

PROFILE OF THE FILIPINO CANADIAN COMMUNITY (BY ELECTORAL DISTRICTS)

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INTRODUCTION

The Filipino/a/x diaspora remains one of the fastest-growing diasporas in Canada, nearing a total of 1 million people according to the 2021 Census. However, while data is available with regards to the Filipino population in Canada, more granular analysis can often be lacking, especially its relationship with other socioeconomic variables. For example, which geographic subdivisions have seen the fastest growth rate for the Filipino population? What are the most spoken non-Tagalog Philippine languages per region? Those are the types of investigations that I will be conducting in this report. I will be using R, a very handy programming tool for statistical analysis. As for my subdivision of focus, I will be using Canada's federal electoral districts (2013 representation order). This type of granularity, especially in big cities like Toronto and Vancouver, can help government departments such as Elections Canada not only better understand the socioeconomic realities of different Filipino communities across the country, but also help develop strategies to increase their civic engagement by lowering barriers to accessing services and areas of involvement (for example, helping Elections Canada deploy more resources in certain ridings to help increase voter participation of those that speak Tagalog more often than English).

DATASETS USED

- Census Profile, 2021 Census of Population:
<https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E>
- Census Profile, 2016 Census of Population:
<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- 2021 Census – Boundary files:
<https://www12.statcan.gc.ca/census-recensement/2021/geo/sip-pis/boundary-limités/index2021-eng.cfm?year=21>

METHODOLOGY AND VARIABLES

This analysis will be broken up into two parts using data scraped from both.

- (1) The first part will explore certain socioeconomic variables by electoral districts (e.g., age, number of healthcare workers per capita, education) as well as variables related to the Filipino community (e.g., Philippine languages spoken, its numbers relative to other migrant groups). Given the variability of the populations of ridings, the analysis would be more refined if some of the variables are converted to a per-capita or proportional basis, which is what was accomplished by constructing several new

variables. Other variables were constructed through arithmetic operations in order to compare one variable from another (e.g., growth rate of the Filipino community in each electoral district). The distributions of these variables by electoral district and province will be shown, as well as any kind of correlations between variables.

(2) The second part will map the data using the shapefile of Canada's Electoral Boundaries (2013 representation order) provided by Statistics Canada. Since no shapefile has been provided for the updated boundaries (2023 representation order), the data scraped from Statistics Canada were from electoral districts following the 2013 representation order and not the 2023 representation order. The maps will be choropleth maps that will map the following:

- Second most-spoken Philippine languages, as well as their proportion to other Philippine Languages
- % of Filipino Population
- % of Recent Immigrants from PH (2016-2021)
- Growth rate of Filipino population (2016-2021)

VARIABLES SCRAPPED FROM STATISTICS CANADA

- Electoral District (2013 Representation Order)
- Province/Territory
- Population (2021 Census)
- % Filipinos
- Number of Filipinos (2021 Census)
- Number of Filipinos (2016 Census)
- % of Population with Knowledge of French
- Healthcare Workers (NOC Classification)
- Number of Recent Immigrants (2016-2021)
- Recent Immigrants from PH (2016-2021)
- Number of People with Bachelors Degree or Higher
- Median Age
- Bikol Mother Tongue
- Bisaya, n.o.s. Mother Tongue
- Cebuano Mother Tongue
- Hiligaynon Mother Tongue
- Ilocano Mother Tongue
- Kankanaey Mother Tongue
- Kinaray-a Mother Tongue
- Pampangan Mother Tongue
- Pangasinan Mother Tongue
- Tagalog Mother Tongue
- Waray-Waray Mother Tongue
- Second Most Spoken Philippine Language

CONSTRUCTED VARIABLES:

- Healthcare Workers (per 100,000)
- % of Recent Immigrants from PH (2016-2021)
- Number of People with Bachelor's Degree or Higher (per 100,000)
- Filipino Growth Rate (2016-2021)
- % Second Most Spoken Philippine Language

