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# PROJECT I – PRESENTATION

# KING COUNTY HOUSE PRICES

RAYMOND WILLEY





## Primary Stakeholder

A company that buys houses in King County with the intent of remodeling and reselling at higher prices.



## Scenario

Given King County home sales data in the last year, identify the most important factors that impact price, and make recommendations on how the firm can maximize its profits.

UNDERSTANDING THE PROBLEM

# METHODOLOGY



FACTORS  
CONSIDERED



DETERMINE  
RELEVANCE



RESULTS



RECOMMENDATIONS



NEXT STEPS

# FACTORS CONSIDERED



## Size

Square Footage

# of Bedrooms / Bathrooms / Floors

Lot Size



## Condition

Age of Home

Condition Rating / KC Grade\*

Renovations



## Location

Zip Code

Coordinates\*

Waterfront View



## Market Trends

Sale Date

Inflationary Pressure

Seasonality

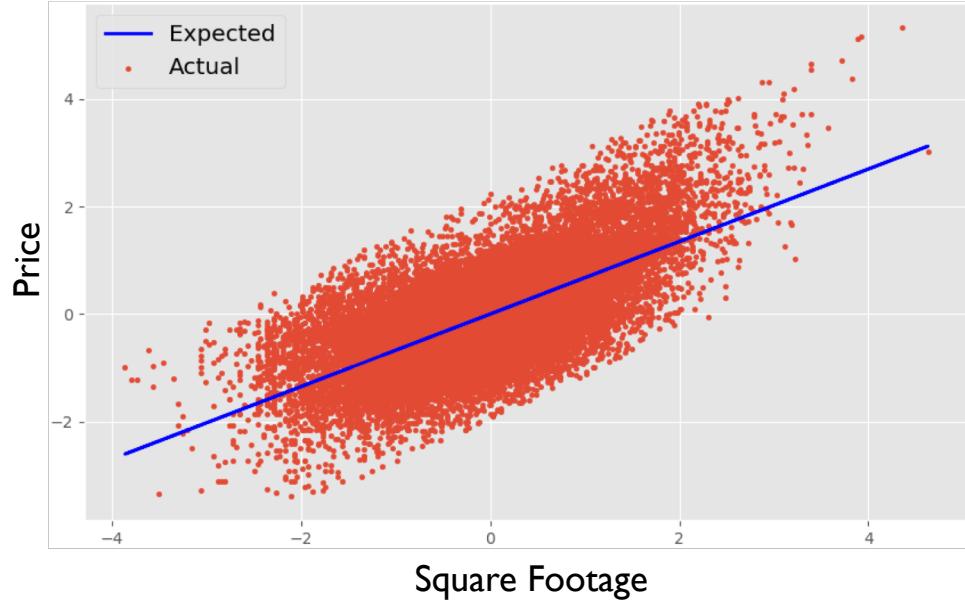
\* Impact on price is ambiguous

Items highlighted in white determined to be statistically significant predictors of price.

