Data Viz Project on Tableau: Melbourne's Housing Market

José Matías Arévalo
May 10, 2018

Summary

Here is a link of my first Tableau story (draf):

https://public.tableau.com/profile/jos.3888#!/vizhome/MelbourneHousing_AveragePrice_draft/MelbournesHousingMarket?publish=yes

In this story, you can see how we were looking for the right suburb of Melbourne to buy a house in. The medium price of the suburb depends highly on the distance to the CBD. Also, we saw how prices of properties changed a lot between different dwelling types (house, townhouse and unit) and the number of rooms in it.

It's interesting how the difference in the median price, for each type of dwelling decreases when the number of rooms increases (from 2 to 4). In the case of 1 room dwellings, the median price of houses has been much more volatile over time than units with only one room.

It is also interesting to note that suburbs closer to the City Business District (CBD) are not necessarily the ones with the higher median property prices, but rather there is trend of higher median prices seen towards the East side of the map. This makes sense given that there probably are other important variables that are not included in this dataset. For example, access to hospitals, schools and restaurants, among others.

Design

First I chose a scatter plot to see how two quantitative variables were related: "Suburbs' Median Price" and "Distance to the CBD". I also used colors in here to represent a discrete variable: 'Rooms'.

To describe the distributions of prices between different dwelling types I used a boxplot, as the latter is a categorical variable. I picked a line chart to show the evolution of prices over time, as this is the best type of chart to visualise time series. This was also separated by dwelling type, to get a more accurate story. The colors used in here were a spectrum of a orange color. I avoided including a legend by assigning the corresponding colors to the boxplot instead.

Additionally, I created a dashboard where I chose to include a map as it provides a clear overview of the range of pricing with respect to the different suburbs, which is emphasised by the use of a blue color spectrum - also a legend is included to facilitate understanding the shade of blue for each respective postcode.

Within the dashboard I also provide a list of suburbs represented by a descending horizontal bar chart. The values correspond to the suburbs' median price, in the tooltip I also include more information like *distance to the CBD*, *average price* and *property count*. The color I chose was a plain blue as it relates to the price variable seen on the map, and it keeps the dashboards within a 'blue and orange' palette. This way color blind people can understand too.

Feedback

As part of the feedback I got, there were a few adjustments and suggestions, including:

- Too many colors and information in the first slide
- Include more information in the tooltip boxes.
- Explain the acronym 'CBD' at the beginning (City Business District).
- Change the Years filler to *slider*.
- Scale some charts' axes from thousands (K) to millions (M), for faster grasping.
- Add a search box with wildcard to enable the user to find a specific suburb.

The link of the updated story is here:

https://public.tableau.com/profile/jos.3888#!/vizhome/MelbourneHousingMarket/MelbournesHousingMarket?publish=yes

Resources

1. The data set I used for this visualisation project was gathered from Kaggle:

https://www.kaggle.com/anthonypino/melbourne-housing-market

And it was scraped from the Real Estate website Domain.com.au.

2. The first feedback I got was very useful and provided by my friend and ex-workmate Matías Sánchez. Thank you very much, amigo!

3. The second feedback, from a Udacity's team member, was also very helpful as they suggested a few handy tips and tricks that I didn't know you could do with Tableau. So thank you, kind reviewer!