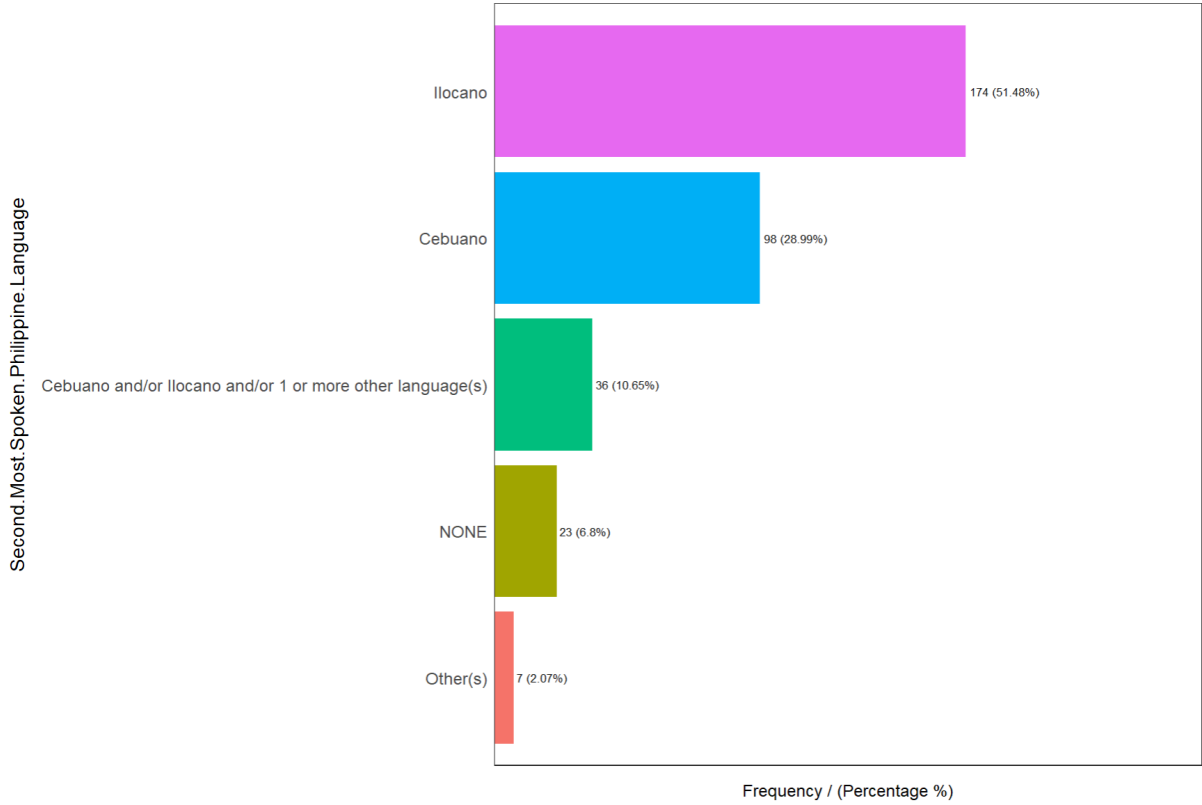
EXPLORATORY DATA ANALYSIS

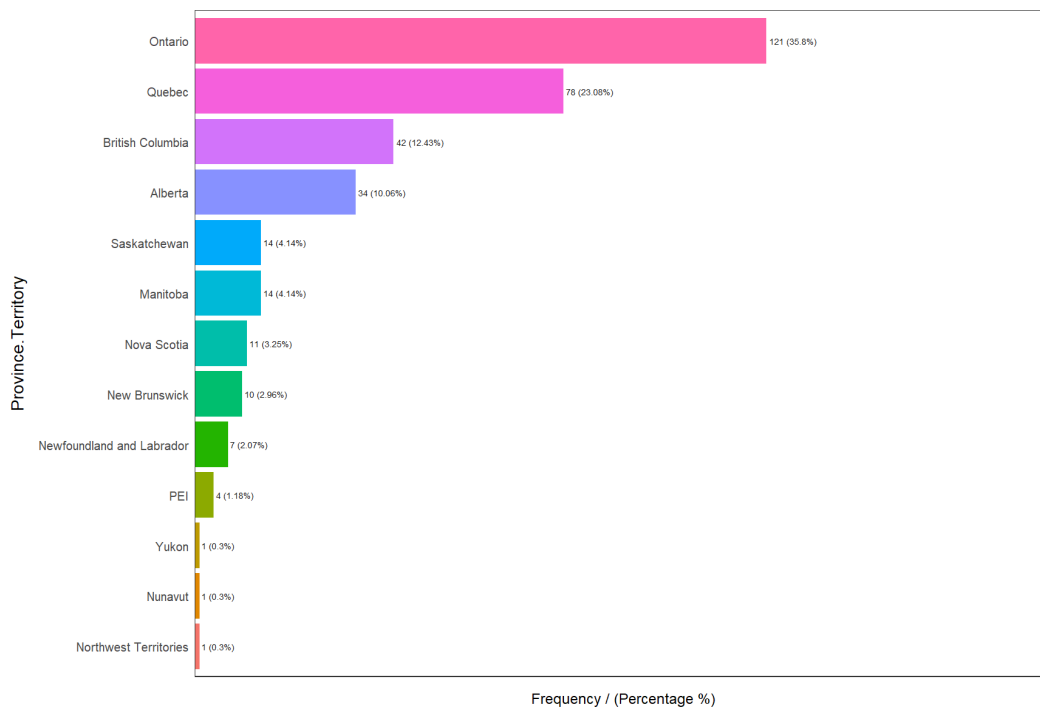
Graphical Summaries

Numerical Variables



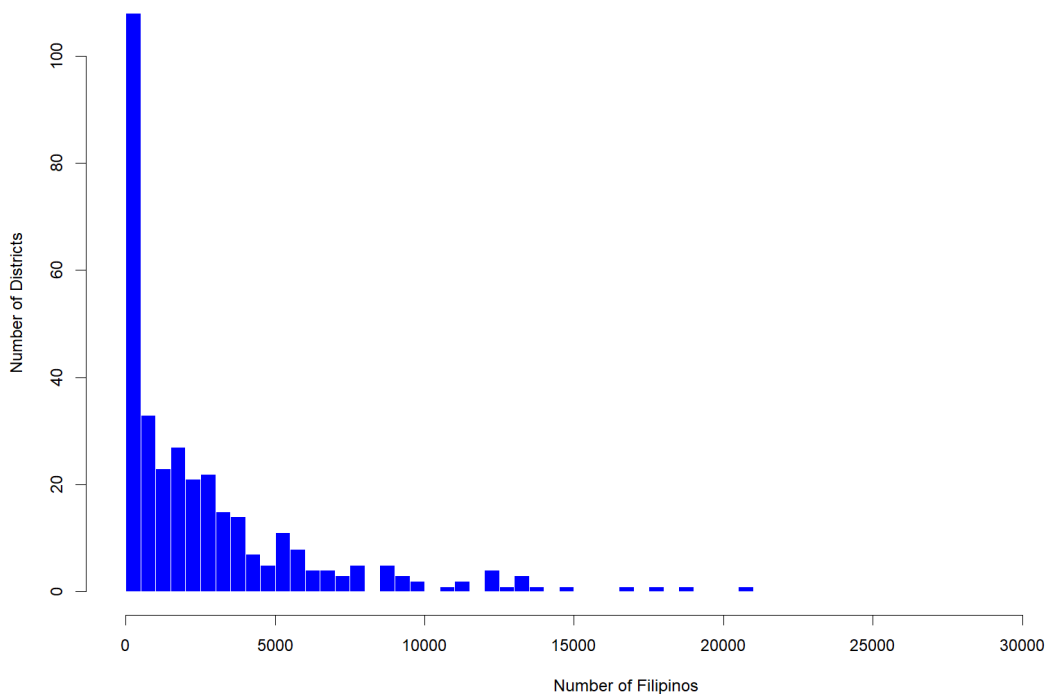
Categorical Variables





Histogram Plots

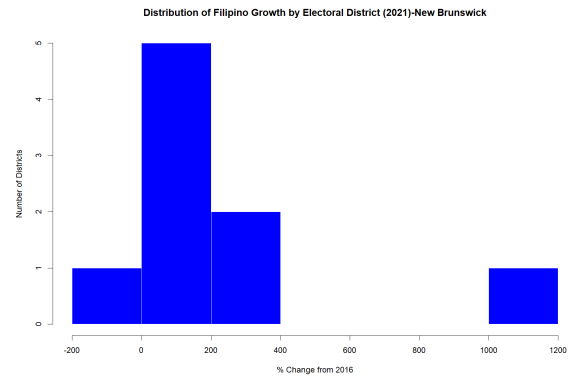
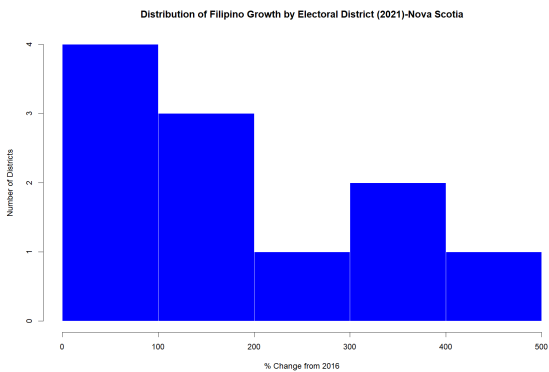
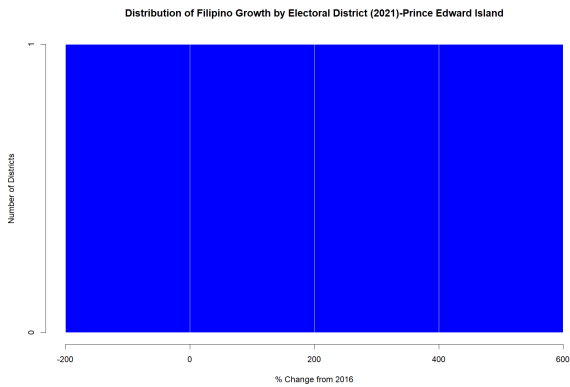
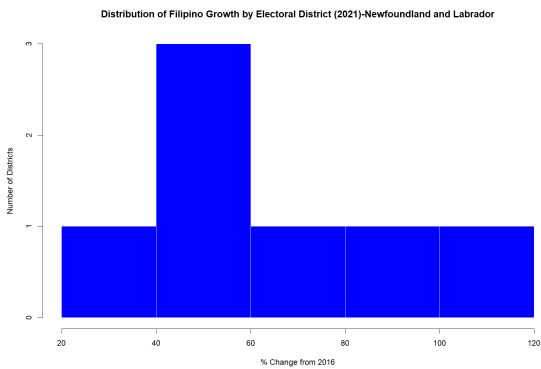
