

CRA DATA ANALYSIS

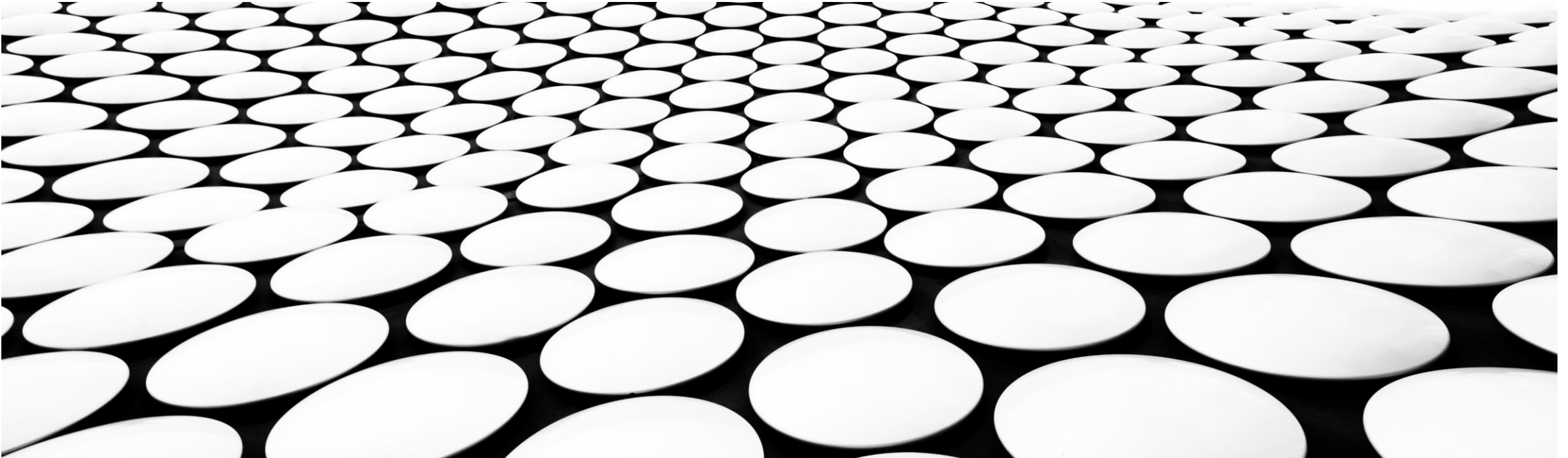


Canada Revenue
Agency

Agence du revenu
du Canada



DESCRIPTIVE STATISTICS AND VISUALIZATION



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EXECUTIVE SUMMARY

The main purpose of this research is to analyse data with the purpose of communication to Leaders & Decision Makers to get insights on Tax Free Saving Accounts based on age, gender, income categories in various Provinces & Territories all over Canada.

Data is accessed from Government of Canada's open source portal.



Problem (WHY): Data needs to be measured to obtain meaningful & actionable insights. It helps researchers summarize the data and find patterns to design new policies & procedures.



Solution (WHERE): This project is based on Descriptive Statistics to provide absolute numbers statistics based on mean, median, average, percentage, frequency, range. However, they do not explain the rationale or reasoning behind those numbers.



Methodology (HOW): Introduction of Strategic Tool to evaluate, organize and track macro economic factors that can impact the Organizational Goals.

PRESENTATION OUTLINE

Introduction of PEST followed by Visualization's to find Trends covering various questions that can be answered using this research with Bar Charts & Area Charts to predict trends over years with a storytelling.

- PEST Analysis for CRA (Canada Revenue Agency)
- Number of TFSA (Tax Free Savings Account) holders by province
- Absolute & % increase in No. of TFSA holders from 2014 to 2017
- Provinces having the max & min market values over the years 2014-17
- Provinces having the max & min value of withdrawals over the years 2014-17
- Provinces having the max & min value of contributions over the years 2014-17
- Age groups having max & min No. of TFSA Holders over the years 2014-17
- Income groups having max & min No. of TFSA Holders over the years 2014-17
- Total income of males & females over years 2015-17
- Distribution of income among males and females
- No. of taxpayers by source of income over years 2015-17
- No. of taxpayers by age group over years 2015-17
- Conclusion

PEST ANALYSIS

A PEST analysis is a strategic business tool used by organizations to discover, evaluate, organize, and track macro-economic factors which can impact on their Organizational Goals now and in the future.

Political

The tax income to CRA can increase or decrease depending on the prevalent political scenario. If the political environment favours low taxes, CRA's income will reduce and vice versa.

Economic

Depending on whether the economic conditions in the country are good, the tax collection can fluctuate. An economic downturn can lead to reduced tax income and vice versa

PEST

Social

Change in demographic can have an impact on tax collection. If more number of people are in the working age, the tax collection will be considerably higher than if more number of people are in senior age.

