

IMMIGRANT INCOME AND LABOUR MARKET OUTCOMES

2006 - 2015 cohorts



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Immigrant income and labour market outcomes: 2006 - 2015 cohorts

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Executive Summary

A public policy response to low immigrant retention rates in New Brunswick (NB) has been to examine characteristics of landed immigrants and how they might be associated with the decision to leave. This includes a consideration of earnings outcomes of immigrants who leave NB compared to those who stay, since there is a well-established link between mobility and economic opportunity. The goal of this report is to better understand what kinds of policy initiatives could improve immigrant retention in the province.

Using the Longitudinal Immigrant Database (IMDB), this report examines the labour market outcomes and retention rates of immigrants in NB from 2007 to 2016. Immigrants are observed by years since landing across several factors, including applicant type, CMA/CA,¹ pre-admission experience, level of education, source region, immigration stream, and knowledge of official languages.

Highlight of Findings

CMA/CA

Retention – Of the three major NB cities, Moncton usually has the highest community² and provincial³ retention rates, and Saint John has the lowest. However, retention rates for the rest of NB surpass those of Moncton, Saint John, and Fredericton.

- From 2006-2015, there was more than a 200% increase in immigrants choosing Moncton as their destination CMA. However, five years after landing, less than half of these destined immigrants remain.
- For those destined for Saint John and Fredericton, more recent arrival cohorts show 5-year provincial and community-based retention rates below 50%.
- Outside the three largest cities, the rest of the province has average 1- and 5-year provincial retention rates of 80% and 68%, respectively.
- The number of immigrants destined for Fredericton has grown over the years, but this increase is not reflected in retention rates of the same magnitude of Moncton or Saint John. This is likely due to the higher percentage of tax filers in the latter cohorts (though, the more recent 2013-2015 cohorts destined for Fredericton show the highest incidence of tax filing among Fredericton-destined immigrants).
- A possible factor behind the lower retention rates in Saint John compared to Moncton could be opportunity related. The rate of employment income is considerably lower among immigrants in Saint John, where an average of 64% of immigrants report some employment income a year after landing, compared to 75% in Moncton.

¹ A Census Metropolitan Area (CMA) is a city or town with a total population of at least 100,000, of which 50,000 or more live in its urban core. A Census Agglomeration (CA) is a city or town with an urban core population of at least 10,000. Should a CMA population drop below 100,000, it does not lose its CMA designation, whereas a CA designation will be retired if its urban core population drops below 10,000.

² Community retention is calculated as the percentage of immigrants destined for an NB CMA/CA that still reports residence in that CMA/CA years after landing. Leavers in this category could either be elsewhere in NB or in Canada in the specified tax year.

³ Provincial retention rates show the percentage of NB-destined immigrants still in NB, grouped by their declared destination CMA/CA. Leavers in this category are not in NB in the specified tax year.

Labour Market Outcomes – Like retention, employment income earned by immigrants in NB is lower for more recent arrival cohorts.

- When starting out, immigrants in NB often earn below the NB average income. Not controlling for background and demographic differences, it often takes three or more years after landing for an NB immigrant to earn as much as or slightly more than the provincial average.
- In 2016, the average income in Moncton and Saint John was between \$39,500 and \$43,000. However, starting employment income for immigrants residing in one of the three major cities is often below \$40,000. Immigrants residing in Saint John often report the highest employment income on average.

Pre-Admission Experience

Retention – Immigrants with pre-admission work experience are the most likely to remain in the province.

- The least likely pre-admission group to remain in the province varies by cohort but is most often those with no pre-admission experience or those with pre-admission study experience only.

Labour Market Outcomes – Pre-admission experience in the form of a study and/or work permit is rewarded in NB, as with the rest of Canada.

- On average, having some pre-admission work and/or study experience positions an NB immigrant to earn over \$32,000 more in starting employment income on average than the immigrant who had not held either prior to landing.
- Employment income growth is most pronounced for those who had both study and work permits before landing. These immigrants also have the highest rate of starting employment income (93% average).

Level of Education

Retention – Degree holders often have higher retention rates than non-degree holders.

- Within the university-educated category, retention is not vastly different, with bachelor's and post-graduate degree holders having similar retention rates.

Labour Market Outcomes – Those with post-graduate degrees before landing report the highest employment income on average.

- Immigrants with post-graduate degrees before landing earn over \$50,000 in starting income – far above the provincial average. On the other hand, it takes bachelor's degree holders around three years after landing to start earning at provincial income averages.

Source Region

Retention – Immigrants from the Americas and Europe have the highest retention rates in most cohorts, and immigrants from Africa and the Middle East have the lowest.

- Five years after landing, well over half of immigrants from the Americas and Europe are still in NB.
- Over the study period, immigrants from Africa and the Middle East comprised between 16-25% of immigrants destined for NB – the second highest percentage following those from Eastern Asia.

Labour Market Outcomes – South Asian immigrants report the highest employment incomes – on arrival and after years residing in NB. The lowest starting incomes are often reported by East Asian immigrants.

Immigration Stream

Retention – Of the economic streams, Provincial Nominee Program immigrants have a higher retention rate compared to immigrants admitted under the Canadian Experience Class, Skilled Worker and Skilled Trades, Business, or Caregivers programs.

Labour Market Outcomes – Immigrants admitted under non-economic streams earn less than those admitted under economic streams, and this persists years after landing.

- Of the Economic streams, those admitted under programs other than Provincial Nominee Programs earn more, often higher than the provincial averages.

Knowledge of Official Languages

Retention – Retention is usually highest among bilingual immigrants.

- Bilingual immigrants have an average retention rate of 75% one year after landing. English-speaking immigrants are close behind, with an average of 72% a year after landing. French-speaking immigrants have an average 1-year retention rate of 69%.

Labour Market Outcomes – It pays off to be bilingual in Canada's only bilingual province.

- The majority cohorts of bilingual immigrants report the highest employment incomes – starting and otherwise – of the official language groups.⁴
- Bilingual immigrants also have the highest rate (incidence) of starting employment income after landing (88%).

⁴ For the purposes of this report, official language groups include English Only, French Only, Bilingual, and None of the official languages.

Introduction

One of the central goals for the province of New Brunswick (NB) is to boost economic development by increasing labour market participation, and immigration is key to this plan.

NB is faced with many demographic challenges, including an aging population, slow population growth, and the out-migration of its younger workers. All these issues have a negative impact on the provincial economy, which in turn is faced with the fiscal challenges of a shrinking tax-base and decreasing workforce.

The Government of New Brunswick (GNB) has implemented many immigration programs,⁵ all with the expectation that immigrants will play a vital role in remedying these challenges while benefitting from participation in and contribution to the culture and labour market of NB. However, while NB has successfully welcomed a growing number of immigrants over time, there is still a need to retain the immigrants who land here.

Immigrant retention poses a challenge for the province's goal of population growth, as a substantial number of immigrants choose to leave the NB years after landing. In 2019, the New Brunswick Institute for Research, Data and Training (NB-IRDT) examined the retention of immigrants arriving through NB's Provincial Nominee Program (PNP) – one of the many immigration streams implemented by GNB to boost immigration in NB. Researchers found that just about half of PNP immigrants destined for NB were still living in the province five years after arriving (Leonard et al, 2019; Statistics Canada [StatCan], 2021b).

These findings raise further questions, such as, “Who decides to stay? Who decides to leave? And what factors influence these decisions?”

Understanding the experiences of immigrants residing in NB may help the province address challenges related to immigrant retention, and since there is a well-established link between mobility and economic opportunity, focusing on the economic experiences of immigrants in NB may shed light on a correlation between experiences and retention.

To this end, this report examines the economic outcomes and retention rates of immigrants in NB to investigate trends and determinants of income and retention. With the goal of contributing to evidence-based assessments of provincial immigration policies and efforts, it presents detailed descriptive and empirical evidence on the evolution of immigrant retention and immigrants' post-landing labour market experiences.

This report has five aims:

- To show changes in the economic and demographic profiles of NB immigrants over time
- To show how NB's major cities – Moncton, Saint John, and Fredericton – are doing at retaining immigrants destined for them
- To show which characteristics are associated with immigrants performing better (i.e., earning more) in the NB labour market
- To consider whether those with pre-admission time spent in NB on a work or study permit or with asylum claims have an advantage over those who had none before landing as permanent residents

⁵ These programs include the New Brunswick Provincial Nominee Program (NBPNP), the NB Skilled Worker stream, the NB Express Entry stream, the Atlantic Immigration Pilot, and the NB Business Immigration stream.

- To show correlations, if any, between retention and economic success in the form of employment income for immigrants in NB

Using the Longitudinal Immigration Database (IMDB), which consists of immigrant landing records and tax files from the T1 Family File (T1FF), we present estimates for income, retention rates, and labour market outcomes⁶ of immigrants in NB. These outcomes are examined by applicant type, CMA/CA,⁷ pre-admission experience, level of education, source country, immigration stream, and knowledge of official languages.

Methodology

Using the Longitudinal Immigration Database (IMDB) which consists of immigrant landing records and tax records from the T1 Family File (TIFF), this report looks at the employment income, retention, and labour market outcomes of NB immigrants who landed in Canada between 2006 and 2015.

The IMDB is an annual dataset combining immigrant landing records (LIDS) with annual tax records from the T1FF for immigrants who arrived in Canada after 1980. Combination with the T1 Family File allows for detailed short- and long-term analysis of the socio-economic outcomes of landed immigrants, as well as the impact characteristics such as immigration stream, pre-admission experience, education, and knowledge of official languages have on those outcomes. The IMDB also contains information on place of residence, which allows for the investigation of secondary migration patterns (i.e., subsequent relocation patterns in Canada).

The IMDB datasets provide a unique opportunity to study immigrant experiences. Immigrant landing records provide detailed information on all immigrants to Canada, including refugees and those who applied/landed from within Canada. The tax records included in the IMDB allow users to study the socio-economic outcomes of these immigrants long after they land.

However, the IMDB is limited to immigrants arriving as permanent residents only, and therefore comparisons must be made across observable characteristics among those immigrants (e.g., permit type, immigration stream, source country, education level, and so on), rather than between immigrants and non-immigrants.

There are some limitations to the IMDB. First, outcomes for immigrants who are still residents in NB or Canada but do not file taxes in a given year cannot be studied for the year in which they do not file taxes. Therefore, the possibility of using the IMDB to study immigrant outcomes in any given year post-landing is dependent on them filing taxes in that year.⁸ Additionally, there is a 2-

⁶ Labour market outcomes are only shown for select groups of interest. These outcomes include rate of employment income, rate of social assistance, and rate of employment insurance. Rates of social assistance and employment insurance are shown for the overall sample only, while rate of employment income is shown for the overall sample and by pre-admission experience, CMA/CA of residence, and knowledge of official languages.

⁷ A Census Metropolitan Area (CMA) is a city or town with a total population of at least 100,000, of which 50,000 or more live in its urban core. A Census Agglomeration (CA) is a city or town with an urban core population of at least 10,000. Should a CMA population drop below 100,000, it does not lose its CMA designation, whereas a CA designation will be retired if its urban core population drops below 10,000.

⁸ Non-filers in a given tax year, while still in the overall sample, are left out of retention calculations in that year, though they will be included in subsequent years if they file taxes. Future work could consider imputing location of residence based on locations identified in years adjacent to the missing year, but this is not necessarily an accurate measure of location in the missing year.

year lag with IMDB data, which means that more recent programs such as the Atlantic Immigration Pilot (AIP) could not be evaluated at this time.⁹

We restrict the final sample for all datasets to all tax-filing immigrants aged 15 or older in the specified year. For income calculations, the sample is immigrants residing in NB who are 15 years or older in the specified tax year. For retention calculations, the sample is limited to those who chose NB as their province of destination and are 15 years or older in the specified tax year. Those who reported “non-resident”¹⁰ as their province of taxation are excluded from retention calculations in that year.

Regarding income,¹¹ we look at earnings in the first full year since landing (i.e., landing year + 1). This is done for two reasons:

First, only about 50% of each landing cohort files taxes in their landing year.

Second, taxes filed in the same year as landing may not represent a full year of income.

For example, an individual who landed in October 2010 will have only three months of income to declare in the spring of 2011, while an individual who landed in January 2010 will have 12 months of income to declare. Therefore, to obtain one full year of income for someone who landed in 2001, the 2002 tax year (filed between March and April of 2003) is considered. Also, to exclude short-term low-wage employment that does not signal labor market attachment, a minimum income threshold of \$1,000 is imposed.

Outlier income earners are excluded from the sample for income calculations using an income outlier indicator provided in tax filer data. Income is only considered for those who declared their province of residence as NB in a given tax year. This means that out-migration and in-migration affect the average incomes in this report.

Individual employment income is used in this report and is defined as the sum of wages, salaries, commissions, and self-employment income. Income for all immigrants residing in NB is reported, not just for those destined to the province. Duplicate records are excluded from the sample. All income is adjusted to 2018 constant dollars.

Retention is based on the proportion of immigrants who declared NB as their province of destination and were residing in NB in a given tax year. Residence is also based on the province of taxation declared by the immigrant for all categories except CMA/CA. Under the CMA/CA category, the CMA/CA declared on taxes is used, rather than the province of taxation.

Retention is calculated as the number of immigrant permanent resident tax filers destined for and residing in NB, divided by the number of immigrant permanent resident tax filers destined for NB but resident in Canada. Residence is based on the province of residence on December 31st in a given tax year as declared on the tax return. The sample universe includes all immigrants who declared NB as their province of destination. This retention analysis method does not take into account any sporadic tax filing behaviour among immigrants (i.e., taxes may only be filed in some years), neither does it account for in-migrants (i.e., immigrants who declared other

⁹ As of the time of writing (February 2021), the latest IMDB tax year available in the Research Data Centre (RDC) was 2017. More recent years of income tax data have just been made available to Immigration, Refugees and Citizenship Canada (IRCC), but these are not yet in the RDC.

¹⁰ The variable for province of taxation has a category termed “non-resident.” This category consists of people who are not resident in Canada but are filing Canadian taxes. They are excluded from the retention calculations for the specified year.