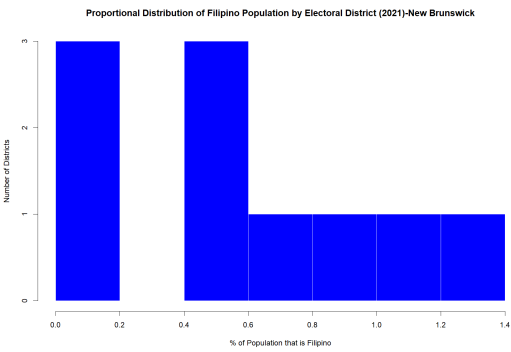
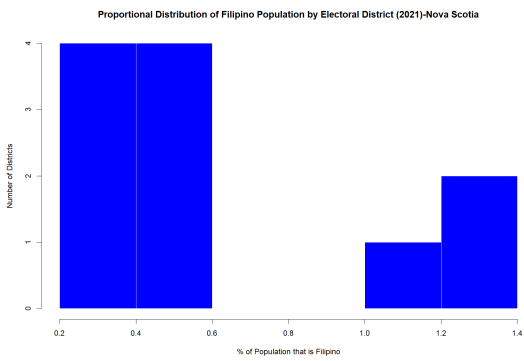
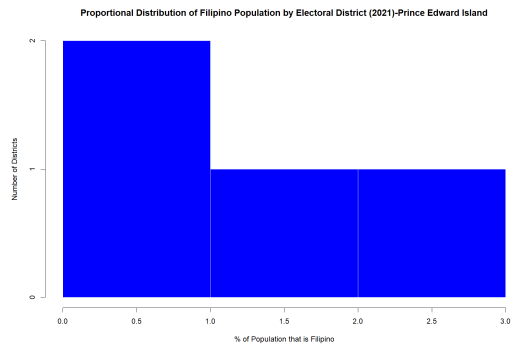
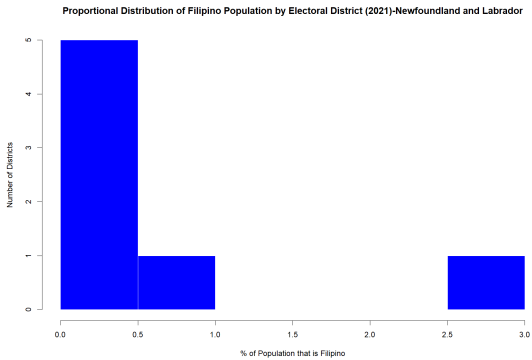
Distribution of Filipino Population by Electoral District (2021)

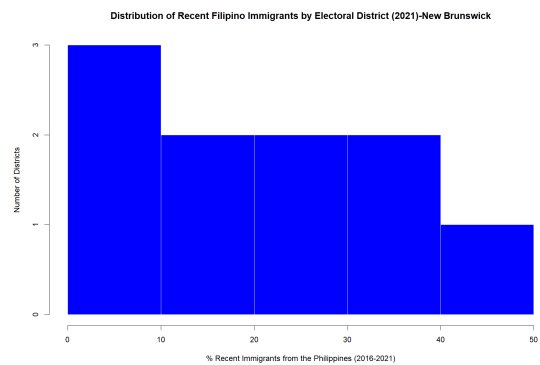
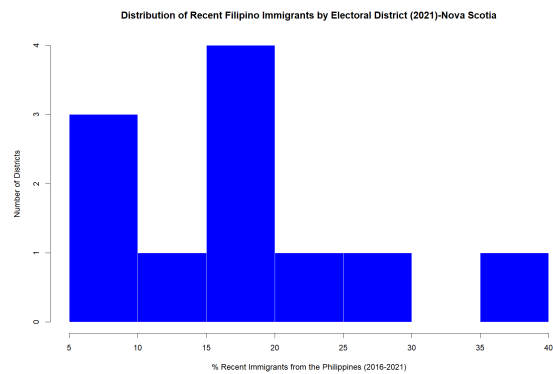
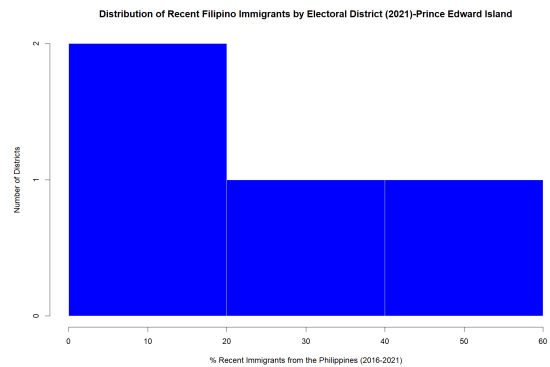
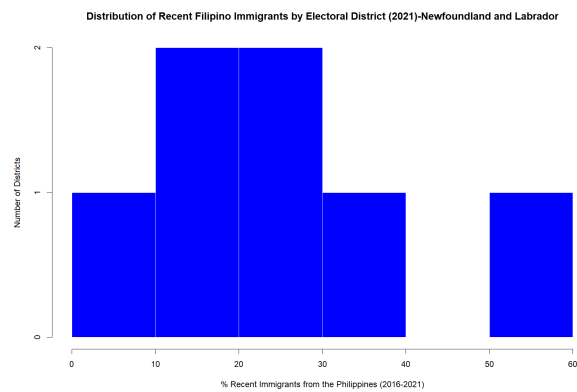