Technological

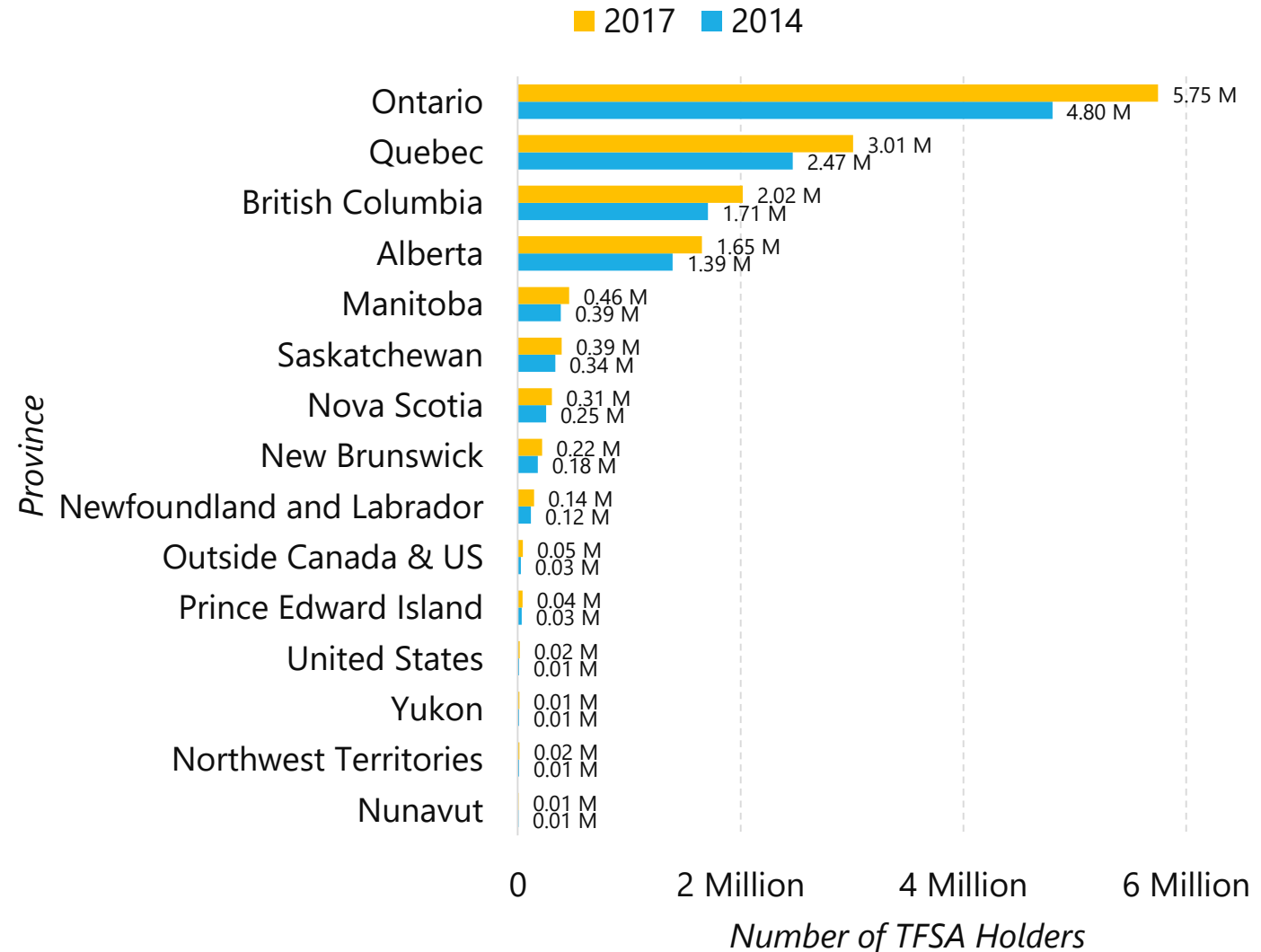
The integration of technology into the tax collection system can better help track the actual individual income and can lead to lesser number of people evading the tax system.

WHICH PROVINCE HAS HIGHEST NUMBER OF TFSA HOLDERS?

TFSA Program was introduced in 2009.

Ontario has the highest number of TFSA holders in 2014 (2016 Edition) as well as in 2017 (2019 Edition) followed by Quebec & British Columbia

Total number of TFSA (Tax Free Savings Account) holders

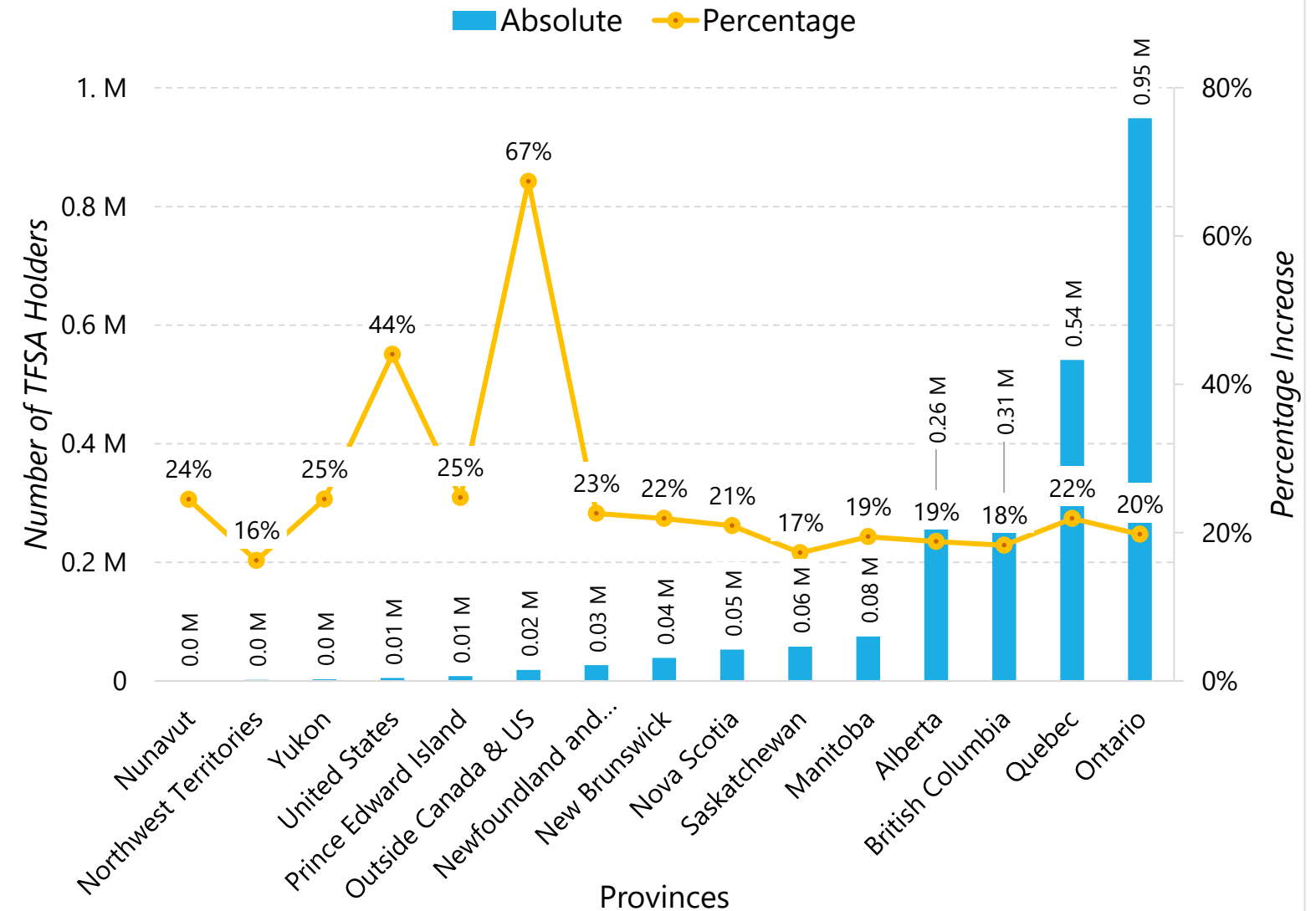


WHAT IS THE ABSOLUTE & % INCREASE IN NO. OF TFSA HOLDERS FROM 2014 TO 2017?

