Labour market performance of immigrants in smaller regions of western countries: some evidence from Atlantic Canada

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LABOUR MARKET PERFORMANCE OF IMMIGRANTS IN SMALLER REGIONS OF WESTERN COUNTRIES: SOME EVIDENCE FROM ATLANTIC CANADA*

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ABSTRACT

Despite recent interest in regionalization of immigration in host nations, most studies have analyzed immigrants' economic performance by largely focusing on their overall *national* performance. A regional analysis is necessary because changing geographic distribution of immigrants can affect their economic performance positively or negatively. Present paper focuses on Atlantic Canada whose share in annual Canadian immigrant inflows has been traditionally low, but where recent policy initiatives have resulted in greater attraction and retention of immigrants. Immigrants are found performing better than non-immigrants in regional labour market. The importance of regional analysis of immigrants' economic performance and contribution in host nations is highlighted.

Résumé

Malgré l'intérêt récent sur la régionalisation de l'immigration dans les pays hôtes la plupart des études ont analysé la performance économique des immigrants en grande partie en se concentrant sur leur performance nationale. Une analyse régionale est nécessaire parce qu'un changement dans la répartition géographique des immigrants peut influer sur leur performance économique de façon positive ou négative. Cet article se concentre sur le Canada atlantique, dont la part dans les entrées d'immigrants annuelle canadienne a toujours été faible, mais où les récentes initiatives politiques ont abouti à une plus grande attraction et rétention des immigrants. Les immigrants se trouvent de meilleurs résultats que les non-immigrants au marché du travail régional. L'importance de l'analyse régionale de la performance économique des immigrants et leur contribution dans les pays hôtes sont soulignés.

1. INTRODUCTION

Recent policies of immigrant regionalization in host countries are resulting in a more even regional distribution of new arrivals within their borders. For example, in Canada alone where the province of Ontario receives the highest number of immigrants each year among all provinces (45 percent in 2008), recent attempts by smaller provinces to attract and retain immigrants have resulted in a shift of new arrivals away from Ontario and towards other provinces.[1] A similar phenomenon has been observed in Australia where there has been a marked shift in distribution of new arrivals away from New South Wales (NSW) to other states (Hugo, 2008). While no statistics are yet available for New Zealand, regions in that country have also developed schemes to attract and retain immigrant labour to meet local labour demand and to promote their local economic development (Spoonley and Bedford, 2008). Indeed, the impetus for immigrant regionalization in all host countries has been the increasing regional imbalances in population distribution, and in the distribution of working age population (aged 15-54 years) resulting from population outmigration from smaller to larger regions and from declining fertility rates.[2] As a result of this demographic shift, smaller regions and provinces are experiencing labour shortages and declines in economic activities which rely heavily on demands for goods and services that in turn rely on the population size of a region.[3]

Despite the emerging interest in immigrant regionalization, very few studies are found in the literature analyzing the economic performance of immigrants in new destinations of host countries. Such analysis is important because on the basis of economic theory, one would expect the overall economic performance of immigrants in a host nation to change as a result of their re-distribution. Immigrants' national economic performance may deteriorate if their initial distribution within the country was optimal, i.e., immigrants successfully chose their destinations in a host nation according to where their marginal product would be the highest. However, immigrant performance may improve as a result of their redistribution if their initial location choice was not directed by their marginal product partly due to their lack of information about local labour markets.

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[1] While Ontario was home to about 11 new immigrants per thousand residents in 1996, it received only 8.5 new immigrants per thousand residents in 2008. All other provinces experienced increases in new arrivals on per capita basis during this period.

[2] It may be argued that the case of Australia was somewhat different from others (such as Canada's) where the shift from NSW was initiated by NSW itself as it was felt it had become heavily immigrant-intensive. Other states, such as Queensland and Victoria simply picked up the slack.

[3] It is well known that labour shortages are felt throughout Canada due to population aging and declining birth rates. However, labour shortages are felt more in smaller regions and provinces which face the added challenge of the out-migration of population.

An analysis of regional economic performance of immigrants is also important for Canada where some studies, such as Picot (2004), have shown that immigrants' economic performance has deteriorated over time. Some commentators, such as Grubel et al (2009), have argued that the economic performance of immigrants who have arrived in Canada over the past decade has been poor and has caused the standard of living of Canadians to decline. However, such studies and comments are based on aggregate national data and do not analyze immigrants' performance in the regions where they settle within Canada.

The present study is aimed at presenting some evidence on labour market performance of immigrants who have settled in Atlantic Canada. This region of Canada has historically received fewer immigrants on per capita basis than other Canadian regions, but has recently begun to attract, and retain, more immigrants. The four Atlantic provinces share many demographic characteristics: for example, all have low fertility and international immigration and are generally below the break-even point in their migration exchanges with the rest of Canada. The Council of Atlantic Premiers (CAP) has established a unified goal to increase international immigration in the Atlantic region.[4]

The analysis conducted in this paper is based on descriptive statistics which are calculated using data for the period between 1981 and 2006. Annual immigrant inflow data from Citizenship and Immigration Canada (CIC), and resident immigrant and non-immigrant data based on Canadian censuses from Statistics Canada, are analyzed. Some Statistics Canada data are published, some are based on special tabulations performed by the author based on the Public Use Microdata Files (PUMF), and some are purchased.

Section 2 provides a brief overview of some current demographic trends in the population of Atlantic Canada. This information is necessary as context for recent policy initiatives adopted in the region to attract and retain immigrants. These policy responses are also discussed briefly in the same Section. Section 3 summarizes annual immigration trends in the region. Section 4 provides a detailed analysis of labour market performance of immigrants in Atlantic Canada. Section 5 summarizes the study and discusses some policy implications of the main results.

[4] The Atlantic provinces have adopted unified policies on many fronts and cooperate in providing many public services. For example, the sales tax is harmonized across all provinces, and there is also cooperation in selected health care and education services. Businesses have also developed linkages across the region, especially in professional services. Proposals for creating a single economy in the region have also been tabled (Atlantic Provinces Economic Council, 2007).

2. CURRENT DEMOGRAPHIC TRENDS IN ATLANTIC CANADA AND PUBLIC POLICY RESPONSE

Since World War II, population growth rates in Atlantic Canada have declined continuously, becoming negative with population decline occurring towards the end of the last century. Declining fertility rates and net out-migration are two main reasons the Atlantic region has the highest percentage of seniors in Canada. In 2008, the population of Newfoundland and Labrador had the lowest percentage of youth in the country, while Nova Scotia had the highest percentage of seniors (15.4 percent), followed by New Brunswick (15.2 percent) and Prince Edward Island (15.1 percent).

In responding to declining population growth rates which could have adverse economic and political impacts on the region, governments in each Atlantic province have developed a population growth strategy, with international immigration an important component. Immigration strategies have been launched under the auspices of their newly established immigration departments or population growth secretariats. The Atlantic Canada Opportunities Agency (ACOA), a federal government agency with a regional economic development mandate, also recognizes the importance of immigration in the economic development of the region. ACOA has established an Atlantic Population Table with representations from Citizenship and Immigration Canada (CIC), Human Resources and Social Development (HRSD), and the four provincial governments. The Rural Secretariat, another federal body, has also examined ways to repopulate rural areas as an important component of community economic development. Immigration is an important tool of its rural repopulation strategy. Municipal governments and private sector also realize the importance of immigration in meeting local labour market demands and the necessity of building welcoming neighborhoods to retain immigrants. Hence, immigrant attraction and retention is listed as a key priority in the economic strategy document of Halifax Regional Municipality (HRM).[5] The HRM, in collaboration with Greater Halifax Partnership (GHP), has launched an Immigration Action Plan (IAP) to promote economic and cultural development in HRM.[6] The IAP is an example of public-private sector collaboration to meet local shortages of labour in the region. Settlement organizations, such as the Immigrant Settlement and Integration Services (ISIS) in Nova Scotia, PEI Association of New Comers in Prince Edward Island, and Association for New Canadians in Newfoundland and Labrador; and community organizations, such as the Colchester Regional Development Authority (CoRDA) in Nova Scotia and Multicultural Association of Carleton County in New Brunswick, are also on board to design innovative strategies to attract immigrants and facilitate their integration.

[5] This document can be found at http://www.halifax.ca/economicstrategy/EconomicStrategy.html

[6] The GHP is a public-private sector coalition aimed at attracting new investments in Halifax.