¹¹ Employment income is used in this report and is defined as the sum of wages, salaries, commissions, and self-employment income, as per the T1 Family File.

provinces of destination but migrated to NB), as the sample is restricted to those who declared their province of destination as NB. As mentioned earlier, those who declared themselves “non-residents” in a given year are excluded from the sample as well.

Immigrants who do not file taxes in a given year are not seen in the tax filer data for that year and are therefore not part of retention calculations for that year. For instance, an immigrant who lands in 2010 and files taxes in 2011, 2012, and 2014 but not 2013 is included in 1-year retention rate calculations (for 2011) but not 3-year retention rate calculations (for 2013). This is because the tax filer data for 2013 does not include said immigrant, as they did not file taxes in that year.

This study serves as a descriptive analysis. The labour market outcomes studied include

- average earnings
- retention
- employment income rate
- social assistance rate
- employment insurance rate

While earnings and retention will be shown across all observable categories, rates of employment insurance and employment income will be limited to categories of interest. The time-period imposed on this project is due to the most recent years for which IMDB master files were made available to researchers. Results on the effects of prior Canadian experience on NB immigrant earnings will be benchmarked against results from existing literature. For Canadian immigrants, those permanent residents who have previously held study permits, temporary work permits, and/or refugees' claims prior to landing are regarded as having prior or pre-admission experience in Canada.

All figures outside of income have been rounded using a controlled additive rounding as required by Statistics Canada. As with any rounding process, totals by observable categories may not always equal the overall counts. Average income was rounded to the nearest 100 before being converted to 2018 constant dollars.

Results – Retention and Labour Market Outcomes

Overall

Over 14,000 NB-destined immigrants arrived in Canada between 2006 and 2015 (Table 1). Of those, about 90% filed taxes in Canada a year after landing.

Table 1: Destined Immigrant Count, 2006-2015 Landing Cohorts

Landing Year	Number of NB-Destined immigrants at Landing
2006	1,160
2007	1,170
2008	1,320
2009	1,330
2010	1,545
2011	1,420
2012	1,535
2013	1,450
2014	1,890
2015	1,670

Over the study period, about 70% of tax-filing immigrants destined for the province report NB as their province of taxation one year after landing (Table 2). This decreases to an average of 53% five years after landing, and slightly over 40% after ten years.

The majority of out-migrants report Ontario, Alberta, or British Columbia as their province of residence (Table 3). A smaller number report Quebec or Nova Scotia as their province of residence.

Table 2: Provincial Retention Rates by Year(s) Since Landing

Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	73.6%	63.8%	56.9%	47.6%	41.0%
2007	74.5%	65.2%	57.6%	49.8%	
2008	75.4%	60.2%	51.6%	45.4%	
2009	73.0%	63.0%	52.7%	46.8%	
2010	68.6%	57.7%	48.7%		
2011	68.9%	55.8%	47.9%		
2012	70.4%	56.7%			
2013	73.3%	57.4%			
2014	67.3%				
2015	63.3%				

Notes: YSL means 'years since landing.'

Table 3: Province of Residence of NB-Destined Immigrants After Leaving NB

	Landing Year	2008	2009	2010	2011	2012	2013	2014	2015
Nova Scotia	1 YSL	5	15	15	15	15	15	10	20
	3 YSL	10	30	25	35	25	30		
	5 YSL	20	30	30	45				
	7 YSL	30	25						
		2008	2009	2010	2011	2012	2013	2014	2015
Quebec	1 YSL	25	50	45	45	40	15	30	45
	3 YSL	50	55	60	60	50	25		
	5 YSL	55	65	70	70				
	7 YSL	60	75						
		2008	2009	2010	2011	2012	2013	2014	2015
Ontario	1 YSL	130	140	220	190	190	170	320	360
	3 YSL	260	210	315	280	335	315		
	5 YSL	320	285	390	360				
	7 YSL	375	345						
		2008	2009	2010	2011	2012	2013	2014	2015
Alberta	1 YSL	40	40	40	35	70	100	85	35
	3 YSL	60	80	95	80	95	110		
	5 YSL	90	120	120	110				
	7 YSL	105	135						
		2008	2009	2010	2011	2012	2013	2014	2015
British Columbia	1 YSL	70	65	95	80	75	45	120	130
	3 YSL	105	85	115	120	125	100		
	5 YSL	120	100	145	130				
	7 YSL	130	105						

Notes: YSL means 'years since landing.' Source: StatCan, 2021f.

For earnings, it is important first to note that earnings after a number of years in NB are reported only for immigrants who were in NB as of the year in question. Out-migration over time changes the number and composition of immigrants for whom average earnings are computed so that earnings changes may reflect such compositional effects.

Immigrants in NB reported an average starting employment income between \$29,000 and \$37,100¹² (Table 4 & Figure 1). Five years after landing, this range increased to \$34,000 to \$44,000, displaying an average income growth rate of 14% between one and five years after landing. Although this is not the case for all cohorts, overall it takes NB immigrants about three or more years to catch up to, or earn slightly more than, average NB income (Table 5). The average employment income in NB over the study period ranges between \$35,000 and \$40,000 (StatCan, 2021c).¹³

¹² 2018 constant dollars

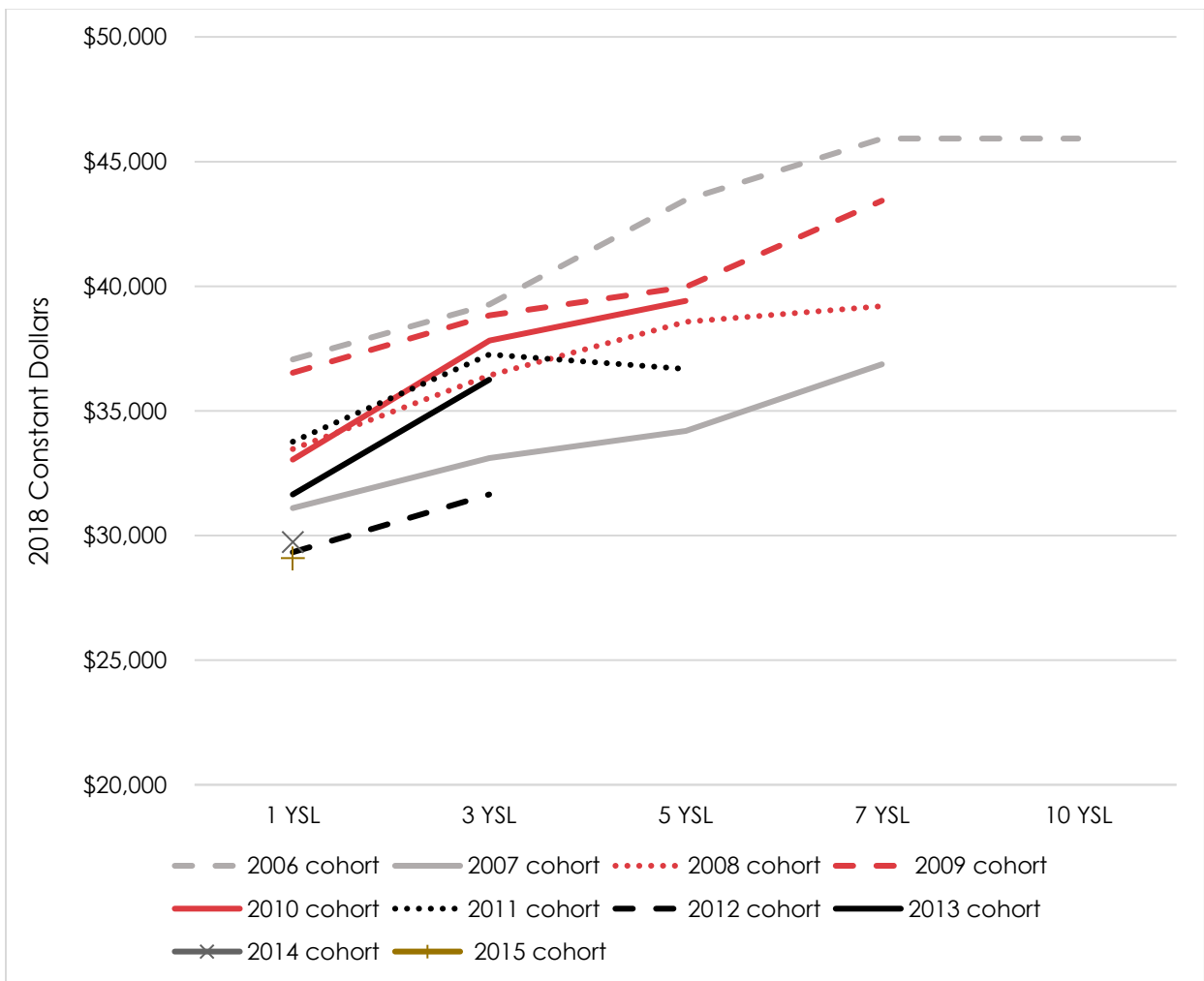
¹³ 2018 constant dollars

Table 4: Average Employment Income of Immigrants in NB

Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$37,062	\$39,275	\$43,453	\$45,921	\$45,921
2007	\$31,099	\$33,117	\$34,200	\$36,866	
2008	\$33,467	\$36,413	\$38,564	\$39,198	
2009	\$36,528	\$38,830	\$39,956	\$43,428	
2010	\$33,044	\$37,817	\$39,409		
2011	\$33,761	\$37,261	\$36,675		
2012	\$29,331	\$31,645			
2013	\$31,645	\$36,248			
2014	\$29,715				
2015	\$29,090				

Notes: Income is in 2018 Constant Dollars. 'YSL' means 'years since landing.'

Figure 1: Average Employment Income of NB Immigrants



Notes: 'YSL' means 'years since landing.'

Table 5: Average Annual Employment Income in NB

Year	Average Employment Income in NB
2007	\$35,600
2008	\$36,400
2009	\$36,800
2010	\$36,300
2011	\$38,100
2012	\$38,700
2013	\$38,300
2014	\$39,000
2015	\$38,900
2007	\$38,400

Notes: Income is in 2018 Constant Dollars. Source: StatCan, 2021c.

Starting income being paid to immigrants has generally declined for more recent arrivals (Figure 1 & Table 2). However, declining income is limited to starting income (i.e., one year after landing). Income earned by cohorts three, five, and seven years after landing fluctuates slightly but has generally remained within close range. However, 1-year, 3-year, 5-year, and 7-year retention rates have declined among more recent cohorts (Table 2).

The employment income rate improves by years since landing, as about 80% of immigrants in NB report some employment income five years after landing (Table 6). Among the provinces most immigrants destined for NB move to, Alberta usually has the highest employment income rate for immigrants residing there years after they land (StatCan, 2021d). Interestingly, a larger percentage of immigrants in NB report some employment income five years after landing compared to immigrants in Ontario, Quebec, and British Columbia (StatCan, 2021d).¹⁴ This implies that the decision to migrate among immigrants in NB goes beyond finding paid employment.

Table 6: Rate of Employment Income Among Immigrants in NB

Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	70.3%	76.2%	78.6%	78.1%
2008	67.0%	76.2%	80.2%	81.5%
2009	72.2%	74.2%	78.4%	80.0%
2010	71.1%	73.1%	77.5%	
2011	72.8%	77.5%	80.7%	
2012	67.1%	74.0%		
2013	70.8%	76.2%		
2014	71.0%			
2015	74.0%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021d.

The rate of employment insurance benefits increases as time passes since landing (Table 7). Five years after landing, an average of 12% of immigrants in NB are employment insurance

¹⁴ Immigrant employment income five years after landing in NB is between 0 to 3.5 percentage points (p.p.) higher than Quebec, 4.2 to 8.4 p.p. higher than Ontario, and 3.3 to 8.1 p.p. higher than British Columbia.

recipients, compared to an average of 7% one year after landing. The rate of employment insurance benefits is also generally higher among more recent cohorts.

Unlike with employment insurance recipients, the percentage of immigrants on social assistance declines with time since landing (Table 8). An average of 7% of NB immigrants are on social assistance one year after landing. Five years after, this reduces to an average of 3%.

The difference in trends for immigrants on employment insurance versus social assistance may be due to the eligibility requirements for both programs and the time spent in Canada. To be eligible for social assistance in NB, the total income from all sources in a household is required to be below a certain amount (Government of New Brunswick, n.d.). Given that the average employment income of NB immigrants rises with time since landing, fewer immigrants are eligible for social assistance the longer they are in NB. Employment insurance requirements, on the other hand, have no income threshold (Government of Canada, 2021) and instead require applicants to have been without work or pay for seven consecutive days in the last year.

With regard to time spent in Canada, most immigrants in Canada are not eligible for employment insurance one year after landing. As landings occur throughout the year and taxes are filed in April/May of the year after the tax year, "1 year since landing" is anywhere between the full year and one month. As mentioned earlier, employment insurance requires recipients to have been without paid work for seven consecutive days within the last year, which renders a percentage of immigrants ineligible. This explains the larger difference in the rates of employment insurance between one and three years since landing, versus three years and more since landing.

Table 7: Rate of Employment Insurance Among Immigrants in NB

Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	5.1%	11.6%	11.3%	11.0%
2008	6.6%	10.8%	12.0%	12.1%
2009	6.2%	10.8%	11.4%	8.8%
2010	7.1%	12.2%	10.4%	
2011	7.9%	10.4%	12.7%	
2012	7.1%	12.0%		
2013	6.2%	13.5%		
2014	8.6%			
2015	10.4%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021d.

Table 8: Rate of Social Assistance Among Immigrants in NB

Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	8.6%	5.2%	3.1%	2.1%
2008	7.6%	4.3%	2.4%	1.9%
2009	8.2%	4.3%	2.4%	3.1%
2010	8.5%	5.6%	2.3%	
2011	5.8%	4.6%	3.6%	
2012	5.7%	5.2%		
2013	7.7%	3.8%		
2014	5.7%			
2015	8.7%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021d.

Principal Applicants vs Spouses/Dependents

Principal applicants of all immigration streams consistently have higher retention rates than their spouses/dependents (Table 9) and the overall provincial retention rates. While retention has remained somewhat steady by landing cohort of principal applicants, it has declined for spouses/dependents. With more years that pass since landing, a larger percentage of spouses/dependents than principal applicants leave NB. This might have to do with earnings.

