



King County Housing

By: Eddie Juarez, Eliot Kmiec, Dermot O'Brien



Our Team



Eddie Juarez, Data Scientist



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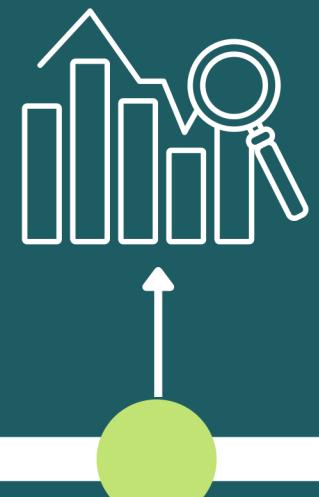
Dermot O'Brien, Data Scientist



Table of Contents



BUSINESS
PROBLEM



DATA AND
METHODS



MODEL
RESULTS



CONCLUSION

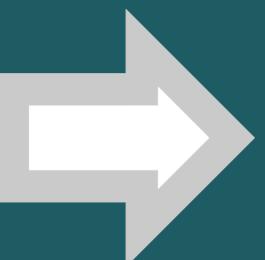


Flatiron Insurance Requirements

FINS looking to enter the west coast market:

"What features of a house most impact its sale price?"

Impactful Features



Home Value



Insurance Rates





Data

Origin

King County Assessors Office

Understanding

- Data between May 2014 - May 2015
- More than 21,000 home sales
- Includes ~ 20 features

