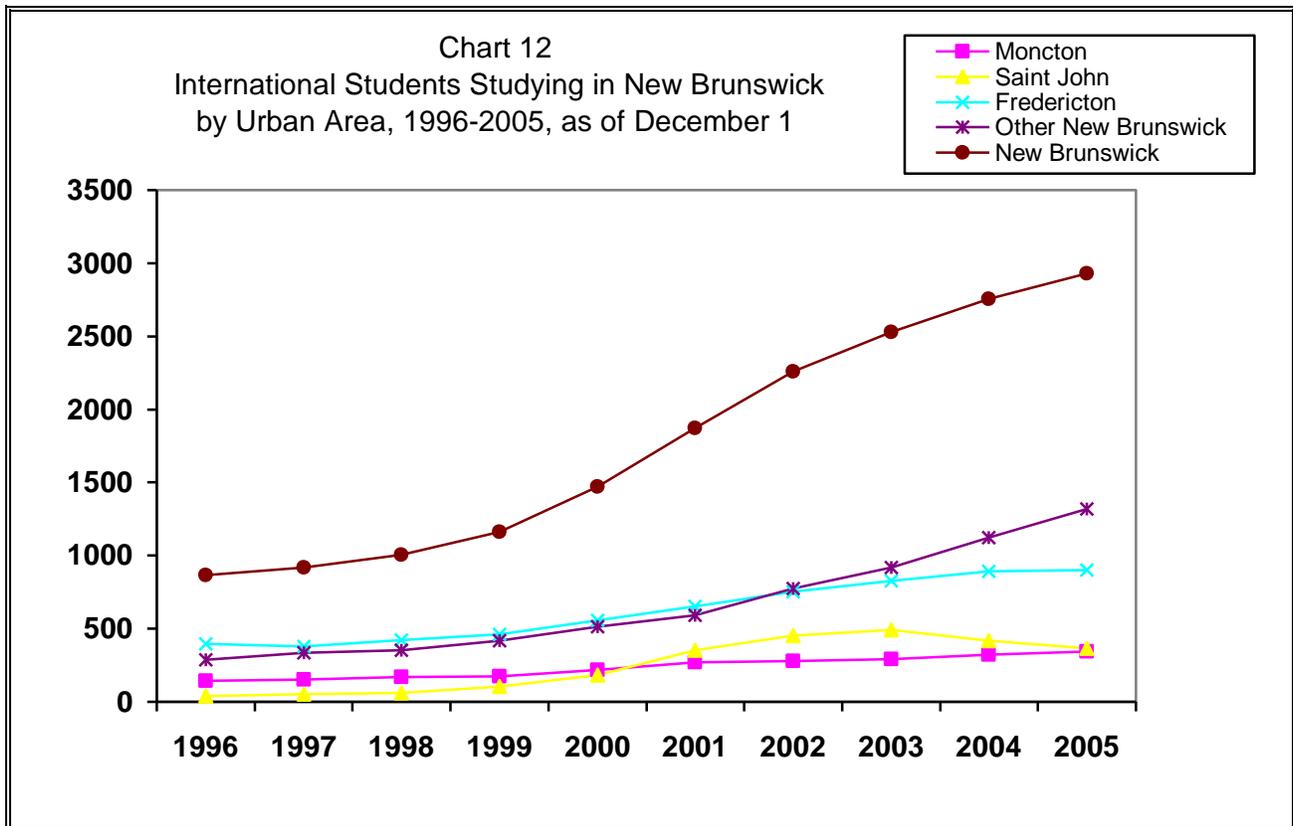
## VII. INTERNATIONAL STUDENTS IN NEW BRUNSWICK

### Summary Points

- The number of international students enrolled in New Brunswick’s educational institutions more than tripled between 1996 and 2005. Fredericton and Saint John experienced moderate growth in student numbers over the period, although numbers declined somewhat in Saint John after 2003.
- Regions of New Brunswick outside the main cities experienced the largest increase in student numbers during this period, from 286 in 1996 to 1321 in 2005.
- The top source country for foreign students studying in New Brunswick has been China for each year over the period 2001-2005, both in terms of numbers of students studying at a given time and in inflows of new students. The United States has been the second most common source country for each year in the same period.
- As of 2005, almost 1000 students in New Brunswick were from China, while 365 were from the US. Only two other countries, Korea and the United Arab Emirates, had more than 100 students enrolled in New Brunswick’s educational institutions.