Principal applicants typically out-earn their spouses/dependents, sometimes earning more than double the amount of income. Principal applicants have an average starting employment income between \$36,900 and \$46,000,¹⁵ while spouses/dependents aged 15+ earn between \$14,400 and \$24,300 when starting out (Table 10).

Five years after landing, principal applicants earn on average around \$50,000 while spouses/dependents earn around \$25,000. Within ten years of landing, there are little to no signs of this gap closing between the two groups.

That being said, earnings growth is often higher among spouses/dependents, who have an average income growth rate of 24%¹⁶ while principal applicants experience an average earnings growth rate of 18%.¹⁷

¹⁵ 2018 constant dollars

¹⁶ Between one and five years since landing

¹⁷ Between one and five years since landing

Table 9: Retention Rates by Applicant Type (Principal Applicants)

Principal Applicants					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	75.0%	65.6%	58.1%	52.1%	47.0%
2007	74.6%	64.9%	57.6%	51.6%	
2008	76.4%	63.7%	56.7%	50.0%	
2009	74.6%	64.8%	55.3%	51.1%	
2010	70.2%	60.1%	52.7%		
2011	72.8%	60.8%	54.0%		
2012	73.0%	60.0%			
2013	75.5%	62.2%			
2014	69.9%				
2015	67.0%				

Notes: 'YSL' means 'years since landing.'

Table 10: Retention Rates by Applicant Type (Spouses/Dependents)

Spouses/Dependent					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	72.2%	61.1%	53.7%	42.3%	34.8%
2007	73.1%	65.6%	57.7%	46.7%	
2008	73.0%	55.3%	46.0%	40.2%	
2009	70.5%	60.6%	49.6%	43.0%	
2010	67.2%	55.0%	44.7%		
2011	63.6%	49.1%	40.9%		
2012	66.7%	52.6%			
2013	69.9%	50.8%			
2014	64.2%				
2015	58.6%				

Notes: 'YSL' means 'years since landing.'

Table 11: Average Employment Income of Immigrants by Applicant Type (Principal Applicants)

Principal Applicants					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$37,926	\$44,428	\$47,619	\$54,207	\$55,687
2007	\$39,123	\$41,046	\$44,281	\$46,988	
2008	\$39,601	\$42,912	\$46,729	\$46,153	
2009	\$45,942	\$50,958	\$52,737	\$54,752	
2010	\$43,908	\$52,007	\$53,405		
2011	\$42,114	\$47,693	\$47,285		
2012	\$36,969	\$40,696			
2013	\$40,798	\$48,276			
2014	\$40,558				
2015	\$40,199				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 12: Average Employment Income of Immigrants by Applicant Type (Spouses / Dependents)

Spouses/Dependents					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$17,228	\$23,088	\$24,700	\$26,398	\$31,376
2007	\$14,477	\$17,724	\$19,248	\$20,351	
2008	\$21,655	\$25,654	\$27,036	\$28,450	
2009	\$21,177	\$22,389	\$23,921	\$25,766	
2010	\$20,339	\$21,573	\$24,477		
2011	\$24,287	\$25,537	\$26,146		
2012	\$20,937	\$22,855			
2013	\$23,210	\$23,905			
2014	\$20,339				
2015	\$21,177				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Census Metropolitan Area/Census Agglomeration (CMA/CA)

An increasing number of immigrants destined for NB is choosing Moncton as their destination CMA (Table 13). In 2015, the number of immigrants destined for Moncton had increased by more than 200% compared to 2006.

Table 13: Destined Immigrant Count by Destination CMA/CA, 2006-2015 Landing Cohorts

Year	Moncton	Saint John	Fredericton	Rest of NB
2006	180	385	335	260
2007	245	380	285	255
2008	250	410	365	295
2009	325	405	350	255
2010	300	490	395	360
2011	335	330	405	345
2012	355	480	445	255
2013	390	305	425	330
2014	540	475	590	280
2015	555	420	400	295

In this section, retention rates are split into three categories:

- Provincial retention
- NB-based community retention
- Community retention

Provincial retention rates show the percentage of NB-destined immigrants still in NB, grouped by their declared destination CMA/CA. Therefore, provincial retention is calculated as the number of NB-destined tax filers still in the province (see Appendix Table 79 for counts), divided by the total number of NB-destined tax filers in Canada (Appendix Table 81), grouped by their destination CMA. Leavers in this category are those who have left the province (i.e., those who report a province other than NB on their tax returns in a given tax year).

NB-based community retention rates show the percentage of immigrants destined for an NB CMA/CA that still reports residence in that CMA/CA years after landing. NB-based community retention is calculated as the number of NB-destined immigrants who report residence in the CMA/CA they are destined for (Appendix Table 82), divided by the total number of NB-destined immigrants still in the province (Appendix Table 81). This sample – numerator and denominator – is limited to NB tax filers only. Leavers are those no longer in their destined CMA/CA but still in NB. Therefore, this calculation is dependent on remaining in the province.

Community retention rates show the percentage of immigrants destined for an NB CMA/CA that still reports residence in that CMA/CA years after landing. However, unlike the intra-provincial rates described above, the denominator for this calculation includes those outside the province. In other words, retention rates here are calculated by dividing the number of NB-destined immigrants who report residence in the CMA/CA they were destined for (Appendix Table 82), divided by the total number of NB-destined tax filers in Canada (Appendix Table 80). Leavers are those no longer in their destined CMA/CA in the specified tax year. They could be elsewhere in NB or Canada.

Provincial Retention Rates

Of the province's urban centers, Moncton is most likely to see its destined immigrants remain in NB, while Saint John is the least likely (Table 14). Among the 2013-2015 cohorts, the lowest 1-year retention rates are among immigrants destined for Fredericton (Table 15). For those destined for Saint John and Fredericton, more recent arrival cohorts show 5-year retention rates below 50%. (Table 15). The rest of the NB has average 1-year and 5-year retention rates of 80% and 68%, respectively. These averages surpass those of individual CMAs/CAs. This means that immigrants destined for cities outside of NB's urban centres are more likely to stay in NB than those destined for one of the urban centres.

Table 14: Provincial Retention Rates by Destination CMA/CA (Moncton)

Moncton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	72.7%	64.7%	54.3%	50.0%	50.0%
2007	77.3%	67.4%	54.2%	44.0%	
2008	76.1%	60.4%	51.1%	48.0%	
2009	80.0%	69.8%	61.5%	50.7%	
2010	70.9%	62.5%	49.2%		
2011	74.6%	64.5%	55.4%		
2012	73.8%	62.9%			
2013	73.6%	60.8%			
2014	72.8%				
2015	70.0%				

Notes: 'YSL' means 'years since landing.'

Table 15: Provincial Retention Rates by Destination CMA/CA (Saint John)

Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	71.6%	61.4%	50.7%	37.8%	29.2%
2007	68.1%	60.8%	56.6%	42.9%	
2008	63.9%	49.3%	43.0%	36.3%	
2009	58.6%	47.4%	38.8%	33.7%	
2010	54.9%	42.4%	33.7%		
2011	52.5%	43.5%	34.8%		
2012	60.5%	46.2%			
2013	69.6%	45.0%			
2014	69.7%				
2015	59.3%				

Notes: 'YSL' means 'years since landing.'

Table 16: Provincial Retention Rates by Destination CMA/CA (Fredericton)

Fredericton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	74.6%	60.6%	56.9%	44.6%	37.7%
2007	72.0%	56.6%	48.1%	45.3%	
2008	80.3%	59.2%	47.3%	40.0%	
2009	74.2%	62.1%	50.7%	42.6%	
2010	68.6%	56.6%	47.4%		
2011	70.0%	52.6%	41.0%		
2012	71.8%	52.3%			
2013	65.8%	50.6%			
2014	56.9%				
2015	48.7%				

Notes: 'YSL' means 'years since landing.'

Table 17: Provincial Retention Rates by Destination (Rest of NB)

Rest of NB					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	75.5%	70.8%	67.3%	63.3%	56.0%
2007	83.7%	80.0%	72.5%	71.2%	
2008	83.3%	76.4%	69.1%	63.6%	
2009	84.4%	80.9%	68.1%	68.8%	
2010	82.1%	75.4%	70.0%		
2011	77.4%	63.6%	61.8%		
2012	79.6%	71.4%			
2013	83.9%	75.0%			
2014	72.5%				
2015	74.6%				

Notes: 'YSL' means 'years since landing.'

NB-Based Community Retention Rates

An average of 88% of immigrants destined for Moncton still reside in the city one year after landing (Table 18). This is the highest 1-year average among the major cities. Five years after, an average of 83% of immigrants destined for Moncton still call it home.

Saint John has the lowest average NB-based community retention rates of the major cities, averaging 81% one year after landing and 77% five years after landing (Tables 18-21).

Table 18: NB-Based Community Retention Rates by Destination CMA/CA (Moncton)

Moncton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	87.5%	81.8%	73.7%	77.8%	77.8%
2007	91.2%	83.9%	80.8%	81.8%	
2008	85.7%	82.8%	87.5%	79.2%	
2009	85.4%	86.4%	80.0%	85.3%	
2010	89.7%	91.4%	89.7%		
2011	93.2%	85.0%	86.1%		
2012	87.5%	86.4%			
2013	83.0%	84.4%			
2014	86.7%				
2015	79.2%				

Notes: 'YSL' means 'years since landing.'

Table 19: NB-Based Community Retention Rates by Destination CMA/CA (Saint John)

Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	83.3%	79.1%	77.1%	75.0%	71.4%
2007	89.4%	84.4%	79.1%	84.8%	
2008	82.6%	78.4%	76.5%	79.3%	
2009	87.8%	75.7%	77.4%	82.1%	
2010	80.0%	82.1%	75.0%		
2011	83.9%	77.8%	73.9%		
2012	69.2%	69.8%			
2013	76.9%	81.5%			
2014	72.6%				
2015	72.9%				

Notes: 'YSL' means 'years since landing.'

Table 20: NB-Based Community Retention Rates by Destination CMA/CA (Fredericton)

Fredericton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	90.9%	90.0%	86.5%	89.7%	84.6%
2007	80.6%	76.7%	73.1%	75.0%	
2008	81.6%	76.2%	77.1%	73.3%	
2009	82.6%	80.5%	82.4%	82.8%	
2010	83.3%	79.1%	72.2%		
2011	83.7%	85.4%	85.3%		
2012	85.7%	82.6%			
2013	88.0%	81.0%			
2014	74.2%				
2015	76.3%				

Notes: 'YSL' means 'years since landing.'

Table 21: NB-Based Community Retention Rates by Destination (Rest of NB)

Rest of NB				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2006	..	..	..	..
2007	97.6%	92.5%	100.0%	91.9%
2008	88.9%	95.2%	92.1%	94.3%
2009	89.5%	92.1%	96.9%	93.9%
2010	94.5%	94.2%	93.9%	
2011	93.8%	100.0%	100.0%	
2012	92.3%	94.3%		
2013	94.2%	89.6%		
2014	94.6%			
2015	86.4%			

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements.
Source: StatCan 2021g.

Community Retention Rates

Moncton usually has the highest percentage of community retention while Saint John usually has the lowest (Table 22). Retention in these cities, however, is lower than the provincial retention rates, and five years after landing less than half of the immigrants destined to these cities are retained. The same goes for Fredericton (Tables 24).

Community retention rates have also declined for more recent arrival cohorts, as some of these cohorts have less than half of their immigrants left in the province as early as three years after landing (specifically Saint John and Fredericton).

The rest of NB has higher average 1-year and 5-year retention rates than NB's major cities, at 73% and 63%, respectively. In other words, immigrants destined for other parts of NB – including rural NB – are more likely to remain in NB than those destined for the urban centers.

This is not unique to NB. According to a report released by the University of Calgary (Falconer, 2019), the higher retention of immigrants 'starting' in rural areas compared to the retention of those 'starting' in larger urban areas or mid-size cities occurs in the Atlantic provinces and parts of Quebec.

Table 22: Community Retention by Destination CMA/CA (Moncton)

Moncton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	63.6%	52.9%	40.0%	38.9%	38.9%
2007	70.5%	56.5%	43.8%	36.0%	
2008	65.2%	50.0%	44.7%	38.0%	
2009	68.3%	60.3%	49.2%	43.3%	
2010	63.6%	57.1%	44.1%		
2011	69.5%	54.8%	47.7%		
2012	64.6%	54.3%			
2013	61.1%	51.4%			
2014	63.1%				
2015	55.5%				

Notes: 'YSL' means 'years since landing.'

Table 23: Community Retention by Destination CMA/CA (Saint John)

Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	59.7%	48.6%	39.1%	28.4%	20.8%
2007	60.9%	51.4%	44.7%	36.4%	
2008	52.8%	38.7%	32.9%	28.8%	
2009	51.4%	35.9%	30.0%	27.7%	
2010	43.9%	34.8%	25.3%		
2011	44.1%	33.9%	25.8%		
2012	41.9%	32.3%			
2013	53.6%	36.7%			
2014	50.6%				
2015	43.2%				

Notes: 'YSL' means 'years since landing.'

Table 24: Community Retention by Destination CMA/CA (Fredericton)

Fredericton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	67.8%	54.5%	49.2%	40.0%	31.9%
2007	58.0%	43.4%	35.2%	34.0%	
2008	65.6%	45.1%	36.5%	29.3%	
2009	61.3%	50.0%	41.8%	35.3%	
2010	57.1%	44.7%	34.2%		
2011	58.6%	44.9%	34.9%		
2012	61.5%	43.2%			
2013	57.9%	41.0%			
2014	42.2%				
2015	37.2%				

Notes: 'YSL' means 'years since landing.'

Table 25: Community Retention by Destination (Rest of NB)

Rest of NB				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2006	..	..	..	..
2007	81.6%	71.2%	69.8%	61.8%
2008	71.4%	67.8%	60.3%	56.9%
2009	73.9%	71.4%	62.0%	62.0%
2010	77.6%	69.0%	63.0%	
2011	71.4%	61.8%	59.2%	
2012	72.0%	63.5%		
2013	77.8%	65.2%		
2014	66.0%			
2015	63.3%			

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements.
Source: StatCan, 2021g.