3. IMMIGRATION TRENDS IN ATLANTIC CANADA

Immigrants comprise only 3.75 percent of the Atlantic population, much below the national average of 18 percent. While it is home to 7.2 percent of all Canadians, the region received only 2.9 percent of immigrants coming to Canada in 2009, with most of these settling in Nova Scotia. Public policy and community initiatives to attract and retain immigrants in the region are showing results. During 2003-09, regional immigrant inflows rose in the region by about 60 percent.[7] Each Atlantic province welcomed more immigrants over this period. The immigrant retention rate has also gone up, from under 50 percent in the mid-1990s to about 80 percent during 2000-06, according to the latest available data.[8] Retention rates increased in all provinces over the period 2000-06. Part of the increase in immigrant retention is the result of slowing down of the onward movement of immigrants to other regions in Canada. There has also been an increase in the movement of new immigrants *from* those other regions. In fact, between 2000 and 2004, the region attracted 200 more skilled immigrants who had entered Canada as principal applicants, from other Canadian regions than it lost to them (Akbari, 2009).

About half of the immigrants arriving in 2009 came as provincial nominees, while only one-quarter had come in 2005 as provincial nominees. New Brunswick and Prince Edward Island receive most of their immigrants as provincial nominees. Under the provincial nominee program, businesses and communities can nominate immigrants for specific positions in their organizations. Hence, the increase in provincial nominees reflects deliberate government, private business sector, and community attempts to attract immigrants to meet labour market shortages.

In the mid-decade, regional population began to rise again, with lower net out-migration and increased international immigration being the main causes.

Table 1 shows the changing source country composition of immigrants in Atlantic Canada. Since the early 1970s, Canada has experienced a shift in the source country mix of its immigrants from the countries of western Europe to those of Asia, Africa, and South and Central America. This shift is attributed to the 1961 abolishment of “preferred country” clause of the 1910 Immigration Act, the introduction of “point system”, improvement of economic conditions in Europe since 1960s, formation of European Union and re-unification of Germany both of

[7] During this period, immigrant inflows rose in the region from 4,142 to 6,643.

[8] These rates are based on CIC’s annual immigrant inflow data and resident immigrant data obtained from the population censuses and the Longitudinal Immigrant Data Base (IMDB). Immigrants who landed outside of Atlantic Canada and then moved to the region are also included in these calculations. Details of calculations can be found in Akbari (2009).

which caused greater mobility of workers within Europe, greater worker mobility in a globalized world and continued political discourse in third world countries.

Change in the source countries of immigrants became more prominent in Atlantic Canada only since the1990s, when China and some countries of the Middle East entered the list of top five immigrant source countries (Table 1). The entry of Middle Eastern countries in the 1990s can be attributed to the first Gulf War, which adversely affected some groups and prompted them to leave their countries of residence. Some private immigrant consultant activities in the region directed some of their national inflows towards Atlantic Canada (Akbari, 2009). These countries became more prominent in the list of top five source countries in the 1990s, when both principal applicants and dependents were considered, likely due to the larger family sizes of immigrants originating from there.

In recent years, the prominence of Middle Eastern immigrants among the top five source countries has diminished; instead, China has consistently been on the top of the list. The United States and the United Kingdom (despite the general fall in immigrant inflows from western Europe to Canada since the 1970s) are permanent members of this list, which is probably due to their traditional ties to Canadian society, shared history, common language, and nearness. The presence of the large immigrant population that came from those countries in the past may be another factor attracting them to the region. The inclusion of Korea and Iran on the list of top five source countries of immigrants is also worth noting.

Finally, it is also noteworthy that the top five source countries of immigrants have formed less than half of total immigrant inflows to the region for most of the period under study. This means that immigrants to the region also arrive in small numbers from diverse source countries.

TABLE 1: TOP FIVE SOURCE COUNTRIES OF IMMIGRANTS DESTINED FOR ATLANTIC CANADA, BY YEAR, 1981-2008

Period	**1981-1985**		**1986-1990**		**1991-1995**		**1996-2001**		**2002-2006**		**2007**		**2008**	
	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count	Country	Count
Principal Applicants & Dependents														
Rank														
1	USA	3284	USA	2620	Egypt	1519	China	1948	China	1,919	China	924	China	1,342
2	UK	1931	UK	1606	USA	1510	Kuwait	1629	USA	1,488	Korea	621	Korea	726
3	Vietnam	748	Poland	693	Kuwait	1247	Jordan	828	UK	1,184	UK	537	UK	551
4	Poland	331	Vietnam	617	Hong Kong	1224	Korea	783	Korea	1091	US	394	US	534
5	Germany	321	Lebanon	444	Saudi Arabia	887	Saudi Arabia	677	Iran	246	Iran	261	Iran	282
Total for 5 countries		6615		5980		6387		5865		5928		2737		3435
Total arrivals		11398		13340		21495		20841		17886		5704		6593

Source: From 1981 to 2004, Permanent Resident Data System (PRDS) micro-data as provided to AMC under contract with CIC. Principal applicant is based on variable "f_stat2", and source country is based on variable "f_clpr". For the post 2004 years, CIC Facts and Figures 2008 (special tabulations).

4. IMMIGRANTS IN LABOUR MARKETS OF ATLANTIC CANADA

Latest available data on the region's labour force are available from the 2006 census. These data indicate that immigrants comprised only about 4 percent of the total regional labour force of 1.2 million in 2006, as compared to about 20 percent nationally. The percentage of annual immigrant arrivals destined to Atlantic Canada's labour force rose from 18 percent in 2000 to 30 percent in 2008 reflecting the interests of policy makers and local communities to attract and retain immigrants with a view to meet labour market shortages.

Before analyzing the labour market performance of immigrants, predictors of their labour market performance are analyzed as they form an important component of immigrant selection in Canada.

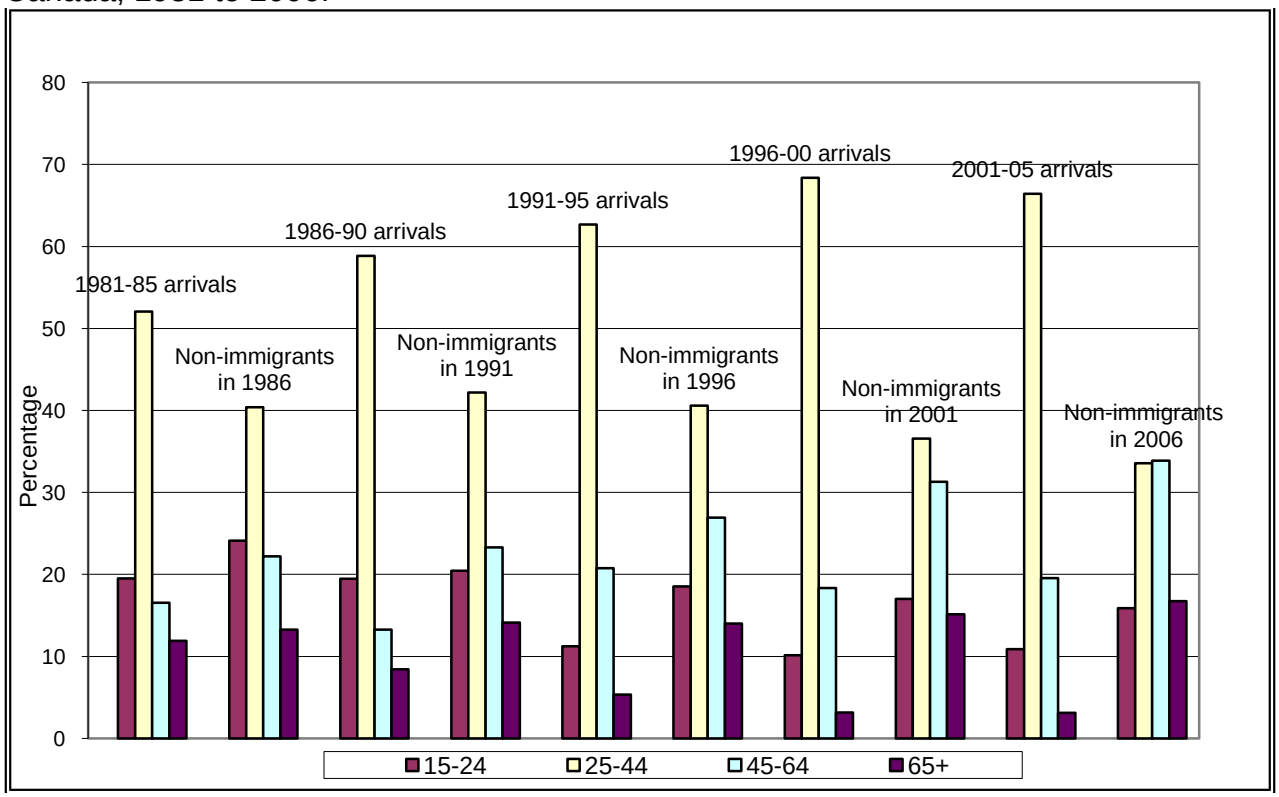
4.1 PREDICTORS OF LABOUR MARKET PERFORMANCE

Under the current "point system" applied in evaluation of the application of an individual intending to immigrate to Canada, six factors are considered, and points assigned to each in order of their importance to Canadian labour markets. These factors are age (10 points), education (25 points), knowledge of Canada's official languages (24 points), work experience (21 points), arranged employment (10 points), and adaptability (10 points). A total of 67 points are required of an individual to qualify to immigrate to Canada. All of these factors are viewed as important predictors of economic performance in Canada. Immigrant arrival data are available on the first three factors and will be analyzed in the present section. These three factors together can help an individual earn a maximum of 59 points.

a. AGE AT ARRIVAL OF IMMIGRANTS

In economics literature, the migration decision of an individual is viewed as a human capital investment decision. The theory of human capital investment predicts that it is usually the young who migrate because young individuals can reap the benefits of their migration investment for a longer time at their destination than can the old. The young are also usually healthier and more energetic. Hence, age is an important criterion for selection of an immigrant in Canada. Under the Canadian system, points assigned to an individual's application on the basis of age peak at 10 if the individual is aged between 21 and 49 at the time of arrival.

