Spatial Analysis of Median Rent

Data Visualization and Design | CUNY Graduate Center | Summer 2019

Goals

- Make good design decisions for making maps
- Utilize different techniques to make a map
- leverage Tableau's pre-loaded datasets to add context to your map

Data

This Tableau workbook that uses this dataset

Dataset - Demographics at Zipcode Original Link

Dataset - Zillow Median Rent at Zipcode Original Link

Neighborhood Tabluation Areas Original Link

Baruch GIS Mapping Resources

Premise

We have a few questions: 2. What areas of NYC have the highest median income? 1. What areas of NYC have the highest rent? 2. Do areas with more people on Public Assistance also have lower rent? 3. what borough has the most housing available? 4. What borough is most expensive? 5. What trends can we see in the median rent?

Make a basic Chloropleth Map with

1. Filter for the 5 boroughs suing Counties to narrow down your map
2. Double click the Counties Geography pill to focus your map.
3. Select Map >> Layers from the Headers
4. Select the Median Income from the Census Layers
5. Change the color

Add Data by Zipcode

Zipcode is not a geographic area, but it does make a good proxy for one.

1. Join zipcodes demographic data to zipcodes rental data

2. Change Jurisdiction to ZipCode. Zipcode will have a geographic role, Jurisdiction will function as a unique identifier
3. Jurisdiction = Region Name

Pivot your data

1. The rental data has dates in the headers. Select all of the columns with dates (2010-02 through 2019-04, use 'Shift'+'Click')
2. Right click and select 'Pivot'
3. Rename your Columns 'Date' and 'Median Rent'

Create a Layered Map

We want to know if areas with a lot of people who receive public assistance also have cheap rent

1. In the Data pane, under Dimensions, double-click ZipCode.
2. On the Marks card, click the Mark Type drop-down and select Map.
3. From the Data pane, under Measures, drag Median Rent to Color on the Marks card. Change it from SUM to MEDIAN
4. On the Columns shelf, control-drag (command-drag on a Mac) the Longitude (generated) field to copy it, and place it to the right of the first Longitude field.
5. On the Marks card, select the top Longitude (generated) tab.
6. From the Data pane, under Dimensions, drag Count Receives Public Assistance to Color on the Marks card. Keep the SUM
7. Change the Color to 'Reversed - since we are looking for areas with low rent where a lot of people receive public assistance, so we want the 'high' Public Assistance to be lighter.
8. On the Columns shelf, right-click the Longitude (generated) field on the right and select Dual Axis.
9. The map views are now overlapping each other. You might not be able to see the map on the bottom layer.
10. On the Marks card, ensure that the bottom Longitude (generated) tab is selected, and then click Color > Edit Colors.
11. In the Edit Colors dialog box that opens, click the Palette drop-down, select Gray, and then click OK.
12. On the Marks card, click Color again.
13. In the Color pop-up dialog box, under Opacity, move the slider to approximately 75%.

To get the Tooltips to display Median Rent. . . 13. Select the top Longitude Card and Drag Median Rent to the Tooltip. Change the calculation to MEDIAN. 14. Also drag it to another Card (i.e., dimension)

Tip: To change which map is on top, rearrange the Longitude (generated) fields on the Columns shelf.