Income by CMA/CA

Starting employment income for immigrants residing in one of NB's three major cities is often below \$40,000¹⁸ (Tables 26-28). At the start of the study period, immigrants in Fredericton reported the highest starting income, but as more cohorts of immigrants landed in the province, average income was often highest in Saint John. Employment incomes of immigrants in Saint John have also generally risen for more recent arrivals than earlier arrivals, whereas they have remained relatively stable for immigrants residing in Moncton and Fredericton. That said, earnings growth between one and five years after landing is often highest in Fredericton, which increases the likelihood of closing the gap with Saint John.

¹⁸ 2018 constant dollars

Table 26: Average Employment Income of NB Immigrants by CMA/CA of Residence (Moncton)

Moncton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$30,509	\$35,449	\$39,831	\$39,325	\$41,973
2007	\$26,072	\$28,856	\$29,157	\$31,219	
2008	\$32,417	\$32,154	\$36,283	\$39,198	
2009	\$32,176	\$36,830	\$36,014	\$38,752	
2010	\$23,476	\$31,938	\$34,246		
2011	\$28,609	\$32,604	\$35,220		
2012	\$27,049	\$28,450			
2013	\$32,285	\$35,324			
2014	\$26,237				
2015	\$26,181				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 27: Average Employment Income of NB Immigrants by CMA/CA of Residence (Saint John)

Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$26,560	\$31,484	\$34,602	\$44,105	\$44,467
2007	\$27,124	\$29,772	\$32,336	\$35,481	
2008	\$33,700	\$37,828	\$38,564	\$39,725	
2009	\$41,795	\$44,394	\$50,504	\$54,440	
2010	\$31,820	\$33,785	\$41,306		
2011	\$43,297	\$36,653	\$37,090		
2012	\$30,960	\$38,566			
2013	\$35,055	\$47,687			
2014	\$32,454				
2015	\$32,103				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 28: Average Employment Income of NB Immigrants by CMA/CA of Residence (Fredericton)

Fredericton					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$30,987	\$34,399	\$40,276	\$43,792	\$51,012
2007	\$28,878	\$32,749	\$38,146	\$38,566	
2008	\$28,452	\$33,044	\$38,347	\$34,597	
2009	\$28,398	\$32,446	\$37,399	\$42,659	
2010	\$30,485	\$36,174	\$38,355		
2011	\$27,513	\$33,883	\$36,467		
2012	\$30,634	\$31,927			
2013	\$28,236	\$28,883			
2014	\$30,452				
2015	\$29,298				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

A possible factor contributing to the lower retention rates in Saint John compared to Moncton could be opportunity related. The rate of employment income is considerably lower among immigrants in Saint John (Table 30). An average of 64% of the immigrant population in Saint John reports some employment income one year after landing. This percentage increases to 75% five years after landing.

In Moncton, however, an average of 75% of the immigrant population reports some employment income one year after landing, and this increases to 83% five years after landing. The rest of the province has a collective average 1-year rate of employment income of 71% and a 5-year average of 79% (Table 31).

Table 29: Rate of Employment Income for Immigrants by CMA/CA (Moncton)

Moncton				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	76.2%	79.5%	85.4%	83.8%
2008	72.9%	80.0%	86.0%	83.7%
2009	73.3%	76.3%	81.1%	82.0%
2010	82.4%	80.0%	84.1%	
2011	70.9%	76.0%	80.0%	
2012	75.4%	81.5%		
2013	74.1%	78.8%		
2014	74.1%			
2015	77.6%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021g.

Table 30: Rate of Employment Income for Immigrants by CMA/CA (Saint John)

Saint John				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	67.3%	67.3%	73.8%	67.6%
2008	54.2%	64.1%	74.3%	73.3%
2009	67.4%	73.5%	83.3%	79.3%
2010	55.1%	64.3%	67.6%	
2011	67.6%	75.0%	76.9%	
2012	66.7%	67.5%		
2013	63.2%	68.8%		
2014	66.1%			
2015	67.3%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021g.

Table 31: Rate of Employment Income for Immigrants Residing Outside CMAs

Outside CMAs				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2007	69.0%	79.7%	78.9%	79.5%
2008	70.3%	78.4%	80.9%	83.3%
2009	73.6%	73.1%	75.9%	76.8%
2010	73.6%	73.3%	77.1%	
2011	74.8%	78.9%	82.4%	
2012	63.6%	71.7%		
2013	72.3%	77.0%		
2014	70.9%			
2015	72.4%			

Notes: 'YSL' means 'years since landing.' Source: StatCan, 2021g.

Pre-Admission Experience

Most immigrants destined for NB (and other provinces) have no Canadian study or work experience prior to landing (Table 32). While the number of NB-destined immigrants with either or neither permit (study or work) has risen over time, the number of those with both permit types has declined in recent years, starting with the 2012 cohort.

Table 32: Total Number of Immigrants Destined for NB by Pre-Admission Experience

Year	No Prior/Other Permit Type	Work or Study Permit	Study and Work Permit
2006	695	340	125
2007	755	265	150
2008	835	335	155
2009	850	340	140
2010	1,025	405	120
2011	885	420	115
2012	1005	400	135
2013	925	400	125
2014	1,305	470	115
2015	1,085	480	105

Immigrants with some pre-admission experience in the form of a work permit are on average the most likely to remain in NB (Tables 33-36). This corroborates the findings published by Statistics Canada which revealed that immigrants with pre-admission work experience were more likely to remain in their province of admission (StatCan, 2021a). On average, pre-admission work permit holders have 1-, 3-, and 5- year retention rates of 83%, 75%, and 71%, respectively.

The least likely pre-admission groups to remain in the province vary by years since landing. One year and three years after landing, pre-admission study permit holders have the lowest retention rates. Five years after, pre-admission study and work permit holders have the lowest rates.

Table 33: Retention Rates by Pre-Admission Experience (Study Permit Only)

Study Permit Only					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	60%	52%	50%	38%	32%
2007	75%	60%	53%	47%	
2008	67%	43%	33%	32%	
2009	69%	61%	42%	38%	
2010	75%	57%	50%		
2011	71%	53%	45%		
2012	60%	57%			
2013	75%	44%			
2014	64%				
2015	44%				

Notes: 'YSL' means 'years since landing.'

Table 34: Retention Rates by Pre-Admission Experience (Work Permit Only)

Work Permit Only					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	86%	78%	75%	74%	68%
2007	89%	79%	70%	71%	
2008	90%	80%	73%	69%	
2009	84%	77%	70%		
2010	87%	79%	70%		
2011	84%	69%	69%		
2012	77%	69%			
2013	77%	72%			
2014	78%				
2015	78%				

Notes: 'YSL' means 'years since landing.'

Table 35: Retention Rates by Pre-Admission Experience (Both Study and Work Permits)

Both Study and Work Permits					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	68%	50%	43%	40%	37%
2007	59%	46%	38%	31%	
2008	72%	59%	46%	39%	
2009	76%	58%	48%	42%	
2010	64%	45%	38%		
2011	76%	67%	55%		
2012	76%	60%			
2013	75%	61%			
2014	73%				
2015	60%				

Notes: 'YSL' means 'years since landing.'

Table 36: Retention Rates by Pre-Admission Experience (None or Other Permit Type)

None or Other Permit Type					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	72%	63%	54%	44%	37%
2007	73%	65%	58%	48%	
2008	74%	58%	49%	43%	
2009	69%	60%	50%	43%	
2010	63%	52%	43%		
2011	61%	49%	40%		
2012	67%	52%			
2013	71%	52%			
2014	64%				
2015	59%				

Notes: 'YSL' means 'years since landing.'

Retention for those who held only work permits, only study permits, or no pre-admission work or study permits has declined for more recent arrival cohorts. Meanwhile, retention rates for those with both permit types increased over the study period.

The consensus in Canadian immigrant income research is that immigrants with skilled work- or education-related pre-admission experience in Canada have an earnings advantage over those who are selected directly from abroad, as is also seen in this report.

In 2019, Statistics Canada reported that immigrants who held at least a study permit had a stronger wage catch-up with the rest of Canada in the ten years after admission. While they initially earned less than those with both a study and work permit, their median wage increased over the years, exceeding that of immigrants without pre-admission experience.

Immigrants who held both a work and study permit earned the highest median wage, exceeding those who only held a work permit and Canadians as a whole. Those who had prior skilled work experience in Canada also earned more than the average among Canadian-born workers (StatCan, 2015). Those with only Canadian study experience had a small earnings advantage over those with no prior experience due to their longer stay in Canada.

Another study (StatCan, 2017) which looked at prior study permit holders found that although Canadian-educated immigrants earned far less than their Canadian-born counterparts, both in initial years after immigration and in the long term, they had an earnings advantage over foreign-educated immigrants. It shows that asylum claimants had the lowest wages within the pre-admission experience group, although their income increased with length of residence in Canada. The only exceptions within the pre-admission experience group were immigrants with prior non-skilled work experience only. They had significantly lower earnings and slower earnings growth than economic immigrants without pre-admission experience.

Pre-admission experience in the form of a study and/or work permit is rewarded in the NB labour market, as with the Canadian labour market (StatCan, 2021a). Among those with pre-admission experience, the combination of those who held either type of permit prior to landing usually has a higher starting employment income than those who held neither or both for most cohorts in this report¹⁹ (Tables 37-39).

¹⁹ With the exception of the 2014 and 2015 landing cohorts.

Table 37: Average Employment Income by Pre-Admission Experience (Study or Work Permits)

Study or Work Permit					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$44,267	\$48,742	\$47,508	\$48,015	\$49,661
2007	\$44,194	\$46,375	\$46,147	\$45,603	
2008	\$53,523	\$51,736	\$57,032	\$51,948	
2009	\$55,192	\$57,218	\$58,922	\$61,298	
2010	\$47,396	\$49,862	\$51,843		
2011	\$47,024	\$51,677	\$45,402		
2012	\$41,823	\$40,989			
2013	\$44,644	\$45,194			
2014	\$38,987				
2015	\$36,571				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 38: Average Employment Income by Pre-Admission Experience (Both Study and Work Permits)

Both Study and Work Permits					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$36,491	\$49,092	\$63,084	\$69,633	\$68,986
2007	\$41,037	\$46,261	\$55,355	\$57,963	
2008	\$36,848	\$42,279	\$48,667	\$50,789	
2009	\$38,474	\$47,024	\$58,602	\$65,142	
2010	\$36,716	\$52,469	\$53,950		
2011	\$37,488	\$41,341	\$47,168		
2012	\$35,957	\$44,045			
2013	\$41,341	\$52,674			
2014	\$44,572				
2015	\$45,402				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 39: Average Employment Income by Pre-Admission Experience (None or Other Permit Type)

None or Other Permit Type					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$20,698	\$27,170	\$30,819	\$36,283	\$40,103
2007	\$20,811	\$23,588	\$25,759	\$29,195	
2008	\$21,106	\$25,590	\$28,353	\$30,979	
2009	\$23,474	\$26,417	\$28,342	\$31,584	
2010	\$20,360	\$26,615	\$29,399		
2011	\$20,498	\$24,933	\$28,155		
2012	\$18,467	\$22,233			
2013	\$19,072	\$25,662			
2014	\$20,969				
2015	\$19,844				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

When study permit and work permit holder groups are separated, publicly available data suggests that immigrants with both earn more than immigrants with one or the other but not both (StatCan, 2021e). However, due to disclosure guidelines, this study combines these two pre-admission categories, and thus the results shown here suggest otherwise. The average entry income for immigrants with either study or work permits, but not both, falls within the range of \$36,500 and \$55,200²⁰ one year after landing.

It is important to note that increases in employment income are most pronounced for those with both study and work permits prior to landing. It is also important to note that immigrants who held both study and work permits prior to landing have the highest rate of starting employment income (93% average) of the pre-admission groups²¹ (Tables 40 & 41). Five years after landing, however, this rate falls to 88% on average.

Those without any permits prior to landing have the lowest employment income rate one year after landing (59% average). Employment income rate here, however, rises with more time since landing for each cohort (74% average 5 years after landing).

The pre-admission study permit group has a lower rate of employment income than the pre-admission work permit group. Rates generally increase for the former pre-admission group with time since landing, while they generally decline for the latter.

Table 40: Rate of Employment Income (Study Permit Only & Work Permit Only)

Study Permit Only					Work Permit Only				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2008	63.6%	66.7%	72.7%	69.2%	2008	84.6%	87.5%	83.8%	87.9%
2009	70.0%	66.7%	70.0%	72.7%	2009	91.1%	88.1%	85.7%	82.4%
2010	70.0%	66.7%	72.7%		2010	89.8%	90.7%	89.6%	
2011	63.6%	70.0%	100%		2011	90.9%	87.5%	87.2%	
2012	50.0%	70.0%			2012	90.4%	87.5%		
2013	71.4%				2013	91.2%	88.9%		
2014	44.4%				2014	91.9%			
2015	75.0%				2015	91.7%			

Notes: 'YSL' means 'years since landing.'

²⁰ 2018 constant dollars

²¹ For the employment income rate, groups are split into study permit only, work permit only, study and work permit, and no pre-admission permit at all.

Table 41: Rate of Employment Income (Both Study and Work Permits & None or Other Permit Type)

Both Study and Work Permits					None or Other Permit Type				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2008	95.5%	89.5%	86.7%	85.7%	2008	56.3%	70.9%	77.6%	80.4%
2009	90.0%	82.4%	84.6%	84.6%	2009	62.2%	68.9%	75.0%	78.0%
2010	93.3%	90.9%	88.9%		2010	59.5%	63.6%	69.4%	
2011	94.4%	93.8%	92.3%		2011	58.3%	70.4%	75.0%	
2012	95.2%	94.1%			2012	54.5%	64.7%		
2013	95.0%	94.1%			2013	59.8%	66.7%		
2014	94.7%				2014	59.6%			
2015	93.8%				2015	62.0%			

Notes: 'YSL' means 'years since landing.'

Level of Education

The level of education measure used in this report is a combination of years of schooling and education qualifications extracted from the immigrant landing files. The former variable presents the number of years of formal education an immigrant has while the latter presents the highest level of completed education as of the application date for permanent residence. Therefore, immigrants who report their years of schooling but not their highest level of education are considered not to have received a diploma/degree.

Over time, an increasing number of NB-destined immigrants hold bachelor's and post-graduate degrees (Table 42). Interestingly, retention rates are not very different between both groups, and an average of 75% of immigrants in both groups are still in the province one year after landing (Tables 43 & 44).