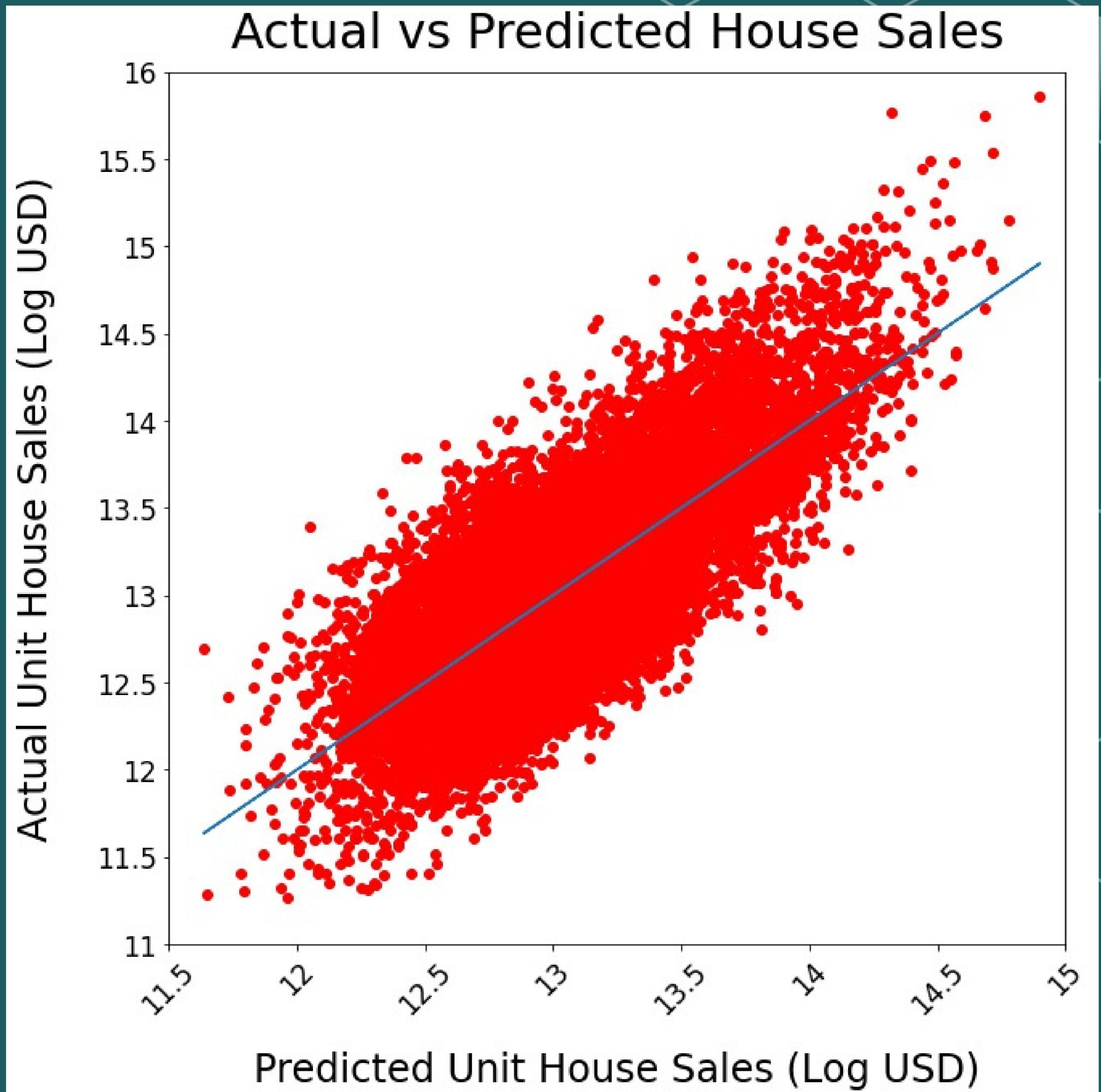
Data Usage

Goal:

- (1) Model home sales
- (2) Find the best features for prediction

Model Performance

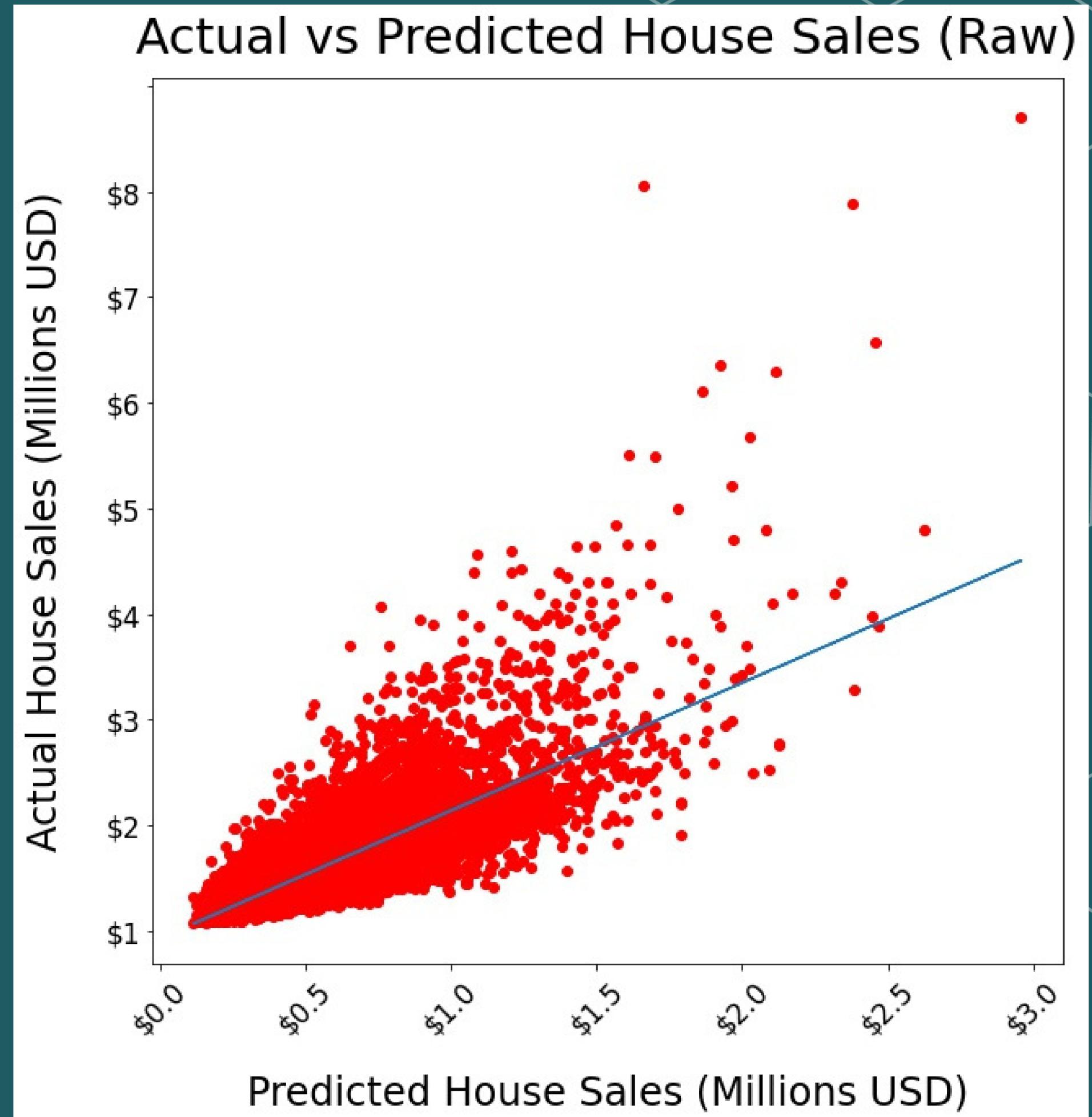
- $R^2 = 0.577$
- Prediction based on 7 unique features
- Prices are proportionate (i.e. home value % increase)