# RESULTS

## HOUSE & LOT SIZE

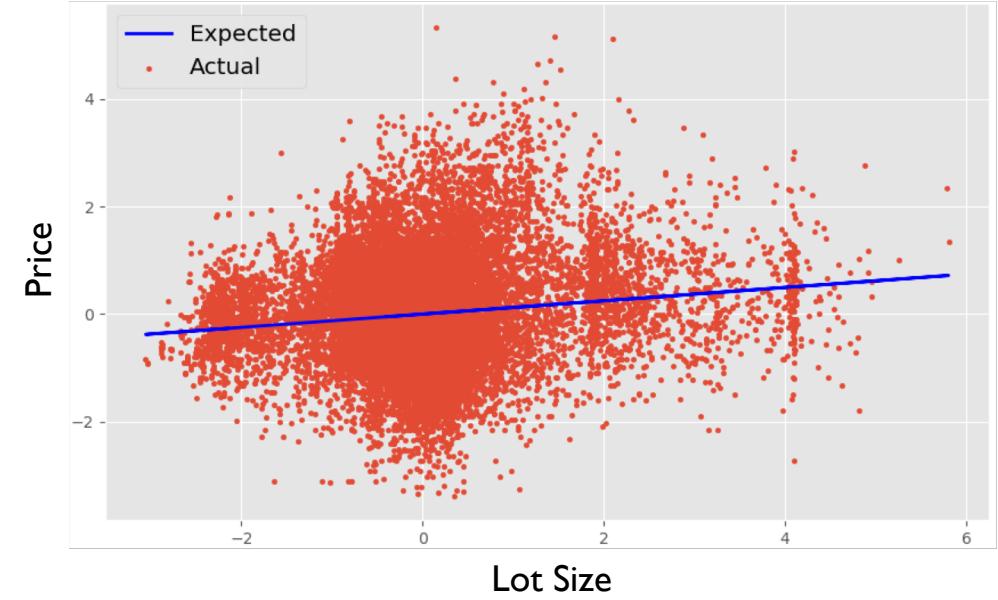
**Square Footage vs Price**



As house size increases, so does the price

- **BIGGER IS BETTER!**
- House size has stronger relationship with price than lot size

**Lot Size vs Price**



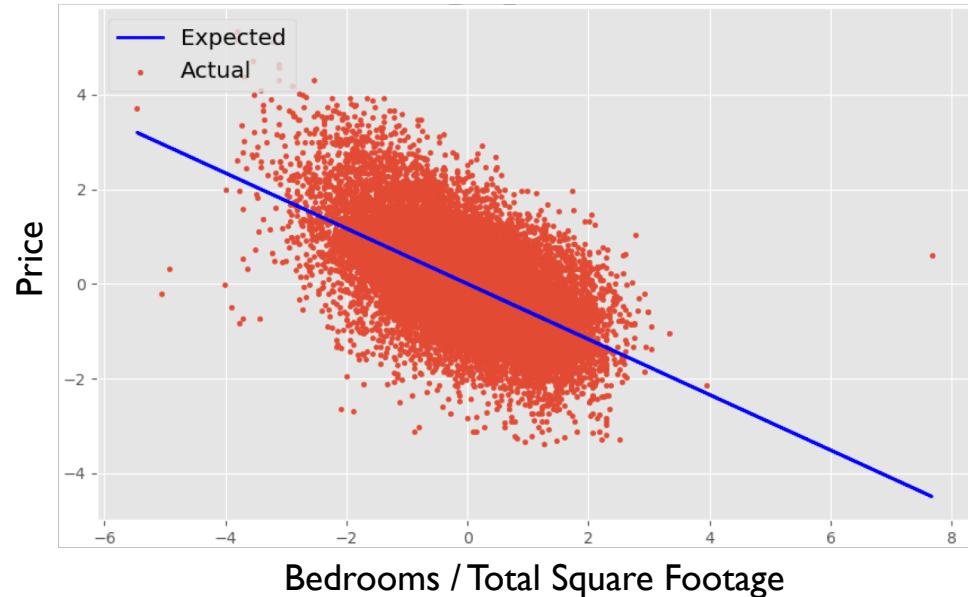
As lot size increases, so does the price