Five years after landing, slightly over 50% are still in the province. Around the 7-year mark, however, a gap in retention between the two groups appears, and at that point post-graduate degree holders have a higher retention rate than their bachelor's degree counterparts. Both levels of education have fairly stable retention rates by cohort.

Table 42: Total Number of Immigrants Destined for NB by Level of Education

Year	0-13 to More Years of Schooling / Not Stated	Non-University Diploma or Trade Certificate	Bachelor's Degree	Post-Graduate Degree
2006	445	200	370	145
2007	470	200	355	145
2008	455	290	415	155
2009	440	310	415	165
2010	595	360	410	175
2011	610	270	390	150
2012	515	330	485	205
2013	570	280	420	175
2014	730	290	605	265
2015	680	230	550	205

Table 43: Retention Rates by Level of Education (Bachelor's Degree)

Bachelor's Degree					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	76.5%	65.2%	56.1%	47.7%	43.3%
2007	78.1%	69.2%	56.9%	48.4%	
2008	81.6%	64.5%	54.1%	46.5%	
2009	74.7%	64.1%	51.3%	45.9%	
2010	70.7%	58.4%	50.7%		
2011	72.9%	57.5%	47.9%		
2012	74.7%	58.1%			
2013	73.8%	59.8%			
2014	69.3%				
2015	63.6%				

Notes: 'YSL' means 'years since landing.'

Table 44: Retention Rates by Level of Education (Post-Graduate Degree)

Post-Graduate Degree					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	75.0%	63.0%	57.7%	58.3%	50.0%
2007	74.1%	63.0%	53.8%	52.2%	
2008	78.6%	65.5%	55.2%	44.4%	
2009	74.2%	61.3%	55.2%	53.6%	
2010	72.7%	60.6%	54.8%		
2011	76.0%	57.7%	48.1%		
2012	64.9%	53.8%			
2013	75.0%	56.3%			
2014	74.0%				
2015	62.5%				

Notes: 'YSL' means 'years since landing.'

Those without a bachelor's or post-graduate degree at landing average 70% 1-year retention rates, after which rates are higher among those with a non-university diploma or trade certificate versus those who only report years of schooling but no degree (Tables 45 & 46).

Table 45: Retention Rates by Level of Education (0-13 to More Years of Schooling / Not Stated)

0-13 to More Years of Schooling / Not Stated					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	67.1%	60.9%	53.8%	41.2%	35.1%
2007	73.5%	64.5%	58.8%	49.5%	
2008	70.7%	55.6%	48.0%	42.0%	
2009	75.7%	64.4%	54.1%	47.7%	
2010	65.7%	55.7%	45.0%		
2011	64.4%	52.5%	45.9%		
2012	64.0%	51.9%			
2013	72.3%	56.6%			
2014	62.4%				
2015	60.7%				

Notes: 'YSL' means 'years since landing.'

Table 46: Retention Rates by Level of Education (Non-University Diploma or Trades Certificate)

Non-University Diploma or Trade Certificate					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	77.8%	66.7%	67.6%	58.8%	53.1%
2007	70.3%	63.2%	55.6%	51.4%	
2008	70.4%	59.3%	51.9%	49.0%	
2009	64.9%	58.6%	50.9%	44.4%	
2010	68.8%	58.8%	51.5%		
2011	70.6%	59.6%	52.9%		
2012	76.2%	62.9%			
2013	75.5%	57.4%			
2014	69.1%				
2015	69.6%				

Notes: 'YSL' means 'years since landing.'

The average employment income earned by more recent cohorts of immigrants has declined considerably since the start of the study period, leading to a wide 1-year post-landing income range of \$43,200 to \$86,000.

Immigrants with post-graduate degrees report the highest employment incomes on average, with most arrival cohorts in this group earning over \$50,000 in starting income (Table 48). Bachelor's degree holders have the second-highest average income but earn considerably less than their post-graduate degree counterparts. The gap in 1-year post-landing incomes, for example, ranges between \$10,400 and \$41,700. While post-graduate degree holders earn considerably above the NB average one year after landing, bachelor's degree holders start to earn close to the provincial income average around three years after landing.

Table 47: Average Employment Income by Level of Education (Bachelor's Degree)

Bachelor's Degree					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$28,834	\$36,032	\$37,272	\$43,670	\$52,363
2007	\$30,866	\$34,810	\$35,296	\$41,554	
2008	\$35,566	\$36,827	\$40,085	\$41,727	
2009	\$35,382	\$37,378	\$41,981	\$50,077	
2010	\$34,157	\$40,954	\$44,572		
2011	\$37,159	\$40,063	\$45,921		
2012	\$27,701	\$31,506			
2013	\$28,875	\$37,402			
2014	\$32,770				
2015	\$29,298				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 48: Average Employment Income by Level of Education (Post-Graduate Degree)

Post-Graduate Degree					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$70,469	\$85,940	\$97,018	\$99,941	\$84,570
2007	\$70,266	\$68,589	\$79,799	\$75,970	
2008	\$55,622	\$62,417	\$71,263	\$74,919	
2009	\$85,994	\$86,485	\$85,453	\$86,648	
2010	\$68,202	\$70,393	\$75,340		
2011	\$61,822	\$75,650	\$67,843		
2012	\$50,405	\$55,320			
2013	\$53,275	\$57,038			
2014	\$43,202				
2015	\$52,259				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Non-degree holders (i.e., those with 0-13 or more years of schooling, non-university diplomas or trades certificates, or education levels that are not stated) earn the least of the education groups (Tables 49 & 50).

It takes a diploma or trade certificate holder between three to five years to earn income in the range of the provincial average. Immigrants who do not report any credentials take much longer to catch up. However, starting incomes paid to these groups have remained fairly stable over the study period, and increases by cohort are only seen more than one year after landing.

Table 49: Average Employment Income by Level of Education (0-13 to More Years of Schooling / Not Stated)

0-13 to More Years of Schooling / Not Stated					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$19,143	\$20,290	\$21,918	\$24,116	\$29,194
2007	\$18,589	\$21,184	\$22,361	\$24,080	
2008	\$21,806	\$23,142	\$23,899	\$24,657	
2009	\$21,871	\$22,032	\$22,802	\$25,870	
2010	\$20,360	\$24,768	\$25,184		
2011	\$22,909	\$24,719	\$24,311		
2012	\$22,052	\$21,706			
2013	\$28,662	\$28,779			
2014	\$20,969				
2015	\$21,714				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 50: Average Employment Income by Level of Education (Non-University Diploma or Trades Certificate)

Non-University Diploma or Trades Certificate					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$25,125	\$29,502	\$28,371	\$31,503	\$35,636
2007	\$27,709	\$26,795	\$34,857	\$35,374	
2008	\$28,452	\$30,485	\$35,957	\$38,039	
2009	\$26,795	\$29,815	\$29,088	\$32,103	
2010	\$29,150	\$33,024	\$34,456		
2011	\$29,157	\$32,178	\$32,934		
2012	\$27,810	\$30,031			
2013	\$27,596	\$33,454			
2014	\$26,659				
2015	\$27,844				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Source Region²²

Source regions in this section are grouped into the following:

- Europe
- Africa and the Middle East
- Southern Asia
- Eastern Asia
- Oceania and Other Asia
- South and Central America
- United States and Other

²² Due to sample size restrictions, outcomes are only shown for 1, 3, and 5 years since landing for this section.

The majority of immigrants destined for NB are from Eastern Asia (Table 51). Close behind are immigrants from Africa and the Middle East. A growing share of immigrants destined for NB are from countries in Oceania and parts of Asia outside Southern and Eastern Asia. The regions from which the highest number of destined immigrants came in 2015 were Oceania and Other Asia.

The number of NB-destined immigrants has risen over the study period for all regions except South and Central America and the United States and Other. In these regions, the number of immigrants generally declined over time.

Table 51: Total Number of Immigrants Destined for NB by Source Region

Year	Europe	Africa and the Middle East	Southern Asia	Eastern Asia	Oceania and Other Asia	South and Central America	United States and Other
2006	185	220	85	460	65	70	80
2007	215	210	75	415	105	70	85
2008	205	210	65	570	80	90	105
2009	240	265	85	490	85	80	80
2010	310	260	120	595	120	80	55
2011	330	250	105	410	160	80	80
2012	280	410	90	420	210	75	55
2013	310	290	85	435	190	60	80
2014	295	305	110	595	480	55	50
2015	250	415	95	330	475	55	55

Immigrants from the Americas and Europe often have the highest retention rates (Tables 52-54). Five years after landing, well over half are still in NB. Immigrants from Africa and the Middle East often have the lowest retention rates of the group, with a 1-year retention rate below 70%. Often, less than half this cohort remains in NB five years after landing.

Table 52: Retention Rates by Source Region (Europe & Africa / Middle East)

Europe				Africa and the Middle East			
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	85.3%	73.5%	74.3%	2006	61.5%	53.7%	45.2%
2007	82.9%	78.6%	69.8%	2007	64.9%	57.9%	48.7%
2008	81.1%	81.6%	78.4%	2008	69.2%	56.4%	44.7%
2009	82.2%	76.1%	65.2%	2009	65.3%	56.0%	50.0%
2010	83.6%	75.9%	64.9%	2010	58.3%	44.9%	44.0%
2011	80.0%	67.2%	63.1%	2011	59.1%	42.6%	35.4%
2012	63.5%	57.4%		2012	66.2%	48.1%	
2013	71.2%	66.1%		2013	61.5%	43.9%	
2014	..			2014	..		
2015	63.3%			2015	62.5%		

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements.

Table 53: Retention Rates by Source Region (Southern Asia)

Southern Asia			Eastern Asia				
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	71.4%	53.3%	42.9%	2006	72.5%	60.7%	47.2%
2007	61.5%	46.2%	35.7%	2007	68.5%	54.3%	46.4%
2008	72.7%	41.7%	41.7%	2008	69.1%	50.5%	39.1%
2009	80.0%	56.3%	43.8%	2009	65.5%	56.3%	44.6%
2010	86.4%	65.2%	54.2%	2010	57.8%	46.1%	35.3%
2011	63.2%	50.0%	45.5%	2011	66.2%	49.4%	37.3%
2012	68.8%	52.9%		2012	78.4%	59.8%	
2013	62.5%	52.9%		2013	79.7%	50.6%	
2014	..			2014	..		
2015	58.8%			2015	53.1%		

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements.

Table 54: Retention Rates by Source Region (Oceania / Other Asia & United States and Other America)

Oceania and Other Asia			United States and Other America (South, Central and Other)				
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	69.2%	66.7%	66.7%	2006	85.2%	81.5%	77.8%
2007	78.9%	75.0%	76.2%	2007	89.7%	83.3%	79.3%
2008	76.9%	60.0%	52.9%	2008	94.3%	77.8%	72.2%
2009	80.0%	62.5%	52.9%	2009	89.7%	82.8%	72.4%
2010	69.6%	62.5%	56.0%	2010	79.2%	76.0%	72.0%
2011	63.0%	56.7%	47.1%	2011	79.3%	75.0%	66.7%
2012	64.1%	54.8%		2012	84.0%	76.0%	
2013	75.0%	66.7%		2013	87.5%	82.6%	
2014	..			2014	..		
2015	67.4%			2015	85.7%		

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements. In this table, the United States is combined with other countries in the Americas due to small sample sizes.

Immigrants from Southern Asia reported the highest employment income over the study period, starting and otherwise, with reported starting incomes ranging between \$38,300 and \$58,800 (Table 56).

The lowest incomes, starting and otherwise, were among immigrants from Eastern Asia (Table 56). Their starting incomes ranged between \$15,500 and \$22,800.²³ As with the overall trend, income paid to immigrants from most regions has declined by landing cohort. There have, however, been slight increases in the incomes earned by more recent arrival cohorts from Eastern Asia and from the United States and Other (Table 58). Meanwhile, there have been fluctuations in income earned by South and Central American immigrants.

²³ 2018 constant dollars

Table 55: Average Employment Income by Source Region (Europe & Africa / Middle East)

Europe				Africa and the Middle East			
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	\$32,782	\$37,198	\$38,496	2006	\$39,482	\$43,845	\$52,292
2007	\$35,074	\$35,497	\$39,132	2007	\$39,400	\$39,963	\$42,092
2008	\$35,332	\$36,048	\$39,868	2008	\$46,760	\$48,843	\$52,252
2009	\$40,306	\$39,790	\$39,850	2009	\$32,291	\$41,324	\$43,685
2010	\$32,933	\$38,238	\$40,673	2010	\$40,053	\$53,230	\$50,367
2011	\$39,680	\$43,046	\$38,545	2011	\$32,007	\$40,169	\$41,246
2012	\$35,197	\$34,035		2012	\$27,158	\$33,087	
2013	\$35,268	\$39,168		2013	\$30,154	\$42,804	
2014	\$36,985			2014	\$32,349		
2015	\$32,623			2015	\$29,090		

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 56: Average Employment Income by Source Region (Southern Asia & Eastern Asia)

Southern Asia				Eastern Asia			
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	\$47,139	\$64,018	\$56,520	2006	\$15,553	\$21,806	\$23,031
2007	\$48,870	\$44,887	\$49,107	2007	\$17,187	\$24,161	\$22,690
2008	\$51,891	\$55,518	\$70,068	2008	\$20,756	\$23,364	\$25,094
2009	\$58,742	\$54,478	\$71,708	2009	\$22,787	\$25,430	\$26,744
2010	\$48,843	\$51,057	\$52,370	2010	\$17,802	\$17,816	\$17,702
2011	\$48,669	\$50,185	\$58,285	2011	\$20,607	\$21,097	\$25,038
2012	\$46,277	\$43,624		2012	\$19,771	\$22,023	
2013	\$43,898	\$28,363		2013	\$20,990	\$26,493	
2014	\$50,578			2014	\$21,390		
2015	\$38,337			2015	\$18,909		

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars

Table 57: Average Employment Income by Source Region (Oceania / Other Asia & South and Central America)

Oceania and Other Asia				South and Central America			
Landing Year	1 YSL	3 YSL	5 YSL	Landing Year	1 YSL	3 YSL	5 YSL
2006	\$40,678	\$44,544	\$39,275	2006	\$37,807	\$37,898	\$41,166
2007	\$27,358	\$25,306	\$27,952	2007	\$24,903	\$28,169	\$40,667
2008	\$21,806	\$26,368	\$34,110	2008	\$31,717	\$40,165	\$35,740
2009	\$25,191	\$29,376	\$35,055	2009	\$51,413	\$43,626	\$46,669
2010	\$28,482	\$32,372	\$35,405	2010	\$44,059	\$53,121	\$56,795
2011	\$25,102	\$30,367	\$31,272	2011	\$32,007	\$31,219	\$30,857
2012	\$27,810	\$28,977		2012	\$28,896	\$31,401	
2013	\$27,064	\$28,986		2013	\$25,678	\$37,298	
2014	\$25,921			2014	\$28,661		
2015	\$26,389			2015	\$35,012		

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 58: Average Employment Income by Source Region (United States & Other)

United States and Other			
Landing Year	1 YSL	3 YSL	5 YSL
2006	\$33,260	\$40,113	\$47,396
2007	\$37,062	\$36,413	\$33,761
2008	\$35,682	\$32,376	\$38,673
2009	\$45,917	\$50,642	\$45,390
2010	\$43,725	\$41,606	\$47,944
2011	\$42,749	\$46,669	\$37,714
2012	\$36,283	\$40,884	
2013	\$58,815	\$57,350	
2014	\$29,715		
2015	\$37,090		

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Immigration Stream

Provincial nominees (PNP immigrants) comprise the majority of immigrants destined for NB over the study period (62% on average) (Table 59). The number of destined immigrants by year under this category has risen at a much faster rate than immigrants under other streams.