Atlantic Canada

The Filipino population remains small proportionally. However, many ridings have experienced rapid growth of the Filipino population in recent years, and migrants from the Philippines represent a significant portion of the recent immigrant population. This coincides

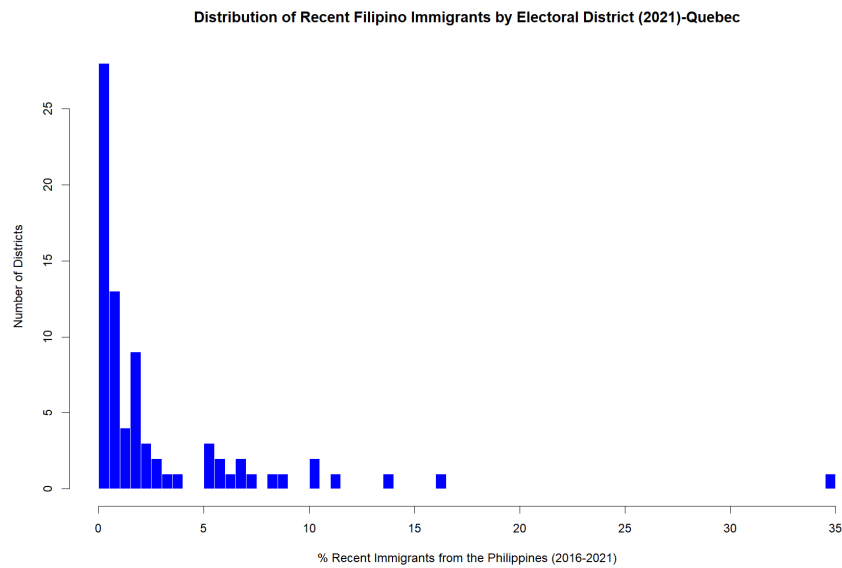
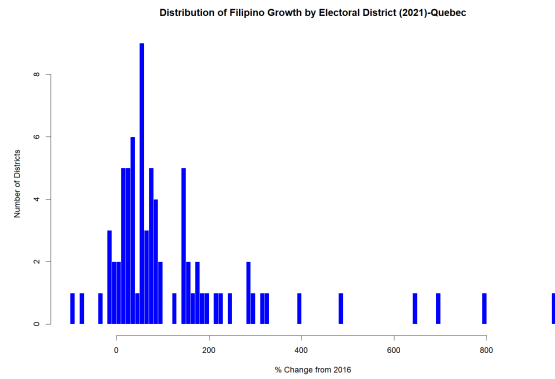
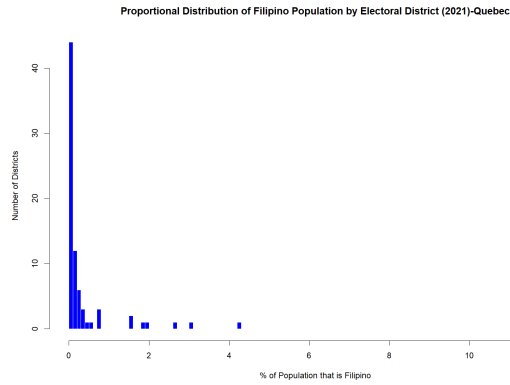
with ongoing efforts to attract more immigrants to immigrate to the Atlantic provinces, and it seems to be working so far.





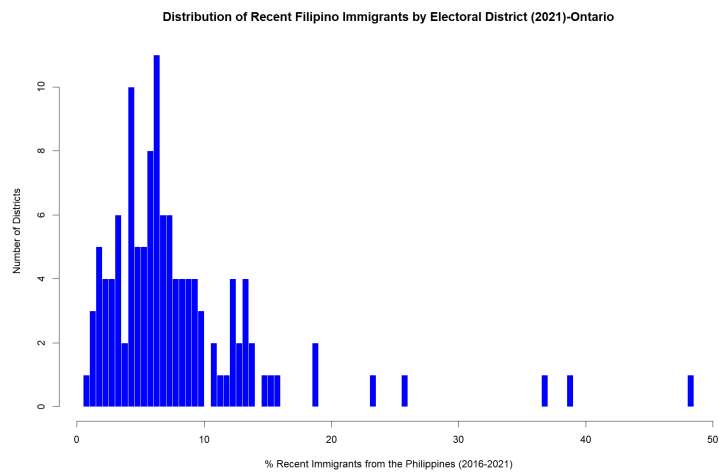
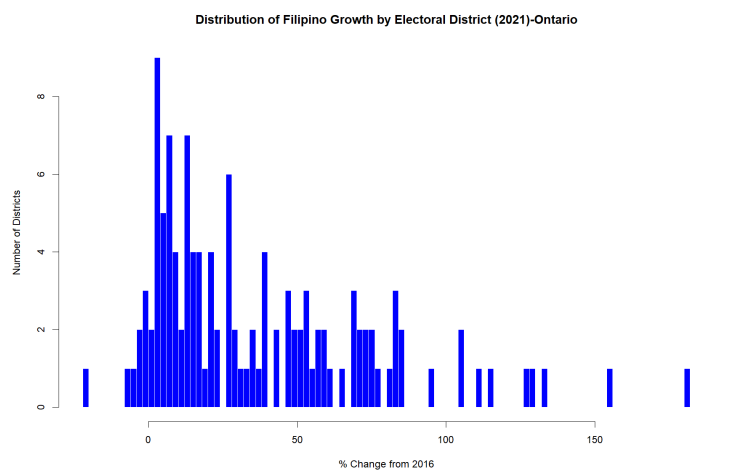
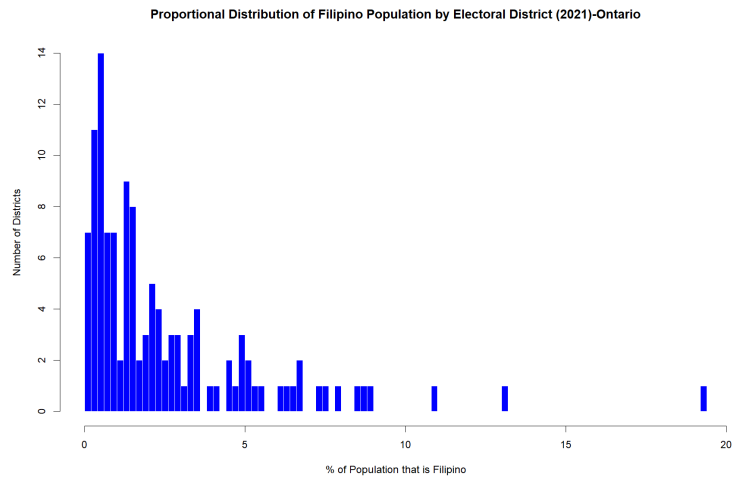
Quebec