Figure 1: Age Distributions of Recent Immigrants and Non-Immigrants, Atlantic Canada, 1981 to 2006.



Sources: Immigrant arrivals data were supplied by CIC. Non-immigrant data for 1986-2001 are based on Canadian population censuses (Public Use Micro data Files PUMF, individual files), Statistics Canada. The 2006 census-based data are from Statistics Canada Cat. No. 97-557-XCB2006013 available on www.statcan.gc.ca

Figure 1 compares the age distributions of annual arrivals in Atlantic Canada by five year intervals between 1981 and 2006 with the age distributions of resident non-immigrants at the time of each cohort's arrival. It is confirmed that immigrants to Atlantic Canada are indeed younger than non-immigrants at the time of arrival. Most new arrivals and non-immigrants are aged 25-44, the prime working age group. However, the population share of non-immigrants in this age group has been falling since 199. By 2006, their share in total population had fallen below that of the 45-64 age group, which is closer to retirement age. On the other hand, since 1991, more than 60 percent of immigrants arriving in Atlantic Canada have been in their prime working age.

Figure 1 also reveals the overall aging trend of the Atlantic population. The share of non-immigrants aged 65 and over has been rising throughout the period, while the share of youth (aged 15-24) has been declining. These trends reflect declining birth rates and out-migration of young people from the region. The

results of this section also indicate that immigration can be used 1) to meet labour shortages in the region, and 2) to reverse the aging trend in the Atlantic population. However, current levels of immigration are too low to help offset the aging trend. Therefore, research is needed to determine what level of immigration would reverse the aging trend among Atlantic Canadians over the next ten years.

b. KNOWLEDGE OF OFFICIAL LANGUAGES

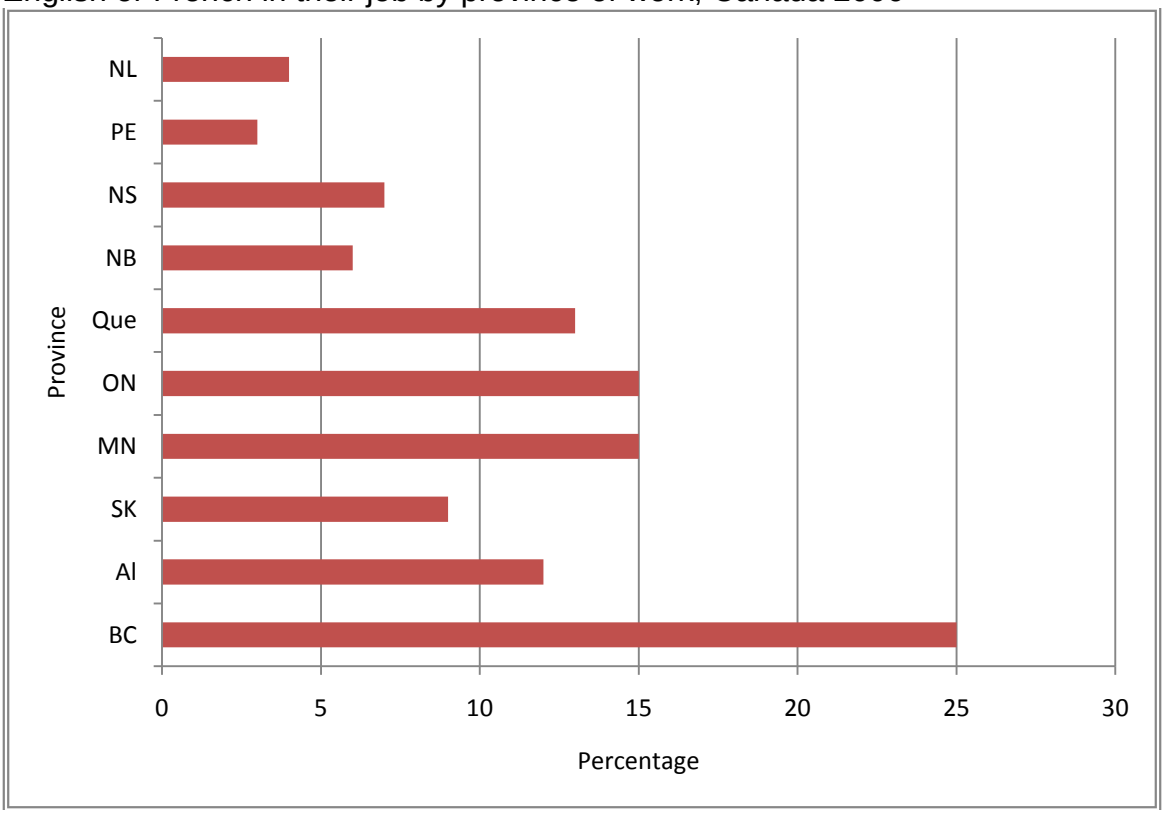
Language barrier can be an important impediment to an immigrant's success in the labour market. Fluency in both official languages of Canada, English and French earns up to 24 points. Chiswick and Miller (1995) provide evidence on the important role English language proficiency plays in labour market success of immigrants in a host country.

Thomas (2009) has shown that immigrants residing in smaller provinces of Canada are less likely to communicate in a language other than English or French at work than in larger provinces. In Atlantic Canada, only six and seven percent of immigrants in the larger provinces of New Brunswick and Nova Scotia respectively, report using a language other than English and French at work (Figure 2). In Newfoundland and Labrador, and Prince Edward Island, these percentages are even lower, four and three percent, respectively. These immigrants may or may not have fluency in official languages at the time of arrival. [9]

The Atlantic provinces offer fewer opportunities for new arrivals to work within their own communities, since these communities are smaller than in larger provinces of Canada, and are also concentrated in a few large towns. Because of this, there is probably more interaction between new arrivals and the general population, which requires immigrants to become proficient in either English or French. Indeed, Chiswick and Miller (2001) also report that the use of English or French is greater among those adult male immigrants in Canada who live in an area where fewer people speak the immigrant's mother tongue.

[9] Similar evidence is provided by Bernard (2008) for immigrants residing in mid-sized (100,000 – 500,000 residents) to small-sized (15,000 – 100,000) areas of Canada who have a better ability to speak in official languages than those who stay in larger areas.

Figure 2: Percentage of immigrant workers who used a language other than English or French in their job by province of work, Canada 2006



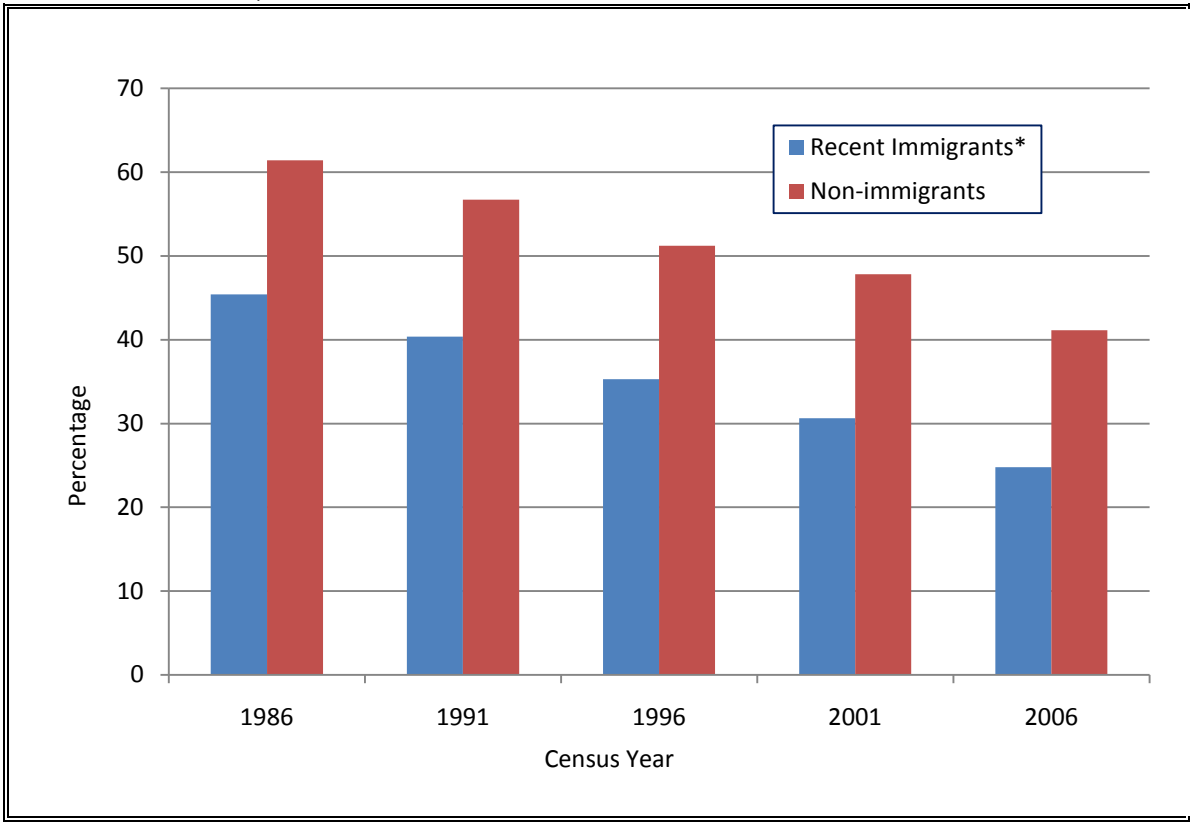
Source: Based on Thomas (2009, Chart 8).