International students are an important source of both income and human capital for both the provincial and national economies. The increasing competitiveness of the market for international students among the main destination countries of Canada, the US, Australia, and the UK has meant that New Brunswick universities have found it increasingly challenging to attract high-quality students; even within Canadian universities, the competition for international students has been intense. Despite this, the number of international students in New Brunswick’s educational institutions increased steadily over the period 1996-2005. Chart 12 shows that as of 2005, almost 3000 international students were in New Brunswick, more than triple the figure in 1996. Interestingly, the biggest growth in student numbers has been in regions of New Brunswick other than the three main cities of Fredericton, Saint John, and Moncton. Over the 1996-2003 period, approximately 35 percent of international students were studying outside of these cities, but this increased to 41 percent in 2004 and to 45 percent in 2005.

Table 15 presents the top ten source countries for immigrants studying in New Brunswick for the period 2001-2005. China is by far the most important source country, with almost 1000 in New Brunswick in 2005. The biggest increase in the 2001-2005 period came in 2002, when student numbers increased from 530 to 826. After a moderate increase in 2003, numbers remained steady. The second most common source country was the US, with 365 students in New Brunswick as of 2005. Only two other countries had more than 100 students in New Brunswick in 2005 – Korea with 156 and United Arab Emirates with 108. Table 15 also shows that foreign students come from many countries – almost one third in 2005 came from countries outside the top 10 source countries.



Source: CIC, Facts and Figures Digital Library

**Table 15: International Students Studying in New Brunswick by Top Source Countries, 2001-2005, as of December 1**

	2001	2002	2003	2004	2005
China, People's Republic of	530	826	983	984	987
United States	256	303	333	376	365
Korea, Republic of	38	38	39	113	156
United Arab Emirates	65	91	110	115	108
India	48	61	76	83	87
Japan	65	69	64	76	80
Bangladesh	16	51	62	64	70
Morocco	39	30	36	53	67
France	49	44	40	52	54
Mexico	16	18	20	30	45
Malaysia	69	50	44	32	33
Pakistan	47	33	27	22	19
Top 10 sources countries	1,206	1,566	1,787	1,948	2,019
Other countries	664	693	742	808	911
Total	1,870	2,259	2,529	2,756	2,930

Source: CIC, Facts and Figures Digital Library

Table 16 presents related information on the inflows of new students into the province each year. As with the students studying in New Brunswick, China is most common destination for new students, and the US is the second most common, which was the case each year from 2001-2005. Korea, France, Japan, Mexico, and India are higher or lower in the rankings from year to year but have been consistently in the top ten source countries of newly arriving students.

While related, the data on stocks and inflows are distinct and together give some idea of duration of study. Specifically, two countries with comparable inflows but with different stocks would indicate that the students from the country with the higher stock are undertaking relatively longer courses of study. For example, Germany is the ninth most common sending country for new inflows but is not in the top ten source countries of resident international students, implying that German students are engaged in relatively shorter term programs, such as higher degrees and exchange programs.

The government of New Brunswick has also recognized the economic and social value to the province of retaining international students who have obtained tertiary qualifications in Canadian universities. Specifically, those educated in New Brunswick universities may be more willing to remain in New Brunswick to settle after their study has finished. To this end, in 2003, the provincial government extended from one year to two the period of time after graduation that international students are allowed to remain in Canada to work.