Very few Filipinos comparatively reside in Quebec as well as migrate there. They are concentrated in Montreal, a city where a fair amount of English is spoken. The French language barrier continues to be a huge hindrance for Filipinos living in Quebec, although some districts have seen rapid growth.



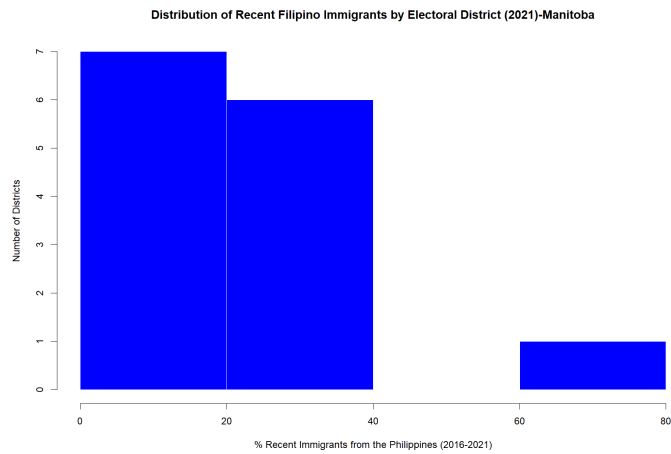
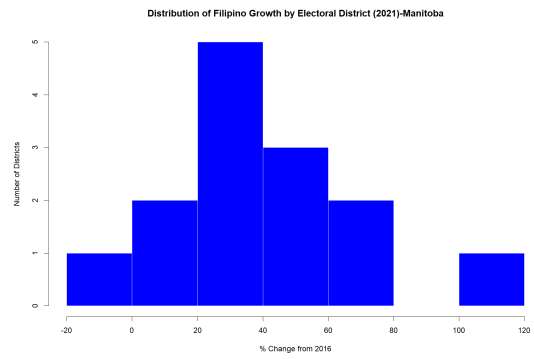
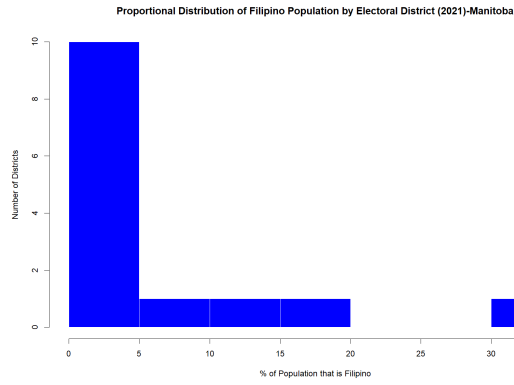
Ontario

A prime destination for immigrants, as well as hosting the largest metropolitan area (Greater Toronto Area), it's not surprising that many ridings in Ontario will have comparatively high proportions of Filipinos, some even having the highest in the country. Due to Filipinos being fairly established in the province, as well as the diversity of migrants resettling in Ontario, the growth rate of Filipinos, as well as its share of the recent immigrant population, is not that high compared to the Atlantic.

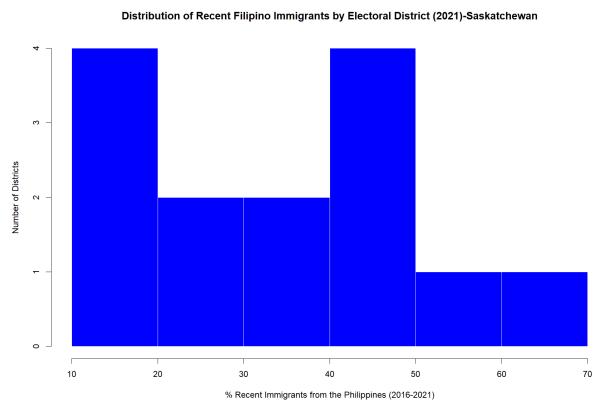
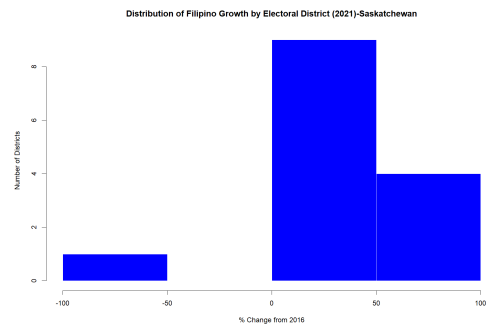
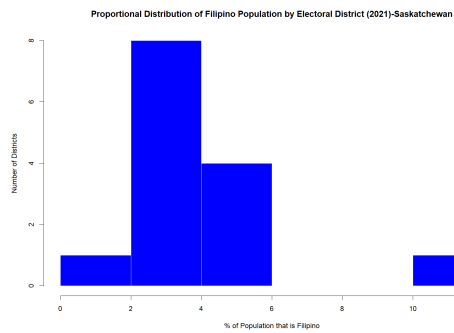


