

**IMMIGRANT RETENTION IN
NEW BRUNSWICK
RESULTS FROM BIZNET AND CITIZEN
DATABASE**



Philip Leonard, PhD
Ted McDonald, PhD
Pablo Miah, MA, MSc

PROJECT TITLE

Immigrant retention in New Brunswick: Results from BizNet and Citizen Database

PRINCIPAL INVESTIGATORS

Philip Leonard, Department of Economics, UNB / Research Associate, NB-IRDT
Ted McDonald, Department of Economics, UNB / Director, NB-IRDT

RESEARCH TEAM

Pablo Miah, Data Analyst, NB-IRDT

PARTNERS

Funding for this project is provided by the Government of New Brunswick, Post-Secondary Education, Training and Labour (PETL).

HOW TO CITE THIS REPORT

Leonard, P., McDonald, T., & Miah, P. (2019). Immigrant retention in New Brunswick: Results from BizNet and Citizen Database. Fredericton, NB: New Brunswick Institute for Research, Data and Training.

TABLE OF CONTENTS

ACRONYMS & DEFINITIONS	5
EXECUTIVE SUMMARY	6
INTRODUCTION.....	8
DATA & METHODOLOGY	9
DESCRIPTIVE STATISTICS.....	11
BizNet.....	11
In-Migration	11
Cross-Tabulation	12
Retention Rates.....	12
Primary Applicants.....	13
PNP & non-PNP Immigrants	13
Immigration Stream	13
Country	14
Language	14
Industry	15
Kaplan-Meier Survival Analysis	15
PNP and Non-PNP.....	15
Country	15
Language	15
Industry	16
DISCUSSION & CONCLUSION	17
TABLES.....	18
FIGURES	29
APPENDIX	35

LIST OF TABLES

Table 1: Retention Rates of New Brunswick Provincial Nominees 7

Table 2: Linkage Rate of Primary Applicants 18

Table 3: Gender of Linked and Unlinked Primary Applicants 18

Table 4: Age of Linked and Unlinked Primary Applicants 18

Table 5: Country of Citizenship of Linked and Unlinked Primary Applicants 19

Table 6: Primary Applicant Landings by Country (>200 arrivals) 19

Table 7: Primary Applicant Landings by Industry (>150 arrivals)..... 20

Table 8: Total Frequency Primary Applicants by Occupation (>100 arrivals) 20

Table 9: Frequency by Industry (>150 arrivals) & Country (>200 arrivals) 21

Table 10: Frequency by Industry (>150 arrivals) & Official Language Spoken..... 21

Table 11: Frequency and Retention Rates of Arrived PNP Nominees (Linked Primary Applicants) 22

Table 12: Frequency and Retention Rates of All Targeted PNP Nominees (Linked & Unlinked) 22

Table 13: One-Year Retention Rate of PNP and Non-PNP Arrivals & All Immigrants 23

Table 14: Five-Year Retention Rate of PNP and Non-PNP Arrivals & All Immigrants 23

Table 15: One-Year Retention Rates of Linked Primary Applicants by Country 24

Table 16: Three-Year Retention Rates of Linked Primary Applicants by Country 24

Table 17: Five-Year Retention Rates of Linked Primary Applicants by Country 24

Table 18: One-Year Retention Rates of Linked Primary Applicants by Language 25

Table 19: Three-Year Retention Rates of Linked Primary Applicants by Language 25

Table 20: Five-Year Retention Rates of Linked Primary Applicants by Language 26

Table 21: One-Year Retention Rates of All PNP Immigrants by Language 26

Table 22: Three-Year Retention Rates of All PNP Immigrants by Language 27

Table 23: Five-Year Retention Rates of All PNP Immigrants by Language 27

Table 24: One-Year Retention Rates of Linked Primary Applicants by Industry..... 28

Table 25: Three-Year Retention Rates of Linked Primary Applicants by Industry..... 28

Table 26: Annual Landings (using BizNet landings dates) of Primary Applicants
(reference for Figure 1) 35

Table 27: Annual Arrivals (using Citizen Database activation dates) of all PNP immigrants
(reference for Figure 2) 35

Table 28: Annual Landings of Primary Applicants by Application Category
(reference for Figure 3) 36

Table 29: Annual Landings of Primary Applicants by Language (reference for Figure 4) 36

Table 30: Annual Landings of PNP Immigrants by Language (reference for Figure 5) 36

Table 31: One-Year Retention Rate of Primary Applicants by Immigration Stream
(reference for Figure 6) 37

Table 32: Five-Year Retention Rate of Primary Applicants by Immigration Stream
(reference for Figure 7) 37

LIST OF FIGURES

Figure 1: Annual Landings (using BizNet landings dates) of Primary Applicants29

Figure 2: Annual Arrivals (using Citizen Database activation dates) of all PNP immigrants29

Figure 3: Annual Landings of Primary Applicants by Application Category30

Figure 4: Annual Landings of Primary Applicants by Language30

Figure 5: Annual Landings of PNP Immigrants by Language31

Figure 6: One-Year Retention Rate of Primary Applicants by Immigration Stream31

Figure 7: Five-Year Retention Rate of Primary Applicants by Immigration Stream32

Figure 8: Kaplan-Meier - Cumulative Proportion of Immigrants to Remain in NB by Immigrant Category32

Figure 9: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Country (>200 arrivals)33

Figure 10: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Language33

Figure 11: Kaplan-Meier - Cumulative Proportion of All PNP Immigrants to Remain in NB by Language34

Figure 12: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Industry (>150 arrivals)34

ACRONYMS & DEFINITIONS

PNP Immigrants

Immigrants arriving through New Brunswick's Provincial Nominee Program (BizNet database)

Non-PNP Immigrants

Immigrants arriving in NB through federal or other provincial programs: specifically, not through the Provincial Nominee Program

Inter-Provincial Migrants

Canadian citizens/non-immigrants who were not born in New Brunswick and migrated to the province

Linkage Rate

Percentage of individuals in Biznet linked with Citizen Database

Anglophone/English-speaker

Individual who indicated (in Biznet) that English is their official spoken New Brunswick language

Francophone/French-speaker

Individual who indicated (in Biznet) that French is their official spoken New Brunswick language

NOC

National Occupational Classification

NAICS

North American Industry Classification System

EXECUTIVE SUMMARY

INTRODUCTION - The Government of New Brunswick (GNB) has invested significant resources in an effort to attract and retain immigrants in the province. This report investigates the number of landings and the retention rates of immigrants in New Brunswick, with a particular emphasis on immigrants who arrived through the Provincial Nominee Program (PNP).

METHODS – This report uses information from GNB's BizNet and Citizen Database datasets to estimate immigrant retention rates. BizNet provides a record of all Provincial Nominees immigrating to New Brunswick, and the Citizen Database contains information on the province's Medicare registry. Since all Canadian provinces terminate Medicare eligibility when a resident moves to another province, Medicare records provide up-to-date data on whether individuals (including immigrants) still reside in New Brunswick. These two datasets have been linked through the Department of Health based on the name, gender, and birthdate of individuals. The datasets were stripped of names, addresses, and other personal identifiers, and these pseudonymized datasets were transferred to the NB-IRDT for analysis. About 83% of PNP records in BizNet could be linked to their corresponding records in the Citizen Database. Unlinked records occur either because the nominee never arrived in NB or left before they could establish Medicare eligibility, or possibly because of erroneous information in one of the records (e.g., different spelling of name, etc.).

REPORT FINDINGS –

Provincial Nominations: The number of Provincial Nominees has risen steadily from less than 200 a year in 2005 to over 950 a year in 2017.

- The largest number of nominees by country of origin has consistently come from China, which has landed over 100 nominees per year since 2013.
- The number of nominees from the Philippines has increased rapidly since 2016, reaching a total of 170 in 2017.
- The number of both English- and French-speaking nominees is increasing, although English speakers make up about 83% of nominees on average.

Retention of Immigrants Arriving in NB: Of the PNP nominees who arrive in NB long enough to establish a Medicare number, about 75% are still in New Brunswick one year later (see Table 1, Panel A).

- The 3-year and 5-year retention rates are about 60% and 50%, respectively.
- The 1-year retention rates for PNP nominees are about 5% lower than for non-PNP immigrants arriving in New Brunswick (i.e., immigrants arriving through all other immigrant streams, such as federal skilled workers, refugees, etc.).
- Retention rates are slightly higher for nominees entering through the Business Class application category than through the Skilled Worker stream.
- There is variation in retention rates by country of citizenship, or origin, with nominees from the Philippines having the highest retention rates and nominees from Vietnam having the lowest.
- French-speaking nominees are somewhat more likely than English-speaking nominees to remain in New Brunswick three and five years after landing.

Retention of All Targeted PNP Nominees: Some Provincial Nominees never show up in New Brunswick's Medicare records. This could be because they never arrived in NB or left immediately, or possibly because their records could not be linked (due to different spelling of name, incorrect birthdate, etc.). If we consider all Provincial Nominees in our analysis – whether they arrived or not – we find that New Brunswick retains about 64% of its *Targeted PNP Immigrants* (see Table 1, Panel B).