	2001	2002	2003	2004	2005
China, People's Republic of	1	1	1	1	1
United States	2	2	2	2	2
Korea, Republic of	5	7	5	3	3
France	3	6	6	4	4
Mexico	9	10	9	6	5
Morocco	14	15	12	9	6
Japan	4	4	7	7	7
India	7	9	4	8	8
Germany	12	8	10	11	9
United Kingdom	8	14	19	12	12
United Arab Emirates	6	3	3	5	13
Bangladesh	10	5	8	13	15

Source: CIC: [Facts and Figures Digital Library](#)

## VIII. MAJOR FINDINGS AND DIRECTIONS FOR FUTURE RESEARCH

The research conducted in this project provided details on the nature of immigration to New Brunswick, with a focus on its economic role in the province since 1981. The province's share in Canada's immigrant population is small and falls well short of its share in the national population, making it an immigrant-scarce province in relation to other provinces such as British Columbia, Ontario, and Quebec. The province also receives a small share of annual immigrant inflows to Canada. Net out-migration from the province and falling fertility rates have raised questions about the adverse long-term implications for economic growth and development, as well as the provision of public services such as health care in smaller urban and rural areas. These factors have placed immigration at the centre of policy discussion in New Brunswick and the other Atlantic provinces. Policy formulation and implementation are, however, hampered by the limited body of research-based knowledge on many economic and social issues that immigration raises. This project is a step towards enhancing our understanding primarily of the economic dimensions of immigration to New Brunswick. However, a number of information gaps need to be addressed. In concluding this report, we review some of those gaps below.

Our findings show that immigration inflows to New Brunswick are small even compared to those to Nova Scotia. Those immigrants who do choose to live in New Brunswick tend to settle in counties that contain the province's three main cities – Fredericton, Saint John, and Moncton: 60 percent of immigrants and 70 percent of recent immigrants reside in CMA/CAs compared with 52 percent of non-immigrants. That some immigrants choose to settle in other more rural areas of the province indicates that new immigrant destinations can be developed in rural areas, particularly when labour market opportunities are combined with settlement and integration programs that reflect both the destination community and the backgrounds of the potential immigrants. Research into the factors that determine provincial choices of new immigrants, as well as their destination choices within a province, should interest rural population planners such as the Rural Secretariat for whom repopulation of rural areas is a priority. Such research could also interest provincial immigration policymakers interested in attracting more immigrants to the province.

The age profiles of previous and new immigrants to New Brunswick indicate that greater proportions are in the younger age groups, an encouraging sign given the aging profile of New Brunswick residents. However, due to the small inflows of immigrants entering New Brunswick each year, their age distribution would affect the overall age distribution of the New Brunswick population only marginally. However, if their share increases, it could have a moderating effect on the aging trend in New Brunswick directly and also indirectly over the longer term if immigrants have higher fertility rates. This would also increase labour force participation and contribute positively to long-term economic growth in the province. While analysis and projection of demographic trends are research topics of great interest in Canada, the US, and many European countries,

the particular challenges faced by smaller and more rural areas of those countries, such as New Brunswick, present both research gaps and opportunities.

If immigration is viewed as one means to reverse declining population trends and an aging population, an investigation of the labour market effects of immigrants is also important because an increase of immigrant workers has certain wage and employment implications for the host population. In this regard, two important research questions are 1) how do immigrants affect the wages paid to workers in New Brunswick, and 2) do immigrants displace the original New Brunswick workers in the province's labour force. While these questions have been answered in the past using Canada-wide data, evidence for provincial labour markets and also for labour markets in small areas is lacking. This information would be useful input for the debate on the role of immigration in New Brunswick's economic development. Some evidence on the labour market effects of immigration in small areas is particularly important if public policy is to encourage immigrant workers to settle in rural areas.

One common notion among the public, which often appears in the media, is that immigrants are a drain on the public purse as they tend to consume more public transfers than the host population. It is also held that immigrants pay lower taxes than the amount of public transfers they consume. Our finding that immigrants are young and relatively highly educated at the time of their arrival does not support such views. We infer this result because a number of the public transfers are age related (such as Canada Pension Plan and Old Age Security payments), and immigrants do not become eligible for these payments until later owing to their younger age profile. Immigrants are also not likely to demand much in the way of health care service for a long time after arrival. However, they start to pay income, sales, and other taxes soon after arrival. Therefore, over their lifetime, new immigrants logically may well make a positive contribution to the provincial economy. This conclusion could also be proved or refuted in a separate research project analyzing available data on immigrant earnings, their use of public transfers, health care services, and education services.