Prairies

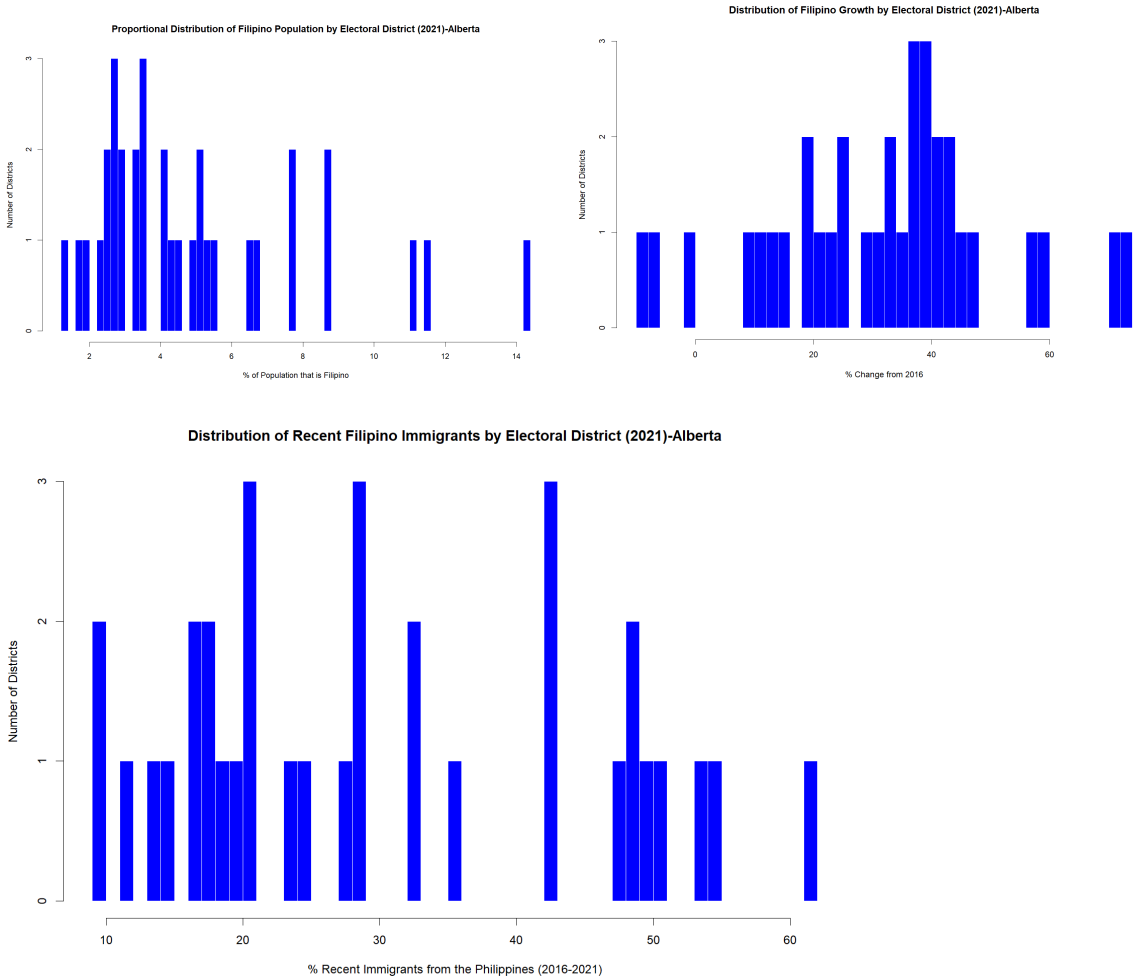
Manitoba has a long Filipino history, with Winnipeg having the highest proportion of Filipinos in any city in Canada. This shows in the data below.



The demographic profile for Saskatchewan shows that the Filipino community is relatively new, but fairly growing.

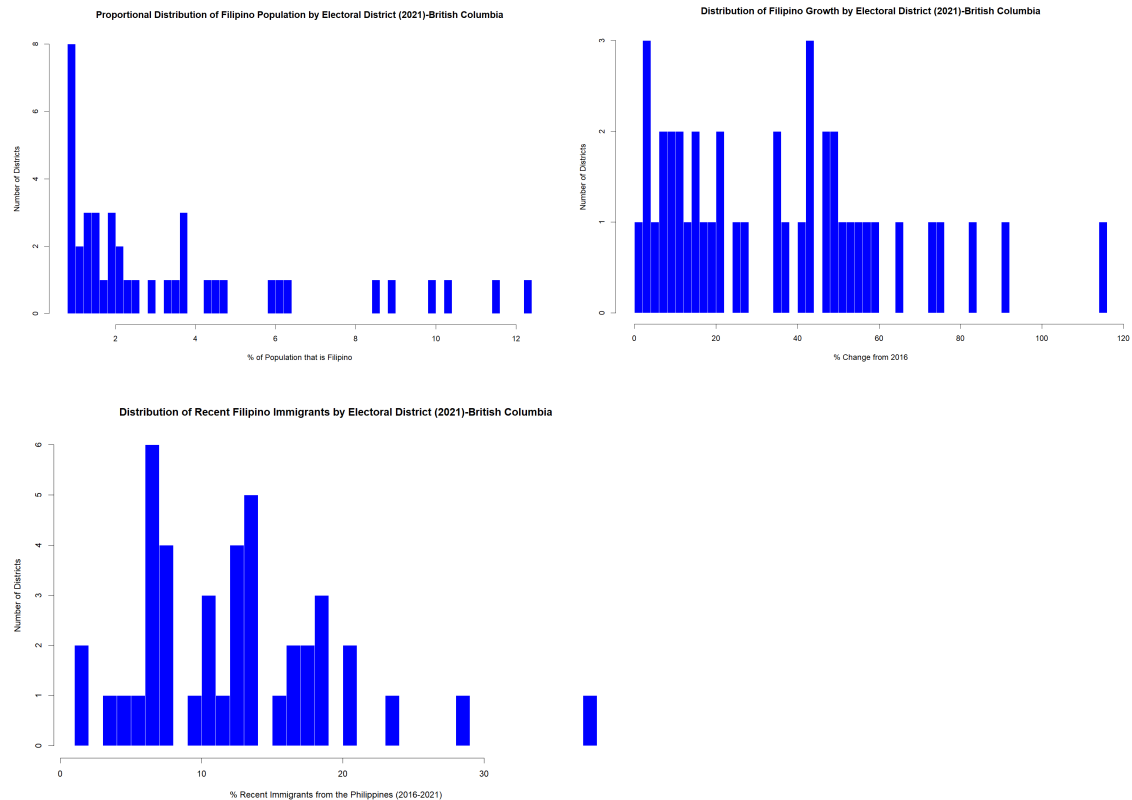


Filipino migration remains an important part of Alberta’s rapid population growth, but not to the same extent as other regions such as the Atlantic.