Ontario has the highest absolute increase in number of TFSA holders followed by Quebec and British Columbia.

The Canadian Territory to record the highest % increase is Yukon with 24.5% and same for Province PEI from 2014 (2016 Edition) to 2017 (2019 Edition).

Increase in number of TFSA holders from 2014-17

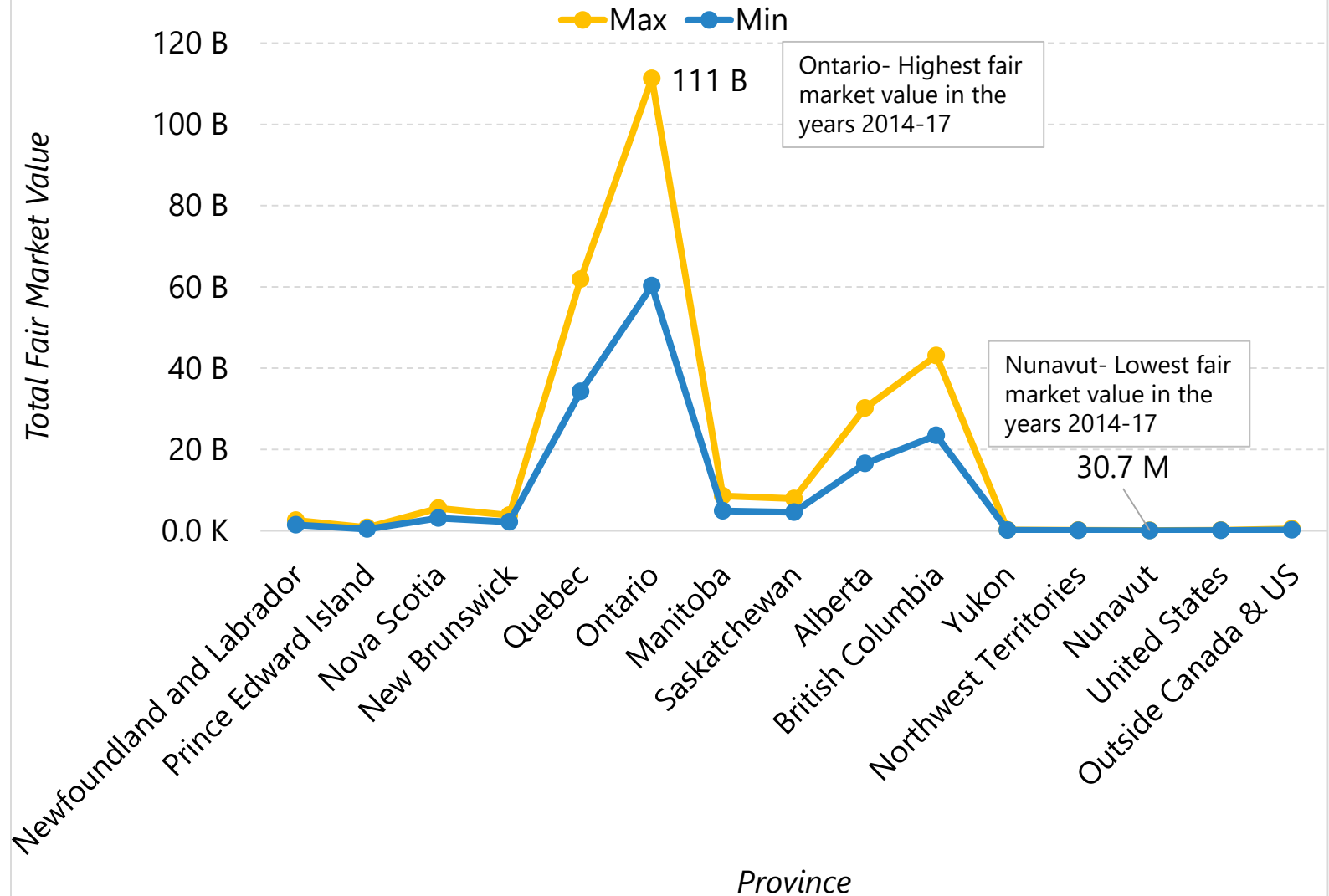


WHICH PROVINCES HAD THE MAX & MIN FAIR MARKET VALUES OVER THE YEARS 2014-17?

Ontario had the max fair market value of 111.2 B in 2017 whereas Nunavut had the lowest of 30.7 M in 2014.

However, absolute percentage increase in TFSA Holders for Nunavut was 24% & for Ontario 20% from 2014-17(Previous Slide)

