Real Estate Growth Projections by US City

Background

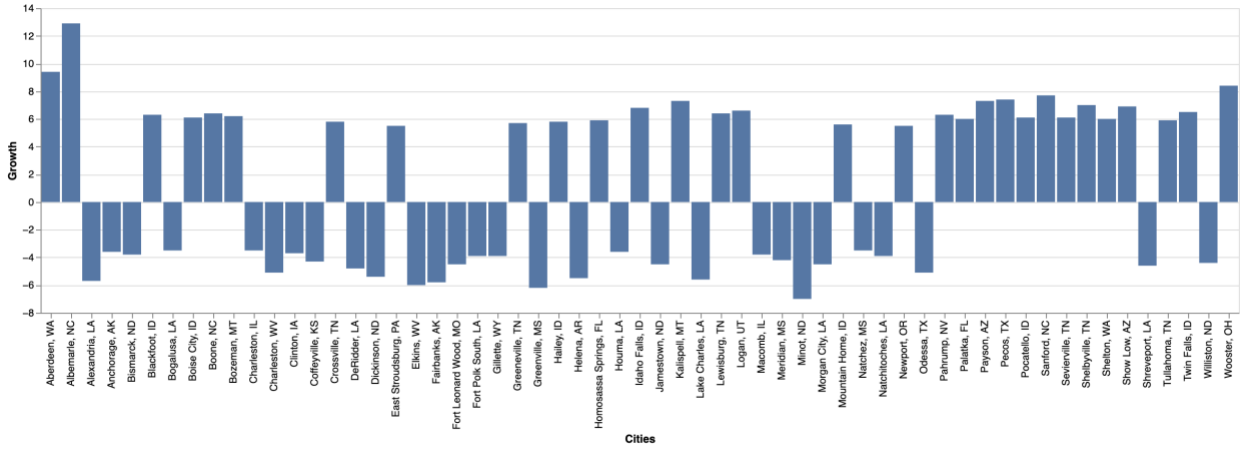
The data I have sourced is housing growth projections from Zillow. Zillow is currently one of the leading housing market analysis companies. The data is segmented by metropolitan and displays growth projections for one month and one year.

The goal when using the data is to try and display, using advanced visualizations, the expansion or contraction of housing markets around the United States. This can be beneficial for real estate investment companies and even single home buyers/sellers. Real estate is a very universal experience for citizens and companies in the United States and thus plays a crucial role in financial decisions.

When combing the data, the first task would be to decide on what visualizations would be best to communicate the growth or decline for each city in the dataset. Depending on the audience there are different things to promote when showing the data. A real estate investment firm may be looking for quick profits as opposed to a first time buy that may be in for slower/foundational growth. As a young person I am leaning towards the first-time buyer market as it is commonplace in my group of peers. This data is extremely timely and useful for most people that will evaluation my visualizations.

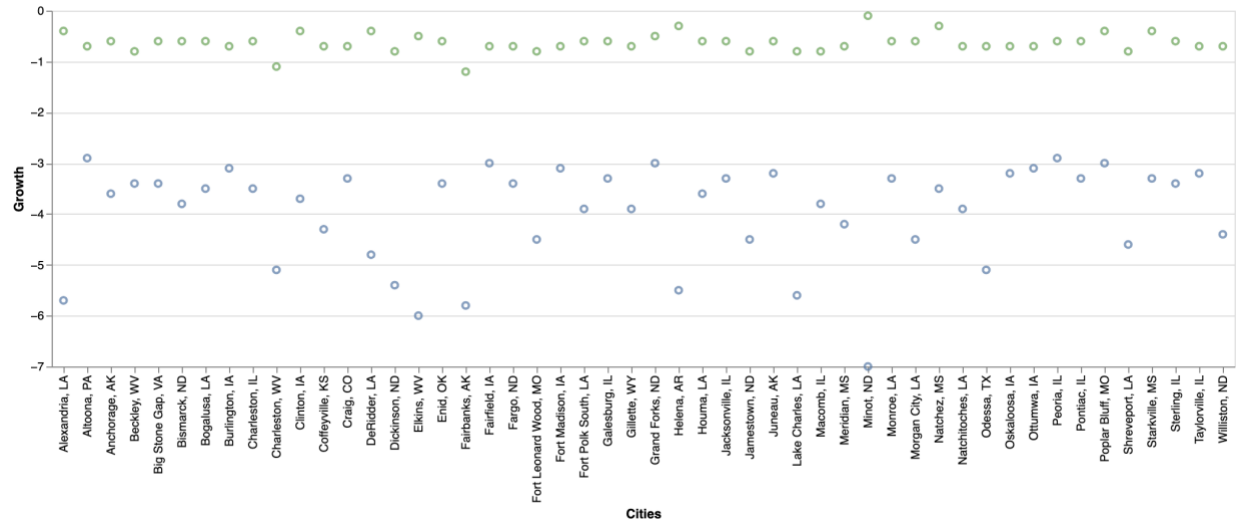
Visualizations

The graph below is a display of estimated Growth as of August 31st, 2023. This subsection of cities includes the largest 30 cities by market expansion and the 30 largest cities by contractions. The idea of the visualization is to show the disparity between the two extremes. The reasoning for this bar chart is to set a general picture for the future of cities in the United States. While the code used to create this graph can show the data for all cities in the data set, the intended viewer of the chart is likely looking for the top, or bottom, performing cities.



