# Investing in Your Neighborhood

Presented by Joe Webb January 28th, 2019

# What are the best predictors of Home Sale Prices? (Of the properties in the data)

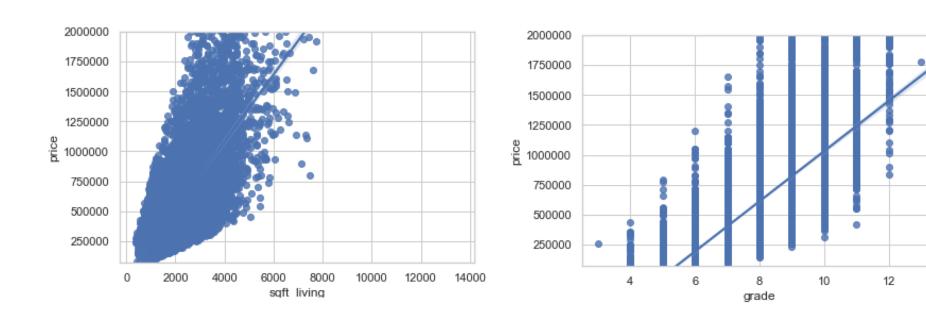
- Date house was sold
- # of Bedrooms/House
- # of Bathrooms/House
- Square footage of the home
- Lot Size
- Floors
- Waterfront
- # of Views (by prospective buyers)
- Condition
- Grade: based on King County grading system

- Square footage above basement
- Basement Size
- Year Built
- Year Renovated
- Zipcode
- House Square footage of the nearest 15 neighbors
- Lot square footage of the nearest 15 neighbors

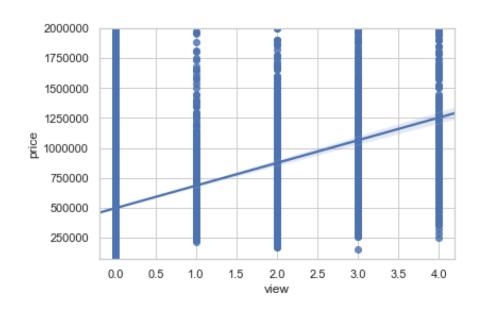
#### 81% Accuracy

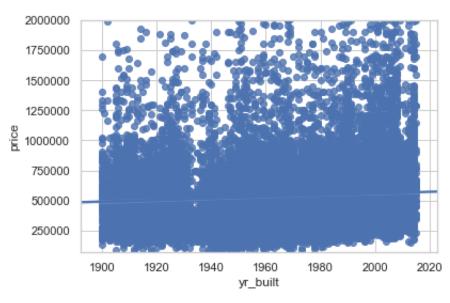
- How is accuracy defined? 81% of Home Sales will be "GOOD" Investments
- 60% of the variation is explained by the model.
- Best predictors: Square Foot Living Space, Grade (Condition), Year Built, & Views
- Assumptions to Invest? We will invest at a level of 80% of the Predicted Sale Price
- model is Not meant to predict houses >\$1,614,000, > 5,900 sq ft, nor Grade > 11

#### **Predictor Visualizations**



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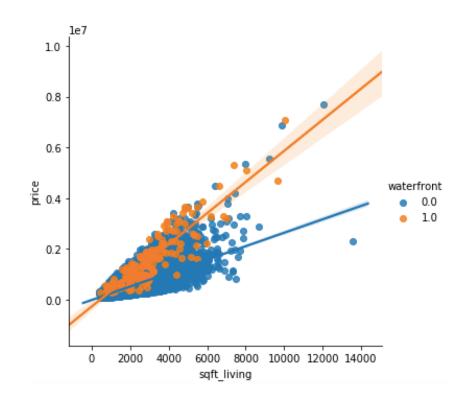




### Model Summary

- Square Foot: Sale Price increases \$108 for each square foot
- Grade (based King County grading system): Price increase \$124,400
  with each increase in Grade number up to 11
- Viewed by Prospect Buyers: adds ~\$44,200 up to 4 viewings.
- The age of the home increases the Sale Price by  $\sim$  \$2,671 per year.

## Question: Waterfront properties v. Not



### model WATERFRONT homes separately

- Waterfront: Having a Waterfront View adds \$370,000 to the Price
- Assumed other predictors are kept constant (relatively)
- Sale Price predicted by Square Foot Living Space only
- Assumptions to Invest? We will invest at a level of 80% of the Predicted Sale Price
- 76% of Home Sales will be "GOOD" Investments

# Question: Year Built has a negative coef in the model...........Here's why?