**Max and Min Total Fair Market Value from 2014 – 17
(2016 Edition to 2019 Edition)**

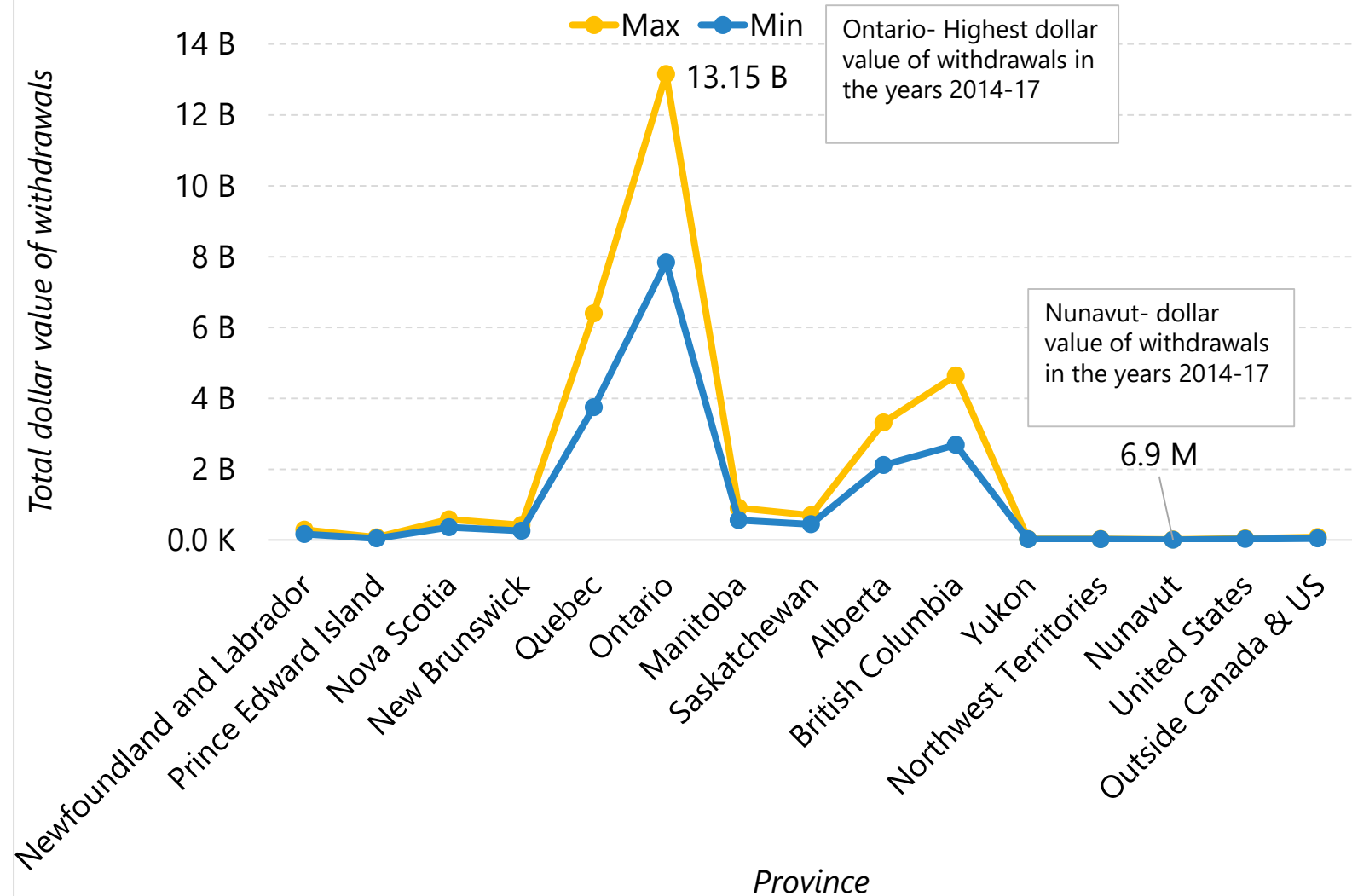


WHICH PROVINCES HAD THE MAX & MIN VALUE OF WITHDRAWALS OVER THE YEARS 2014-17?

Ontario had the dollar value of withdrawals of 13.15 B in 2017 whereas Nunavut had the lowest of 6.9 M in 2014

However, the Fair Market Value was 30.7 Million for Nunavut in 2014.(Previous Slide)

**Max and Min Total dollar value of withdrawals from 2014-17
(2016 Edition to 2019 Edition)**

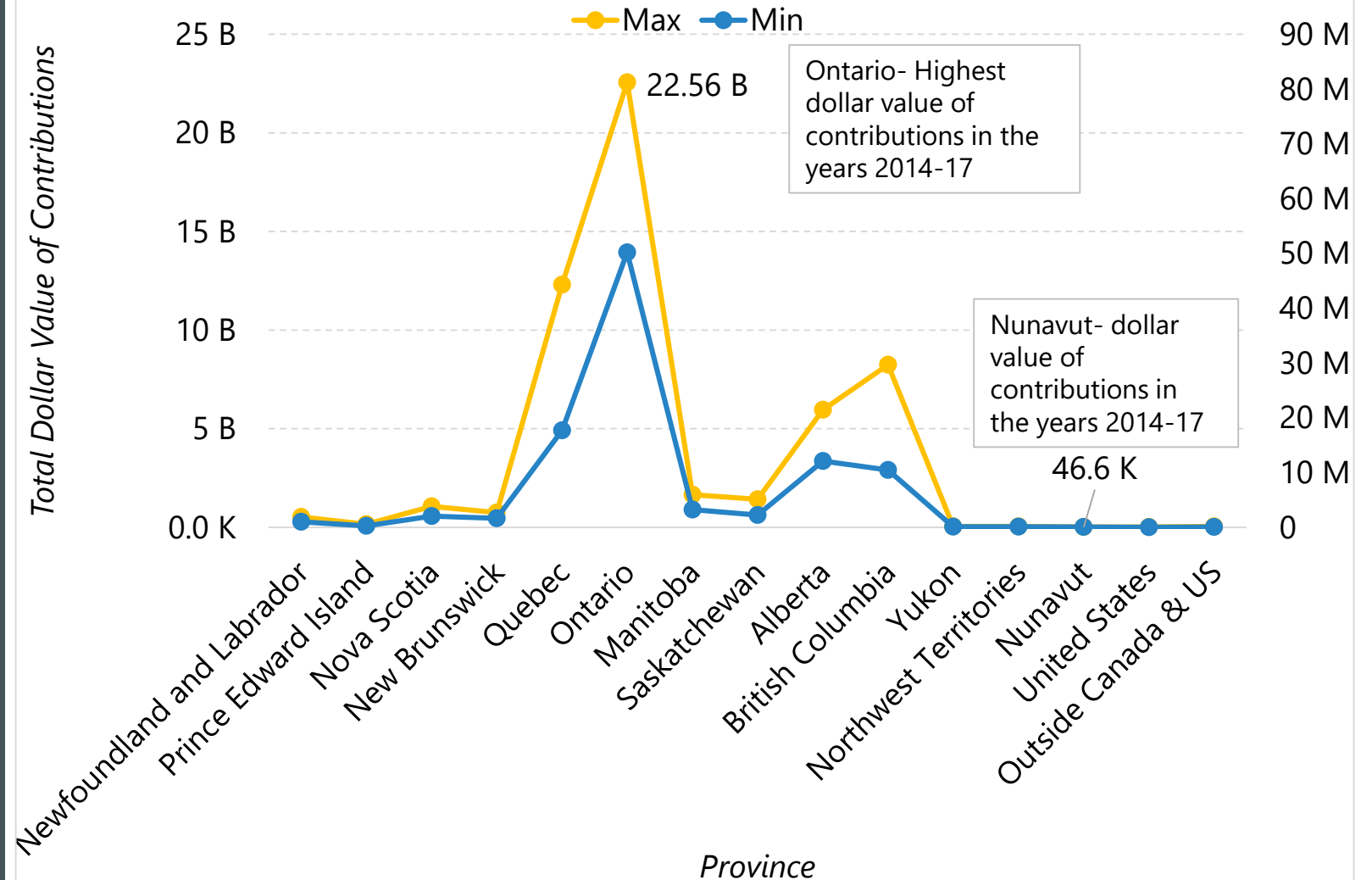


WHICH PROVINCES HAD THE MAX & MIN VALUE OF CONTRIBUTIONS OVER THE YEARS 2014-17?

