Stat-o-freaks

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                Liveability is the sum of the factors that add up to a community’s quality of life. We considered health care, infrastructure, stability, education, culture and the environment as the major factors in our analysis. Livability can be interpreted as ‘to be able to live’. To these ends, the first analysis we did was to answer the following question – Does Toronto offer to its population good healthcare infrastructure, and has the health care situation gotten better over the years? Firstly, with the strong programming Python is, we filtered a dataset to track the pattern of number of cases of numerous diseases over the years 2008-2018. We plotted a line chart of the number of cases of the diseases over the years and found the graphs to be steadily declining. Anecdotally and from the word of the media, we are aware that Toronto’s healthcare system is amongst the top in the world. We plotted bar plots and pie charts to compare Toronto’s healthcare infrastructure -based on factors like doctors per 1 lac residents, case fatality ratio, etc- to other provinces and found that it is better than most of the provinces.

Further, we went on to investigate how the population density and transportation facility of Toronto fares up against other major cities of the world. We plotted a bar plot of the population densities of the major cities of the world and It was found that neither is Toronto too overcrowded like cities like Mumbai, Tokyo, Delhi, etc and not too secluded like cities like Ottawa, Melbourne, etc. Using scatterplots and bar plots we also plotted the per capita transport expenditure of the various provinces of Ontario, and found that transportation in Toronto is more affordable than any other place in Ontario.

  We decided to investigate the stability in Toronto. Stability is the level of crime, war and unrest in the area. We looked into several data related to crime and created a plot to show the unemployment rate and number of crime cases side by side. Before 2020, the number of crimes increased while the unemployment rate decreased. Further, Toronto has a low homicide rate compared to the five big cities in North America. For instance, the homicide rate in Toronto is only 11% of the homicide rate in Chicago. We also look at victims of different types of crimes. Our analysis shows that males and females fall victim to different types of crimes, and it is important for the government to put effort on helping the vulnerable people to prevent crimes.

In addition to the livability index for the majorities, we also considered the minorities, starting from the homeless. We highlighted the regions in the datasets that are downloaded from Toronto Open data portal using Tableau. Although the regions near the coastline and the east areas have the greatest number of beds and rooms, they also have a considerable number of unavailable beds and rooms, resulting in the average occupancy rate per shelter being near 100%. Therefore, more shelters with available beds for those places are needed. We further investigated the educational institutions in Tableau by tree maps. Most of the institutions are open to all, and apart from those, youth and young adults receive the most resources. However, the minority ethnicities and women receive the least educational support. Furthermore, although most educational institutions are equipped with wheelchairs, the number of educational institutions that are fully equipped with accessibility devices is even less than that of non-accessible institutions. This indicates that institutions should provide more accessible devices, especially those non-accessible ones.

Through our analysis, we found that livability is a very subjective term. For the majority, Toronto is livable and accessible while for minorities it might be a concrete jungle where they hustle and struggle to survive. There's an increasing need to support the minorities so that Toronto is livable for every one of us.