

Analyzing Our Data Set

Multiple Linear Regression

Target: Price

Features: 21 features affecting the Target

OSEMN process

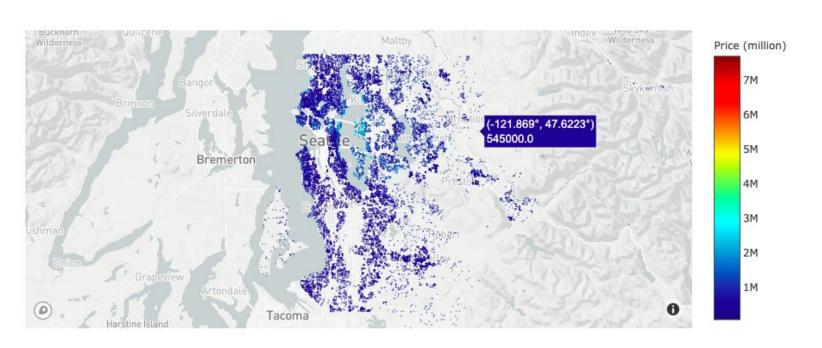
- Obtain
- Scrub
- Model
- Explore
- Interpret

77.2% price predictability

Scope of Data By Location



Home prices in King County, WA



3 Major Indicators of Price - Areas to Focus



Sqft_Living: Total Square Footage of Home



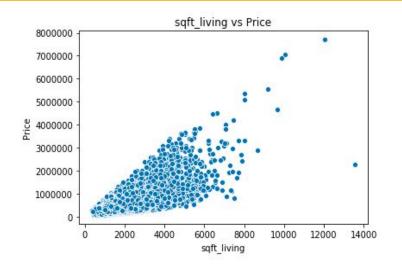
Grade: overall grade given to the housing unit, based on King County grading system



Number of Bathrooms: Total bathrooms in the house

Keep in mind that all features coincide, so the numbers I show are affected by other features outside of price, but they can give you a good look where to focus on renovation.

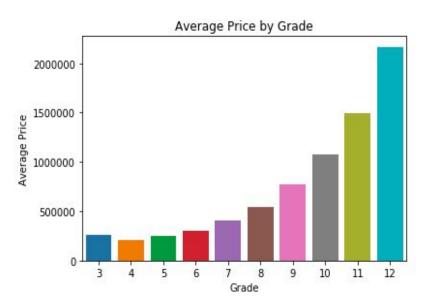
Sqft Living Impact



Cost-benefit analysis. If you renovate and add additional square footage to your home, make sure to keep the cost under the average variance

| Sqft Range | Average Price | Variance |
|-----------------|------------------|----------|
| 0 - 500sqft | 490k | |
| 500 - 1000sqft | 588k | \$98k |
| 1000 -1500sqft | 776k | \$188k |
| 15000 -2000sqft | 1.2m | \$424k |
| 2000 -2500sqft | 1.51m | \$300k |
| 2500 - 3000sqft | 2.14m | \$503k |
| 3000 - 3500sqft | 4.2m | \$2.06m |

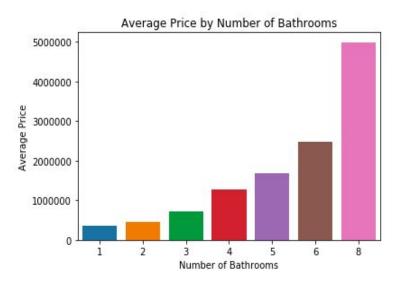
Grade Impact



Cost-benefit analysis. Improving the infrastructure of your home pays long term dividends. Make sure to keep the costs below the variance

| Grade | Average Price of Home | Variance |
|-------|-----------------------|----------|
| 4 | \$212k | |
| 6 | \$302k | \$90k |
| 8 | \$543k | \$241k |
| 10 | \$1.07m | \$527k |
| 12 | \$2.16m | \$1.09m |

Number of Bathrooms Impact



Cost-benefit analysis. Bathrooms make a big difference. Keep prices of additional bathrooms under the variance prices

Sqft Range **Average Price** Variance of Home \$347k \$111k \$458k 3 \$251k \$709k \$561k 4 \$1.27m 5 \$1.67m \$400k

^{**}Dont have enough data to make good assumptions on houses with 6-8 bathrooms.

Where Not To Focus So Much...



Lot Size: Location, Location, Location



Bedrooms: More Bathrooms over Bedrooms



Floors: Focus on the sqft as opposed to the height of the house

Deeper Dive...

1. **Zipcodes:** Investigate these averages by seperating homes into their respective zipcodes.

 Landmarks: Understand which landmarks are around (schools, hospitals, highways etc.). Location to these places will be a factor on price

3. Sqft Above/Size of Rooms: See how much the size of certain bedrooms/bathrooms/kitchens may affect the space. This way we can recommend whether or not to renovate sizes of rooms in your home.