Ontario had the dollar value of contributions of 22.56 B in 2017 whereas Nunavut had the lowest of 46.6 K in 2015

However, the Withdrawals for Nunavut were 6.9 Million in 2014 (Previous Slide)

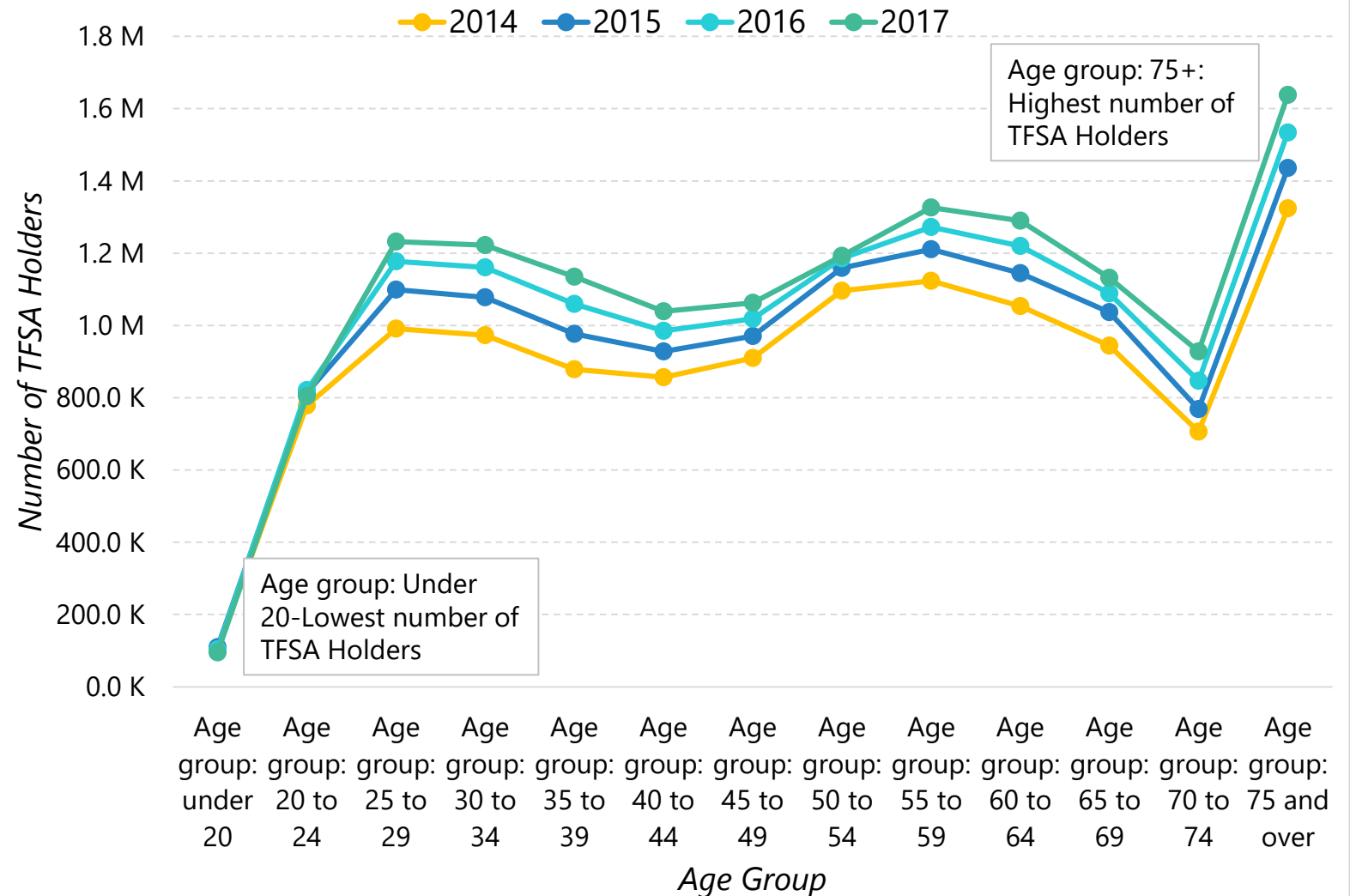
Max and Min Total dollar value of contributions from 2014-17 (2016 Edition to 2019 Edition)



WHICH AGE GROUP HAS MAX & MIN NO. OF TFSA HOLDERS OVER THE YEARS 2014-17?

Age group: Under 20 has Lowest number of TFSA Holders whereas Age group: 75+ has Highest number of TFSA Holders consistently over the years 2014-17

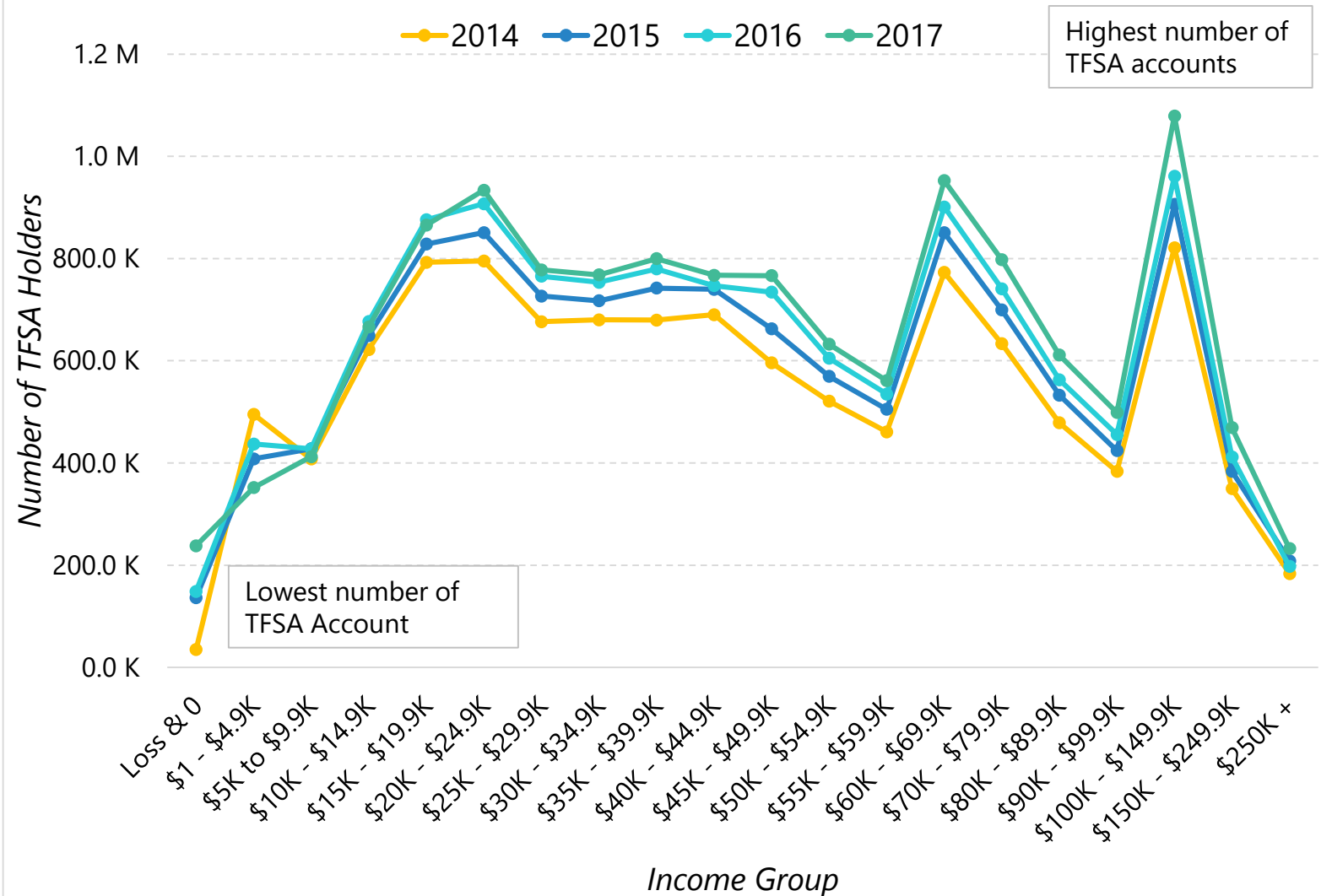
**Age wise Total number of TFSA holders from 2014 – 17
(2016 Edition to 2019 Edition)**