We also found that inflows of highly skilled immigrants (managers and professionals) increased fairly steadily through the 1990s, and highly skilled immigrant inflows exceeded both medium- and low-skilled inflows by 1992 even though family class immigrants are the largest group of immigrants into New Brunswick by visa category. Although shortages of skilled workers in a number of professions and trades have been identified in the New Brunswick labour market, future research should investigate the extent to which immigration to New Brunswick of individuals with skills in high demand could address these shortages, particularly given that these shortages are not specific to New Brunswick. It is important to investigate 1) in which fields immigrant professionals can be used to fill these shortages, and 2) in what fields immigrant professionals are more likely to face difficulties in the recognition of their credentials and professional qualifications. The role of entry barriers into certain regulated professions, such as health care and law, in preventing immigrants from practicing in those professions should also be investigated. Research should also examine why the share of immigrant professionals has declined in some fields.

Our analysis of data on skilled immigrants' also indicates that they are well placed in the labour market of New Brunswick. Their labour market outcomes compare favourably with those of their non-immigrant counterparts. They are well represented in the knowledge economy. In light of this, the tepid growth or even reduction in the numbers of highly skilled immigrants in many professions over the 1991-2001 period might reflect a failure to retain these professionals. The loss of productive potential resulting from their departure is not known but needs to be explored. We provided a broad breakdown of the employment of the skilled immigrants in the province in some industries. More detailed industrial and occupational breakdowns, as well as information on the size of the firms in which they are employed, could shed some light on the stability of their employment.

The evidence gathered in this project also tells us that New Brunswick fares reasonably well in terms of overall immigrant retention compared with the other Atlantic provinces. Retention rates have consistently been in the 67-70 percent range since the 1976-1981 period. Time limitations do not permit us to obtain data on out-migration of various classes of immigrants, but future research should identify both the demographic and skill profile of those who choose to leave New Brunswick and the factors associated with this decision. The evidence also suggests that new immigrants likely face adjustment problems in the labour market, as is evident in their higher unemployment rates and lower employment income. Although the earnings of recent immigrants in 2001 are close to non-immigrant levels, they are markedly lower than for immigrants generally. As well, since recent immigrants also tend to be younger, more educated, and more highly skilled, the earnings gap is of significant concern. Part of this poorer performance may be the result of non-recognition of immigrant credentials as a greater number of immigrants are now coming from "non-traditional" countries in Asia. Based on these findings, at least five important research questions emerge that are relevant to all four Atlantic provinces: 1) Do immigrants from the newer source countries face a lack of their credential recognition due to discrimination? 2) How does the rate of out-migration vary among immigrant classes? 3) Do immigrants out-migrate at a rate different than non-immigrants? 4) How much human capital is lost due to out-migration of skilled immigrants from the province? And 5) What factors motivate immigrants to leave the province?

The census data used in this study to analyze the earnings of skilled and business immigrants do not distinguish between entry classes of immigrants. In other words, these immigrants may have arrived in Canada under other non-economic classes, such as the family or refugee class, but opened a business or begun to practice as professionals. Highly skilled immigrants are concentrated mainly in the service sector, in particular, education and health care/social assistance. The Longitudinal Landed Immigrant Data System (LIDS) does permit analysis of the incomes of different entry classes of immigrants so these data may be analyzed to provide a more direct economic outcome of immigration policy.

Business immigration is a potentially potent source of economic growth in the province since it brings entrepreneurship, capital, innovation, and expertise to the provincial economy. Until 1999, New Brunswick experienced an upward trend in the

number of immigrants entering on skill class visas, after which it declined substantially despite the ongoing operation of the New Brunswick PNP. Family class visa entrants have been the largest single group of immigrants by visa category for almost the whole period 1981-2005. Although the main immigrant source countries have been the US and China, the bulk of business immigrants come from the United Kingdom, followed by continental Europe. Business immigrants are significantly engaged in the service sector and not in manufacturing. In services, they appear to be concentrated in 'other' services, business services and health services. In contrast, data show that the capital invested by self-employed immigrant entrepreneurs has been in accommodation services, agriculture and retail trade. Overall, business immigration has been a very small percentage of total immigrant inflows to New Brunswick. Therefore, future research should identify why New Brunswick does not attract more business immigrants and entrepreneurs. As in the case of skilled immigrants, data on out-migration of business class immigrants from the province could not be obtained for this study due to time limitations. However, these data can be analyzed in a separate research study. We also need more detailed and reliable data on the amounts invested by business immigrants, the types of industries/businesses they invested in, the performance of their businesses, in what industries/sectors immigrant entrepreneurs tend to do better, and the job creation immigrant businesses in the province. This information will be useful in drawing conclusions about the role of business immigration in the economy of New Brunswick.