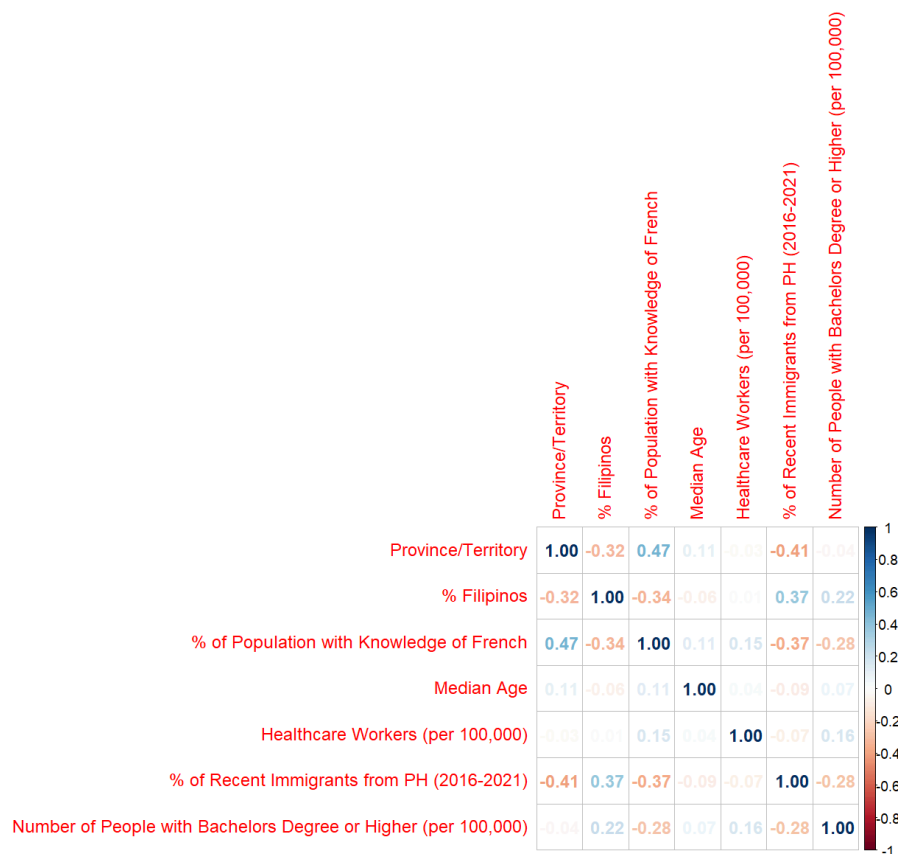
British Columbia

Like Manitoba and Ontario, Filipinos have an established history in BC. Like Ontario, international migration to BC is highly diverse, hence why Filipino migration to BC is not as impactful as Filipino migration to other provinces.



Correlation Plot

I took 7 variables (all except "Province/Territory" were numerical. Label encoding was used to encode that variable via assigning integers to each province/territory), and measured their correlation against each other:



In terms of variables relating to the Filipino community (i.e., % Filipinos and % of Recent Immigrants from the PH, 2016-2021) the following relationships appear the most strongly correlated (although not necessarily strong in absolute terms):

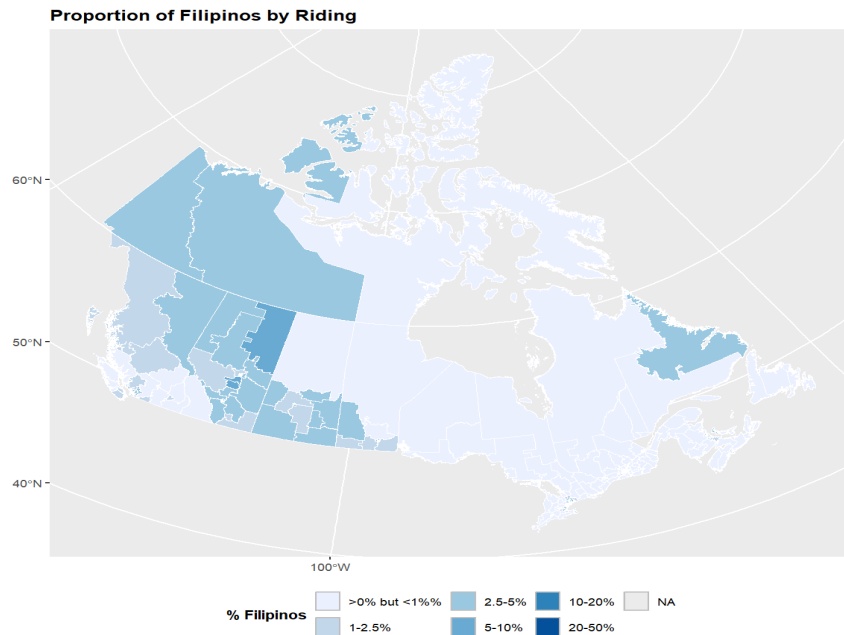
- “% Recent Immigrants from the Philippines” VS. “Province/Territory”
- “% Recent Immigrants from the Philippines” VS. “% Filipinos”
- “% Recent Immigrants from the Philippines” VS. “% of Population with Knowledge of French”
- “% Filipinos” VS. “% of Population with Knowledge of French”

Conclusions can be drawn from those results:

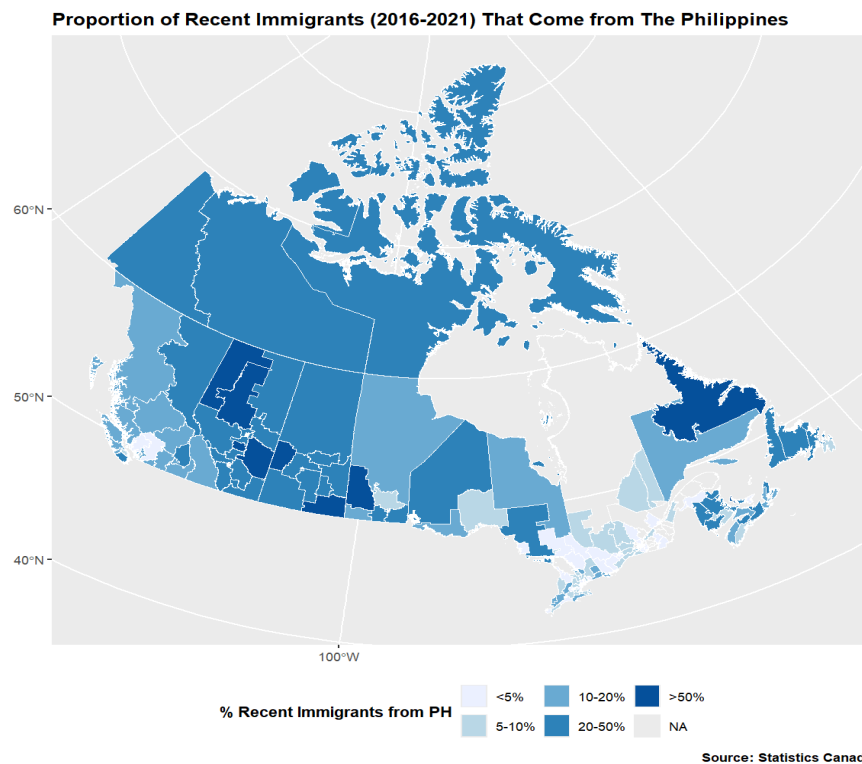
- Some provinces have recently attracted migrants from the Philippines more than any other country.
- In many regions, the arrival of Filipino immigrants has been a very recent phenomenon, and doesn't correlate with the established Filipino communities there (if there were any to begin with).
- Filipino migrants tend to shy away from migrating to areas with a higher relative francophone population, but not always to a strong degree.