WHICH INCOME GROUP HAS MAX & MIN NO. OF TFSA HOLDERS OVER THE YEARS 2014-17?

Highest number of TFSA accounts are held by people in income group \$100K - \$149.9K whereas lowest number are held by those in loss or with zero income

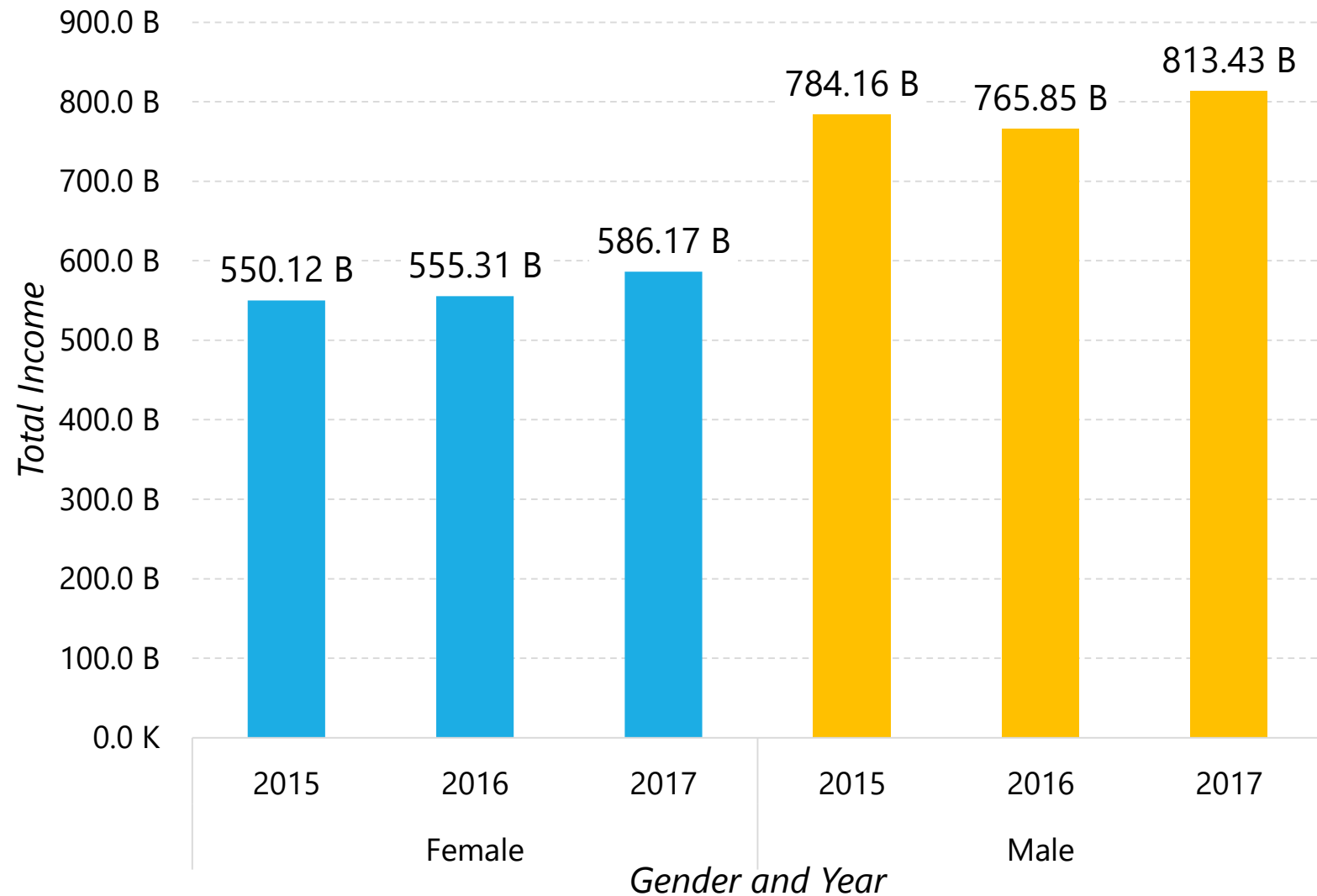
Total number of TFSA holders by income group from 2014-17
(2016 Edition to 2019 Edition)



IS THERE ANY DIFFERENCE BETWEEN TOTAL INCOME OF MALES & FEMALES OVER YEARS 2015-17?