Some of the data that can answer the questions raised above are not published but can be obtained through special request from Statistics Canada and CIC. Additional information will have to come from surveys, which can then provide the basis for both quantitative and qualitative analyses to shed light on these issues so more effective policies can be formulated.

## APPENDIX

## **A Note on Estimates of Population Published by Statistics Canada**

Charts 1 and 2 of this report are based on population estimates published by the Demography Division of Statistics Canada. These data are different from the more accurate census data used elsewhere in the report.

To explain the discrepancy, the following information is reproduced from Statistics Canada's web site (August 12, 2007) under the title Estimates of Population by Age and Sex for Canada, Provinces and Territories

The estimates program of Statistics Canada provides annual estimates of population by age and sex for Canada, provinces, and territories. Demographic estimates can be categorized as either intercensal or postcensal. Intercensal estimates correspond to estimates between censuses, whereas postcensal estimates correspond to non-census years after the most recent census. In producing up-to-date figures, postcensal estimates are obviously more timely, albeit less accurate. The production of intercensal estimates involves the retrospective adjustment of past figures with the availability of new census data.

### **Estimation**

Postcensal estimates are obtained by adding the number of births, subtracting the number of deaths and by adding or subtracting the net impact of international and internal migration on the most recent census population adjusted for census coverage error (i.e. both census undercount and census overcount). The inclusion of non-permanent residents in the target population dictates that net change in the size of this subpopulation in Canada be added or subtracted from the base period.

### **Quality evaluation**

The Census is considered to be a reliable benchmark for validating the postcensal population estimates. The error of closure (the difference between the postcensal estimate and the enumerated census population, adjusted for net undercoverage) provides a measure of accuracy for the postcensal estimates. It should be noted that it represents errors that have accumulated over the five-year period since the previous census.

At the national level, the differences are small (0.32% for 1986, 0.15% for 1991 and 0.61% for 1996). At the provincial/territorial level, however, the differences are understandably larger, since the provincial/territorial estimates are affected by errors in estimating interprovincial migration, in addition to the other components which affect the total population estimates. Nevertheless, excluding the territories, the provincial postcensal estimates fall within 1% of the census counts with few exceptions (Newfoundland and Labrador in 1986, 1991 and 1996; Alberta in 1986; Prince Edward Island and Saskatchewan in 1991; and Quebec in 1996).

## Data accuracy

The estimates of population by age and sex contain certain inaccuracies stemming from (1) errors in corrections for net census undercoverage and (2) imperfections in other data sources and the methods used to estimate the components. Errors due to estimation methodologies and data sources other than censuses are difficult to quantify but not insignificant. The more detailed the breakdown of the data, the larger the inaccuracy coefficient becomes. The component totals contain a certain amount of initial error, and the methodology used to classify them by sex and age, produces additional error in the figures at each stage. Nevertheless, the components can be divided into two categories according to the quality of their data sources: births, deaths, immigration and non-permanent residents, for which the sources of final data may be considered very good; emigrants, returning emigrants, net temporary emigrants and interprovincial migration for which the methods used may be a more substantial source of error. Lastly, the size of the error due to component estimation may vary by province, sex, and age and errors in some components (births and emigration) may have a greater impact on a given age group or sex. Intercensal estimates contain the same types of errors as postcensal estimates, as well as errors resulting from the way in which the errors present at the end of the period were distributed, that is, on the basis of the time elapsed since the reference Census.