Table 59: Total Number of Immigrants Destined for NB by Immigration Stream

Year	Other Economic Programs	Provincial Nominee Program	Immigrant Sponsored by Family	Refugee / Other / Not Stated
2006	155	660	225	120
2007	180	625	230	135
2008	210	725	265	120
2009	235	785	220	90
2010	265	975	200	110
2011	180	855	265	115
2012	160	1,060	215	105
2013	130	945	265	105
2014	205	1,370	190	130
2015	200	1,115	200	155

Notes: Other Economic Programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

Immigrants sponsored by family understandably have the highest retention rates, as they are likely being sponsored by someone already residing in the province (Table 60). One year after landing, an average of 82% of these immigrants are still in the province; and five years after landing, over 70% remain.

Provincial nominees have an average 1-year retention rate of 70% – the second highest of the immigration streams and among the higher rates of the economic streams (Table 62). Retention rates for economic immigrants have declined by cohort over time. For non-economic streams, retention of immigrants sponsored by family has remained relatively stable, while retention of refugees and other non-economic program immigrants has fluctuated by cohort.

Table 60: Retention Rates by Immigration Stream – Non-Economic Programs (Immigrant Sponsored by Family)

Immigrant Sponsored by Family					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	82.9%	72.5%	71.8%	69.2%	64.1%
2007	85.7%	76.7%	71.4%	66.7%	
2008	85.7%	77.6%	72.3%	68.8%	
2009	82.5%	77.5%	69.2%	69.2%	
2010	80.6%	74.3%	72.2%		
2011	81.6%	73.5%	69.4%		
2012	82.5%	71.8%			
2013	81.6%	74.5%			
2014	77.1%				
2015	82.1%				

Notes: 'YSL' means 'years since landing.'

Table 61: Retention Rates by Immigration Stream – Non-Economic Programs (Refugee / Other / Not Stated)

Refugee/Other/Not Stated					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	50.0%	43.5%	39.1%	20.0%	19.2%
2007	64.0%	57.7%	51.9%	33.3%	
2008	68.2%	56.5%	45.8%	36.0%	
2009	81.3%	70.6%	61.1%	45.0%	
2010	76.2%	66.7%	43.5%		
2011	50.0%	45.5%	33.3%		
2012	52.6%	47.6%			
2013	73.7%	61.9%			
2014	41.7%				
2015	76.7%				

Notes: 'YSL' means 'years since landing.'

Table 62: Retention Rates by Immigration Stream – Economic Programs (Provincial Nominee Program)

Provincial Nominee Program					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	77.1%	66.9%	56.6%	46.3%	38.1%
2007	75.9%	65.6%	55.1%	46.2%	
2008	73.0%	56.8%	46.6%	38.9%	
2009	74.1%	61.7%	50.3%	42.6%	
2010	67.3%	56.4%	45.8%		
2011	68.0%	53.4%	44.5%		
2012	70.7%	55.0%			
2013	71.3%	51.6%			
2014	67.7%				
2015	59.3%				

Notes: 'YSL' means 'years since landing.'

Table 63: Retention Rates by Immigration Stream – Economic Programs (Other Economic Programs)

Other Economic Programs					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	63.0%	53.6%	50.0%	48.1%	42.9%
2007	62.5%	54.5%	52.9%	52.9%	
2008	72.2%	55.3%	51.4%	44.7%	
2009	57.1%	51.2%	43.2%	43.2%	
2010	60.9%	46.9%	44.9%		
2011	63.6%	48.6%	41.7%		
2012	60.0%	51.6%			
2013	70.8%	61.5%			
2014	73.7%				
2015	59.5%				

Notes: 'YSL' means 'years since landing.' Other Economic Programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

Economic immigrants admitted under programs other than the Provincial Nominee Program (PNP)²⁴ consistently earn more in average employment income than immigrants arriving under both PNP and other streams (Tables 64 & 65). Starting employment income for these immigrants ranges between \$39,300 and \$51,000,²⁵ whereas provincial nominees' average starting income ranges between \$26,600 and \$36,600.

These immigrants consistently have starting incomes higher than the NB average, but this is not always the case for provincial nominees, who sometimes earn below the average when starting out. The average starting employment income for provincial nominees residing in NB has declined for more recent cohorts but has fluctuated for immigrants under other economic programs. Earnings differences between the two economic streams generally increase with time since landing. By the fifth year in NB, the difference in average earnings between immigrants admitted under the PNP and other economic streams ranges between \$12,700 and \$20,700.

Table 64: Average Employment Income by Immigration Stream – Economic Programs (Provincial Nominee Program)

Provincial Nominee Program					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$36,371	\$38,831	\$37,939	\$40,085	\$41,454
2007	\$32,853	\$33,207	\$33,103	\$35,374	
2008	\$32,650	\$30,596	\$32,264	\$31,295	
2009	\$36,528	\$36,611	\$36,014	\$39,168	
2010	\$35,047	\$37,261	\$37,934		
2011	\$33,651	\$34,948	\$35,532		
2012	\$29,222	\$29,609			
2013	\$31,965	\$34,493			
2014	\$26,659				
2015	\$28,883				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

²⁴ These programs include Canadian Experience Class, Skilled Worker, and Skilled Trades, Business, and Caregivers programs.

²⁵ 2018 constant dollars

Table 65: Average Employment Income by Immigration Stream – Economic Programs (Other Economic Programs)

Other Economic Programs					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$38,883	\$48,742	\$58,634	\$62,246	\$61,090
2007	\$40,570	\$41,909	\$45,819	\$47,734	
2008	\$49,092	\$53,293	\$59,204	\$59,956	
2009	\$49,581	\$52,067	\$57,750	\$59,635	
2010	\$40,721	\$50,622	\$54,266		
2011	\$51,190	\$56,791	\$52,986		
2012	\$39,977	\$43,729			
2013	\$42,620	\$44,571			
2014	\$43,940				
2015	\$39,376				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars. Other Economic Programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

For non-economic streams (e.g., immigrants sponsored by family and refugee streams), income is often lower compared to economic immigrants (Tables 66 & 67). Refugees and other immigrants not sponsored by family members earn the least across all streams, with average starting employment income ranging between \$12,500 and \$17,500. These immigrants earn far below the NB average and do not catch up for as long as seven years after landing. This is despite usually having the highest earnings growth between one and five years after landing.

Despite results showing that immigrants under economic streams outside the PNP earn the highest among all immigration streams, their retention is usually the second lowest – slightly higher than that of refugees. Refugees, meanwhile, earn the least on average and have the lowest retention rates of all immigration streams.

Table 66: Average Employment Income by Immigration Stream – Non-Economic Programs (Immigrant Sponsored by Family)

Immigrant Sponsored by Family					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$22,373	\$27,753	\$33,044	\$34,654	\$41,038
2007	\$27,358	\$27,940	\$30,253	\$31,219	
2008	\$27,286	\$32,488	\$35,088	\$36,669	
2009	\$28,741	\$33,213	\$34,202	\$36,986	
2010	\$23,476	\$31,286	\$30,979		
2011	\$24,773	\$28,662	\$30,649		
2012	\$24,877	\$29,925			
2013	\$29,514	\$37,817			
2014	\$26,554				
2015	\$21,714				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Table 67: Average Employment Income by Immigration Stream – Non-Economic Programs (Refugee / Other / Not Stated)

Refugee/Other/Not Stated					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	\$16,510	\$20,057	\$18,247	\$27,375	\$33,973
2007	\$17,420	\$20,611	\$25,759	\$31,858	
2008	\$13,177	\$16,021	\$21,292	\$29,609	
2009	\$16,718	\$18,963	\$24,187	\$33,246	
2010	\$14,019	\$17,924	\$20,126		
2011	\$15,894	\$20,990	\$20,259		
2012	\$12,384	\$14,857			
2013	\$13,745	\$19,428			
2014	\$18,335				
2015	\$27,844				

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars.

Economic Programs – Principal Applicants Only (Retention)

Principal applicants who arrived under the PNP have an average 1-year retention rate of 73% (Table 68). Retention among these immigrants has declined by cohort – so much so that the 1-year retention rate for the 2015 cohort is about 18 percentage points (p.p.) less than for the 2006 cohort. Five years after landing, roughly half of these immigrants are left in the province.

For principal applicants who arrive under other economic programs, retention is much lower across the study period. In some cohorts, just over 50% of immigrants in these programs are still in NB one year after landing. As expected, five years after landing, less than half of immigrants who arrive under these programs are still in NB.

Table 68: Retention Rates of Principal Applicants Only – Economic Programs (Provincial Nominee Program)

Provincial Nominee Program					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	80.7%	71.4%	58.2%	49.1%	43.8%
2007	77.6%	65.5%	55.4%	48.1%	
2008	74.2%	61.3%	50.8%	41.4%	
2009	75.0%	63.4%	53.6%	45.5%	
2010	68.8%	59.8%	50.0%		
2011	69.9%	57.5%	48.6%		
2012	73.7%	58.2%			
2013	72.2%	54.9%			
2014	70.0%				
2015	62.9%				

Notes: 'YSL' means 'years since landing.'

Table 69: Retention Rates of Principal Applicants Only – Economic Programs (Other Economic Programs)

Other Economic Programs					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	53.3%	46.7%	42.9%	38.5%	30.8%
2007	55.6%	44.4%	42.1%	38.9%	
2008	71.4%	50.0%	47.6%	40.0%	
2009	56.5%	45.8%	34.8%	36.4%	
2010	60.9%	45.8%	43.5%		
2011	66.7%	50.0%	41.2%		
2012	56.3%	50.0%			
2013	72.7%	63.6%			
2014	66.7%				
2015	43.8%				

Note: 'YSL' means 'years since landing.' Other Economic programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

Knowledge of Official Languages

Knowledge of official languages for the majority of immigrants destined for NB is limited to English (Table 70). Despite NB being the only bilingual province, only 7-14% of immigrants in a cohort destined for the province can speak both English and French at landing.

The number of NB-destined immigrants who speak neither of the official language is surprisingly high, sometimes as high as 27% of a landing cohort. French-only speaking immigrants comprise the smallest percentage, ranging between 2-5% in each cohort.

Table 70: Total Number of Immigrants Destined for NB by Knowledge of Official languages

Year	English Only	French Only	Both	Neither/ Not Stated
2006	800	40	100	220
2007	760	50	110	245
2008	875	55	115	275
2009	815	50	180	280
2010	925	45	155	420
2011	925	70	160	265
2012	1,090	65	120	265
2013	1,005	50	125	270
2014	1,460	45	135	250
2015	1,270	65	130	200

Retention is often highest among bilingual immigrants (Table 72), who have an average retention rate of 75% one year after landing. English-speaking immigrants are close behind, with an average of 72% retained one year after landing. While the retention of English-speaking immigrants has declined over time, retention of French-speaking and bilingual immigrants remained steady over the study period.

Immigrants who speak neither official language often have the lowest retention rates over the study period, and only about 30% of immigrants in this group are left in the province five years after landing. Retention of immigrants in this group, however, has increased by cohort.

Table 71: Retention Rates by Knowledge of Official Languages – English Only & French Only

English Only					French Only				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	82.1%	72.1%	59.9%	53.2%	2009	70.0%	60.0%	63.6%	58.3%
2010	77.0%	66.3%	57.4%		2010	62.5%	62.5%	50.0%	
2011	72.7%	59.4%	52.2%		2011	58.3%	61.5%	57.1%	
2012	69.7%	54.8%			2012	83.3%	69.2%		
2013	74.1%	56.9%			2013	60.0%	50.0%		
2014	68.8%				2014	75.0%			
2015	61.2%				2015	76.9%			

Notes: 'YSL' means 'years since landing.' 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Table 72: Retention Rates by Knowledge of Official Languages – Both English and French & Neither English nor French

Both English and French					Neither English nor French				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	70.6%	62.9%	54.5%	50.0%	2009	44.9%	37.5%	30.5%	29.2%
2010	77.8%	60.7%	53.8%		2010	47.9%	37.8%	29.2%	
2011	82.1%	70.0%	58.6%		2011	47.8%	35.3%	26.3%	
2012	78.3%	66.7%			2012	68.1%	56.6%		
2013	70.8%	62.5%			2013	76.6%	58.5%		
2014	69.2%				2014	60.4%			
2015	73.1%				2015	64.1%			

Notes: 'YSL' means 'years since landing.' 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

As might be expected, it pays to be bilingual in Canada's only bilingual province. The majority of cohorts of bilingual immigrants report the highest employment incomes – starting and otherwise (Table 75), with an average starting income ranging between \$31,600 and \$40,700.²⁶

Close behind are English-speaking immigrants, who generally earn slightly less (between \$29,700 to \$39,200 one year after landing). The slight differences in average earnings of bilingual immigrants versus English immigrants support the findings of Emery et al. (2017), which show minimal relative returns to bilingualism.