The Total Female income has been 71.6% of Total Male income on an average over the years 2015-16-17

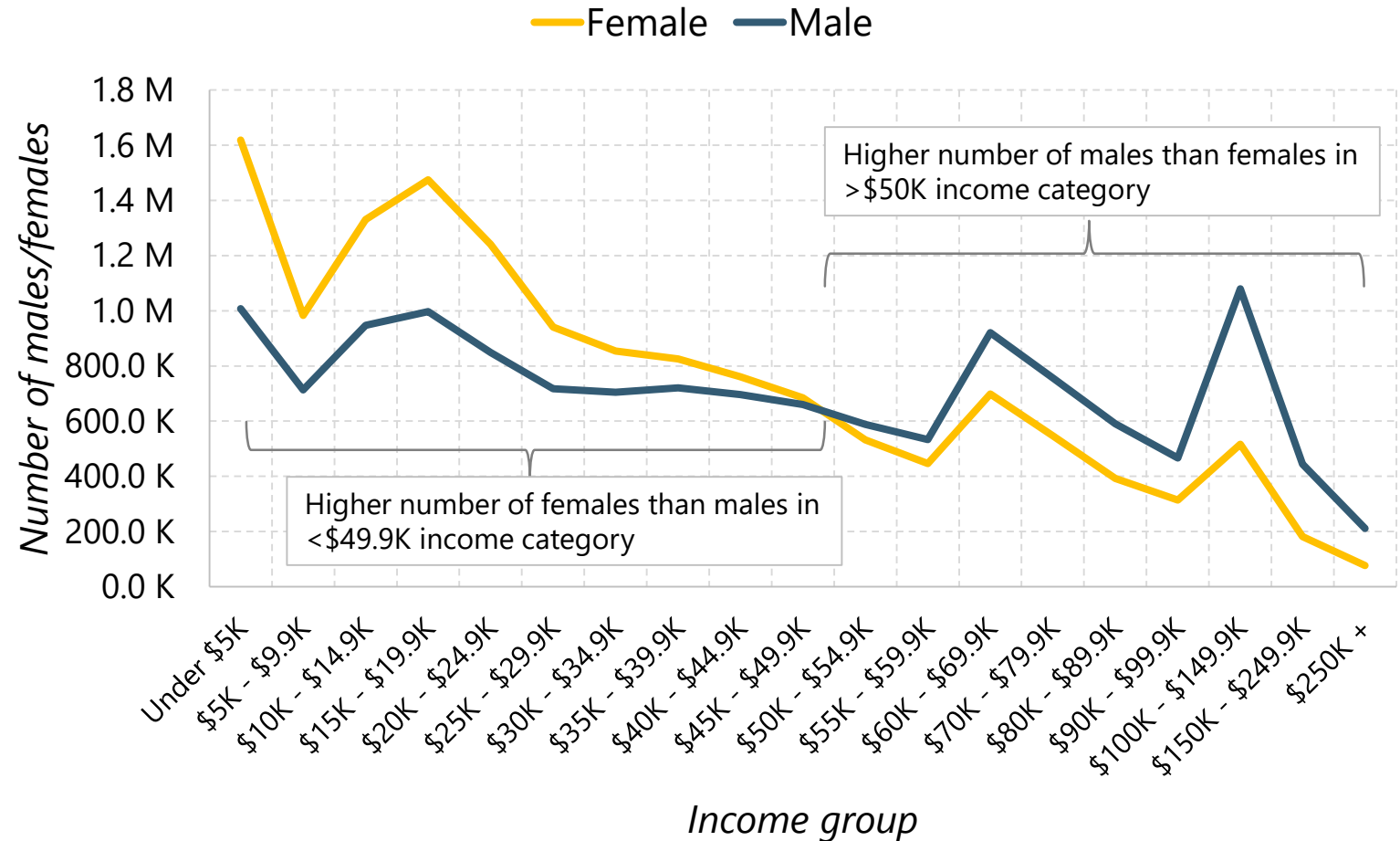
Gender-wise Total Income over the years 2015-17 (2017 Edition to 2019 Edition)



IS THERE ANY DIFFERENCE BETWEEN THE DISTRIBUTION OF INCOME AMONG MALES AND FEMALES?

There are Higher number of females than males in <\$49.9K income category whereas there are Higher number of males than females in >\$50K income category

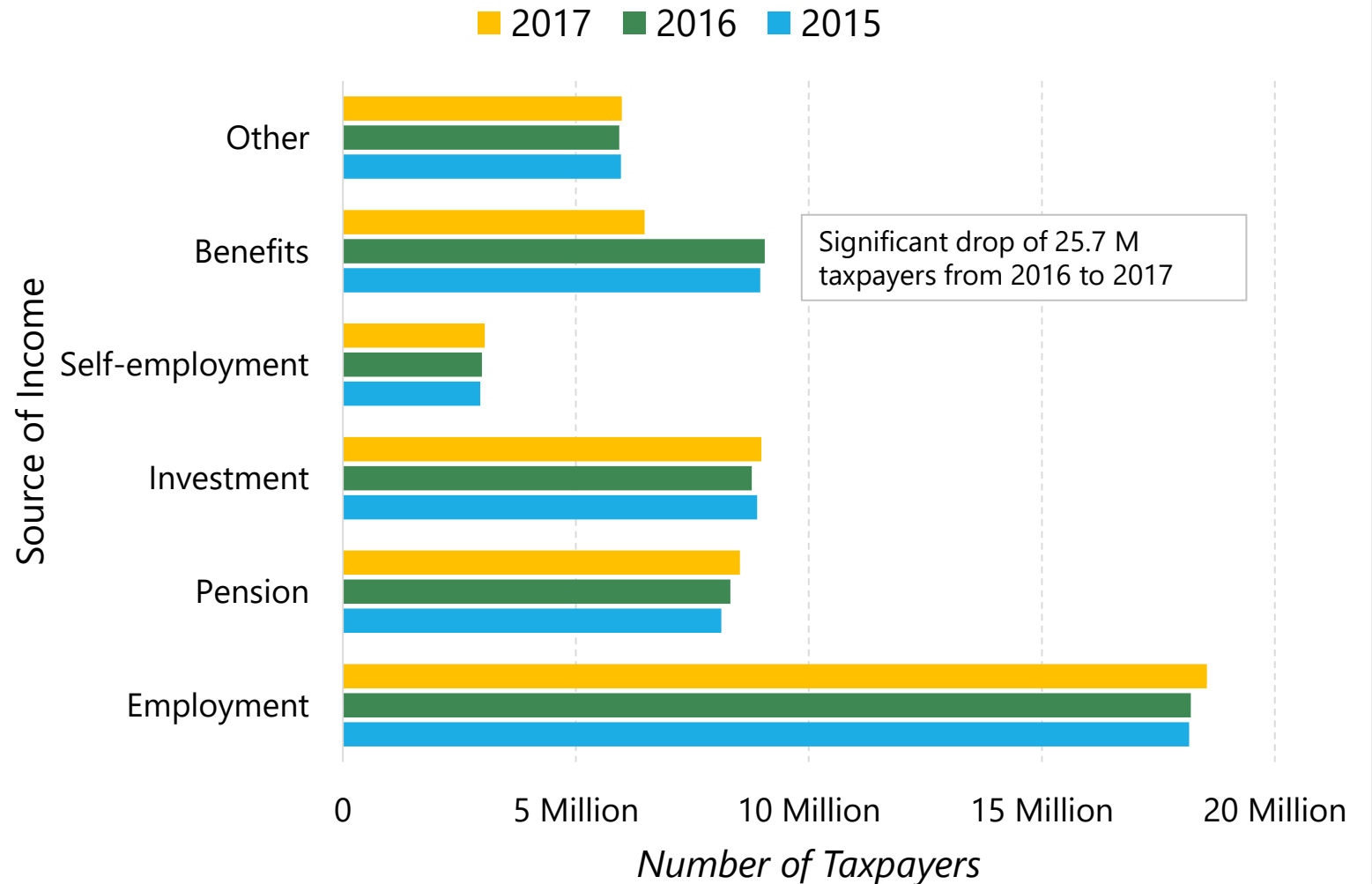
Income category-wise distribution of taxpayers for males and females (Average for years 2015-17) (2017 Edition to 2019 Edition)