- The 3-year and 5-year retention rates for *All Targeted Provincial Nominees* are 52% and 43%, respectively

Table 1: Retention Rates of New Brunswick Provincial Nominees						
	Panel A: Retention Rates of Provincial Nominees Arriving in NB			Panel B: Retention Rates of All Targeted Provincial Nominees		
Year	1-Year	3-Year	5-Year	1-Year	3-Year	5-Year
2005	75.9%	62.1%	55.2%	64.7%	52.9%	47.1%
2006	80.7%	66.1%	53.2%	71.4%	58.6%	47.1%
2007	78.3%	65.0%	50.0%	69.1%	57.4%	44.1%
2008	76.9%	60.0%	43.1%	65.8%	51.3%	36.8%
2009	80.0%	62.9%	48.6%	65.9%	51.8%	40.0%
2010	76.3%	61.3%	51.3%	61.0%	49.0%	41.0%
2011	73.1%	57.7%	47.4%	63.3%	50.0%	41.1%
2012	73.5%	58.2%	46.9%	62.1%	49.1%	39.7%
2013	73.6%	58.2%	49.5%	67.7%	53.5%	45.5%
2014	74.2%	54.2%		63.6%	46.4%	
2015	72.2%	57.7%		58.3%	46.7%	
2016	71.5%			56.4%		
2017	73.1%			59.7%		
Average	75.3%	60.3%	49.5%	63.8%	51.5%	42.5%

INTRODUCTION

This report examines the number of landings and retention rates of newcomers in New Brunswick. Using data on Provincial Nominees from the BizNet dataset and data on Medicare eligibility and status from the Citizen Database, we estimate the retention rates of immigrants arriving through New Brunswick's Provincial Nominee Program (PNP). We further estimate the retention rates of PNP immigrants by language, application type, country of origin, and industry.

This study provides the linkage rates between BizNet and the Citizen Database, as well as basic statistics for linked and unlinked individuals, data on PNP landings from 2001 to 2017, and retention rates of PNP immigrants and non-PNP immigrants from 2005 to 2017.

We find that 1-year retention rates for linked primary applicants are over 75%, but less than half of primary applicants remain in the province five years after landing. However, not all primary applicants can be linked with sufficient confidence due to a variety of reasons. For instance, immigrant records may not be linkable because nominees never arrived in NB; because they arrived but did not remain in NB long enough to establish Medicare eligibility; or because a BizNet or Citizen Database record contains erroneous or mismatched information.

In addition to providing 1-year, 3-year, and 5-year retention rates for several groups, a statistical analysis is conducted to estimate cumulative probabilities of immigrants remaining in the province in the future.

Apart from providing a few basic statistics on unlinked immigrants, the main emphasis of this study is on individuals in the BizNet database who are linked with the Citizen Database. Future analyses will be conducted on unlinked individuals based on the household members of immigrants with both updated Citizen Database and BizNet data, followed by linked landing records from Immigration, Refugees and Citizenship Canada (IRCC).

DATA & METHODOLOGY

This study uses linked BizNet and Citizen Database data for PNP nominees who officially landed (i.e., gained permanent residency) in NB from 2001 through 2017 to estimate immigrant retention rates from 2005 to 2017.

The BizNet dataset contains information on immigrants who applied for permanent residency through New Brunswick's Provincial Nominee Program (PNP). Overall, the linkage rate between BizNet and the Citizen Database is approximately 75% for all immigrants in BizNet and around 83% for primary applicants. The remaining number of unmatched records could be the result of various circumstances. First, it is possible that some PNP nominees did not move to NB at all or perhaps did not live in NB long enough to register for Medicare and therefore are not present in the Citizen Database (which houses Medicare eligibility and status). Second, it is possible that some PNP nominees may be in NB, but there is insufficient information on their name, birthdate, and gender to identify a matching record in the Citizen Database.

The calculation of linkage rates helps determine the annual retention rates of all primary applicants – also termed “All Targeted PNP Nominees” retention rates. The BizNet database contains the landing dates of all primary applicants of the PNP. Primary applicants who could not be linked to the Citizen Database are assumed to never have landed in New Brunswick or to have left the province shortly after arriving. To analyze All Targeted PNP Nominees retention rates, it is assumed that all unlinked primary applicants landed and left the province in the same year (and thus are not counted as retained).

BizNet contains information on provincial nominees, including their age, landing dates (latest date a permanent resident can land), application dates, country of citizenship, country of residency, language, and education level. Therefore, for linked individuals, it is possible to identify the actual landing date of first entry into New Brunswick, rather than using Medicare activation dates as proxy dates of arrival to the province. The date of termination or the status “Left the province” in the Citizen Database indicates the exit date from New Brunswick.

In most cases, full information (especially for landing dates) is only available for primary applicants. For the remaining linked individuals (i.e., dependents of primary applicants), the first registration date in the Citizen Database acts as a proxy for date of arrival to the province. We therefore conduct a secondary analysis using all PNP immigrants (primary applicants and dependents) with activation dates in the Citizen Database. To compare the arrival numbers and retention rates of PNP immigrants with non-PNP immigrants, individuals who appear as immigrants in the Citizen Database but are not linked with BizNet are assumed to be newcomers arriving to the province through other programs (e.g., federal express entry, provincial nominees from other provinces, etc.). The first Medicare activation date in the Citizen Database is assumed to be their date of first arrival to New Brunswick, and date of termination as their departure from the province.

Along with the distinction between PNP and non-PNP immigrants, it is possible to identify immigrants by country of origin. The citizenship of primary applicants is considered to be the country of origin for newcomers landing through the Provincial Nominee Program. To provide meaningful statistical analysis, only countries producing at least 200 landings in NB are included in our descriptive statistics and analytical methods.

The BizNet indicator for the official language spoken by immigrants in New Brunswick is used to conduct an analysis of retention rates by language. The language variable is available for all linked primary applicants and a portion of dependents in the dataset and indicates whether an individual speaks English, French, both, or neither.

BizNet also carries information on the occupation of primary applicants at the time of application, based on National Occupational Classifications (NOCs). However, because there are over 500 NOCs, it is not possible to estimate annual retention rates or landings by occupation category due to lower cell counts. Therefore, we consider the sum of immigrants in various occupations from 2009 to 2017, and we estimate the landings for categories with at least 100 observations. North American Industry Classification System (NAICS) codes are used to break down retention rates by industry. In this case, industries with at least 150 observations are included in our statistical analysis.

Finally, the Provincial Nominee Program consists of several streams of entry, including the Skilled Worker and Business streams, Express Entry, and the Atlantic Immigration Pilot (AIP) stream. To provide higher cell counts, various categories under the Skilled Worker and Business Plan categories are collapsed to form two broad categories. For both Business and Skilled Worker applicants, 1- and 5-year retention rates have been estimated. However, because the AIP was only launched in 2017, it has few observations for 2017, with most applicants arriving from 2018 onwards. In addition, most observations for Express Entry appear from 2017, and few in prior years. Therefore, the arrivals and retention rates for AIP and Express Entry have been excluded from this report and will be analysed in future studies.

DESCRIPTIVE STATISTICS

BizNet

Nearly 75% of **all immigrants** in the BizNet dataset can be linked to the Citizen Database, and approximately 83% of **primary applicants** in BizNet can be linked to the Citizen Database. Conducting a year-to-year comparison of linkage rates for primary applicants (Table 2) reveals a fluctuating trend, with rates declining until 2010, increasing to a peak of 92% in 2013, and following a decreasing trajectory again until 2016.

These fluctuations in linkage rates do not necessarily have any direct implications for immigrant retention in New Brunswick. Lower linkage rates can be attributed to a combination of factors, including a lack of linkable information (date of birth, gender, names not written in the Latin alphabet, etc.), applicants never landing in the province, or applicants leaving the province before being registered in the Citizen Database.

The gender and age of linked and unlinked primary applicants are presented in Tables 3 and 4, respectively. Apart from the higher number of observations for linked applicants, in terms of distribution linked applicants appear to be younger. Over 55% of total linked primary applicants and 43% of unlinked primary applicants are between the ages of 20 and 39.

The country of citizenship variable reveals that certain countries produce a higher proportion of unlinked primary applicants. To demonstrate a country-level comparison, countries with at least 100 primary applicants and/or landings since 2001 are shown in Table 5. Relative to other countries, China has a considerably higher number of both overall immigrants and linked applicants. However, its proportion of unlinked individuals is almost one-third (28%), which is the third-highest of all the examined countries. Over 33% of individuals with Egyptian citizenship are unlinked, closely followed by primary applicants from Iran (30%). Applicants from the United Kingdom have the highest linkage rate (96%), followed by Ukraine (95%), Romania (95%), and the Philippines (94%). It is possible that the lower linkage rates can be partially attributed to difficulties linking names that use non-Latin alphabets.

In-Migration

Figure 1 illustrates the number of primary applicants that landed in New Brunswick between 2001 and 2017. Annual landings of primary applicants gradually increased until 2005 and nearly doubled in the following year, rising from 145 to over 300 landings. Compared to 2005 numbers, the province saw an almost 5-fold increase in primary applicants who landed in New Brunswick in 2017, with few fluctuations during the intermediate years. This trend is similar for all PNP immigrants (primary applicants and their dependents), with the number of landings generally rising from year to year with some variations in between (Figure 2).

Dissecting the landings of primary applicants by application type (Figure 3) shows that the number of landings in the Business stream generally vary over the years and have been following a downward trend since 2014, whereas the number of landings in the Skilled Worker stream has been following a general upward trend until 2016. However, despite declines in landings for both categories in 2017, the impact is negligible on total number of landings in the same year due to other categories e.g. Express Entry.

Analyzing country of origin through the citizenship of primary applicants during the application stage indicates that China has produced the largest number of newcomers through the PNP over the years (Table 6). Immigrants from Korea were among the highest number of arrivals until 2012; since then, landings have gradually tapered off. On the other hand, newcomers from the

Philippines have exhibited a rising trajectory, with 2017 seeing a noteworthy two-fold increase from 2016 numbers.