c. EDUCATION LEVELS

Education is another important factor in an immigrant's economic success in Canada. Research has shown that individuals with higher education levels generally have lower unemployment rates and earn higher incomes than those with lower education levels. An immigrant can earn up to 25 points for education on his / her application to move to Canada.

Over time, educational levels among annual immigrant inflows to Atlantic Canada have risen as is shown in Figures 3 and 4. Figure 3 shows fewer immigrants who arrived between 1981 and 2006 with high school or less. The same trend is observed among non-immigrants. However, throughout the period, lower percentages of new arrivals had only high school or lower education than did non-immigrants.

Figure 3: Immigrants Destined for Atlantic Canada and Non-immigrants with High School or Less Education, 1986-2006



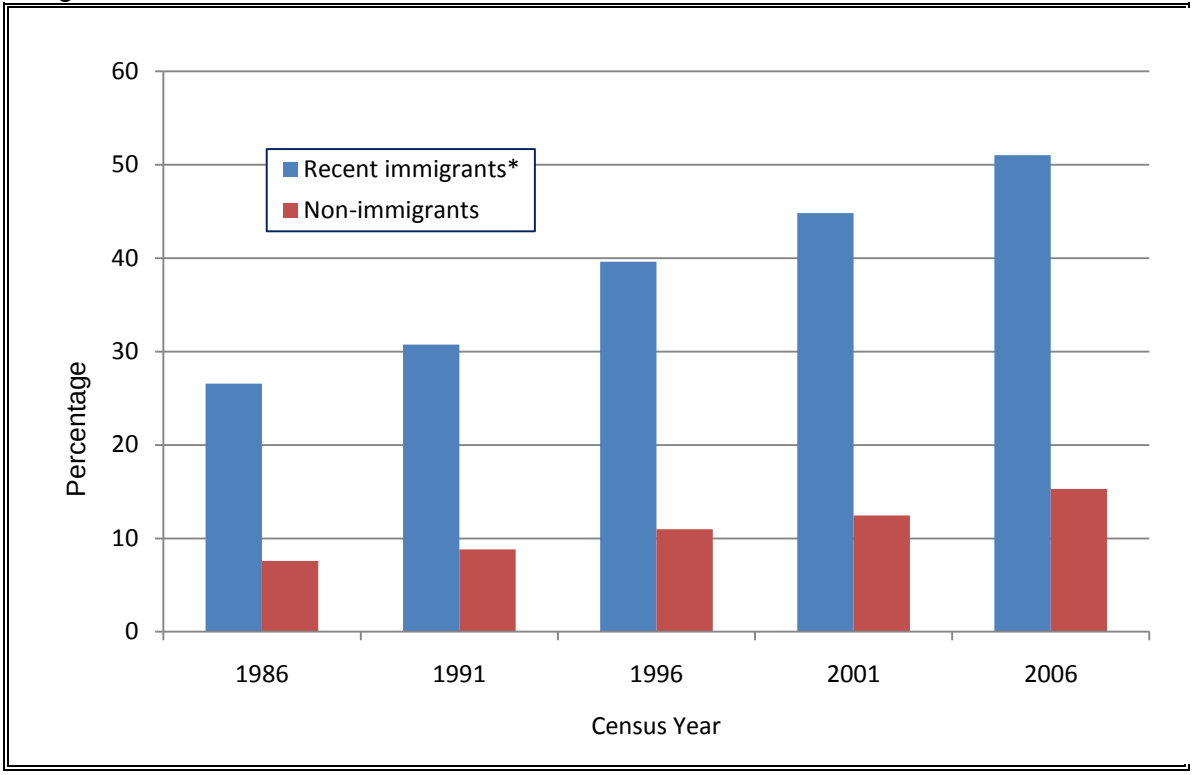
*Those who arrived within five years of the census year and were aged 25 and older at the time of arrival.

Sources: Recent immigrants' data are from CIC. Non-immigrants' data are from the Census PUMF until 2001 and from Statistics Canada catalogue no. 97-560-XCB2006025 for 2006. High School or Less Education = less than grade 5 + grades 5-8 + grades 9-13 + secondary school graduation certificate. All data are reported for individuals aged 25 and over.

Figure 4, in contrast, shows a sharp increase in the percentages of university degree holders among new immigrant arrivals. Although a similar trend is observed for non-immigrants, their percentages have risen more slowly and have been below those of recent arrivals throughout the period.

No data are available on non-immigrant degree holders after 2006. According to Statistics Canada (CANSIM, 477-0014), 38,604 new degrees were awarded by Atlantic Canadian universities during 2007-2008. During these two years, 3,925 immigrants holding foreign university degrees were destined for the region, about 10 percent of the total degrees awarded in the region.

Figure 4: Immigrants Destined for Atlantic Canada and Non-immigrants with a University Degree, 1986-2006



*Those who arrived within five years of the census year and were aged 25 and older at the time of arrival.
Sources: Same as for Figure 3.

In summary, these three predictors indicate that immigrants in Atlantic Canada should perform better in labour markets than non-immigrants. However, actual labour market outcomes can be hampered if the educational skills they bring with them are not recognized in Canada. Studies conducted by Statistics Canada have shown that many new immigrant arrivals in Canada face difficulty finding employment because their foreign educational credentials are not recognized in labour markets.

Another factor that can also affect immigrants' performance is any workplace discrimination on the basis of their country of origin. Since 1980s, most immigrants have come to Canada from non-European parts of the world, while the majority of Canadian population can trace its origin to Europe. Atlantic Canada is no exception, but as was shown in Table 1, the source country mix of immigrants arriving in this region shifted from Europe to Asia and the Middle East only since mid-1990s.

The above two factors can weaken the link between the labour market predictors and labour market outcomes of immigrants thereby frustrating the all important goal of Canadian immigration policy which is to select immigrants who would

have a positive impact on the Canadian economy. They can also frustrate the goals of regional policy initiatives to attract and retain immigrants based on their potential economic contribution. Hence, it is necessary to analyze data on immigrants' labour market performance in Atlantic Canada.

