# Renovation Elation

How you can sell your service to Kings County

# Business Problem

We want to increase the value of any given home through renovating it.

Where should one put their efforts to maximize the likelihood that a home's price will increase ?

# Data

Over 30,000 homes from Kings County were analyzed

Homes that were sold over the last year

Explanations of terms were provided by info.kingcounty.gov

# Methods

Excluding outliers (homes valued over $2million), we used a statistical model* to discover what qualities best explained sales prices.

Of those, we landed on just a couple of possible recommendations depending on what work is feasible.

*"Ordinary Least Squares Regression" was used

# The Gold Medal Goes to "Grade"

Kings county grades houses on a scale of 1 to 13

6 is the lowest score meeting building code, 7 is average

We had houses spanning the entire range, even excluding outliers

# The Gold Medal Goes to "Grade"

For homes with grades of 4 or greater, every extra point equated to roughly $**200,000** of market value.

For homes adjacent to a green belt, that number becomes $170,000

The model we used explains 49.7% of the variability in the prices of homes, but for "green belt" homes that number jumps to 63.2%

# How much does each variable contribute?
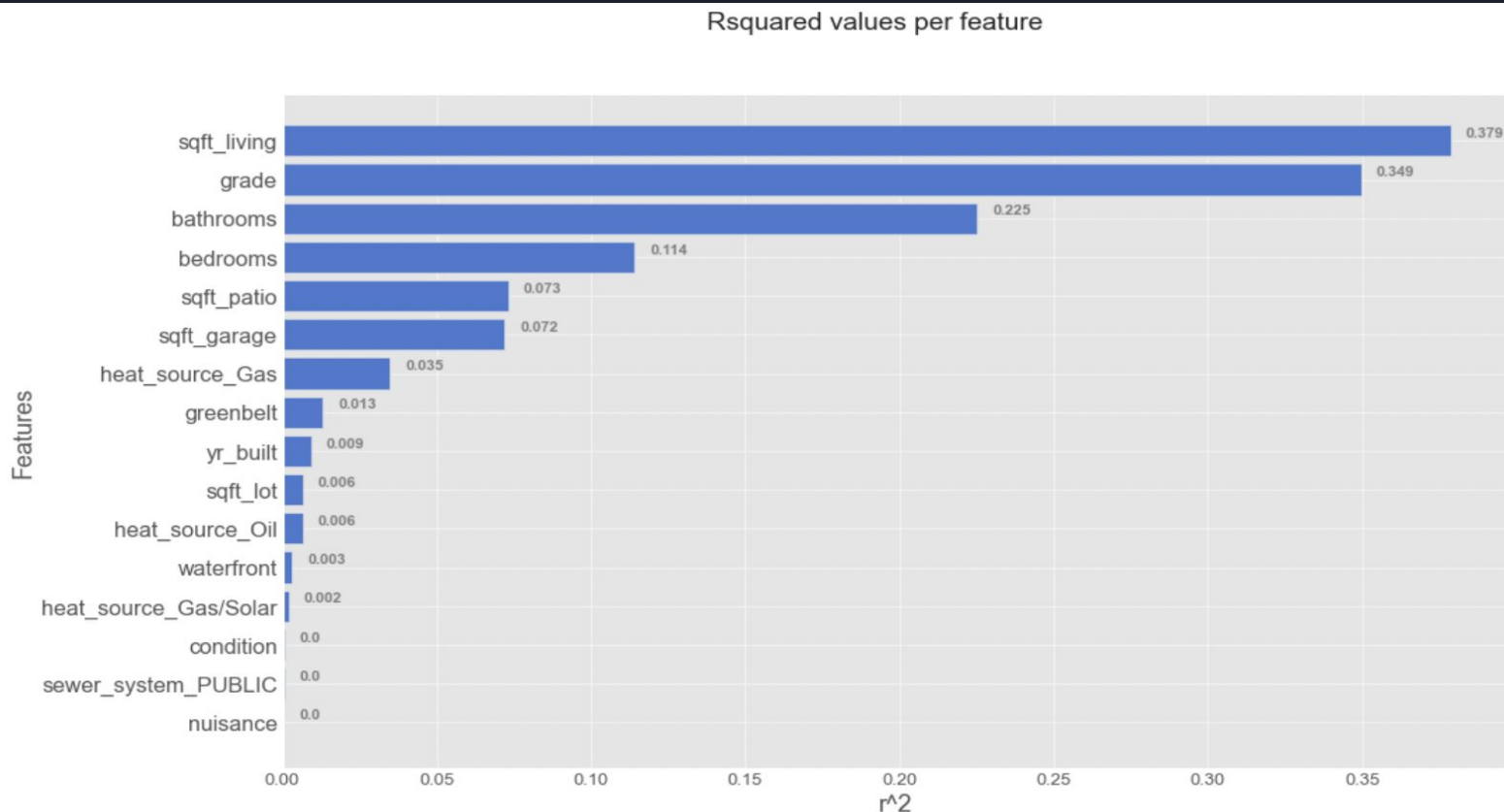
# Notes

The preceding graph is only looking at the relationship between home price and individual variables, so some values are slightly inflated.

Living room size is actually the most predictive of price (seemingly explaining ~38% of price on its own), but it is likely unwieldy. Grade is right behind, with 35%.

# A Silver Medal for Porcelain

Every extra bathroom equates to about **70,000** dollars worth of value.

Further investigation is required to determine the price increase for a half-bath.

# Condition?

Not to be confused with grade, these similar sounding metrics are *not* correlated at all.

Condition example:
"Worn out. Repair and overhaul needed on painted surfaces, roofing, plumbing, heating and numerous functional inadequacies…"

Focus your efforts! Condition was also not correlated with price!

# What Not to Worry About

Several things didn't affect grade's relationship with price, including:

- Age
- Waterfront status
- Sale Price

# Next Steps

Make sure you are educated about what goes into making the "grade".

Find more useful location data.

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