Comparing the number of landings of primary applicants by spoken language shows that a significantly higher number of landed immigrants speaks English than French (Figure 4). For both Anglophones and Francophones, the number of landings has been rising in general, with the number of landed Francophone immigrants in 2016 notably doubling 2015 numbers. However, the ratio between the two groups has declined over the years; and recently the number of landings by Anglophones in New Brunswick is 7 times higher than that of Francophones. When considering the languages spoken by both primary applicants and their dependents (Figure 5), we see that the number of arrivals has increased for all categories, particularly those speaking English and None (i.e., neither English nor French). English-speaking arrivals generally increased over the years, reaching close to 1,100 individuals in 2014. However, in 2015 and 2016, the numbers dropped before almost reaching 1,000 again in 2017. Alternately, with few fluctuations, Francophone arrivals have shown an upward trend.

Among the industry and sector categories, primary applicants in the entrepreneur sector are the most common, although numbers have been falling since 2014 (Table 7). Individuals in the professional, scientific, and technical services industry remained rather steady until 2015, after which they experienced consecutive two-fold increases in 2016 and 2017. Other industries such as accommodation and food services, administrative and support services, and transportation and warehousing experienced a general increase of newcomers in varying degrees. The occupations of primary applicants according to National Occupation Classifications (NOCs) are summarized in Table 8. As expected, entrepreneurs have the highest frequency of landings by a large margin, followed by immigrants who have the occupation of transport truck drivers.

Cross-Tabulation

Table 9 is a cross-tabulation between countries with at least 200 landings and industries with a minimum of 150 observations. The majority of immigrants from China, Korea, Vietnam, and Iran fall under the entrepreneur sector. On the other hand, newcomers from the Philippines are mostly in the accommodation and food services and manufacturing sectors. The professional, scientific, and technical services industry mostly consists of immigrants from India, China, and the Philippines.

The cross-tabulation between language and industry (minimum 150 observations) in Table 10 shows that even though a significant portion of English-speaking primary applicants falls under the entrepreneur category, the distribution is quite even among other sectors, particularly accommodation and food services, transportation and warehousing, and professional, scientific, and technical services. Even though the "None" language category (speaking neither English nor French) has a negligible presence in all sectors, its frequency is notably higher for the entrepreneur sector.

Retention Rates

Estimations of 1-year retention rates include people still residing in the province after one year of landing. For instance, to calculate the retention rate for 2016, the total number of immigrants who landed in 2016 and still resided in the province in 2017 is divided by total number of landings in 2016. 3-year and 5-year retention rates are calculated in a similar manner but appear less volatile over time. The updated Citizen Database contains data until February 2019, providing information on departures until the end of 2018.

Primary Applicants

Table 11 presents linkage and retention rates for primary applicants of the Provincial Nominee Program who arrived in the province, also termed “Arrived PNP Nominees”. The 1-year retention rates for primary applicants have remained above 70% since 2005, with an average rate of over 75%. 3-year retention rates for primary applicants mostly remained around 60% and above from 2005 to 2010, though they dropped below 60% after 2011. 5-year retention rates continue to remain above 45%, only dropping below this rate in 2008.

The assumption that all unlinked primary applicants left the province shortly after landing is used to calculate All Targeted PNP Nominees retention rates. The numbers of immigrants remaining in New Brunswick for All Targeted PNP Nominees and Arrived PNP Nominees, remain the same after 1, 3, and 5 years for each landing year (see Tables 11 and 12). However, the denominator is now larger, as it includes a total number of annual primary applicant landings instead of only linked landings (Table 12). All Targeted PNP Nominees 1-year retention rates remained around at least 60% until 2014 and declined in 2015 and 2016 by a few percentage points, reaching just below 60% in 2017. Since the linkage rate varies from year to year, the differences between All Targeted PNP Nominees and Arrived PNP Nominees rates also vary. The rates for All Targeted PNP Nominees generally differ from Arrived PNP Nominees retention rates by 9 to 15 percentage points. However, due to a high linkage rate in 2013, the difference in retention rates for that year is the lowest at just under 6 percentage points.

All Targeted PNP Nominees retention rates for 3 and 5 years maintain a similar trajectory as their respective Arrived PNP Nominees rates. In case of 3-year retention rates, the difference is smallest in 2013, with a difference of just under 5%. The difference between All Targeted PNP Nominees and Arrived PNP Nominees for 5-year retention rates ranges from 5 to 10 percentage points.

PNP & non-PNP Immigrants

In 2005 and 2006, retention rates for PNP immigrants are relatively higher than those of non-PNP immigrants (Table 13). However, this can be attributed to low counts for PNP arrivals, as 1-year retention rates for non-PNP arrivals generally tend to be higher than PNP rates by 4 or 5 percentage points from 2009 onward. In Table 14, 5-year retention rates show a trajectory similar to the 1-year rates. Since 2006, a higher percentage of newcomers coming to New Brunswick via non-PNP applications has remained in the province, as opposed to PNP arrivals. On average, the retention rate for PNP arrivals is over 51%, while the retention rate for non-PNP arrivals is over 56%. In both cases, the 5-year retention rate has been increasing from 2011 onwards.

Combining both PNP and non-PNP immigrants provides the retention rates for all immigrants in New Brunswick (Table 13). For the 2005-2017 period, around 81% of immigrants on average remained after one year of arrival in the province, and annual retention rates remained over 75%.

Immigration Stream

The Provincial Nominee Program consists of several application streams, such as Skilled Worker – Employer; Skilled Worker – Family; Business Plan – Deposit; and Atlantic Immigration Pilot, to name only a few. Due to low cell counts over years, some categories are not be presented. Various other categories under the Skilled Worker and Business Plan streams have been combined and presented in two application streams to provide a more robust analysis. Figure 6 compares the 1-year retention rates of primary applicants in the Business and Skilled Worker categories. The results indicate that, in general, the retention rate is higher for Business applicants than for Skilled Worker immigrants. On average, approximately 47% of immigrants landing through Business streams and nearly 51% through Skilled Worker streams appear to remain in the province after 5 years (Figure

7). Newcomers in the Business category exhibit higher retention rates than those in the Skilled Workers category from 2005 to 2008, but that trend is reversed from 2009 onwards.

Country

1-year retention rates for immigrants by country of origin (>200 arrivals) are provided in Table 15. For many countries, the retention rate from year to year is quite volatile due to low observation counts. Even though retention rates for newcomers from Vietnam have remained at least 60% on average since 2014, retention rate for immigrant from Vietnam is the lowest (below 50%) on average. Along with an increasing number of landings, the retention rate for immigrants from the Philippines is approximately 87% on average – only second to landings from the United Kingdom (93%). Retention rates for immigrants from China are comparatively steady and have maintained an average of nearly 73%.

Newcomers from the Philippines maintain high 3-year retention rates which only fell below 80% in 2011 and 2013 (Table 16). Although retention rates for immigrants from Vietnam gradually increased from 2013 to 2015, they only rose above 40% in 2009 and 2015. After reaching a high of 72% in 2013, landed immigrants from China experienced a drop in their 3-year retention rates in 2014 and 2015, falling below 50%.

On average, 66% of newcomers from the Philippines remain in New Brunswick after 5 years, which is the second-highest rate following citizens from the United Kingdom (68%) (Table 17). On the other hand, an average of 15% of arrivals from Vietnam remain in the province after five years, and none were retained in 2013. The average 5-year retention rates for citizens of Iran and China are 34% and 38%, respectively, giving them the second- and third- lowest retentions rates of the observed countries.

Language

Table 18 shows 1-year retention rates by the language spoken by primary applicants. Since English-speaking primary applicants have high observation counts, their 1-year retention rates are rather stable compared to other language categories. At least 70% of English-speaking primary applicants were retained each year from 2007 to 2017, with a retention rate of 76% on average. 1-year retention rates for Francophone primary applicants are over 73% on average; however, due to low cell counts, these rates were quite volatile until 2012.

For Anglophones, 3-year retention rates remained under 60% annually from 2011 onwards, with a mean rate of just above 60% (Table 19). Three years after landing, an average of close to 66% of Francophones are retained in the province. Five years after landing, the mean retention rate for French-speaking primary applicants is over 52% (Table 20), while the 5-year average retention rate for English-speaking primary applicants is approximately 49%.

The trajectory for retention rates for all PNP immigrants (primary applicants and their dependents) is similar to the rates for only primary applicants (Table 21). English-speaking immigrants maintained annual retention rates of at least 74% for the 2006-2017 period, reaching 81% on average. With a mean 1-year retention rate of 88%, Francophone newcomers present a higher proportion of retained immigrants than Anglophone arrivals; however, rates fluctuate from year to year.

Trends are similar for both 3- and 5-year retention rates, with a higher share of French-speaking newcomers remaining in the province than English speakers (Tables 22 and 23). Moreover, bilingual newcomers exhibit higher retention rates than Anglophone speakers but lower rates than Francophones. On the contrary, newcomers who indicated neither English nor French as their spoken language consistently exhibited the lowest retention rates.

Industry

Analysis of retention rates by industry reveals that the lowest 1-year retention rates for primary applicants (58% on average) are in the transportation and warehousing sector (Table 24). Newcomers in the health care and manufacturing sectors have the highest mean 1-year retention rates on average, at 85% and 83%, respectively. The entrepreneur category exhibits comparatively stable retention rates at an average of 73%.

In Table 25, 3-year retention rates by industry follow similar trends, as the health care sector retains a higher proportion of newcomers. Almost half of the immigrants in the transportation and warehousing industry leave the province three years after arriving. The entrepreneur category experienced a downward trajectory after 2012, while the 3-year retention rates for the professional, scientific, and technical services sector started rising after 2013.

Kaplan-Meier Survival Analysis

In this report, the Kaplan-Meier Survival Analysis estimates the probability of the retention of a non-New Brunswick-born resident (i.e., immigrant) from the time of arrival to some future time. Using this form of analysis enables us to compare immigrant groups by country, industry, and language type and estimate which group is most or least likely to remain in the province. To include higher cell counts, individuals of all age groups are included.