4.2 LABOUR MARKET PERFORMANCE OF IMMIGRANTS IN ATLANTIC CANADA

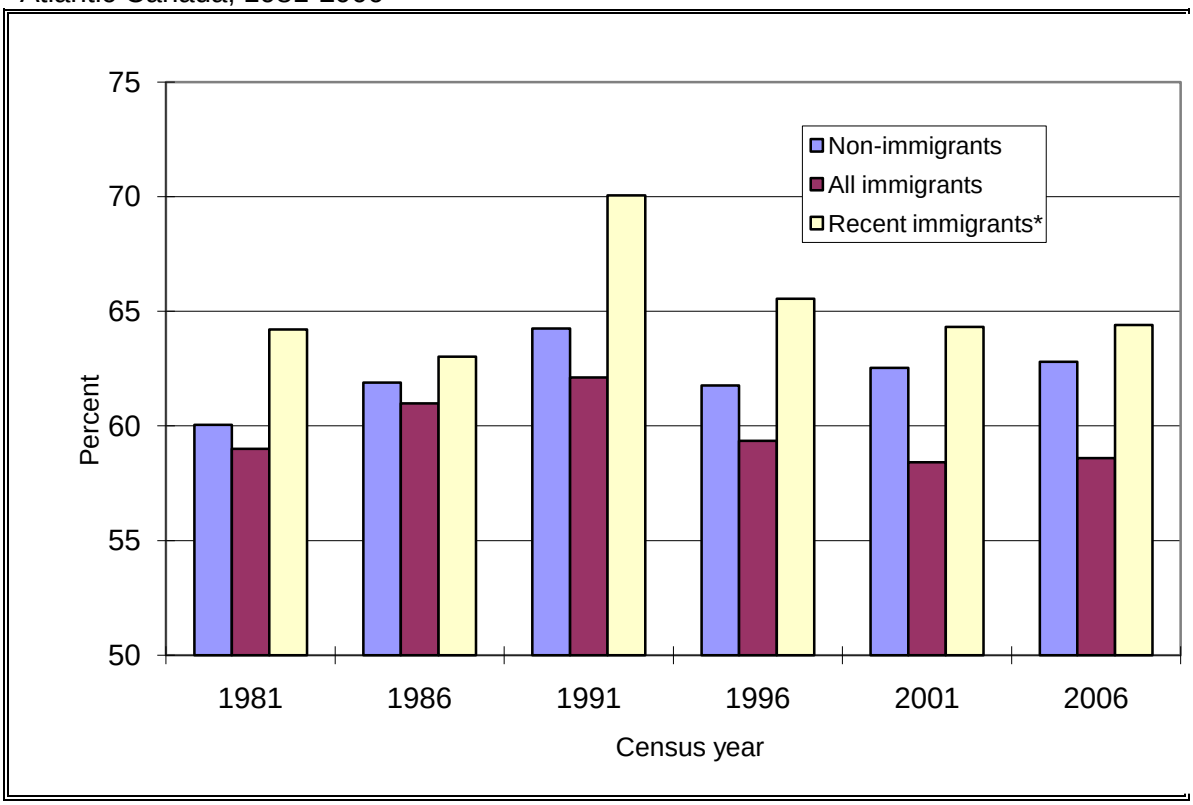
In this Section, three indicators of labour market performance of immigrants are analyzed. These indicators include: labour force participation rates, unemployment rates, and labour market earnings.

a. Labour Force Participation Rates

As discussed above, immigrants are generally younger than the resident population at the time of their arrival in Atlantic Canada. Most new immigrants of working age either have a job offer before arrival in the region or become a member of the labour force by looking for a job immediately after arrival, thereby increasing the region's labour force. Figure 5 (which provides data for the year before a census year) confirms a higher labour force participation rate among recent immigrants than among resident non-immigrants throughout the period 1981-2006. However, participation rates among recent immigrants declined substantially between 1991 and 1996 (from 70 percent to 66 percent) and then again between 1996 and 2001 (down to 64 percent) and have stayed constant since then. One reason may be that a large number of immigrants during 1991-95 arrived toward the end of that period (mostly in 1995) and thereafter. By the 1996 census, these newcomers were still adjusting to the labour market in Atlantic Canada.

Another reason for the decline in participation rates after 1996 may be that most immigrants arrived from the Middle East, and they tended to have large families with many youth members who, instead of entering the labour force, enrolled in secondary and post-secondary educational institutions. There is some evidence, based on observations in Halifax that 1) the enrollment of immigrant students from the Middle East increased in Nova Scotia universities during 1996-2001, and 2) in many Middle Eastern families, the family head may have returned to the country of origin for employment. More formal research should investigate these possibilities. The participation rates among all population groups remained unchanged at their 1996-01 level during 2001-06.

Figure 5: Labour Force Participation Rates among Immigrants and Non-immigrants in Atlantic Canada, 1981-2006



*Those who arrived within the past five years of the census date. Labour force activity data are reported for the year before the census year.
Sources: 1. "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. 2. The 2006 census-based data are from Target Group Profile, Census of Canada, B20/20 files (purchased from Statistics Canada).

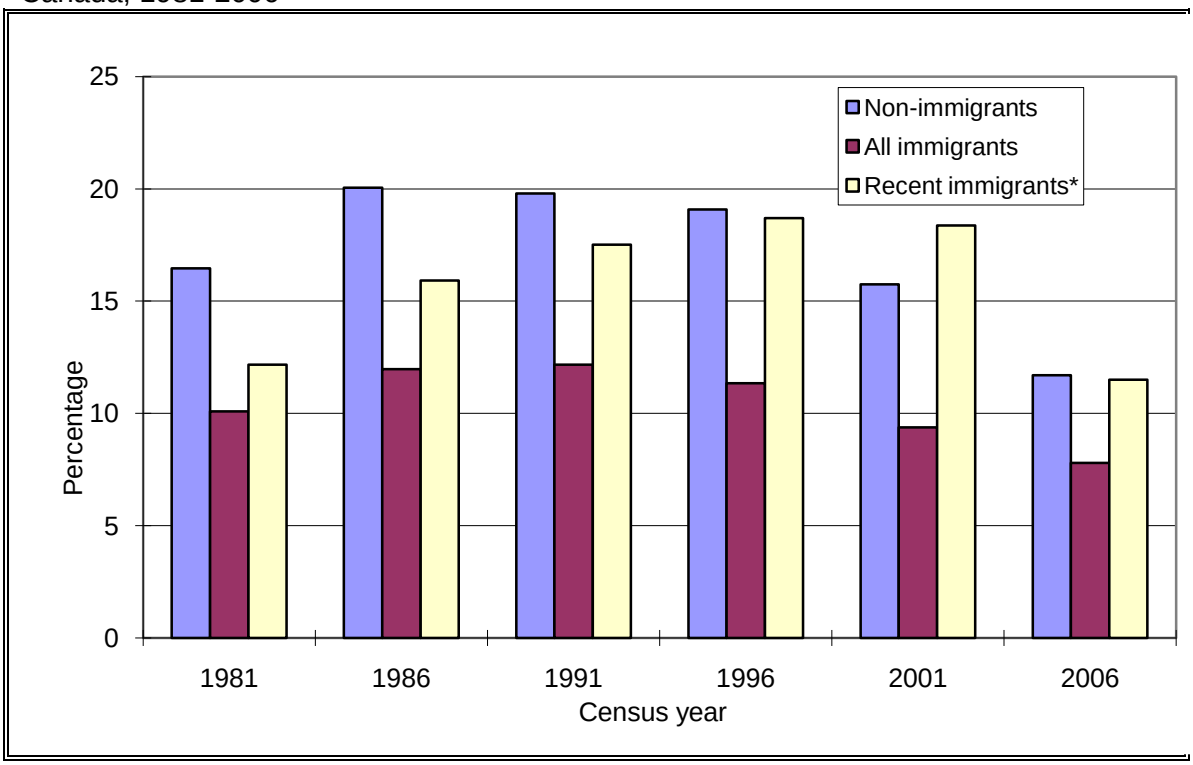
Figure 6 also shows that the participation rate among the entire immigrant population was lower than that among non-immigrants throughout the period, which can be attributed to differences in age distributions of the two groups. Most immigrants in Atlantic Canada arrived before 2001, and many are now at retirement-aged (over 65). One study, using 2006 census data for Nova Scotia (Akbari, 2009), found that when the age distribution of immigrants was adjusted to match that of non-immigrants, immigrants' labour force participation rate exceeded that of non-immigrants because an immigrant was likely to remain in the labour force longer than a non-immigrant. Higher motivation to work, which is also part of the migration decision, could be a rationale for this result. Further research could be conducted for immigrants identified by their place of birth to account for differences in social norms and cultural practices.

b. Unemployment rates

Unemployment rates among immigrants and non-immigrants are shown in Figure 6 for the period 1981-2006. This figure indicates that once they are in the labour force, immigrants in Atlantic Canada do better overall in terms of finding a job than do non-immigrants. Unemployment rates are consistently lower among immigrants and have fallen since 1991. While it is also true that non-immigrant unemployment rates have also fallen (since 1986), they are still higher than for immigrants. Recent immigrants, however, have had higher unemployment rates than their counterparts in previous censuses. In 1981 and 1986, unemployment rates among recent immigrants were four percentage points lower than among non-immigrants. By 2001, however, the recent immigrants' unemployment rate was 2.5 percentage points higher than for non-immigrants.

That unemployment rates fell among both immigrant and non-immigrant populations toward the end of the 1981-2001 period indicated that the higher rates among recent immigrants in the 2001 census cannot be attributed only to the prevailing economic conditions of the region at that time. Possible employment barriers faced by recent immigrants due to their lack of knowledge of official languages, lack of credential recognition, or possible employer discrimination could explain the gap.

Figure 6: Unemployment Rates among Immigrants and Non-Immigrants in Atlantic Canada, 1981-2006



*Those who arrived within the past five years of census date. Labour force activity data are reported for the year before the census year.
Sources: Same as for Figure 5.