GEOSPATIAL ANALYSIS

%Filipinos by Riding

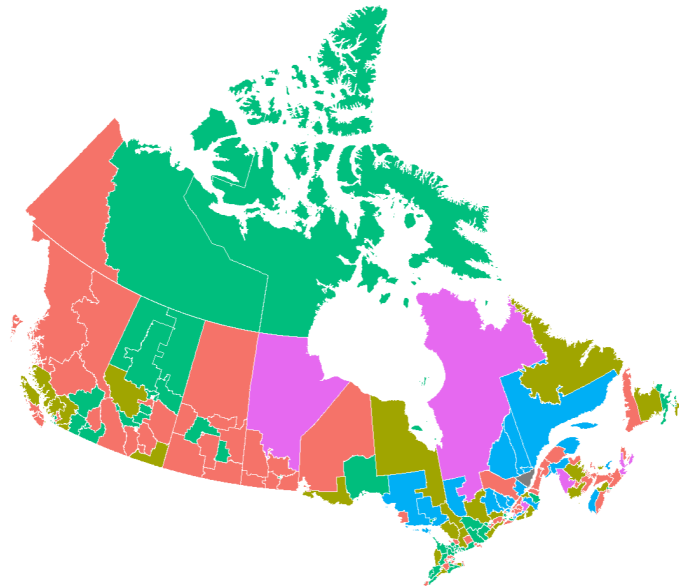


%Recent Immigrants (2016-2021) from the Philippines by Riding



Usage of Non-Tagalog Philippine-Based Languages by Riding

Usage of Secondary Filipino Languages



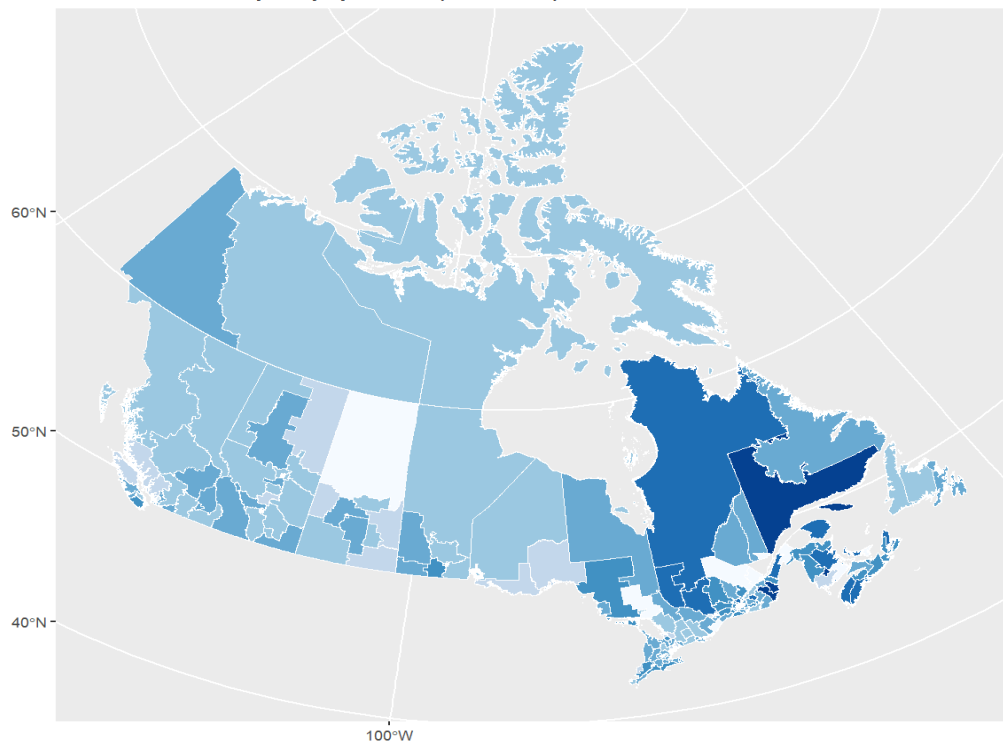
SecondLangClass

■ Cebuano	■ Ilocano	■ Other(s)
■ Cebuano and/or Ilocano and/or 1 or more other language(s)	■ NONE	■ NA

Source: Statistics Canada

Growth rate of Filipino population (2016-2021)

Growth rate of Filipino population (2016-2021)



% Change, 2016-2021

■ <0%	■ 10-25%	■ 50-100%	■ 200-500%	■ NA
■ 0-10%	■ 25-50%	■ 100-200%	■ >500%	

Source: Statistics Canada

DISCUSSION

Data and analysis shows that Filipinos are concentrated in Alberta, BC, Manitoba, and Southern Ontario. Very few live in Quebec and francophone areas, largely due to language barriers (English is widely spoken in the Philippines, while French has no established history). However, recent migration statistics show that Filipino migration is starting to shift towards the east and more rural ridings. Tagalog is the dominant Philippine-based language used by the Filipino communities, and for second Philippine-based languages, Cebuano and Ilocano dominate.

By using this analysis, governmental agencies such as Elections Canada can monitor Eastern and rural regions as places of interest as the Filipino population continues to grow rapidly. Bilingual support can be enhanced for Filipino communities in Quebec and other francophone regions, while agencies can still mostly focus on outreach efforts in BC (particularly Greater Vancouver), Alberta, Manitoba, and Southern Ontario (particularly the Greater Toronto Area). They can also focus on Ilocano and Cebuano languages if they seek to outreach to Filipino communities that do not speak Tagalog or only a limited amount.