PNP and Non-PNP

Figure 8 illustrates the cumulative probability of remaining in New Brunswick after various numbers of years in the province by immigrant category, including inter-provincial migrants for comparison. These findings echo the descriptive statistics in this report, including the estimate that PNP immigrants are more likely to leave the province than non-PNP immigrants, and inter-provincial migrants are the least likely to leave. After 7 years, less than 50% of PNP immigrants are likely to remain in the province compared to 56% of non-PNP immigrants. In the span of 15 years, just over one-third (35%) of PNP-immigrants are likely to stay in the province, while approximately 46% of non-PNP newcomers are likely to remain.

Country

Figure 9 depicts the retention rates of immigrants from countries producing at least 200 landings. It further illustrates how immigrants from the UK and the Philippines are the most likely to remain in the province. After 8 years, more than 65% of immigrants from the Philippines are likely to be retained. Over the same period, only 28% of newcomers from China and 32% of newcomers from Vietnam are likely to remain in New Brunswick.

Language

Figure 10 reports the retention rates of primary applicants by spoken language. Similar to our descriptive statistics, results show that Francophone immigrants are the most likely to remain in the province, with over 60% retained after 6 years. Almost half of English-speaking immigrants leave the province after 6 years. Combining both PNP primary applicants and their dependents, a similar conclusion can be drawn from Figure 11, which shows that after 8 years, French-speaking immigrants are the most likely to stay in the province compared to immigrants from other language categories.

Industry

Industry-level analysis in Figure 12 shows that newcomers in the health-care sector have the highest probability of being retained, with nearly 75% remaining in the province after 6 years. The entrepreneur category displays the least likelihood of remaining in the province, as three-fifths of newcomers in this sector depart within 6 years.

DISCUSSION & CONCLUSION

Linking BizNet data with the Citizen Database has enabled an examination of the number of landings and retention rates of Provincial Nominee Program newcomers to New Brunswick. The overall linkage rate between the two datasets is quite high at 75%, indicating that at least three-quarters of PNP applicants landed and applied for Medicare in New Brunswick. Analyzing immigrants in the BizNet dataset reveals that, in terms of country of citizenship, newcomers from China, Iran, and Egypt constitute the highest number of unlinked individuals. In contrast, immigrants from the Philippines, the United Kingdom, and Ukraine have the highest linkage rates.

Even though 1-year retention rates for primary applicants are over 75%, less than half of primary applicants remain in the province five years after landing. Considering primary applicants who could not be linked helps estimate retention rates for All Targeted PNP Nominees, which follow a trajectory similar to that of Arrived PNP Nominees retention rates.

The 1-year retention rates of all immigrants in BizNet (primary applicants and their dependents) indicate that over 79% of newcomers stay at least one year after arriving in New Brunswick, even though this rate is lower than that of non-PNP newcomers. The difference between 5-year retention rates for PNP and non-PNP newcomers is similar to that of 1-year rates, indicating that non-PNP immigrants are still more likely to remain in the province after five years.

It should be noted that immigrants in the entrepreneur sector exhibit low retention rates, displaying a lower likelihood of remaining in the province. Immigrants from countries such as Vietnam, Iran, and China also happen to have low retention rates, and newcomers from these countries are the dominant contributors to the entrepreneur sector. Similarly, most newcomers in the entrepreneur category indicate that their spoken language is either English or None (i.e., neither English nor French). Immigrants in these two language categories are also the least likely to stay in New Brunswick.

The higher likelihood of non-PNP newcomers staying in the province could be due to factors such as having a community or social network from their home country in NB, or perhaps coming to the province with a job offer. In a similar manner, Provincial Nominees landing in New Brunswick through the Atlantic Immigration Pilot should already have a job offer and could exhibit higher retention rates, thus increasing the overall PNP retention rate. Since most AIP newcomers landed in 2018, future updates to the Citizen Database and BizNet datasets would make it possible to examine the retention rates of AIP applicants. Linking these datasets to IRCC landing records could also provide the opportunity to study whether unlinked PNP newcomers landed elsewhere in Canada, including whether applicants with New Brunswick as the intended destination landed in the province.

TABLES

Table 2: Linkage Rate of Primary Applicants

Year	Total Primary Applicants	Linked Primary Applicants	Linkage Rate
2005	170	145	85.3%
2006	350	310	88.6%
2007	340	300	88.2%
2008	380	325	85.5%
2009	425	350	82.4%
2010	500	400	80.0%
2011	450	390	86.7%
2012	580	490	84.5%
2013	495	455	91.9%
2014	700	600	85.7%
2015	600	485	80.8%
2016	825	650	78.8%
2017	955	780	81.7%

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 3: Gender of Linked and Unlinked Primary Applicants

Linked		Unlinked	
Gender	N	Gender	N
Male	4,905	Male	965
Female	1,930	Female	390

Table 4: Age of Linked and Unlinked Primary Applicants

Age	Linked	Proportion of Total Linked	Unlinked	Proportion of Total Unlinked
20-24	140	2.0%	10	0.7%
25-29	945	13.7%	100	7.3%
30-34	1175	17.0%	195	14.3%
35-39	1475	21.4%	285	20.9%
40-44	1455	21.1%	355	26.0%
45-49	1095	15.9%	255	18.7%
50-54	405	5.9%	115	8.4%
55-59	155	2.2%	40	2.9%
60-64	50	0.7%	10	0.7%

Table 5: Country of Citizenship of Linked and Unlinked Primary Applicants

Country	Total	Linked	Proportion Linked	Proportion Unlinked
China	1,915	1,380	72.1%	27.9%
Korea	875	770	88.0%	12.0%
Philippines	805	755	93.8%	6.2%
Iran	440	305	69.3%	30.7%
India	420	335	79.8%	20.2%
Vietnam	395	320	81.0%	19.0%
Israel	325	295	90.8%	9.2%
France	310	275	88.7%	11.3%
Romania	280	265	94.6%	5.4%
United Kingdom	245	235	95.9%	4.1%
Germany	190	175	92.1%	7.9%
Ukraine	190	180	94.7%	5.3%
Nigeria	135	125	92.6%	7.4%
Egypt	120	80	66.7%	33.3%
Netherlands	105	95	90.5%	9.5%

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 6: Primary Applicant Landings by Country (>200 arrivals)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
China	70	85	95	110	70	95	125	210	105	185	115
France	5	10	15	10	25	30	20	25	30	40	35
India	15	10	15	10	10	15	10	15	10	25	55
Iran	10	10	15	15	30	80	25	15	25	15	15
Korea	85	110	85	75	65	60	35	25	10	15	5
Philippines	10	5	5	15	10	35	50	65	85	85	170
Romania	20	10	20	40	30	15	30	35	20	10	10
UK	20	15	20	20	25	20	20	10	10	10	15
Vietnam	0	5	15	20	30	30	15	80	65	25	25

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 7: Primary Applicant Landings by Industry (>150 arrivals)

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017
Accommodation & Food Services	15	20	20	40	45	50	75	55	45
Admin Support & Waste Management	10	5	10	15	15	15	25	35	50
Entrepreneur	195	215	180	250	185	325	190	210	115
Health Care & Social Assistance	20	20	10	20	15	15	20	20	10
Manufacturing	5	30	25	30	45	45	25	25	50
Professional, Scientific, & Technical	40	25	45	55	40	45	40	130	280
Transportation & Warehousing	30	50	45	40	60	55	60	75	75

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 8: Total Frequency Primary Applicants by Occupation (>100 arrivals)

Occupation	N
Entrepreneur	2615
Transport Truck Drivers	690
Cooks	235
Computer programmers and interactive	180
Fish and seafood plant workers	175
Food service supervisors	170
Information systems analysts and cons.	140

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 9: Frequency by Industry (>150 arrivals) & Country (>200 arrivals)

Industry	China	France	India	Iran	Korea	Philippines	Romania	UK	Vietnam
Accommodation & Food Services	90	15	40	0	35	240	15	0	10
Admin Support & Waste Management	25	25	10	5	5	30	0	0	0
Entrepreneur	1,015	15	25	260	715	0	0	60	295
Health Care & Social Assistance	0	30	15	0	5	20	0	20	0
Manufacturing	0	5	5	0	0	220	80	5	0
Professional, Scientific, & Technical	125	60	145	25	5	115	15	20	10
Transportation & Warehousing	0	10	5	5	0	0	100	70	0

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 10: Frequency by Industry (>150 arrivals) & Official Language Spoken

Industry	Both	English	French	None
Accommodation & Food Services	40	500	20	5
Admin Support & Waste Management	55	140	85	0
Entrepreneur	55	1975	10	245
Health Care & Social Assistance	35	130	30	0
Manufacturing	25	340	10	0
Professional, Scientific, & Technical	105	845	80	5
Transportation & Warehousing	40	610	15	0

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 11: Frequency and Retention Rates of Arrived PNP Nominees (Linked Primary Applicants)

Landing Year	Arrived PNP Nominees	Arrived PNP Nominees Retention Rates			Number of Nominees Retained		
		1-Year	3-Year	5-Year	1-Year	3-Year	5-Year
2005	145	75.9%	62.1%	55.2%	110	90	80
2006	310	80.7%	66.1%	53.2%	250	205	165
2007	300	78.3%	65.0%	50.0%	235	195	150
2008	325	76.9%	60.0%	43.1%	250	195	140
2009	350	80.0%	62.9%	48.6%	280	220	170
2010	400	76.3%	61.3%	51.3%	305	245	205
2011	390	73.1%	57.7%	47.4%	285	225	185
2012	490	73.5%	58.2%	46.9%	360	285	230
2013	455	73.6%	58.2%	49.5%	335	265	225
2014	600	74.2%	54.2%		445	325	
2015	485	72.2%	57.7%		350	280	
2016	650	71.5%			465		
2017	780	73.1%			570		