Table A1: Immigrants (Principal Applicants) Destined for New Brunswick in the Defined Period by Year, Category, Education Level, Language Ability (English, French or both), Age, Gender, and Occupation, 1994-2005

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Age group and gender												
Under 15												
Male	15	7	4	6	3	5	7	3	7	11	10	10
Female	10	11	10	10	18	16	15	23	18	17	23	31
15-24												
Male	18	27	17	23	11	15	20	26	13	22	23	23
Female	25	29	19	19	16	15	24	38	31	23	33	26
25-44												
Male	121	153	161	144	166	169	183	164	151	151	180	202
Female	87	80	96	74	92	74	84	102	81	94	111	137
45-64												
Male	26	24	36	28	28	30	39	49	39	34	47	71
Female	19	9	20	20	23	17	21	30	23	30	25	32
65 and up												
Male	8	12	8	8	3	2	5	8	5	3	10	7
Female	9	10	9	4	10	9	6	4	2	6	10	6
TOTAL	338	362	380	336	370	351	404	447	370	391	472	545
Major occupations*												
High skilled	90	107	111	93	128	136	122	140	123	91	118	175
Medium skilled	56	60	53	61	50	35	45	39	42	41	36	30
Low skilled	29	26	22	28	14	15	20	15	12	13	23	19
Total for labour force	175	193	186	182	192	186	187	194	177	145	177	224
Total not for labour force	152	154	176	148	175	162	211	249	192	242	292	317
TOTAL	327	347	362	330	367	348	398	443	369	387	469	541
Educational level												
No Education	27	14	12	12	16	23	21	33	30	29	41	48
High school or less	111	107	123	111	89	77	113	128	92	91	100	112
Post secondary	61	62	78	55	74	69	84	78	47	72	81	101
Some university	29	36	17	20	21	19	26	30	24	40	41	26

University degree	110	143	150	138	171	165	160	178	177	159	209	258
TOTAL	338	362	380	336	371	353	404	447	370	391	472	545
Language ability												
English only	191	216	260	219	228	210	214	237	203	223	295	359
French only	16	22	29	24	19	20	32	29	22	30	25	25
Both English and French	22	22	23	22	33	37	40	56	42	50	84	81
Neither English nor French	109	102	68	71	91	86	118	125	103	88	68	80
TOTAL	338	362	380	336	371	353	404	447	370	391	472	545
Visa Category												
Family	167	134	161	125	131	152	128	175	143	155	218	222
Skilled workers	94	123	124	140	152	141	123	120	85	56	88	88
Business	15	20	22	10	20	11	16	11	10	5	2	1
Refugees	60	80	70	57	56	49	125	103	63	66	63	67
Other immigrants	2	5	3	4	12	0	12	38	69	109	101	167
TOTAL	338	362	380	336	371	353	404	447	370	391	472	545
County												
Albert	1	4	2	3	2	4	3	5	2	10	7	12
Carleton	7	11	9	12	15	8	8	9	11	5	13	13
Charlotte	17	14	12	13	7	18	12	14	14	15	8	13
Gloucester	16	14	10	6	12	7	8	8	11	10	8	13
Kent	1	6	8	5	3	3	2	4	2	2	6	5
Kings	4	10	23	28	12	14	14	19	16	13	25	34
Madawaska	21	11	16	6	16	8	20	14	6	13	12	18
Northumberland	8	10	5	4	5	4	4	5	4	9	5	12
Queens	2	1	3	1	0	7	2	6	2	3	1	2
Restigouche	8	5	4	3	3	2	1	1	3	7	7	11
Saint John	47	35	60	59	62	67	76	75	71	72	84	106
Sunbury	5	5	4	2	4	1	2	4	1	2	2	5
Victoria	4	11	13	5	4	9	3	3	9	1	6	9
Westmoreland	43	62	77	49	81	53	101	119	89	89	120	105
York	130	148	117	119	127	124	133	125	90	92	108	139
TOTAL	314	347	363	315	353	329	389	411	331	343	412	497

Source: PRDS (microdata, CIC)

Table A2: New Brunswick Labour Market Statistics: Participation Rate, Unemployment Rate, Employment Income, and Government Transfer Payment as a Percentage of Total Income for Immigrants and Non-immigrants, 1981-2001