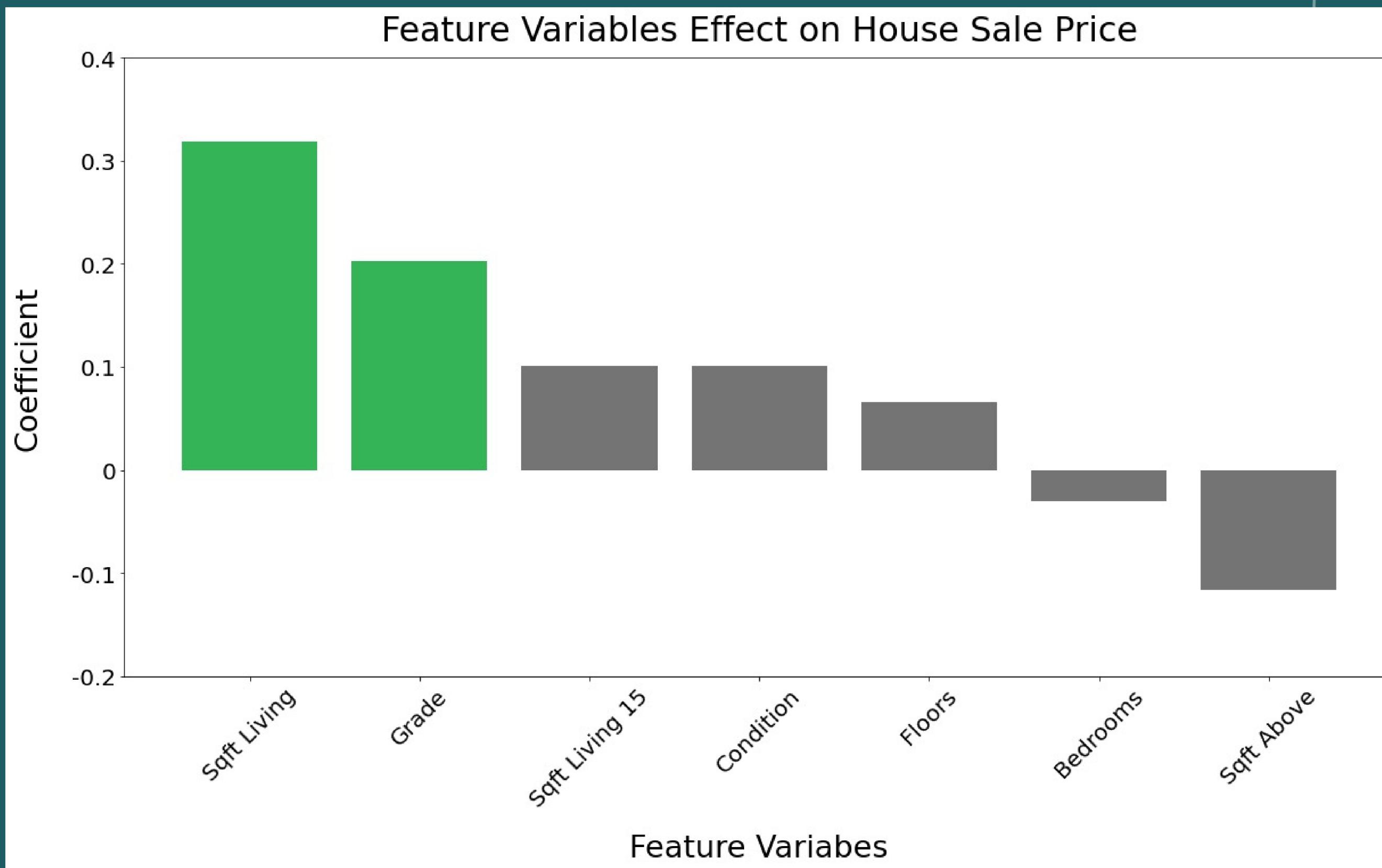
Model Performance

Pre-transformation

- Spread increases with home value
- Model would lose accuracy
- Ours retains accuracy