Table 12: Frequency and Retention Rates of All Targeted PNP Nominees (Linked & Unlinked)

Landing Year	All Targeted PNP Nominees	Number of Nominees Retained			All Targeted PNP Nominees Retention Rates		
		1-Year	3-Year	5-Year	1-Year	3-Year	5-Year
2005	170	110	90	80	64.7%	52.9%	47.1%
2006	350	250	205	165	71.4%	58.6%	47.1%
2007	340	235	195	150	69.1%	57.4%	44.1%
2008	380	250	195	140	65.8%	51.3%	36.8%
2009	425	280	220	170	65.9%	51.8%	40.0%
2010	500	305	245	205	61.0%	49.0%	41.0%
2011	450	285	225	185	63.3%	50.0%	41.1%
2012	580	360	285	230	62.1%	49.1%	39.7%
2013	495	335	265	225	67.7%	53.5%	45.5%
2014	700	445	325		63.6%	46.4%	
2015	600	350	280		58.3%	46.7%	
2016	825	465			56.4%		
2017	955	570			59.7%		

Table 13: One-Year Retention Rate of PNP and Non-PNP Arrivals & All Immigrants

Year	All PNP (including dependents)	All Non-PNP	All Immigrants (PNP + Non-PNP)
2005	78.4%	74.3%	75.9%
2006	81.1%	80.8%	81.0%
2007	80.6%	82.7%	82.1%
2008	85.3%	85.5%	85.4%
2009	82.8%	84.2%	83.7%
2010	78.2%	83.2%	80.9%
2011	75.4%	80.5%	77.8%
2012	78.7%	82.7%	80.4%
2013	83.3%	85.9%	84.3%
2014	76.2%	74.2%	75.2%
2015	77.6%	84.4%	80.4%
2016	72.7%	84.6%	80.3%
2017	77.5%	82.8%	79.7%

Table 14: Five-Year Retention Rate of PNP and Non-PNP Arrivals & All Immigrants

Year	All PNP (including dependents)	All Non-PNP	All Immigrants (PNP + Non-PNP)
2005	55.4%	47.5%	49.8%
2006	52.3%	55.2%	54.0%
2007	55.2%	60.6%	54.0%
2008	50.3%	57.0%	55.1%
2009	52.0%	57.5%	56.2%
2010	54.7%	57.9%	56.2%
2011	40.9%	49.1%	45.3%
2012	46.6%	55.8%	51.1%
2013	55.9%	65.8%	60.2%

Table 15: One-Year Retention Rates of Linked Primary Applicants by Country

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
China	58.8%	57.9%	63.6%	78.6%	84.2%	88.0%	83.3%	76.2%	62.2%	73.9%
France	100%	66.7%	50.0%	80.0%	83.3%	50.0%	80.0%	83.3%	87.5%	71.4%
India	100%	100%	50.0%	100%	66.7%	50.0%	66.7%	50.0%	60.0%	63.6%
Iran	100%	66.7%	66.7%	33.3%	68.8%	60.0%	100%	60.0%	66.7%	33.3%
Korea	90.9%	100%	86.7%	76.9%	91.7%	71.4%	80.0%	100%	100%	0.0%
Philippines	100%	100%	100%	50.0%	100%	70.0%	84.6%	88.2%	88.2%	85.3%
Romania	50.0%	75.0%	75.0%	66.7%	33.3%	66.7%	42.9%	25.0%	100%	100%
UK	100%	75.0%	100%	100%	75.0%	75.0%	100%	100%	100%	100%
Vietnam	0.0%	66.7%	50.0%	66.7%	33.3%	33.3%	62.5%	61.5%	60.0%	60.0%

Table 16: Three-Year Retention Rates of Linked Primary Applicants by Country

	2008	2009	2010	2011	2012	2013	2014	2015
China	29.4%	42.1%	40.9%	64.3%	63.2%	72.0%	52.4%	47.6%
France	100.0%	66.7%	50.0%	60.0%	83.3%	50.0%	80.0%	83.3%
India	50.0%	33.3%	50.0%	100.0%	33.3%	0.0%	66.7%	50.0%
Iran	100.0%	66.7%	33.3%	16.7%	43.8%	40.0%	33.3%	60.0%
Korea	72.7%	82.4%	73.3%	61.5%	75.0%	57.1%	80.0%	100.0%
Philippines	100.0%	100.0%	100.0%	50.0%	85.7%	60.0%	84.6%	82.4%
Romania	50.0%	50.0%	62.5%	50.0%	33.3%	66.7%	28.6%	25.0%
UK	100.0%	75.0%	75.0%	80.0%	50.0%	75.0%	100.0%	100.0%
Vietnam	0.0%	66.7%	25.0%	33.3%	16.7%	33.3%	37.5%	46.2%

Table 17: Five-Year Retention Rates of Linked Primary Applicants by Country

	2008	2009	2010	2011	2012	2013
China	17.7%	31.6%	31.8%	50.0%	42.1%	52.0%
France	100.0%	66.7%	50.0%	60.0%	66.7%	50.0%
India	50.0%	33.3%	50.0%	100.0%	33.3%	0.0%
Iran	50.0%	66.7%	33.3%	0.0%	31.3%	20.0%
Korea	54.6%	58.8%	60.0%	46.2%	66.7%	42.9%
Philippines	0.0%	100.0%	100.0%	50.0%	85.7%	60.0%
Romania	50.0%	25.0%	50.0%	50.0%	33.3%	50.0%
UK	100.0%	50.0%	50.0%	80.0%	50.0%	75.0%
Vietnam	0.0%	33.3%	25.0%	16.7%	16.7%	0.0%

Table 18: One-Year Retention Rates of Linked Primary Applicants by Language

LANDINGS											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	15	20	30	30	55	55	40	55	40	15	20
English	180	255	275	310	300	415	395	525	410	555	670
French	5	10	10	10	10	10	15	15	35	75	90
None	20	35	30	55	25	10	5	10	5	5	5
RETENTION RATE											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	100%	75.0%	66.7%	100%	81.8%	72.7%	62.5%	81.8%	75.0%	100%	75.0%
English	83.3%	78.4%	81.8%	79.0%	71.7%	72.3%	73.4%	73.3%	72.0%	71.2%	74.6%
French	100%	50.0%	50.0%	100%	50.0%	100%	66.7%	66.7%	71.4%	80.0%	72.2%
None	100%	71.4%	66.7%	54.6%	80.0%	100%	100%	100%	100%	0.0%	0.0%
NUMBER RETAINED											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	15	15	20	30	45	40	25	45	30	15	15
English	150	200	225	245	215	300	290	385	295	395	500
French	5	5	5	10	5	10	10	10	25	60	65
None	20	25	20	30	20	10	5	10	5	0	0

Table 19: Three-Year Retention Rates of Linked Primary Applicants by Language

LANDINGS										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Both	15	20	30	30	55	55	40	55	40	
English	180	255	275	310	300	415	395	525	410	
French	5	10	10	10	10	10	15	15	35	
None	20	35	30	55	25	10	5	10	5	
RETENTION RATE										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Both	66.7%	75.0%	50.0%	83.3%	63.6%	63.6%	50.0%	72.7%	62.5%	
English	72.2%	62.8%	65.5%	62.9%	58.3%	55.4%	58.2%	52.4%	56.1%	
French	100%	50.0%	50.0%	50.0%	50.0%	100%	66.7%	66.7%	57.1%	
None	100%	42.9%	50.0%	45.5%	60.0%	50.0%	100%	100%	100%	
NUMBER RETAINED										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Both	10	15	15	25	35	35	20	40	25	
English	130	160	180	195	175	230	230	275	230	
French	5	5	5	5	5	10	10	10	20	
None	20	15	15	25	15	5	5	10	5	

Table 20: Five-Year Retention Rates of Linked Primary Applicants by Language

LANDINGS							
	2007	2008	2009	2010	2011	2012	2013
Both	15	20	30	30	55	55	40
English	180	255	275	310	300	415	395
French	5	10	10	10	10	10	15
None	20	35	30	55	25	10	5
RETENTION RATE							
	2007	2008	2009	2010	2011	2012	2013
Both	33.3%	50.0%	33.3%	66.7%	45.5%	63.6%	50.0%
English	55.6%	47.1%	49.1%	51.6%	46.7%	44.6%	46.8%
French	0.0%	50.0%	50.0%	50.0%	50.0%	100.0%	66.7%
None	75.0%	28.6%	33.3%	27.3%	40.0%	50.0%	100.0%
NUMBER RETAINED							
	2007	2008	2009	2010	2011	2012	2013
Both	5	10	10	20	25	35	20
English	100	120	135	160	140	185	185
French	0	5	5	5	5	10	10
None	15	10	10	15	10	5	5

Table 21: One-Year Retention Rates of All PNP Immigrants by Language

LANDINGS												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	15	20	50	45	65	70	65	75	65	50	30	45
English	100	225	335	485	755	690	780	950	1085	805	785	980
French	5	5	10	20	20	25	45	85	75	115	70	100
None	30	20	30	45	170	170	240	330	425	465	605	580
RETENTION RATE												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	66.7%	100%	90.0%	88.9%	100%	85.7%	69.2%	73.3%	76.9%	80.0%	83.3%	77.8%
English	90.0%	84.4%	89.6%	84.5%	80.1%	78.3%	78.9%	83.2%	73.7%	73.9%	74.5%	79.1%
French	100%	100%	100%	100%	75.0%	80.0%	100%	82.4%	86.7%	91.3%	71.4%	70.0%
None	50.0%	100%	66.7%	66.7%	70.6%	73.5%	77.1%	83.3%	77.7%	79.6%	73.6%	75.0%
NUMBER RETAINED												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	10	20	45	40	65	60	45	55	50	40	25	35
English	90	190	300	410	605	540	615	790	800	595	585	775
French	5	5	10	20	15	20	45	70	65	105	50	70
None	15	20	20	30	120	125	185	275	330	370	445	435