- Buyers want more space
- Relationship with price not as strong as house size

# RESULTS

## HOUSE & LOT SIZE

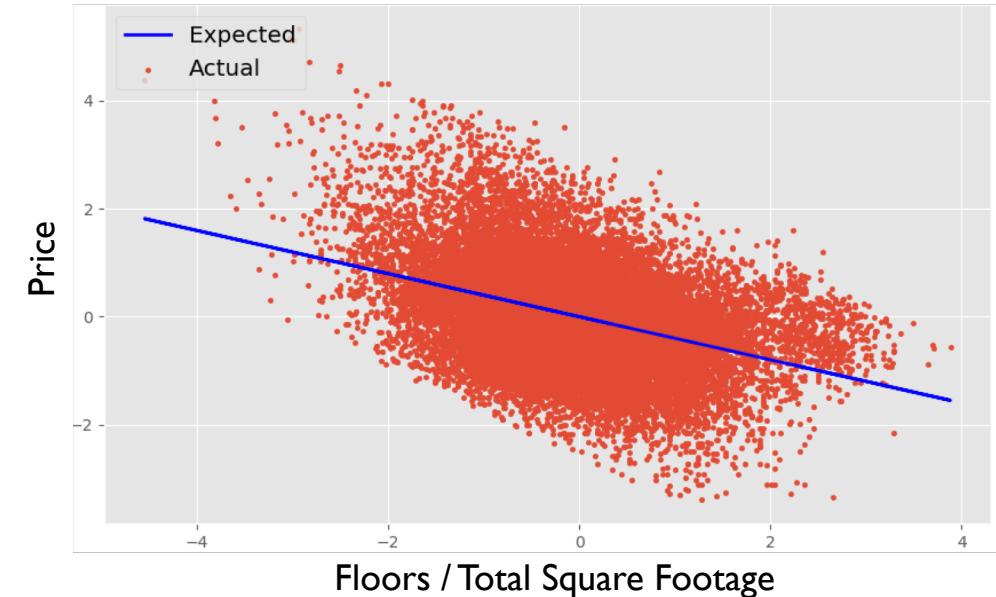
**Impact of Bedrooms on Price**



Be careful about adding bedrooms

- Could actually diminish returns
- Much like the lot size, buyers prefer more space

**Impact of Floors on Price**



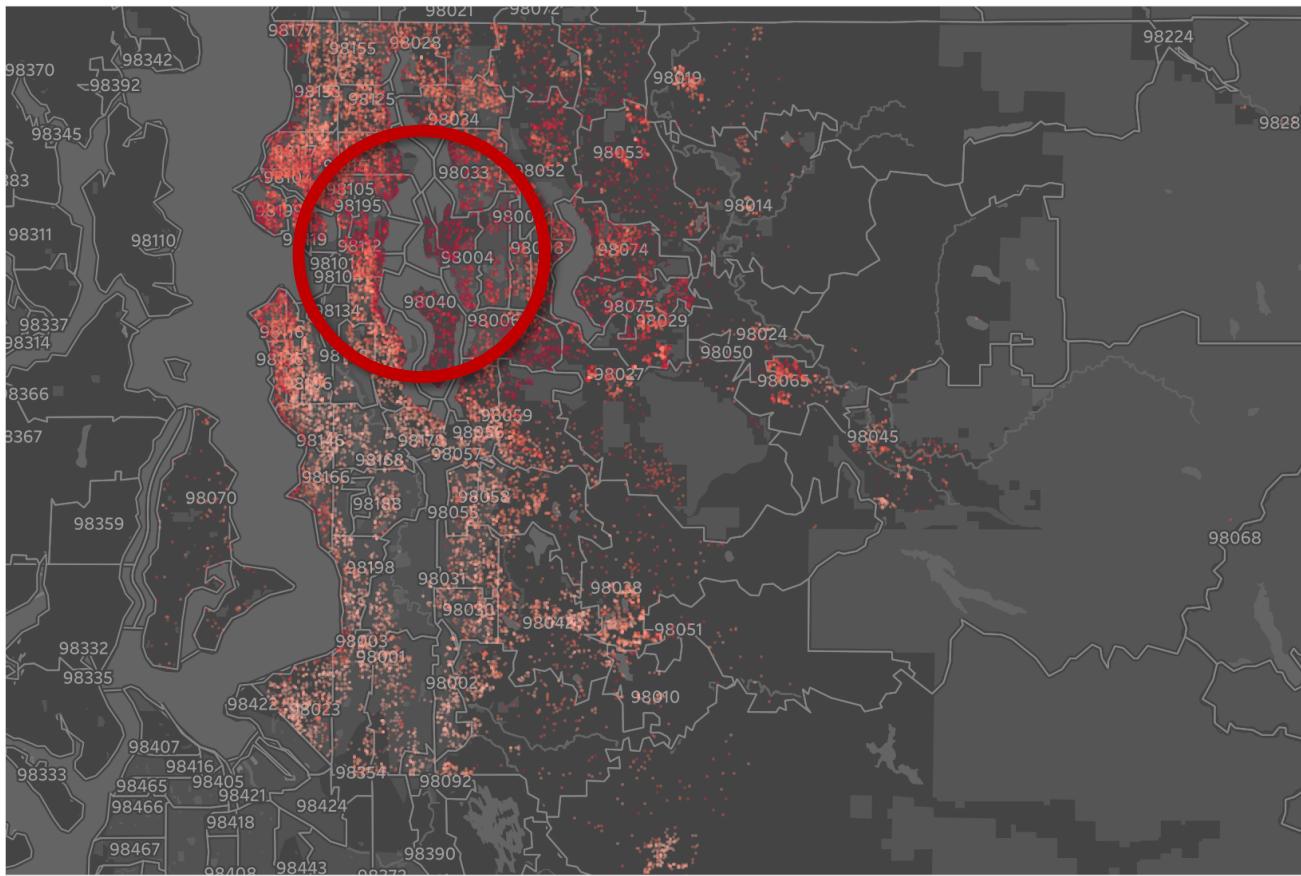
Be careful about adding floors

- Buyers want more lot space and house space...
- ...but they don't like climbing stairs
- Upward building generally preferred; lot size is more important