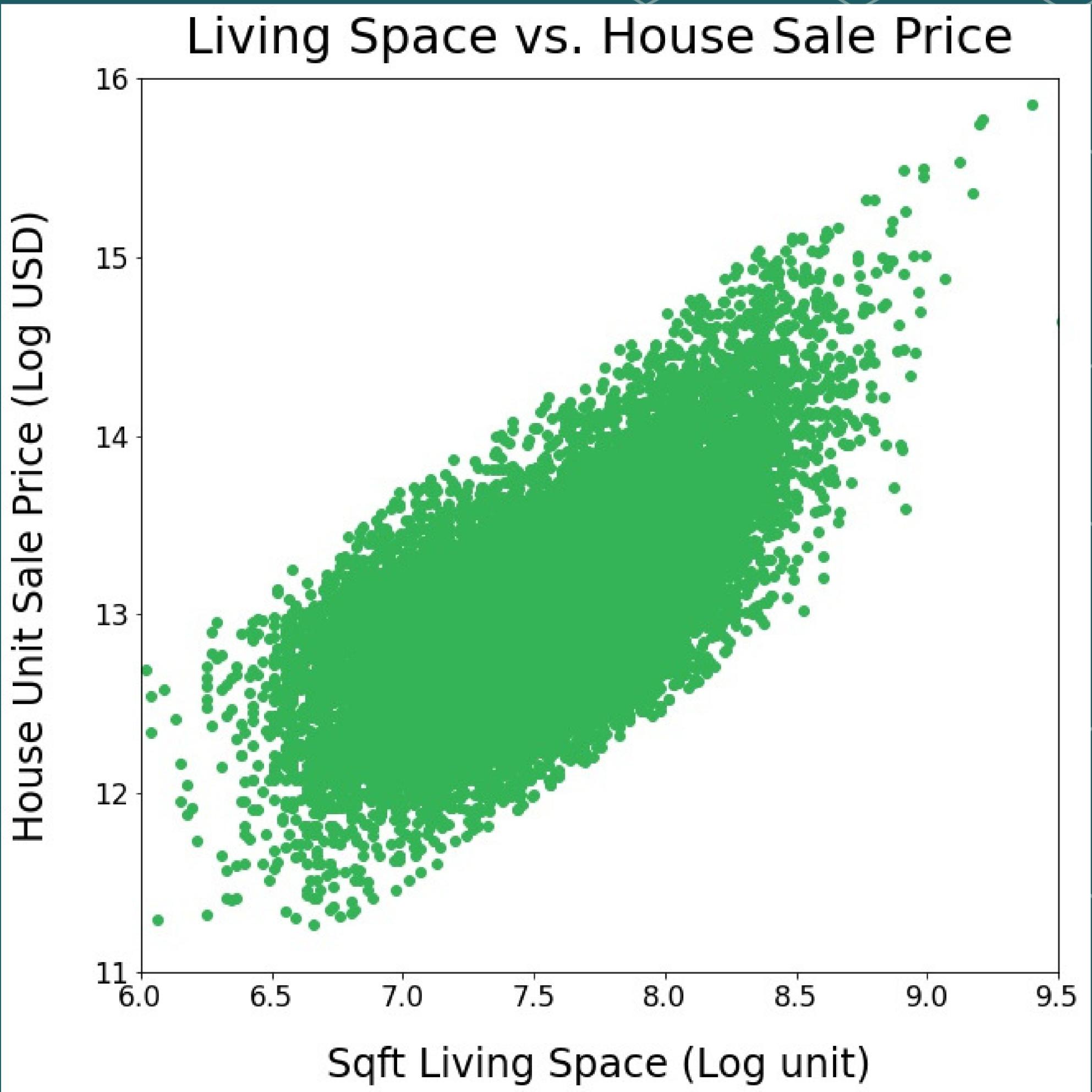
Model Results



Living Space

- Reflects the size of the house
- Strong positive correlation with sale price

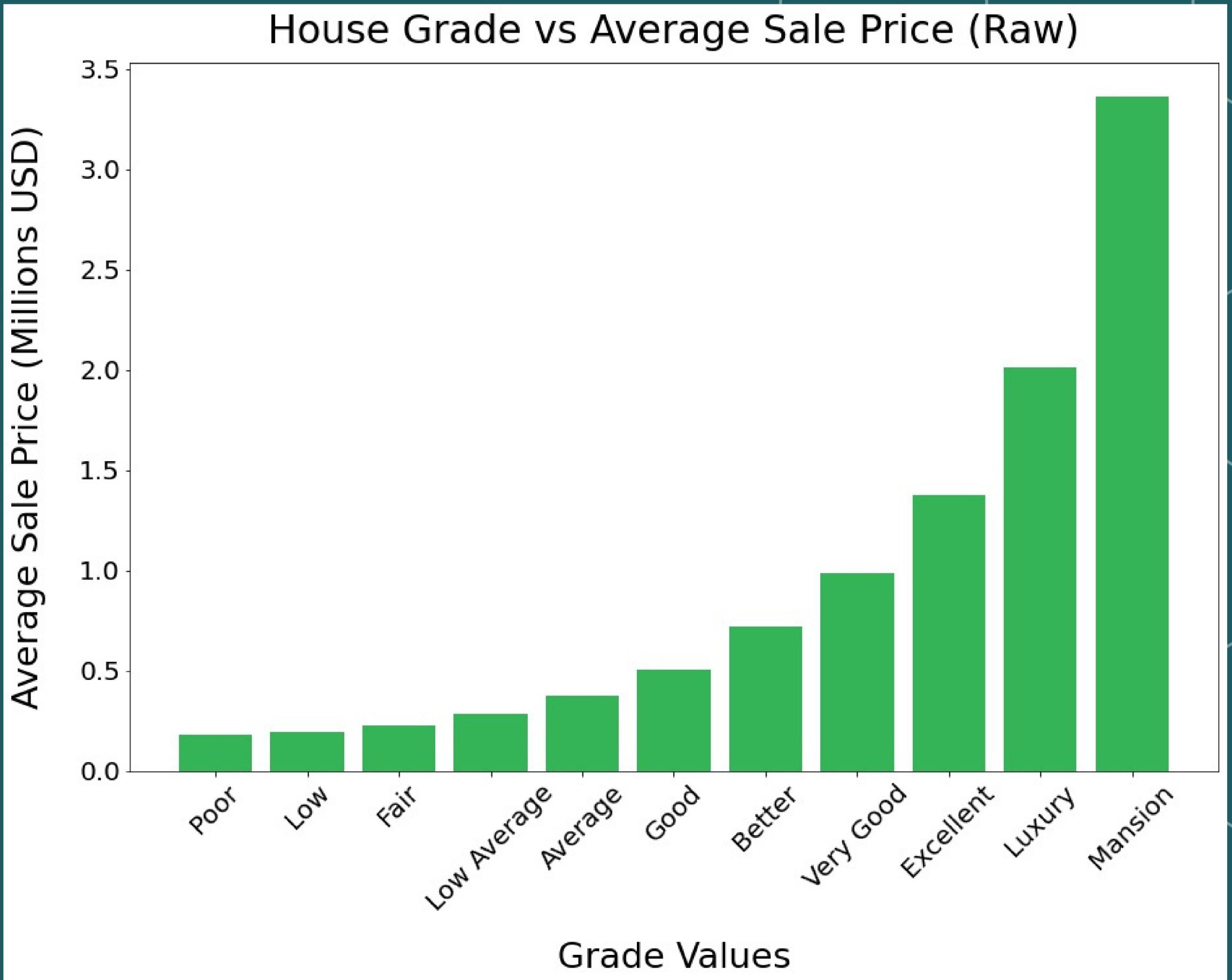
A 1% increase in sqft living space will approx. **increase sale price by 0.3%**



House Grade

- Grade given by Assessor's office
- Strong positive correlation with sale price

A one unit increase in grade will
increase sale price by 22%



Limitations

- Location Information