Table 22: Three-Year Retention Rates of All PNP Immigrants by Language

LANDINGS										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Both	15	20	50	45	65	70	65	75	65	50
English	100	225	335	485	755	690	780	950	1085	805
French	5	5	10	20	20	25	45	85	75	115
None	30	20	30	45	170	170	240	330	425	465
RETENTION RATE										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Both	66.7%	50.0%	80.0%	66.7%	84.6%	78.6%	53.9%	73.3%	61.5%	70.0%
English	65.0%	68.9%	71.6%	68.0%	64.9%	54.4%	59.0%	66.8%	53.5%	57.1%
French	100.0%	100.0%	50.0%	100.0%	50.0%	100.0%	77.8%	70.6%	73.3%	73.9%
None	50.0%	100.0%	33.3%	55.6%	58.8%	58.8%	58.3%	65.2%	55.3%	57.0%
NUMBER RETAINED										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Both	10	10	40	30	55	55	35	55	40	35
English	65	155	240	330	490	375	460	635	580	460
French	5	5	5	20	10	25	35	60	55	85
None	15	20	10	25	100	100	140	215	235	265

Table 23: Five-Year Retention Rates of All PNP Immigrants by Language

LANDINGS								
	2006	2007	2008	2009	2010	2011	2012	2013
Both	15	20	50	45	65	70	65	75
English	100	225	335	485	755	690	780	950
French	5	5	10	20	20	25	45	85
None	30	20	30	45	170	170	240	330
RETENTION RATE								
	2006	2007	2008	2009	2010	2011	2012	2013
Both	66.7%	75.0%	60.0%	55.6%	69.2%	64.3%	38.5%	53.3%
English	55.0%	57.8%	62.7%	55.7%	57.0%	42.8%	47.4%	53.7%
French	100.0%	0.0%	50.0%	75.0%	50.0%	80.0%	66.7%	64.7%
None	50.0%	50.0%	33.3%	44.4%	55.9%	47.1%	41.7%	53.0%
NUMBER RETAINED								
	2006	2007	2008	2009	2010	2011	2012	2013
Both	10	15	30	25	45	45	25	40
English	55	130	210	270	430	295	370	510
French	5	0	5	15	10	20	30	55
None	15	10	10	20	95	80	100	175

Table 24: One-Year Retention Rates of Linked Primary Applicants by Industry

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017
Accommodation & Food Services	100%	75.0%	75.0%	75.0%	66.7%	80.0%	73.3%	81.8%	88.9%
Admin Support & Waste Management	50.0%	100%	50.0%	66.7%	100%	66.7%	80.0%	71.4%	80.0%
Entrepreneur	82.1%	72.1%	66.7%	78.0%	78.4%	78.5%	71.1%	64.3%	69.6%
Health Care & Social Assistance	75.0%	100%	100%	75.0%	66.7%	100%	75.0%	75.0%	100%
Manufacturing	100%	83.3%	100%	83.3%	44.4%	66.7%	80.0%	100%	90.0%
Professional, Scientific, & Technical	87.5%	80.0%	88.9%	72.7%	87.5%	77.8%	75.0%	73.1%	75.0%
Transportation & Warehousing	66.7%	80.0%	55.6%	37.5%	66.7%	45.5%	50.0%	66.7%	53.3%

Table 25: Three-Year Retention Rates of Linked Primary Applicants by Industry

Industry	2009	2010	2011	2012	2013	2014	2015
Accommodation & Food Services	66.7%	75.0%	75.0%	62.5%	55.6%	70.0%	66.7%
Admin Support & Waste Management	50.0%	100.0%	50.0%	33.3%	66.7%	100.0%	60.0%
Entrepreneur	64.1%	55.8%	50.0%	60.0%	59.5%	49.2%	47.4%
Health Care & Social Assistance	75.0%	100.0%	100.0%	75.0%	66.7%	66.7%	75.0%
Manufacturing	100.0%	66.7%	60.0%	50.0%	44.4%	55.6%	80.0%
Professional, Scientific, & Technical	62.5%	40.0%	66.7%	63.6%	62.5%	66.7%	75.0%
Transportation & Warehousing	66.7%	70.0%	55.6%	37.5%	58.3%	36.4%	41.7%

FIGURES

Figure 1: Annual Landings (using BizNet landings dates) of Primary Applicants

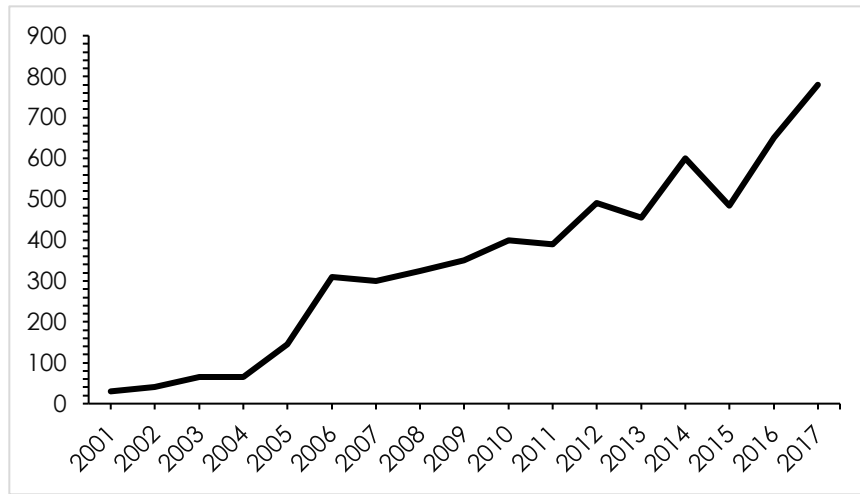


Figure 2: Annual Arrivals (using Citizen Database activation dates) of all PNP immigrants