# RESULTS

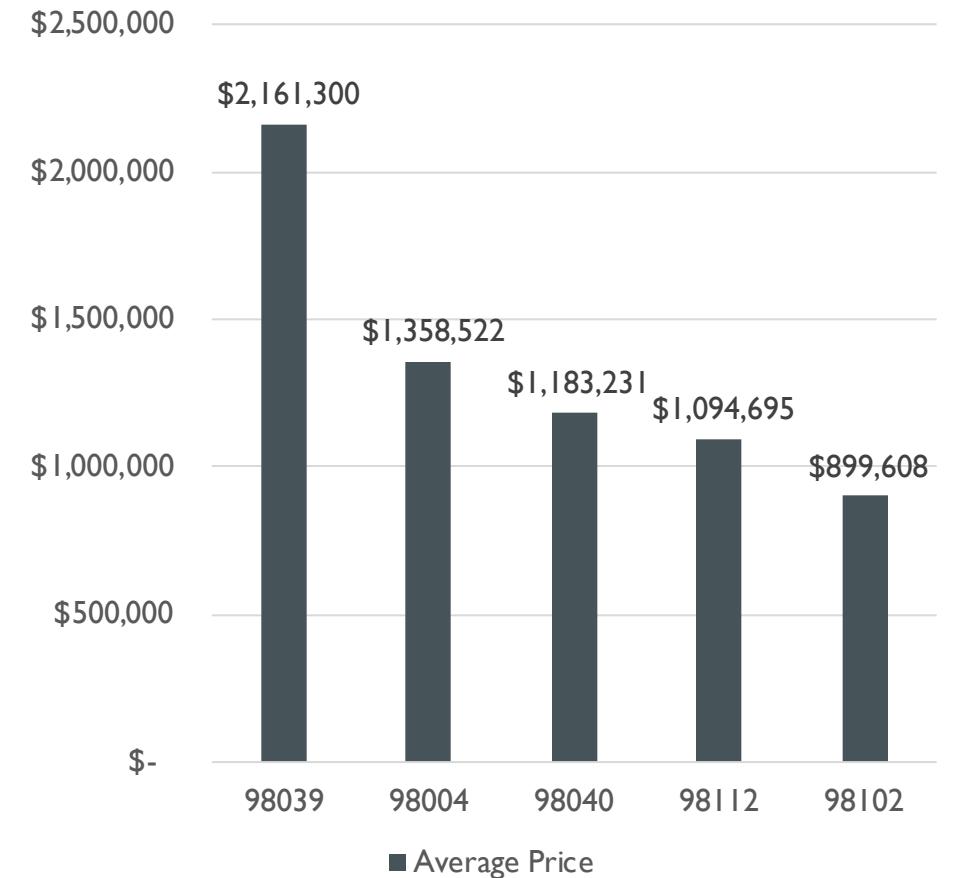
## LOCATION

Home Prices by Coordinates



Map of homes sold in 2014-2015. Darker red colors represent higher selling price.

Top 5 Zip Codes by Average Price



# RECOMMENDATIONS



- Identifying the Best Opportunities
  - Build in north-western section of county, if possible
  - Select large plots of land
  - Ideal home: 1.5 floors without a basement
    - Smaller homes = Higher Return on Investment (ROI)
  - Select homes already renovated (ideally not expanded)
- Remodeling Homes
  - Expand half floors to full floors where possible
  - Add space; don't simply update existing features
  - Do not add bedrooms (unless 10% or less of added space)

## NEXT STEPS



- Analyze Homes Sold at Least Twice in the Year
  - Likely purchased and flipped
  - Check for changes in condition and size
  - Identify the change in sales price
  - Compare results to existing model
- Improve Predictive Strength of Location Data
  - Some zip codes stronger predictors than others
  - Coordinates offer higher level of granularity
  - Attempt to improve precision by using non-linear model for coordinates