There was a steep drop in the unemployment rate for all population groups in between 2001 and 2006. This drop could be the result of out-migration of working age people, mostly to Alberta, during this period. This would reduce the number of people looking for jobs in Atlantic Canada. The drop in the unemployment rate of recent immigrants could also be because their immigration to the region has been mostly job oriented, as many came under one of the Provincial Nominee Programs to fill specific jobs. Initial results of the 2006 Labour Force Survey released by Statistics Canada show that in Atlantic Canada, the employment rate of those immigrants who arrived 5-10 years ago exceeds that of non-immigrants – 83.6 percent for immigrants and 76.4 percent for non-immigrants (Zietsma, 2007). It may also be that the overall aging of the Atlantic population has made more jobs available, and has thus made it easier for all segments of the working age population to find work in the first decade of the 21st century. The higher incidence of unemployment rates among non-immigrants than among immigrants may be partly due to their larger percentage residing in rural areas.[10]

[10] About 33 percent of non-immigrant and 27 percent of immigrant residents of Atlantic Canada reside in rural areas. Beshiri and He (2009) found higher propensity among recent immigrants to reside in rural areas than among all Canadian residents in the 2001 to 2006 period in all Canadian provinces except for Prince Edward Island and Newfoundland and Labrador for which

c. Foreign educational credentials and labour force participation rates

One important issue in the labour market outcome of immigrants is credential recognition. It is argued that immigrants coming from certain countries, such as those in the Third World, face employment barriers because their education and experience acquired in their country of origin are not recognized in Canada. Lack of immigrant credential recognition has at least three consequences. One is that these immigrants could face higher unemployment rates. Another is that even if they are employed, they may be working in a job that does not suit their qualifications. Finally, there is also a loss to the economy of Atlantic Canada of not fully benefiting from the human capital of its new residents.

To investigate this issue of foreign credential recognition, the available data from the 2006 census are used to review the labour market performance of those with post-secondary education from a country other than Canada. The indicators are reported for the total population (regardless of immigrant status) in Table 2. Those with post-secondary education from outside Canada generally have lower labour force participation and employment rates than those who obtained their education in Canada. Unemployment rates are also generally lower among the foreign degree holders. However, data analyzed by the countries where education was obtained produced mixed results. Those with qualifications from India, Pakistan, and South Korea have higher unemployment rates, while all others have lower rates, regardless of whether they obtained their education in an English-speaking country. Note that these results apply to the general population, and do not account for any underemployment among immigrants.

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data were not available. However, recent immigrants were also more likely to move out of rural areas during the same period.

Table 2: Labour force activity of the total population by location of post-secondary education, Atlantic Canada, 2005				
Location of study (1)	Participation rate, % (1)	Employment rate, % (2)	Unemployment rate, % (3)	Labour force, no. (4)
Overall	62.57	55.37	11.52	1,182,970
No post-secondary certificate, diploma/ degree	51.85	43.72	15.67	518,970
Post-secondary certificate, diploma/ degree	74.64	68.47	8.27	664,005
Inside Canada	75.30	69.02	8.33	639,120
Outside Canada	60.90	56.88	6.61	24,885
United States of America	62.77	59.09	5.82	10,225
United Kingdom	52.34	49.92	4.74	4,645
India	63.39	58.48	9.86	710
Philippines	78.30	73.58	2.41	415
China, People's Republic of	65.04	60.18	6.12	735
Germany	57.06	53.74	6.31	1,030
France	73.55	69.03	7.02	570
Poland	72.27	73.95	2.33	430
Pakistan	73.13	64.18	8.16	245
Korea, South	36.14	31.33	13.33	150
Other	63.70	57.57	9.53	5,720

Source: Author's calculations using provincial data based on Statistics Canada - 2006 Census. Catalogue Number 97-560-XCB2006025. For detailed notes, please see the publication on www.statcan.gc.ca.

Notes:

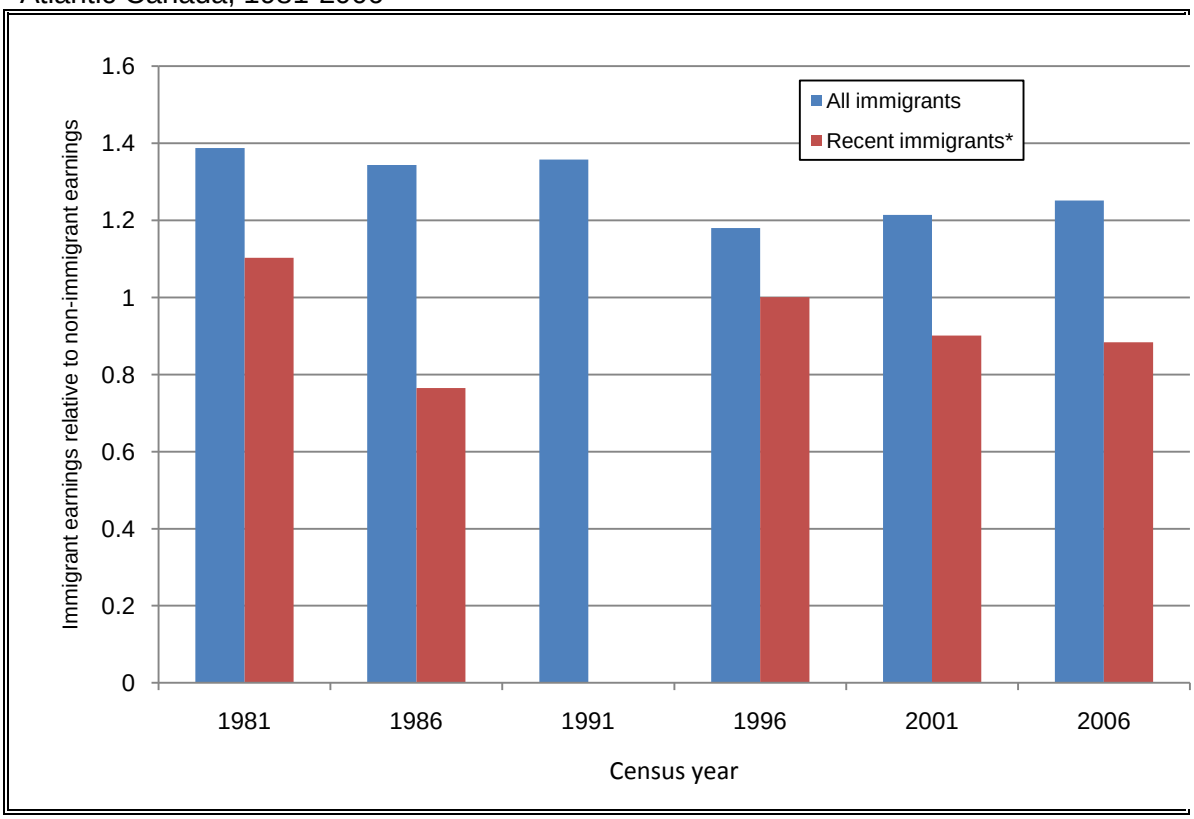
1. Refers to where the highest post-secondary certificate, diploma or degree was completed.
2. Percentage of population 15 and over in the labour force.
3. Percentage of population 15 and over employed.
4. Percentage of labour force unemployed.
5. Population 15 and over employed or unemployed.

d. Earnings of immigrants

Figure 7 compares the labour market earnings of an average immigrant and an average recent immigrant with those of an average non-immigrant in the year before each census year. The dollar amounts are not comparable over time because they may be affected by inflation. Instead, it is more meaningful to analyze the earning gap between groups within a given census year and also the changes in this gap between census years. To do this, the ratio of an average immigrant's earnings to a non-immigrant's earnings has been plotted. A ratio of less than one means that an average immigrant's earnings were lower than those of a non-immigrant's; greater than one means the opposite.

Average employment earning has been higher among all immigrants than among non-immigrants throughout the 1981-2006 period. However, average earning among recent immigrants, relative to that of a non-immigrant, has been more variable, and generally lower since 1986 than earning among non-immigrants. In short, a recent immigrant in 1981 earned 10 percent more than an average non-immigrant in Atlantic Canada but earned 10 percent less than a non-immigrant in 2006.

Figure 7: Earnings of Immigrants Relative to those of Non-Immigrants Resident in Atlantic Canada, 1981-2006



*Those who arrived within five years of the census year. Incomes are reported for the year before the census year. A ratio of "1" means earnings of immigrants and non-immigrants are equal.
Sources: 1. Based on special tabulations performed by the author based on population censuses (PUMF, 1981-2001, individual files). Data on incomes of recent immigrants were not available in 1991 census PUMF. 2. The 2006 census-based data are from Target Group Profile, Census of Canada, B20/20 files (purchased from Statistics Canada).