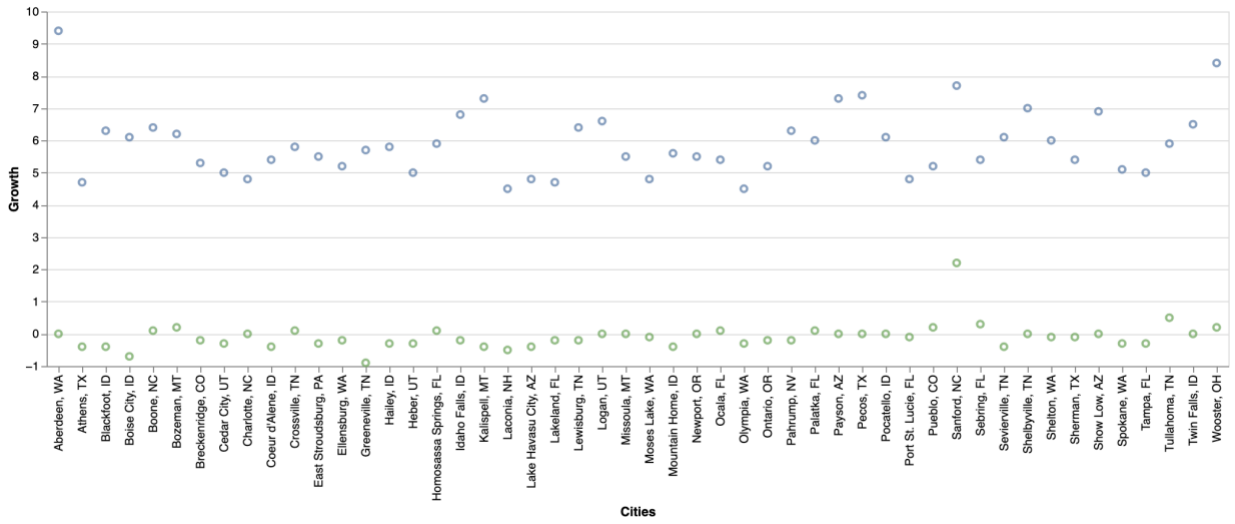
The following graphs give more insight to the projected growth of markets around the country. The first shows the largest decrease in market value over the coming year. The green being the current market movements and the blue being the projected value in a year's time.

These forms of graphs are even more helpful as the dive deeper into the general groundwork shown in the bar chart. In the case of the investment for quick turnaround financial gain, it is important to understand the flow over time. The context may help show the negative projections from the 2023 outlook does not mean large amounts of change over the same period. Investment banking, real estate investment, and land development keenly look at the movement patterns of cities.



This second graph is the opposite end of the one above. Its keys into the cities that show the most gain of the next year. As stated above, the overall change can differ from the top projected cities by growth, because it is exclusively talking about total gain. This is extremely useful for showing cities with likely jumps in value. For instance, the city of Lake Havasu City in Arizona does not appear in the largest markets by growth for 2023, it is one of the largest movers over the course of the year.

The design of the graphs is simple by nature. They are made for consumption and ease of use, while also being effective at showing how housing markets are expected to change in the coming future. There certainly are many more visualizations that can be utilized for the purpose of real estate fluctuations, however for the quick environment that are supposed to be utilizing these, there needs to be fast and comprehensible designs.



Evaluation

The approach for the evaluation came from a small presentation style format using speaking notes, and the above visuals. I chose to run through this presentation with some peers that work in the real estate industry. My peers specifically work in large-scale housing development, investment real estate, and escrow. The approach I took to presenting was that

of a sales pitch. I figured these three industries would be perfect for their keen awareness of market changes and the use of data as a means to capitalize.

The reception to the visualizations were generally very positive. The insights were simple and receptable. Although, many of the insights were somewhat known, as these participants are actively looking at the housing markets on a daily basis. The conclusion to the presentation was that the visualizations were helpful, but that it could be more specific or pliable to the needs of each individual.

The plan from the original idea that I had created differs vastly from the outcome. Originally, I wanted to look into water usages for the state of California, and the projected levels in coming years. However, data for a natural resource is not as accessible and forthright when sourcing. In addition, there are typically not many people that are able to be immediately contacted to show findings for the sake of a visualization assessment.

The use of real estate was not only intriguing and plausible in a wide range of people's lives, but it also allowed me to go to three peers that would be able to finely critique the findings and representation. Although my visuals were useful and well adept for the presentation. The one struggle that could not be resolved in time was a geospatial interactive map. The data was given in the form of zip code and metropolitan, although useful, not easily usable for geolocation overlays in Altair. Had more time, I would have liked to use geocaching to create longitudes and latitudes for each city. Then with that I would have been able to create an interactive map that would give even better insight.