Census year	1981	1986	1991	1996	2001
<b>Labour force participation rate (%)</b>					
Non-immigrants	59.9	61.7	64.2	63.4	64
Immigrants	56.4	58.1	60.7	61.4	60.4
Recent immigrants <sup>1</sup>	61.8	61.7	69.4	71.3	72.8
<b>Unemployment rate (%)</b>					
Non-immigrants	16.8	19.3	18	17.9	14.3
Immigrants	11.6	14.1	13	13.1	10.3
Recent immigrants <sup>1</sup>	11	18	19.6	21	18.1
<b>Employment income (\$)</b>					
Non-immigrants (1)	11580.24	16249.05	21304.95	22428.01	26025.09
Immigrants (2)	14091.62	21322.57	27116.11	25276.04	31459.49
Recent immigrants <sup>1</sup> (3)	11429.87	11268.3	N.A.	19068	24440.97
Ratio (3/1)	0.99	0.69	N.A.	0.85	0.94
<b>Government transfers (% of total income)</b>					
Non-immigrants	15.08	18.43	18.15	20.07	17.38
Immigrants	12.90	15.53	13.67	18.78	16.74
Recent immigrants <sup>1</sup>	2.98	7.70	N.A.	18.45	14.15

<sup>1</sup>Recent immigrants include those arriving within five years of the census year. They include those who arrived in the census year and in the prior year, so their entire year's performance is not reflected.

Source and notes:

1) Labour force participation and unemployment rates are based on "Historical Labour Force Activity (Based on the 1971 Concepts) (8), Immigrant Status and Period of Immigration (10), Age Groups (18), Marital Status (7) and Sex (3) for Population 15 Years and Over, for Canada, Provinces and Territories, 1971, 1981 to 2001 Censuses - 20% Sample Data". Ottawa: Statistics Canada, March 25, 2003. Census of Canada. Catalogue number 97F0012XCB2001003. The rest of the data are based on special tabulations performed by the authors based on population censuses (PUMF, 1981-2001, individual files).

2) All income data are averages. Data on recent immigrants include those who arrived in the census year and in the year prior to the census year so do not reflect their entire year's performance. Employment income is equal to the sum of wages and salaries and self-employment income and is reported only for those who were employed.

3) The following variables were used to obtain government transfers as a percentage of total income: For the 1991, 1996 and 2001 censuses, "total income" and "total government transfer payments" were available directly. For the 1986 census, "total income", "Old age security pension & guaranteed income supplement (OASGIP)", "Canada, Quebec pension plan benefits (CQPPBP)", "Family allowances (FAMALP)", "Federal child tax credits (CHDCRP)", "Unemployment insurance benefits (UICBNP)" and "Other government transfer payments (GOVTIP)" were added. For the 1981 census, "total income", "Oas, gis and cpp/qpp benefits (OASGI)", "Unemployment insurance benefits (UICBN)" and "Other government transfer payments (GOVTI)" were added.

4) All labour force and income information are for the year prior to the census year.

5) The 1991 PUMF does not provide separate data on recent arrivals.

	Total population	Non-immigrants	Immigrants	Recent immigrants (1996-2001)	Older immigrants (before 1996)
<b>Population Count</b>					
CMA/CA	374930	361405	13525	1810	11715
Total MIZ (Outside CMA/CA)	343090	334150	8940	760	8180
Strong MIZ	49920	48495	1425	15	1410
Moderate MIZ	143110	139580	3530	245	3285
Weak MIZ	133595	130555	3040	295	2745
No MIZ	16475	15525	950	200	750
<b>Proportion of Relevant Population</b>					
CMA/CA	0.522	0.520	0.602	0.704	0.589
Total MIZ (Outside CMA/CA)	0.478	0.480	0.398	0.296	0.411
Strong MIZ	0.070	0.070	0.063	0.006	0.071
Moderate MIZ	0.199	0.201	0.157	0.095	0.165
Weak MIZ	0.186	0.188	0.135	0.115	0.138
No MIZ	0.023	0.022	0.042	0.078	0.038

Source and notes: Based on census 2001 Table CO-0861, 2001 Basic Profile. We thank the Rural Secretariat for providing us these tables. MIZ = Metropolitan Influenced Zone. The degree of rurality is the lowest for “Strong MIZ” and the highest for “No MIZ.” For a detailed explanation of the MIZ classification system, please see Chuck McNiven, Henry Puderer and Darryl Janes. 2000. Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ): A description of the Methodology, Statistics Canada catalogue no. 92F0138MIE, no. 2000-2.