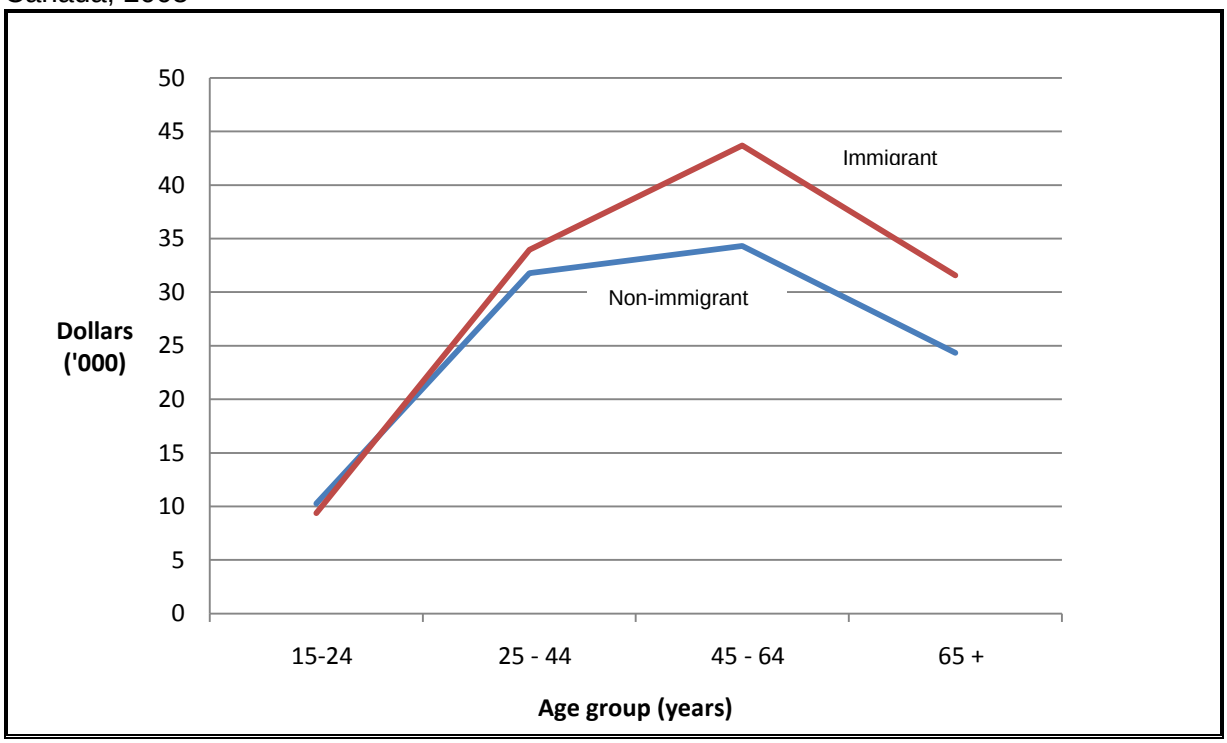
When comparing an immigrant's earnings with those of a non-immigrant, it is important to control for differences in their demographic and labour market characteristics, such as age, gender, experience, and education, which are major

determinants of earning differences between individuals. Changes in an immigrant's earnings relative to length of stay in Canada may also be examined to determine how long it takes for an immigrant to earn the same income as a non-immigrant. This analysis helps in understanding the pace of labour market integration of immigrants. While a detailed analysis of this issue has not been undertaken here, some broad patterns are presented.

A comparative analysis of the earning of an average immigrant and non-immigrant is provided by controlling for differences in their ages. This analysis is based on Figure 8 which provides the age-earning profile of an immigrant and a non-immigrant resident of Atlantic Canada aged 15 years and over based on labour market earnings in 2005. These profiles are based on the earnings of different individuals in the census, thus assuming that incomes of different individuals at different points in their life cycles represent the incomes of one typical individual at various points in his/her life cycle. However, this assumption may be challenged on the grounds that immigrants come from diverse backgrounds and face different challenges in labour markets. Differences in their educational attainment levels and employers' perceptions of the quality of their education may also have correspondingly different effects on different immigrant groups, so the age-earnings profiles plotted in Figure 9 should be interpreted with some caution.

Despite these caveats, the shapes of the earning curves in Chart 9 are as expected. Growth in earnings is faster when an individual is young because the individual accumulates more human capital (such as training and experience) when young than when older. Earnings then decline at retirement. It is observed that an average immigrant's earnings rise faster than, and exceed those, of a non-immigrant after age 25. Even after reaching the retirement age, the immigrant earns more. Thus, the average earnings results for 2005 that were reported in Figure 7 may be viewed as stable. Over the life cycle, then, an average immigrant in Atlantic Canada earns higher employment income than a non-immigrant.

Figure 8: Age-Income Profile of an Immigrant and a Non-Immigrant Resident of Atlantic Canada, 2005



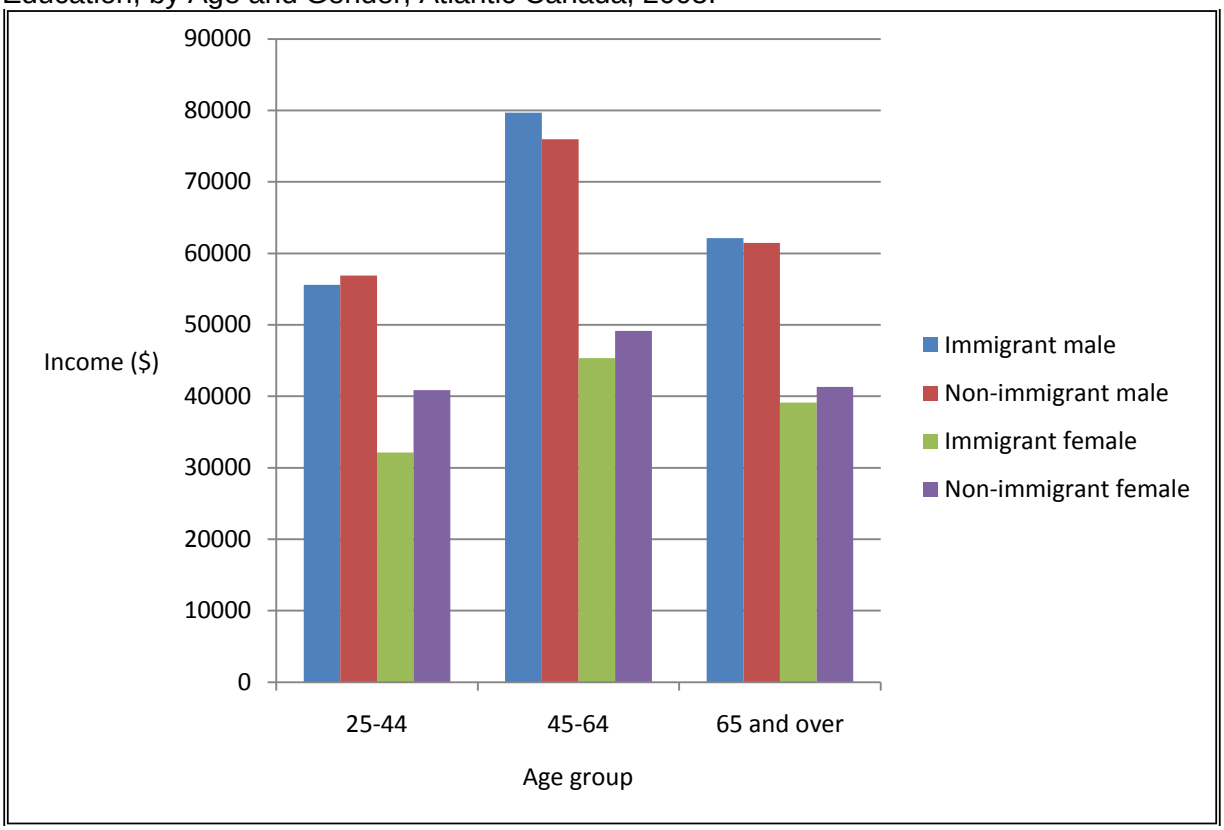
Source: Author's calculations based on Statistics Canada, 2006 Census of Population, Statistics Canada Catalogue # 97-563 XCB2006006.

Further insights to the above results on incomes are obtained by controlling for education as they may be affected by the lack of credential recognition in case of immigrants. Hence, Figure 9 compares the incomes of immigrants and non-immigrants aged 25 and above who hold university degrees.[11] Separate data are reported for men and women. Incomes of those in the 25-44 age group also include the incomes of university degree holders at the time of entry into the labour market.

Figure 9 results show that an average male immigrant in Atlantic Canada earns comparable to a non-immigrant male when he is young and when he reaches the retirement age. During his prime working age, 44-64, a male immigrant earns more than his non-immigrant counterpart. A female immigrant, however, is at an income disadvantage in all age groups.

[11] Since the data are reported for only university degree holders, considering those aged 25 and above is more appropriate. The younger group on whom these data are available is 15-24 which includes many individuals who do not have a university degree. Data on incomes of recent immigrants, i.e., those who arrived during 2001-2006 with university degrees, are not available for comparison.