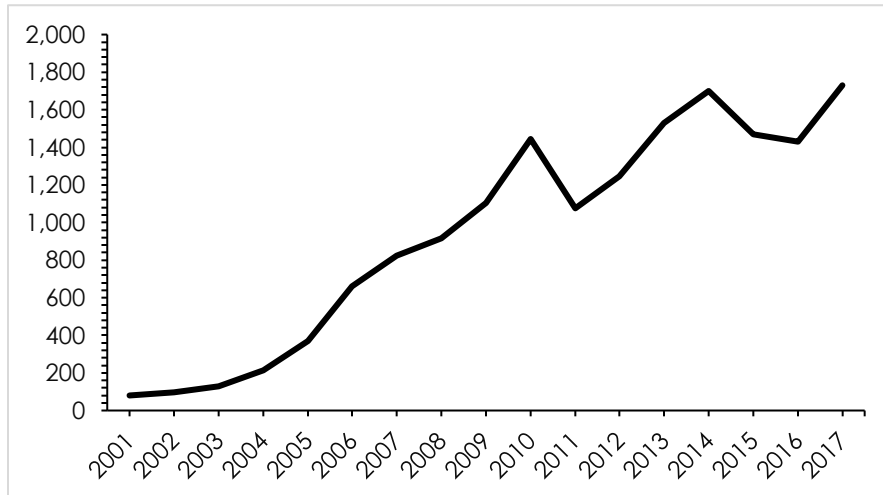


Figure 3: Annual Landings of Primary Applicants by Application Category

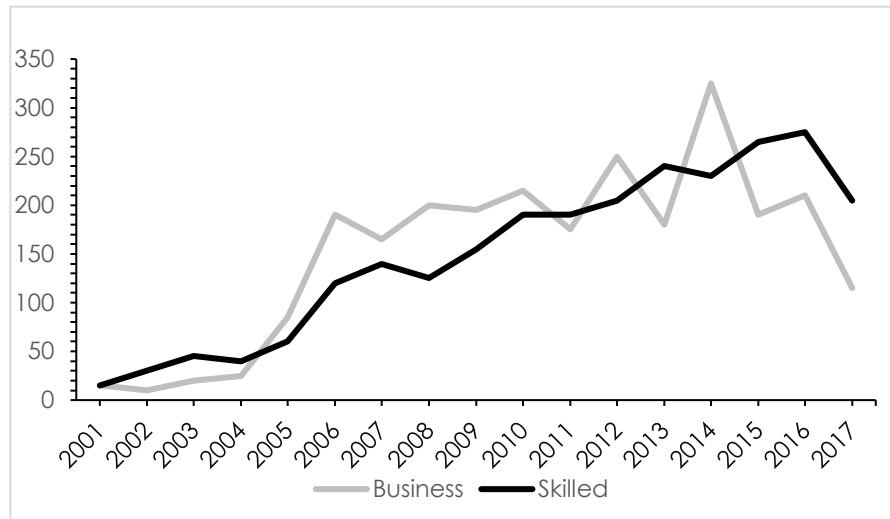


Figure 4: Annual Landings of Primary Applicants by Language

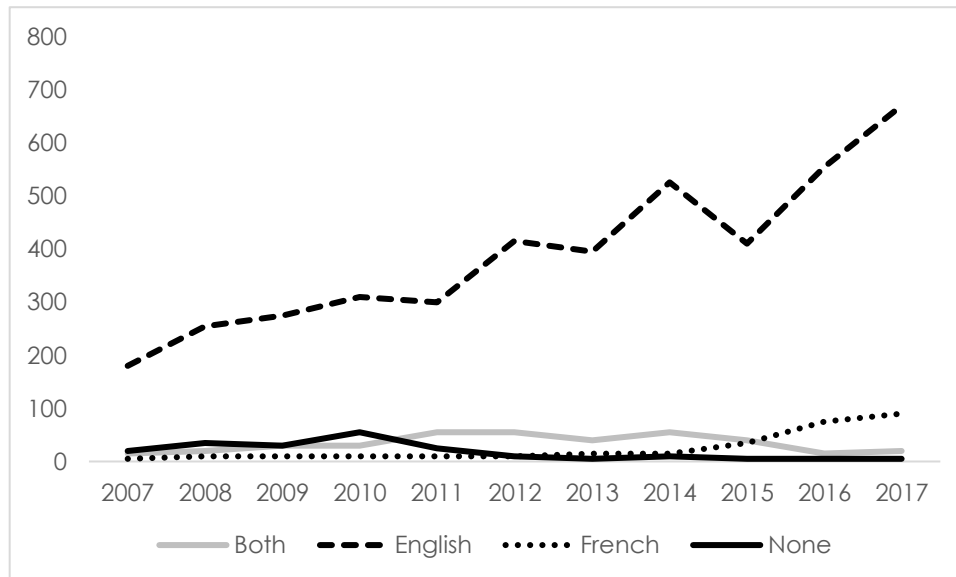


Figure 5: Annual Landings of PNP Immigrants by Language

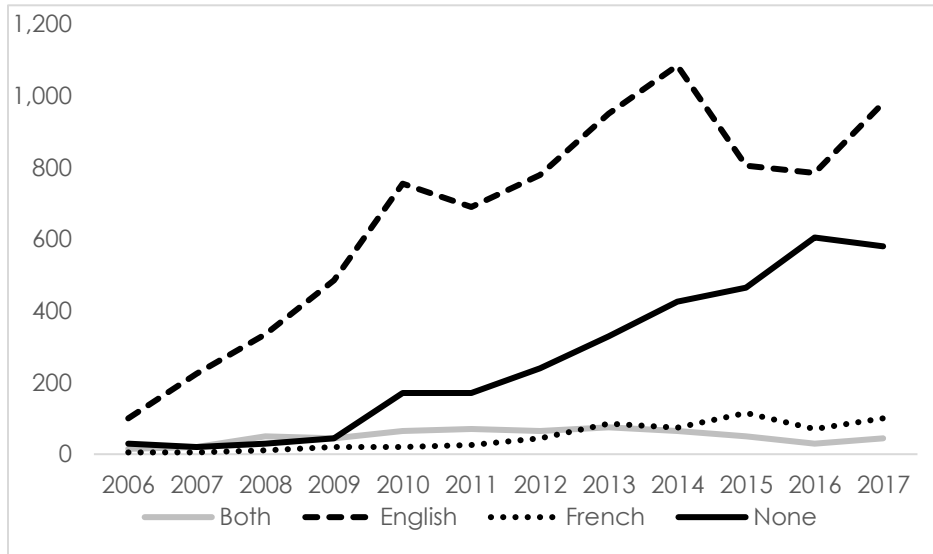


Figure 6: One-Year Retention Rate of Primary Applicants by Immigration Stream

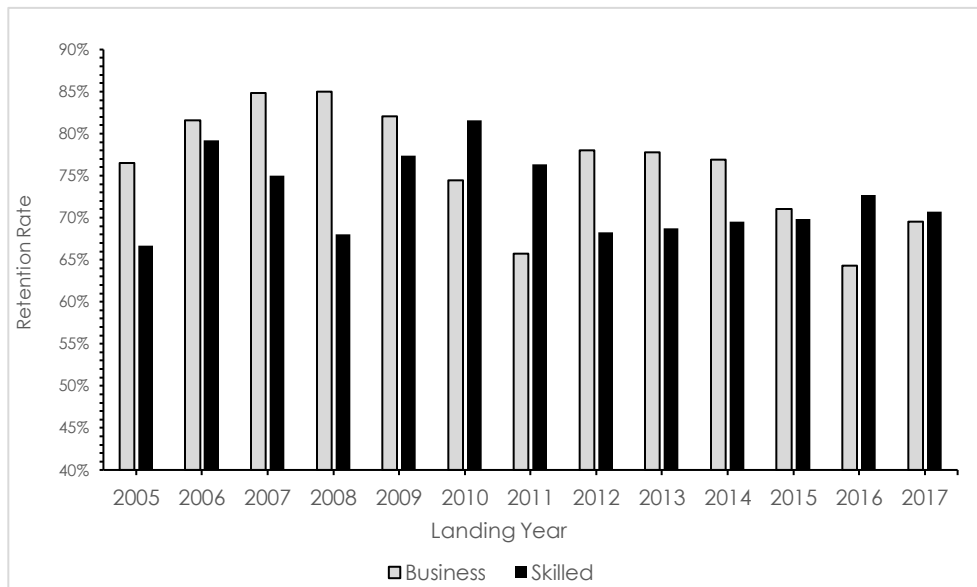


Figure 7: Five-Year Retention Rate of Primary Applicants by Immigration Stream

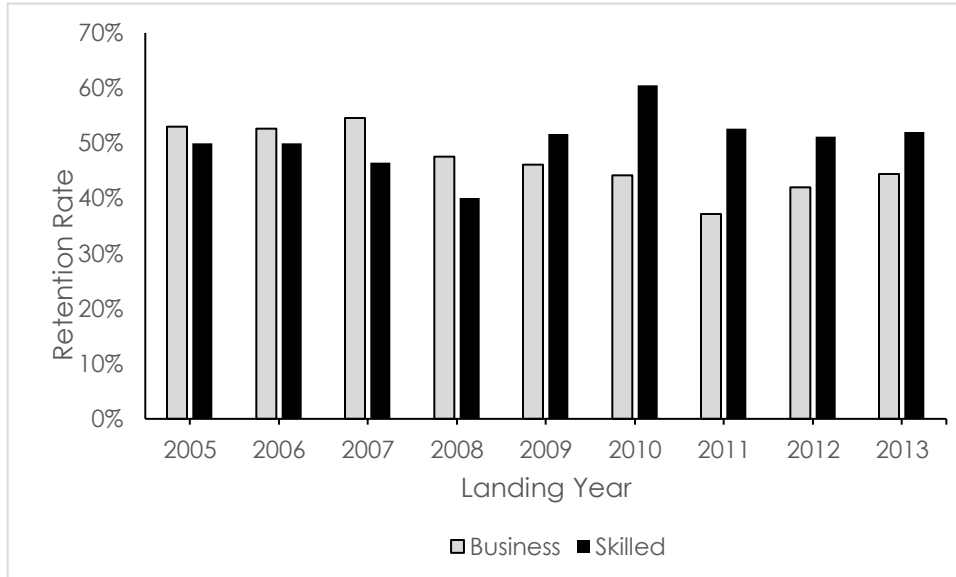


Figure 8: Kaplan-Meier - Cumulative Proportion of Immigrants to Remain in NB by Immigrant Category

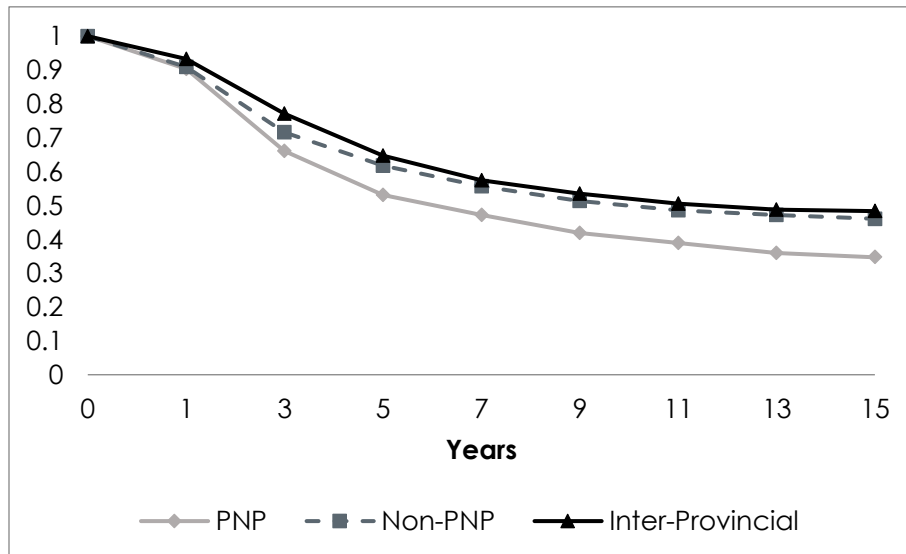


Figure 9: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Country (>200 arrivals)