The lowest average starting earnings occur among French-speaking immigrants or immigrants who speak neither official language. However, as more years pass since landing, the average earnings of French-speaking immigrants surpass those of immigrants who speak neither official language.

²⁶ 2018 constant dollars

Table 73: Average Employment Income by Knowledge of Official Languages – English Only & French Only

English Only				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	\$39,161	\$39,351	\$43,366	\$47,272
2010	\$34,935	\$39,759	\$42,781	
2011	\$35,076	\$38,571	\$37,194	
2012	\$31,286	\$33,297		
2013	\$31,858	\$35,220		
2014	\$30,347			
2015	\$29,714			

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars. 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Table 74: Average Employment Income by Knowledge of Official Languages – French Only

French Only				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	\$19,581	\$21,484	\$24,187	\$30,129
2010	\$48,287	\$68,764	\$55,215	
2011	\$38,365	\$38,891	\$39,376	
2012	\$17,598	\$17,808		
2013	\$17,900	\$27,948		
2014	\$25,078			
2015	\$23,688			

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars. 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Table 75: Average Employment Income by Knowledge of Official languages – Both English and French

Both English and French				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	\$40,650	\$50,313	\$48,054	\$53,298
2010	\$32,822	\$38,890	\$41,411	
2011	\$35,953	\$38,038	\$42,493	
2012	\$31,612	\$35,089		
2013	\$38,464	\$46,337		
2014	\$33,508			
2015	\$35,532			

Notes: 'YSL' means 'years since landing.' Income is in 2018 Constant Dollars. 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Table 76: Average Employment Income by Knowledge of Official Languages – Neither English nor French

Neither English nor French				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	\$13,397	\$14,359	\$14,917	\$18,597
2010	\$16,911	\$17,272	\$16,754	
2011	\$13,154	\$15,982	\$19,844	
2012	\$22,378	\$25,289		
2013	\$27,170	\$31,064		
2014	\$21,285			
2015	\$17,039			

Notes: 'YSL' means 'years since landing.' 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Bilingual immigrants also have the highest rate of employment income (Table 78). An average of 88% of bilingual immigrants report some employment income one year after landing.

Between groups that speak only one of the official languages, French-speaking immigrants in NB have a higher employment income rate than English-speaking immigrants. An average of 80% of French-speaking immigrants report some employment income one year after landing, compared to 71% of English-speaking immigrants.

Immigrants who speak neither official language have the lowest rate of employment income a year after landing, averaging 51% over the study period. However, this improves over time, and these immigrants catch up with other groups in the category around five years after landing.

Table 77: Rate of Employment Income by Knowledge of Official Languages – English Only & French Only

English Only					French Only				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	72.5%	75.2%	76.7%	78.3%	2009	72.7%	90.9%	88.9%	88.9%
2010	73.0%	79.3%	81.9%		2010	75.0%	85.7%	85.7%	87.5%
2011	73.0%	79.3%	81.9%		2011	80.0%	80.0%	83.3%	
2012	66.9%	73.5%			2012	80.0%	90.0%	90.9%	
2013	72.5%	76.6%			2013	83.3%	81.8%		
2014	70.1%				2014	83.3%	66.7%		
2015	74.4%				2015	87.5%			

Notes: 'YSL' means 'years since landing.' 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Table 78: Rate of Employment Income by Knowledge of Official Languages – Both English and French & Neither English nor French

Both English and French					Neither English nor French				
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL
2009	88.9%	85.0%	89.5%	84.2%	2009	53.6%	60.0%	81.0%	80.0%
2010	85.7%	89.3%	84.0%	87.0%	2010	47.8%	56.5%	71.4%	75.0%
2011	88.0%	78.3%	76.2%		2011	45.9%	52.9%	66.7%	
2012	88.0%	83.3%	81.8%		2012	44.0%	55.0%	66.7%	
2013	85.0%	84.2%			2013	54.3%	61.8%		
2014	90.5%	85.7%			2014	55.3%	62.9%		
2015	90.0%				2015	53.1%			

Notes: 'YSL' means 'years since landing.' 2006-2008 landing cohorts by official language spoken did not meet disclosure requirements.

Discussion

While the number of immigrants destined for NB has increased overall, the average income earned by immigrants in the province has declined. Of those destined for NB, the majority hold no pre-admission study or work permits, are from Eastern Asia, and are provincial nominees, university-educated, and English-speaking. Over the study period, these remain the characteristics associated with the highest number of landings.

The only category with changes in these characteristics over time is destination CMA/CA. At the start of the study period, the majority of immigrants had Saint John as their destination CMA, but this changed, with more cohorts choosing Moncton or Fredericton as their destination CMA/CA.

Of NB's urban centres, Moncton has the highest retention rates – provincial, NB-based and community retention – while Saint John has the lowest. Those destined for cities outside the urban centres are the most likely to still be in NB years after landing. Their average retention rates are higher than those of the individual urban centres.

Findings in this report show that retention and income are usually higher among those who are more likely to have better luck in any provincial labour market, not just in NB. Oftentimes, it is the university-educated and bilingual economic immigrant with some Canadian work experience who performs best in the Canadian labour market.

Likewise, the apparent decline in relative starting income and the rise in lower incomes²⁷ among recent arrival cohorts is not unique to NB. Immigration literature has stressed that outcomes for immigrants – income, retention, and so forth – can be significantly affected by the macroeconomic conditions and policy environment prevailing at the time of landing (Green & Worswick, 2010; McDonald & Worswick, 1998; Picot & Sweetman, 2005). The effects of these conditions are known to persist for some years after landing, despite the passing of the condition.

Findings in this report also show that retention does not always have a positive relationship with income. While most categories show that income has declined alongside retention in more

²⁷ We assume a rise in lower incomes, judging by the increased rate of employment insurance among recent arrivals.

recent arrival cohorts, in some instances (such as with spouses/dependents or in regard to destined CMA/CA), increased average income does not always mean increased retention.

Multiple elements outside economic factors are associated with an increased tendency to move. Pruegger and Cook (2007) highlight individual and community factors that also influence mobility. A lack of social supports, resultant feelings of isolation, and a lack of established ethnic and cultural community were factors outside of economic opportunity found to influence mobility. Factors mentioned in other studies include the presence of public services (e.g., transport or settlement services) (Omidvar & Richmond, 2003), negative experiences and discrimination (Pruegger & Cook, 2007), and general factors such as climate and the presence of recreational, arts, and cultural opportunities (Citizenship and Immigration Canada, 2000, 2001).

For most categories, average earnings are positively sloped with respect to the number of years since landing. This implies that average earnings of a given landing cohort are higher the longer immigrants remain in Canada.

As new immigrants learn about more employment opportunities, increase their human capital, and become accustomed to the Canadian labour market, its likely their earnings will see an increase.

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Appendix A: Tables

Principal Applicant vs Spouses/Dependents (CMA/CA)

Table 79: Destined Immigrant Count by Applicant Type, 2006-2015 Landing Cohorts

Landing Year	Principal Applicant	Spouses/Dependents
2006	700	460
2007	720	450
2008	790	530
2009	780	550
2010	830	715
2011	825	595
2012	870	670
2013	865	585
2014	1015	875
2015	935	730

Census Metropolitan Area /Census Agglomeration (CMA/CA)

Table 80: Number of NB-Destined Tax Filers Still in Canada by Destination CMA/CA

Moncton						Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	165	170	175	180	180	2006	335	350	345	370	360
2007	220	230	240	250		2007	345	370	380	385	
2008	230	240	235	250		2008	360	375	395	400	
2009	300	315	325	335		2009	350	390	400	415	
2010	275	280	295			2010	410	460	475		
2011	295	310	325			2011	295	310	330		
2012	325	350				2012	430	465			
2013	360	370				2013	280	300			
2014	515					2014	445				
2015	550					2015	405				

Notes: 'YSL' means 'years since landing.'

Fredericton						Rest of NB					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	295	330	325	325	345	2006	245	240	245	245	250
2007	250	265	270	265		2007	245	250	255	260	
2008	305	355	370	375		2008	270	275	275	275	
2009	310	330	335	340		2009	225	235	235	240	
2010	350	380	380			2010	335	345	350		
2011	350	390	415			2011	310	330	340		
2012	390	440				2012	245	245			
2013	380	415				2013	310	320			
2014	545					2014	255				
2015	390					2015	295				

Notes: 'YSL' means 'years since landing.'

Table 81: Number of NB-Destined Tax Filers Still in NB by Destination CMA/CA

Moncton						Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	120	110	95	90	90	2006	240	215	175	140	105
2007	170	155	130	110		2007	235	225	215	165	
2008	175	145	120	120		2008	230	185	170	145	
2009	240	220	200	170		2009	205	185	155	140	
2010	195	175	145			2010	225	195	160		
2011	220	200	180			2011	155	135	115		
2012	240	220				2012	260	215			
2013	265	225				2013	195	135			
2014	375					2014	310				
2015	385					2015	240				
Fredericton						Rest of NB					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	220	200	185	145	130	2006	185	170	165	155	140
2007	180	150	130	120		2007	205	200	185	185	
2008	245	210	175	150		2008	225	210	190	175	
2009	230	205	170	145		2009	190	190	160	165	
2010	240	215	180			2010	275	260	245		
2011	245	205	170			2011	240	210	210		
2012	280	230				2012	195	175			
2013	250	210				2013	260	240			
2014	310					2014	185				
2015	190					2015	220				

Notes: 'YSL' means 'years since landing.'

Table 82: Number of NB-Destined Tax Filers Still Residing in their Destination CMA

Moncton						Saint John					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	105	90	70	70	70	2006	200	170	135	105	75
2007	155	130	105	90		2007	210	190	170	140	
2008	150	120	105	95		2008	190	145	130	115	
2009	205	190	160	145		2009	180	140	120	115	
2010	175	160	130			2010	180	160	120		
2011	205	170	155			2011	130	105	85		
2012	210	190				2012	180	150			
2013	220	190				2013	150	110			
2014	325					2014	225				
2015	305					2015	175				
Fredericton						Rest of NB					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	
2006	200	180	160	130	110	2006	..	..	..	..
2007	145	115	95	90		2007	200	185	185	170	
2008	200	160	135	110		2008	200	200	175	165	
2009	190	165	140	120		2009	170	175	155	155	
2010	200	170	130			2010	260	245	230	325	
2011	205	175	145			2011	225	210	210		
2012	240	190				2012	180	165			
2013	220	170				2013	245	215			
2014	230					2014	175				
2015	145					2015	190				

Notes: 'YSL' means 'years since landing.' '..' means the figures involved did not meet disclosure requirements.

Pre-Admission Experience

Table 83: Number of NB-Destined Tax Filers Still in Canada by Pre-Admission Experience – Study Permit Only & Work Permit Only

Study Permit Only						Work Permit Only					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	100	125	130	145	155	2006	210	205	200	190	185
2007	60	75	85	95		2007	190	195	185	175	
2008	75	105	120	140		2008	195	200	200	180	
2009	65	90	95	105		2009	245	240	230		
2010	60	70	90			2010	315	310	300		
2011	70	85	110			2011	315	310	305		
2012	50	70				2012	320	320			
2013	40	45				2013	350	340			
2014	70					2014	380				
2015	45					2015	425				

Notes: 'YSL' means 'years since landing.'

Table 84: Number of NB-Destined Tax Filers Still in Canada by Pre-Admission Experience – Both Study and Work Permits & None or Other Permit Type

Both Study and Work Permits						None or Other Permit Type					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	110	110	105	100	95	2006	615	650	660	685	700
2007	135	130	130	130		2007	675	725	745	770	
2008	145	145	140	140		2008	735	790	810	835	
2009	125	130	125	120		2009	745	815	855	875	
2010	110	110	105			2010	880	975	1005		
2011	105	105	100			2011	760	840	890		
2012	125	125				2012	890	985			
2013	120	115				2013	820	905			
2014	110					2014	1,195				
2015	100					2015	1,070				

Notes: 'YSL' means 'years since landing.'

Table 85: Number of NB-Destined Tax Filers Still in NB by Pre-Admission Experience – Study Permit Only & Work Permit Only

Study Permit Only						Work Permit Only					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	60	65	65	55	50	2006	180	160	150	140	125
2007	45	45	45	45		2007	170	155	130	125	
2008	50	45	40	45		2008	175	160	145	125	
2009	45	55	40	40		2009	205	185	160	150	
2010	45	40	45			2010	275	245	210		
2011	50	45	50			2011	265	215	210		
2012	30	40				2012	245	220			
2013	30	20				2013	270	245			
2014	45					2014	295				
2015	20					2015	330				

Notes: 'YSL' means 'years since landing.'

Table 86: Number of NB-Destined Tax Filers Still in NB by Pre-Admission Experience – Both Study and Work Permits & None or Other Permit Type

Both Study and Work Permits						None or Other Permit Type					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	75	55	45	40	35	2006	445	410	355	300	260
2007	80	60	50	40		2007	495	470	435	370	
2008	105	85	65	55		2008	545	455	400	360	
2009	95	75	60	50		2009	515	485	430	380	
2010	70	50	40			2010	550	505	430		
2011	80	70	55			2011	465	415	355		
2012	95	75				2012	600	510			
2013	90	70				2013	585	475			
2014	80					2014	770				
2015	60					2015	630				

Notes: 'YSL' means 'years since landing.'

Immigration Stream

Table 87: Number of NB-destined Tax Filers Still in NB – Economic Programs (Principal Applicants Only)

Other Economic Program						Provincial Nominee Program					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	40	35	30	25	20	2006	230	200	160	130	105
2007	50	40	40	35		2007	225	190	155	130	
2008	75	55	50	40		2008	230	190	155	120	
2009	65	55	40	40		2009	255	225	185	150	
2010	70	55	50			2010	275	245	200		
2011	60	45	35			2011	255	210	175		
2012	50	40				2012	350	285			
2013	40	35				2013	325	250			
2014	35					2014	420				
2015	55					2015	330				

Notes: 'YSL' means 'years since landing,' Other Economic Programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

Table 88: Number of NB-Destined Tax Filers Still in Canada – Economic Programs (Principal Applicants Only)

Other Economic Program						Provincial Nominee Program					
Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL	Landing Year	1 YSL	3 YSL	5 YSL	7 YSL	10 YSL
2006	75	75	70	65	65	2006	285	280	275	265	
2007	90	90	95	90		2007	290	290	280	270	
2008	105	110	105	100		2008	310	310	305	290	
2009	115	120	115	110		2009	340	355	345	330	
2010	115	120	115			2010	400	410	400		
2011	90	90	85			2011	365	365	360		
2012	80	80				2012	475	490			
2013	55	55				2013	450	455			
2014	90					2014	600				
2015	80					2015	525				

Notes: 'YSL' means 'years since landing.' Other Economic Programs include Canadian Experience Class, Skilled Worker and Skilled Trades, Business, and Caregivers programs.