- King County specific



Further Development

- Inclusion of Location Data: Schools, Employment, Entertainment
- Collect housing data from other service areas

Conclusion

1

Sqft Living Space

2

King County Assessor's Grade

Client Usage

- Improve accuracy of insurance estimates
- More precise estimates = More competitive rates

Contact Us



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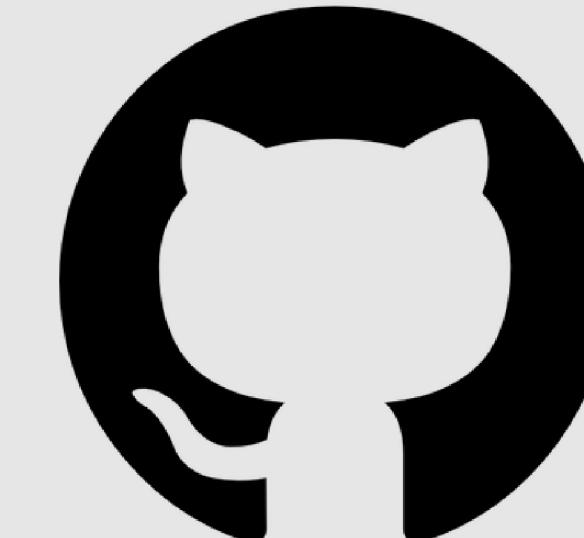
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