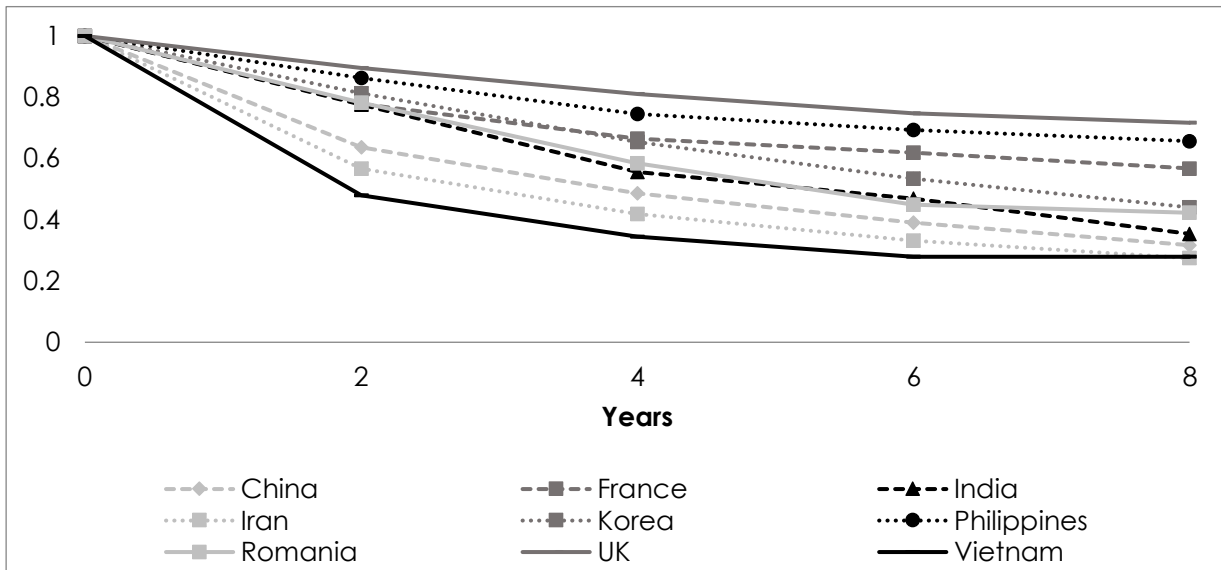


Figure 10: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Language

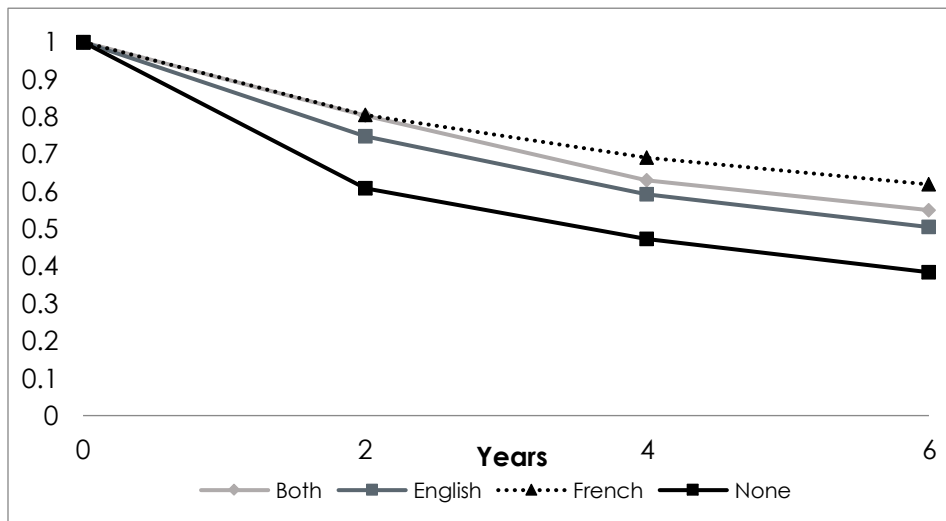


Figure 11: Kaplan-Meier - Cumulative Proportion of All PNP Immigrants to Remain in NB by Language

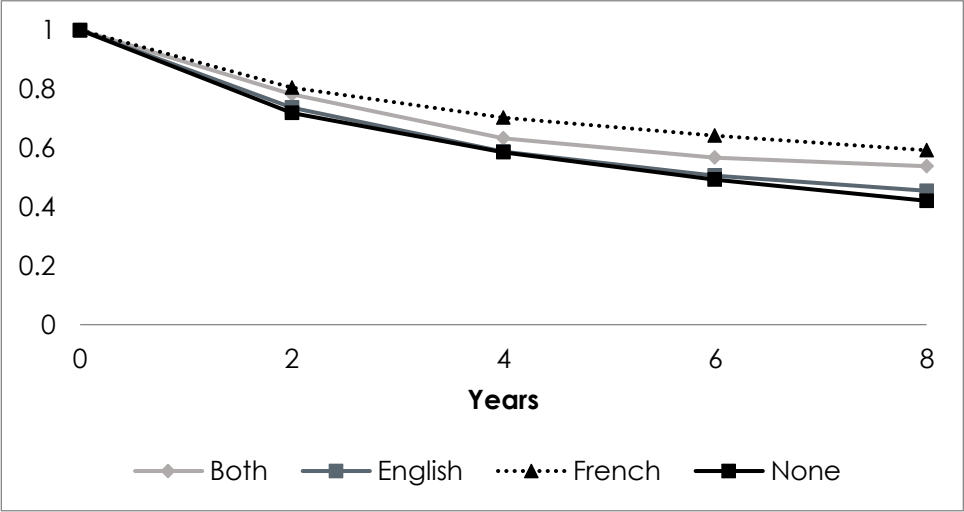
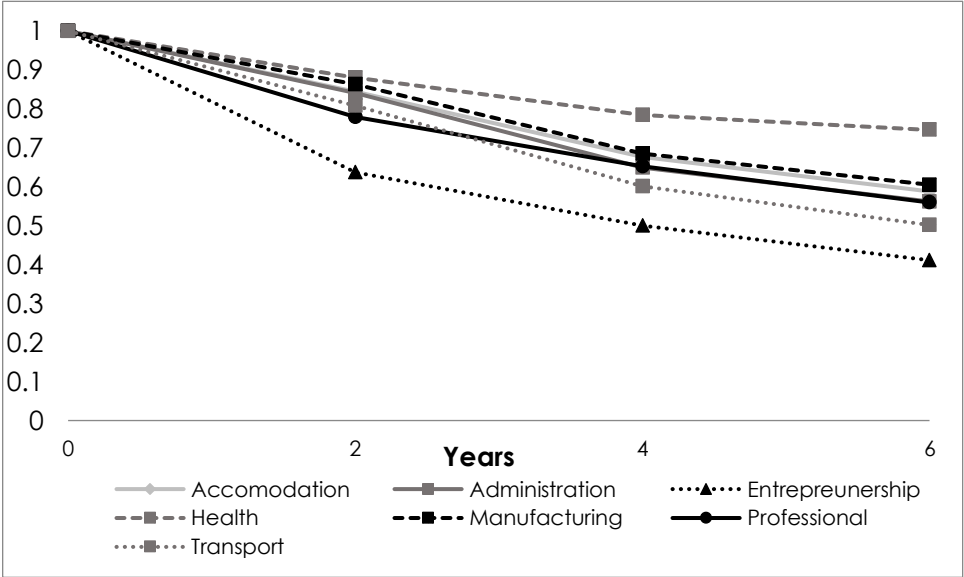


Figure 12: Kaplan-Meier - Cumulative Proportion of Primary Applicants to Remain in NB by Industry (>150 arrivals)



APPENDIX

**Table 26: Annual Landings (using BizNet landings dates)
of Primary Applicants (reference for Figure 1)**

Year	Frequency
2001	30
2002	40
2003	65
2004	65
2005	145
2006	310
2007	300
2008	325
2009	350
2010	400
2011	390
2012	490
2013	455
2014	600
2015	485
2016	650
2017	780

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

**Table 27: Annual Arrivals (using Citizen Database activation dates)
of all PNP immigrants (reference for Figure 2)**

Year	Frequency
2001	80
2002	95
2003	130
2004	215
2005	370
2006	660
2007	825
2008	915
2009	1105
2010	1445
2011	1075
2012	1245
2013	1530
2014	1700
2015	1470
2016	1730
2017	1730

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

**Table 28: Annual Landings of Primary Applicants by Application Category
(reference for Figure 3)**

Year	Business	Skilled
2001	15	15
2002	10	30
2003	20	45
2004	25	40
2005	85	60
2006	190	120
2007	165	140
2008	200	125
2009	195	155
2010	215	190
2011	175	190
2012	250	205
2013	180	240
2014	325	230
2015	190	265
2016	210	275
2017	115	205

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

**Table 29: Annual Landings of Primary Applicants by Language (reference for
Figure 4)**

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	15	20	30	30	55	55	40	55	40	15	20
English	180	255	275	310	300	415	395	525	410	555	670
French	5	10	10	10	10	10	15	15	35	75	90
None	20	35	30	55	25	10	5	10	5	5	5

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 30: Annual Landings of PNP Immigrants by Language (reference for Figure 5)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Both	15	20	50	45	65	70	65	75	65	50	30	45
English	100	225	335	485	755	690	780	950	1085	805	785	980
French	5	5	10	20	20	25	45	85	75	115	70	100
None	30	20	30	45	170	170	240	330	425	465	605	580

Note: All counts in this report have been rounded to the nearest 5 to protect confidentiality.

Table 31: One-Year Retention Rate of Primary Applicants by Immigration Stream (reference for Figure 6)

Year	Business	Skilled
2005	76.5%	66.7%
2006	81.6%	79.2%
2007	84.9%	75.0%
2008	85.0%	68.0%
2009	82.1%	77.4%
2010	74.4%	81.6%
2011	65.7%	76.3%
2012	78.0%	68.3%
2013	77.8%	68.8%
2014	76.9%	69.6%
2015	71.1%	69.8%
2016	64.3%	72.7%
2017	69.6%	70.7%

Table 32: Five-Year Retention Rate of Primary Applicants by Immigration Stream (reference for Figure 7)

Year	Business	Skilled
2005	52.9%	50.0%
2006	52.6%	50.0%
2007	54.6%	46.4%
2008	47.5%	40.0%
2009	46.2%	51.6%
2010	44.2%	60.5%
2011	37.1%	52.6%
2012	42.0%	51.2%
2013	44.4%	52.1%