

TRENDS OF INTERNATIONAL STUDENTS IN CANADA (2015 - 2023)

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Kaggle: <https://www.kaggle.com/code/chinecheremeneh/international-student-in-canada>

GitHub Repository: <https://github.com/Samara1122/TRENDS-OF-INTERNATIONAL-STUDENTS-IN-CANADA-2015---2023->

Introduction

Canada is known for its world class educational system and international students from all over the world makes its culture more diversify and interesting. This report analyzes the trends of international students in Canada over the period of 2015 to 2023 to explore student's growth utilizing a data set from Kaggle. We see how many students come to Canada each year and how these impacts on mutual benefits of international students and Canadian society.

Findings

Fig 1. shows a trend of total number of international students over recent years in Canada. Each point shows total number of students from all countries during that year making clear progression of trend. Consistent growth of students over time can be seen but a sudden drop is in only 2020 which might be due to the restrictions and policies of COVID, and lines bounces back again after it.

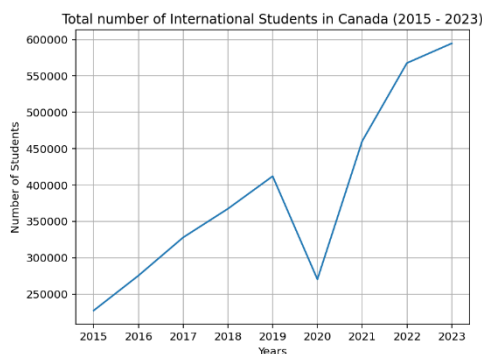


Fig 1. Total Number of International Students from All Countries in Canada from 2015-2023

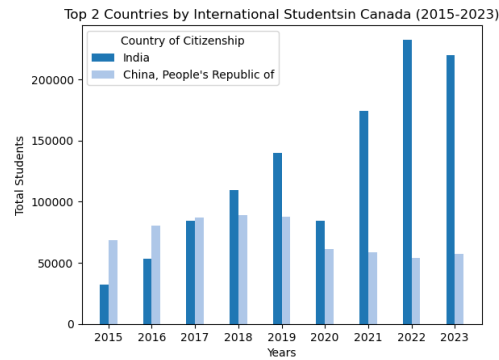


Fig 2. Total Number of International Students from Top 2 Countries (2015-2023)

Fig 2. illustrates the number of international students in Canada from top 2 countries which are India and China. Both countries show growth over the time and specifically India shows a rapid growth from 2018 onwards. Comparison between both countries shows the dynamical evolution of students in recent years as India became the top country in Asia surpassing the China behind sourcing international students.

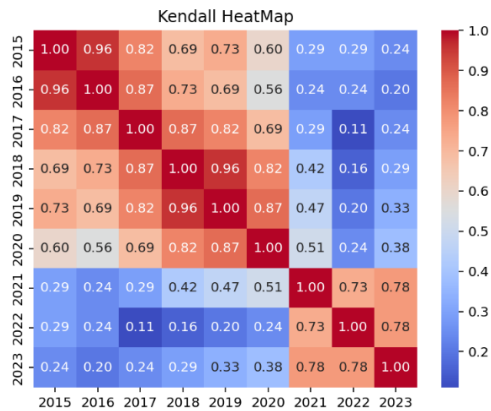


Fig 3. Kendall Tau Heatmap Analysis

Fig 3. represents Kendall Tau heatmap correlation of top 10 countries. The years 2015 to 2020 shows relatively strong positive correlation but from 2021 to 2023 it starts diverging and showing weaker correlation indicating shifting in trends.

Throughout the period from 2015 to 2023 mean of students is increasing consistently from 1047 in 2015 to 2740 in 2023.

The constant increase in dispersion can also be seen by standard deviation which is 5362 in 2015 and 15791 in 2023.

Minimum and maximum values are also observed. For instance, in 2023 min=0 which means there is no student from some countries and max= 68350 as other countries have students up to 68350 making this distribution of students in Canada heterogeneous.

Skewness values moves from 10.27 in 2015 to 12.34 in 2023 indicating a positive skewness during 2015-2017 and showing that all major values lie below the mean and tail is extended towards right side. On the other hand, kurtosis shows higher values ranging from 118.25 in 2015 to 164.54 in 2023. As all values are greater than 3, our data is leptokurtic which means sharp peak and wide tails.

Conclusions

- Canada has shown constant growth in the enrollment of international students regardless of the global pandemic COVID-19
- Recent years depicts significant shift in geographical trends as India surpasses China.
- Strong correlation diverges from 2021 showing change in demographics of students. Though total number and some countries are still showing growth, but overall top 10 countries have changed preferences as well.
- The growth in statistical measurements can also be seen