Appendix B: Immigrant Retention in NB – A Comparison of Results Based on Medicare and Tax Data (2006-2015 cohorts)

In 2021, NB-IRDT released two reports on immigrant retention:

- *Immigrant income and labour market outcomes: 2006 - 2015 cohorts* (Boco et al., 2021)
- *Immigrant retention in New Brunswick: an analysis using linked federal-provincial administrative data* (McDonald & Miah, 2021)

While Boco et al. (2021) use tax data to calculate their results, McDonald and Miah (2021) base their findings on Medicare data.

This appendix compares the immigrant retention rates presented in each report and highlights similarities and differences in the datasets, associated methodologies, and results.

Calculating Immigrant Retention in New Brunswick – Methodological Differences

Table 89: A Comparison of Methodologies Using Tax and Medicare Records to Calculate Student Retention

Tax Records	Medicare Records
The Longitudinal Immigrant Database (IMDB) links administrative files on immigrant admissions from Immigration, Refugees and Citizenship Canada (IRCC) with tax files from the Canadian Revenue Agency.	The Permanent Resident Landing File (IRCC Landing Records) of Immigration, Refugees and Citizenship Canada (IRCC) is linked with the Citizen Database (a prepared version of the Medicare Registry).
The retention measure used here is based on the province of taxation on December 31st of the specified year after landing so that a 1-year retention rate, for instance, refers to the percentage of immigrants still in NB at the end of the calendar year following the year of landing. The province of residence reported by immigrants on their tax returns relays information on whether they are still residing in the province.	Retention of Matched Immigrants is measured from the time of landing date as indicated in the IRCC Landing Records. Otherwise, a "Terminated" status in the Citizen Database would indicate an individual has left the province.
Because taxes are based on December 31 st of the tax year, 'x'-year retention is not always for the full year. It varies depending on the month the immigrant lands. Whatever value 'x' is equals the longest amount of time that can pass since landing.	Retention for each year is based on the full year after the immigrant lands.
The IMDB only includes immigrants who have been matched with their own Canadian tax	Landing records for all immigrants are available, but only immigrants who are

<p>records at some point in time. Unmatched records are excluded, and it is unknown whether unmatched immigrants are present in Canada.</p>	<p>matched to the Citizen Database are included in estimating the duration of retention in NB.</p>
<p>Non-filers in a given year are not seen in the tax filer data for that year, and therefore the actual location of the individual during that year is not known.</p> <p>In computing retention rates, non-filers in a given year are excluded and therefore are not a part of the numerator or denominator of retention calculations for that year.</p> <p>For instance, an immigrant who lands in 2010 and files taxes in 2011, 2012, and 2014 but not 2013 is included in 1-year retention rate calculations (2011) but not 3-year calculations (2013). This is because the tax filer data for 2013 does not include said immigrant, as they did not file taxes in that year.</p>	<p>Unmatched immigrants are individuals in IRCC Landing Records who are not matched to the Citizen Database. Individuals can be unmatched for various reasons:</p> <ul style="list-style-type: none"> ○ Immigrants may have never arrived in NB or left before they could establish Medicare eligibility. ○ Immigrants may be present in NB, but their records are not able to be matched because of missing information or information that is not reported consistently across both datasets. <p>Incorporating unmatched immigrants in the analysis would result in lower bound retention estimates by including all individuals with NB as their intended destination, even if they never arrived in NB. Doing so assumes that all unmatched individuals did not stay in NB. Including only matched immigrants provides an upper bound estimate in that it is conditional on immigrants who arrived in NB and stayed long enough to register for Medicare.</p>

Comparing Final Samples: Tax Records vs Medicare Records

Table 90: Sample Comparison between Tax and Medicare Records

Similarities	
Both reports include identification of principal/primary applicants.	
Retention calculations are dependent on an immigrant being matched with an administrative record.	
Both reports limit their consideration of immigrants to those individuals who indicated NB as their intended province in their permanent residency application.	
Both datasets are created using administrative records. Neither was originally collected with the intent of being used to determine geographic mobility.	
The linkage for both datasets – tax data (with IMDB) and Medicare data (with IRCC Landing Records) – uses probabilistic matching based on an individual's name, sex, and date of birth.	
Differences	
IMDB only includes individuals who are matched to the tax filer data at least once. This results in lower landings records compared to results in the Medicare study.	IRCC Landing Records include all immigrant landing records, regardless of whether they are matched to the Medicare data. Therefore, the Medicare study shows more landings in NB compared to the results using tax filer data.
Tax files for immigrants in the IMDB were made available to researchers up until 2017.	The database ranges from 1985 to 2018. However, to avoid small counts and to obtain substantial sample size, analysis covers only the 2005 to 2018 landing cohorts.
Provincial nominees include those nominated by provinces other than NB but who indicate NB as their intended destination.	Provincial nominees include only those nominated by NB.
The IMDB dataset is restricted to immigrants aged 15 or older in the specified year – dependents and spouse inclusive.	The final sample in the McDonald and Miah (2021) study has no age restrictions. However, principal/primary applicants in Provincial Nominee Programs and other economic streams (e.g., skilled worker) are 18 years and over.
The “All Immigrants” category includes principal/primary applicants and their dependents who are at least 15 years old.	The “All Immigrants” category includes principal/primary applicants and their dependents of all ages (spouse, children, and any other listed dependents in the application).

Immigrant Landings by Data Source

Table 91 below shows the number of immigrant landings reported based on administrative records made available by both datasets. Counts of landed immigrants each year are consistently higher in the provincial data (Medicare data) compared to the IMDB, but the number of matched immigrants in the provincial data is consistently lower.

The differences in annual landings between the data sources are due in part to matching and to the exclusion of certain age groups.

- Individuals in the IMDB include only those matched at least once to their tax filer data, filed anywhere in Canada. This means if an immigrant's landing records are not matched to any personal income tax records, they are not in the IMDB. Of the immigrants who landed in any year from 1990 to 2017, 85% were able to be linked to at least one T1FF record (StatCan, 2020). The IRCC permanent resident landing file statistics include all landed immigrants in Canada, and matching refers to whether the immigrant's landing record has been matched to a New Brunswick Medicare Health Insurance Number.
- The IMDB sample excludes immigrants below the age of 15 while the IRCC Landing Records sample has no age restrictions.
- For Medicare (and IRCC Landing Records), individuals below age 15 are included, and this group is mostly comprised of individuals who are sponsored by a family member.²⁸

Table 91: Annual Landings of Primary Applicants Only

Landing Year	IMDB (Tax Data)	Permanent Resident Landing Files (Medicare Records)	
		Total (Matched & Unmatched)	Matched
2006	700	770	685
2007	720	775	695
2008	790	855	735
2009	780	860	725
2010	830	900	750
2011	825	895	775
2012	870	935	820
2013	865	920	820
2014	1,015	1,105	960
2015	935	1,020	820

²⁸ If the age of primary applicants (IRCC Landing Records) is restricted to 15 and above, the difference between the two databases is reduced by about 20 individuals on average.

Does NB Immigrant Retention Vary by Data Source?

- In the case of all immigrants, retention rates using Medicare data are higher than estimates using tax filer data (Table 92). This is primarily because estimates using provincial Medicare data are based on matched records only and therefore include immigrants who arrived in NB and remained long enough to register for Medicare.²⁹ About 85% of primary applicants in IRCC Landing Records could be matched to Medicare data.
- Both datasets exhibit gradual declining retention rates for arrival cohorts in later landing years over the 2006-2015 period (Table 92). Notably, there is consistency across both datasets in that the 1-year retention rate is highest in 2008 and the 5-year retention rate is highest in 2007.
- Table 93 exhibits estimates using principal/primary applicants only, and again the retention rates calculated from Medicare data are consistently higher than those from tax filer data. The retention rate trajectories in both studies gradually declines between 2006 and 2015.
- The difference in rates between the two datasets and corresponding reports could be partially attributed to differences in data source, sample size, and methodologies for retention calculations.
 - For tax filer data (Boco et al., 2021), the denominator is anyone destined for NB, even if they filed taxes anywhere else in Canada (i.e., they are included even if they are not present in NB, as long as they are matched in the tax filer data).
 - In the Medicare study (McDonald & Miah, 2021), the denominator includes only immigrants who are matched (i.e., individuals in the IRCC Landing Records who are registered for provincial Medicare).
 - Thus, calculations using tax filer data have larger denominators, resulting in lower retention rates compared to calculations using Medicare data.³⁰
- When IMDB data is used, the overall retention rate among principal/primary applicants to the Provincial Nominee Program (PNP) is 72.5% on average one year after landing and around 50% five years after landing (Table 94).
- Table 94 shows that in the Medicare data, 76.2% of NB PNP primary applicants stay in the province for at least one year (for the period 2006-2015). After five years, the overall retention rate for NB PNP primary applicants in the same period is 49.1%.
- By level of education, Medicare data shows that 76.4% of primary applicants with a bachelor's degree are still in NB one year after landing, while 48.9% remain five years after landing (Table 95, 2010-2015 cohorts only). Tax data shows that an average of 72.6% of primary applicants with a bachelor's degree at landing are still in NB one year after landing, while 53.1% remain five years after landing.

²⁹ Unmatched records are individuals in IRCC Landings Records who are not matched to the Citizen Database (Medicare data).

³⁰ This is the case when researchers include all primary applicants (matched and unmatched) in the analysis and assume that all unmatched arrivals did not arrive in NB long enough to apply for Medicare, or at all. This approach would result in retention rates somewhat lower than what was estimated using matched IMDB data.

- For primary applicants with post-graduate degrees (i.e., masters and PhDs), results based on Medicare data show average 1-year and 5-year retention rates of 77.5% and 47.0%, respectively, while results based on tax data show average rates of 72.1% and 51.8% (Table 96).

Table 92: Retention Rates of All Immigrants (Primary Applicants and Dependents)

Tax Filer Data			Medicare Data		
Landing Year	1 YSL	5 YSL	Landing Year	1 YSL	5 YSL
2006	73.6%	56.9%	2006	81.4%	54.4%
2007	74.5%	57.6%	2007	83.7%	59.7%
2008	75.4%	51.6%	2008	85.4%	52.5%
2009	73.0%	52.7%	2009	82.8%	53.6%
2010	68.6%	48.7%	2010	77.5%	52.0%
2011	68.9%	47.9%	2011	78.5%	51.2%
2012	70.4%		2012	76.2%	
2013	73.3%		2013	77.6%	
2014	67.3%		2014	74.4%	
2015	63.3%		2015	76.0%	

Notes: 'YSL' means 'years since landing.' Retention using Medicare Data is for matched immigrants only.

Table 93: Retention Rates of Primary Applicants Only

Tax Filer Data			Medicare Data		
Landing Year	1 YSL	5 YSL	Landing Year	1 YSL	5 YSL
2006	75.0%	58.1%	2006	81.5%	59.6%
2007	74.6%	57.6%	2007	81.2%	55.6%
2008	76.4%	56.7%	2008	84.9%	58.0%
2009	74.6%	55.3%	2009	81.2%	56.8%
2010	70.2%	52.7%	2010	78.0%	54.2%
2011	72.8%	54.0%	2011	80.4%	54.7%
2012	73.0%		2012	78.5%	
2013	75.5%		2013	77.8%	
2014	69.9%		2014	76.4%	
2015	67.0%		2015	74.1%	

Notes: 'YSL' means 'years since landing.' Retention using Medicare Data is for matched immigrants only.

Table 94: Retention Rates of Provincial Nominees (Primary Applicants Only)

Tax Filer Data			Medicare Data		
Landing Year	1 YSL	5 YSL	Landing Year	1 YSL	5 YSL
2006	80.7%	58.2%	2006	81.7%	53.3%
2007	77.6%	55.4%	2007	81.4%	50.9%
2008	74.2%	50.8%	2008	81.0%	44.4%
2009	75.0%	53.6%	2009	79.7%	47.8%
2010	68.8%	50.0%	2010	76.6%	50.7%
2011	69.9%	48.6%	2011	74.3%	47.3%
2012	73.7%		2012	73.5%	
2013	72.2%		2013	73.9%	
2014	70.0%		2014	74.8%	
2015	62.9%		2015	71.6%	

Notes: 'YSL' means 'years since landing.' Retention using Medicare Data is for matched immigrants only.

Table 95: Retention Rates of Primary Applicants Only (Bachelor's Degree Holders)

Tax Filer Data			Medicare Data		
Landing Year	1 YSL	5 YSL	Landing Year	1 YSL	5 YSL
2010	70.2%	51.1%	2010	73.9%	49.1%
2011	73.5%	55.1%	2011	76.2%	48.6%
2012	77.0%		2012	80.4%	
2013	75.9%		2013	79.6%	
2014	72.6%		2014	75.4%	
2015	66.2%		2015	74.1%	

Notes: 'YSL' means 'years since landing.' Retention using Medicare Data is for matched immigrants only.

Table 96: Retention Rates of Primary Applicants Only (Post-Graduate Degree Holders)

Tax Filer Data			Medicare Data		
Landing Year	1 YSL	5 YSL	Landing Year	1 YSL	5 YSL
2010	73.1%	56.0%	2010	76.9%	50.0%
2011	75.0%	47.6%	2011	70.0%	43.0%
2012	69.2%		2012	72.2%	
2013	76.9%		2013	81.8%	
2014	74.3%		2014	80.7%	
2015	64.3%		2015	80.0%	

Notes: 'YSL' means 'years since landing.' Retention using Medicare Data is for matched immigrants only.