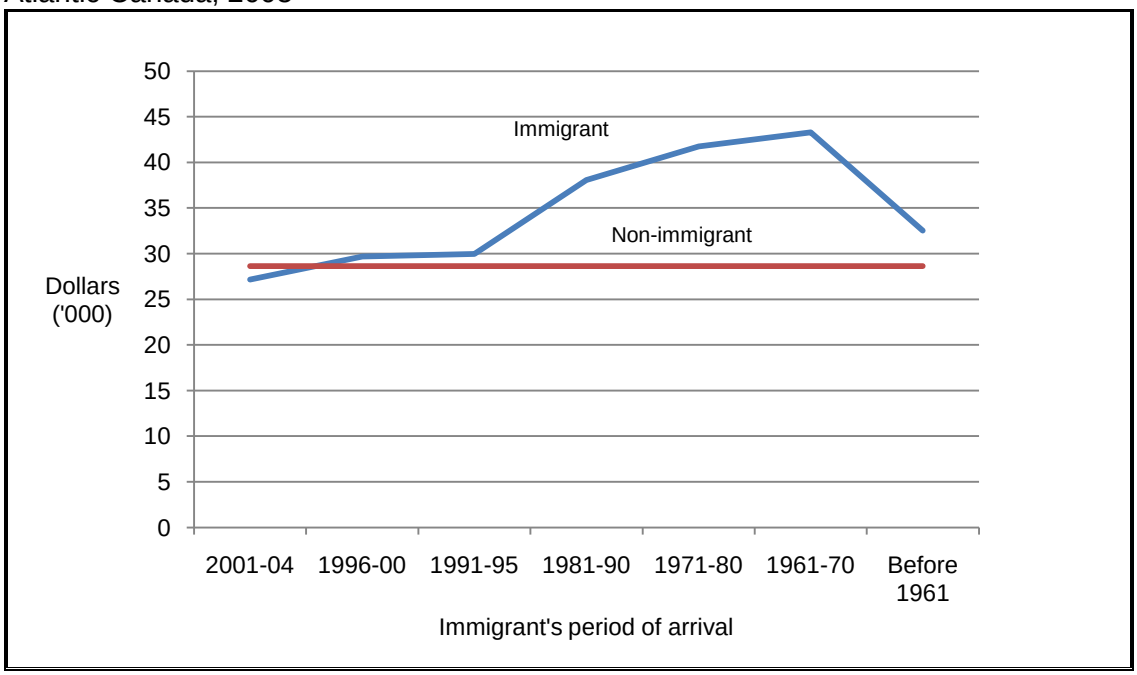
Figure 9: Average Incomes of Immigrants and Non-Immigrants with University Education, by Age and Gender, Atlantic Canada, 2005.



Source: Same as for Figure 9.

Immigrants' incomes are also affected by their length of stay in Canada. A newcomer lacks Canadian labour market experience and information about availability of jobs and workplace culture, factors that may result in an underutilization of skills, which could result in a lower income earned. Figure 10 compares the 2005 labour market earnings of an immigrant according to length of residence in Canada with those of a non-immigrant. Immigrants who arrived during 2001-04 were the most recent immigrants to report 2005 income earned in Canada. Their income was lower than that of non-immigrants. However, all earlier entry cohorts had higher incomes, and even those who had stayed in the country for more than 45 years continued to earn more. In sum, an average immigrant in Atlantic Canada earns the same labour market income as a non-immigrant five years after arrival. Unpublished estimates by this author (using the same data source as for Atlantic Canada), indicate that, at the national level, a Canadian immigrant takes about 15 years to begin earning as much as a native-born Canadian.

Figure 10: Average Earning of an Immigrant by Period of Arrival, and a Non-Immigrant, Atlantic Canada, 2005



Source: Same as for Figure 9.

5. SUMMARY, CONCLUDING REMARKS AND POLICY IMPLICATIONS

Using descriptive tools of statistical analysis, the present study has shown that labour market outcomes of immigrants are stronger than those of non-immigrants in Atlantic Canada. Immigrants have higher labour force participation rates, lower unemployment rates, and earn higher labour incomes than non-immigrants. These findings contradict earlier studies that analyzed immigrants' economic performance using national data for Canada, but are consistent with two Statistics Canada studies, Bernard (2008) which showed immigrants performing better in smaller Census Metropolitan Areas of Canada than in larger ones, and Beshiri (areas. The study also found that the labour market performance of recent immigrants relative to that of non-immigrants has remained stable since the mid-1990s in Atlantic Canada.

Many reasons can be advanced for these findings. For example, problems of credential recognition as a barrier to labour market integration may be less in smaller provinces where there are fewer university degree holders. Also, a lack or a presence of smaller immigrant communities (linguistic, ethnic, religious) in smaller provinces leads to greater interaction between new arrivals and the original residents thereby providing the stronger information networks necessary for economic integration of new arrivals. The greater interaction between immigrants and original residents may also help immigrants in overcoming language barriers. Finally, the selection programs for new arrivals aimed at

meeting labour market shortages (such as the Provincial Nominee Program) may also be the cause of their stronger labour market outcomes.[12] All of these possibilities can be explored in a future research.

The results of present study contrast with two other studies that have analyzed the regional economic performance of immigrants within the United Kingdom. Dustmann et al (2003) have found that although immigrants' labour market performance in the UK has been poorer than that of non-immigrants, they do better in Greater London than in the rest of the country.[13] This result is attributed to the larger economic success of Greater London compared to other regions. Another UK study, Wilson and Phillips (2009), found that immigrants from the A8+2 countries contribute about 30 percent of the Gross Value Added in London while in the Midlands, East and South East of England this contribution is 10-15 percent.[14] Thus, one can conclude from both studies that immigrants in fact perform better in larger areas of England than in smaller areas. However, results of present Canadian study as well as of those cited earlier show immigrants in relatively less prosperous areas of Canada do better. This difference in our results warrants a separate study on location choice of immigrants in the two countries.

Two important implications can be drawn based on the lessons learned from Atlantic Canada. First, any analysis of economic performance of immigrants in a host country based on the aggregate national data is likely to provide misleading results to policymakers who are investigating using immigration as a tool for regional economic development. While Grubel et al (2009) have found that immigrants who arrived in Canada over the past decade have adverse economic effects on Canadians, they also note that past immigration has been beneficial to Canadians. However, these authors fail to recognize that past immigration in Canada has been concentrated in a few large provinces where immigrant concentration grew over time.

We argue that the growing concentration of immigrants in a few large provinces has caused a diminishing marginal product of immigrants in those provinces. Smaller provinces that have emerged as newer immigrant destinations are at the same stage as were provinces like Alberta, British Columbia, Ontario, and Quebec more than a decade ago when they too enjoyed higher marginal

[12] Some of these reasons have also been suggested by Bernard (2008) for the relative successes of immigrants in smaller areas of Canada.
[13] In 2000, only 9 percent of British born whites of working age lived in London, while 40 percent of the foreign-born and 45 percent of the UK-born ethnic minorities lived there.
[14] The "A8" countries are defined as the "Accession Eight" Eastern European countries joining the European Union on 1st May 2004. These countries include: Czech Republic, Poland, Latvia, Lithuania, Slovakia, Slovenia, Hungary and Estonia. The "A8+2" countries include all of the A8 countries and Bulgaria and Romania which joined the European Union on 1st January 2007.

products of immigrant workers.[15] Hence, studies analyzing economic performance of immigrants should pay attention to immigrants' performance in different regions within a host country where regional distribution of immigrants has changed in recent years.[16]

Second, public policy can play an important role in altering the distribution of immigrants within a host country to obtain better economic outcomes. This role can be 1) to provide immigrants better access to local labour market information so that they can exploit their marginal products more efficiently and 2) to facilitate settlement of new arrivals in smaller areas through employers, community organizations and settlement agencies.

This is the first study which has analyzed data across the past six population censuses on the economic performance of immigrants and non-immigrants resident in Atlantic Canada. Its results may be viewed as indicative of some general trends in the economic performance of immigrants who reside in the region. A more in-depth study may analyze each of the labour market performance indicators of immigrants and non-immigrants in a multivariate framework by controlling for age, gender, education, and the years since arrival. Separate analyses may also be conducted for immigrants coming from different countries. An analysis comparing immigrants' labour market performance in Atlantic Canada with those arriving in other smaller regions, such as in the Prairies, should also be undertaken.

[15] A shift in source country composition of immigrants since 1990s, from European towards non-European countries, does not appear to adversely affect immigrants' economic performance in Atlantic Canada.

[16] In fact, the analysis should also be extended for smaller cities to confirm if the results of Picot (2004), which show deteriorating economic performance of immigrants in larger cities of Montreal, Toronto and Vancouver, apply.

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