IS THERE ANY SIGNIFICANT CHANGE IN NO. OF TAXPAYERS BY SOURCE OF INCOME OVER YEARS 2015-17?

The number of taxpayers by income source remains fairly constant through the year 2015-16-17 except for "Benefits" which has a significant drop of 25.7 M taxpayers from 2016 to 2017

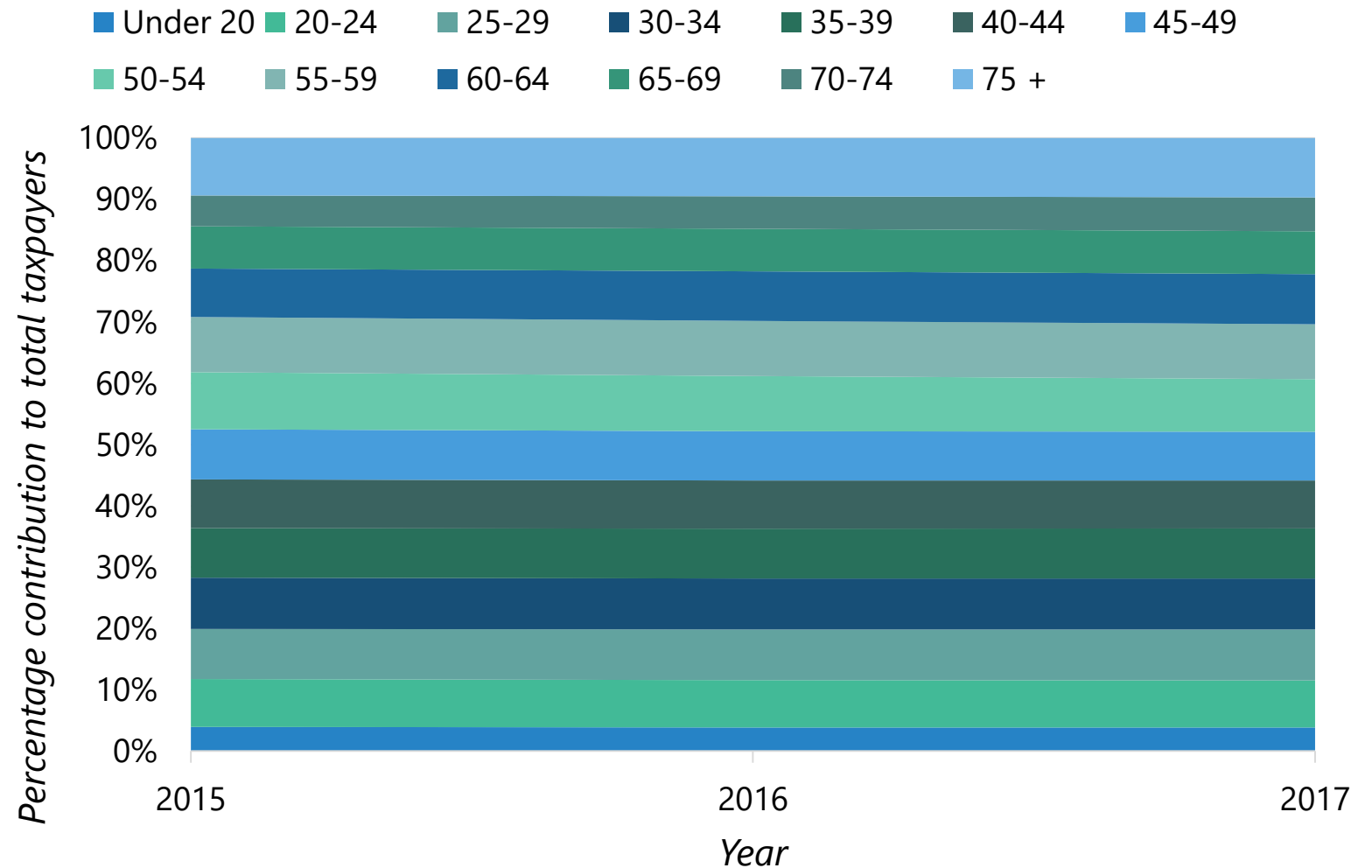
Number of Taxpayers by source of income over the years 2015-17 (2017 Edition to 2019 Edition)



IS THERE ANY SIGNIFICANT CHANGE IN NO. OF TAXPAYERS BY AGE GROUP OVER YEARS 2015-17?

The number of taxpayers by income source remains fairly constant through the year 2015-16-17 except for "Benefits" which has a significant drop of 25.7 M taxpayers from 2016 to 2017

Age-wise distribution of taxpayers over the years 2015-17 (2017 Edition to 2019 Edition)



CONCLUSION

- PEST Analysis can be very effective in defining scope of the project for understanding tax regulations in various Provinces & Territories and CRA's **Mission** to ensure compliance of tax, benefits, and related programs on behalf of governments across Canada, thereby contributing to the ongoing economic and social well-being of Canadians. .
- It can be used as a basis for analyzing taxes in accordance with external factors of a project, and making an executive decision, or an organizational strategy so that CRA's **Vision** of putting its people first by trusted, fair, and helpful means can be met.
- Meaningful insights with Descriptive Statistics & Visualizations can fulfill CRA's **Promise** of contribution to the well-being of Canadians and the efficiency of government by delivering world-class tax and benefit administration that is responsive, effective, and trusted.
- PEST tool can prepare us in advance from next Pandemic!



THANK YOU!