



King County Housing Analysis

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Sales Period: 2021 - 2022





Stakeholder: Vacation Home Buyer



Vacation Housing Criteria

Scenic view, close to
waterfront, or greenbelt

Decent house grade and
condition that doesn't
require lots of maintenance.



Purpose Statement:

Providing advice to vacation home buyers about what kind of house to buy and what renovations might require to increase the estimated value of their vacation homes. Guiding buyers to get the best price deals for purchase.



Major Factors

PRICE \$\$\$\$

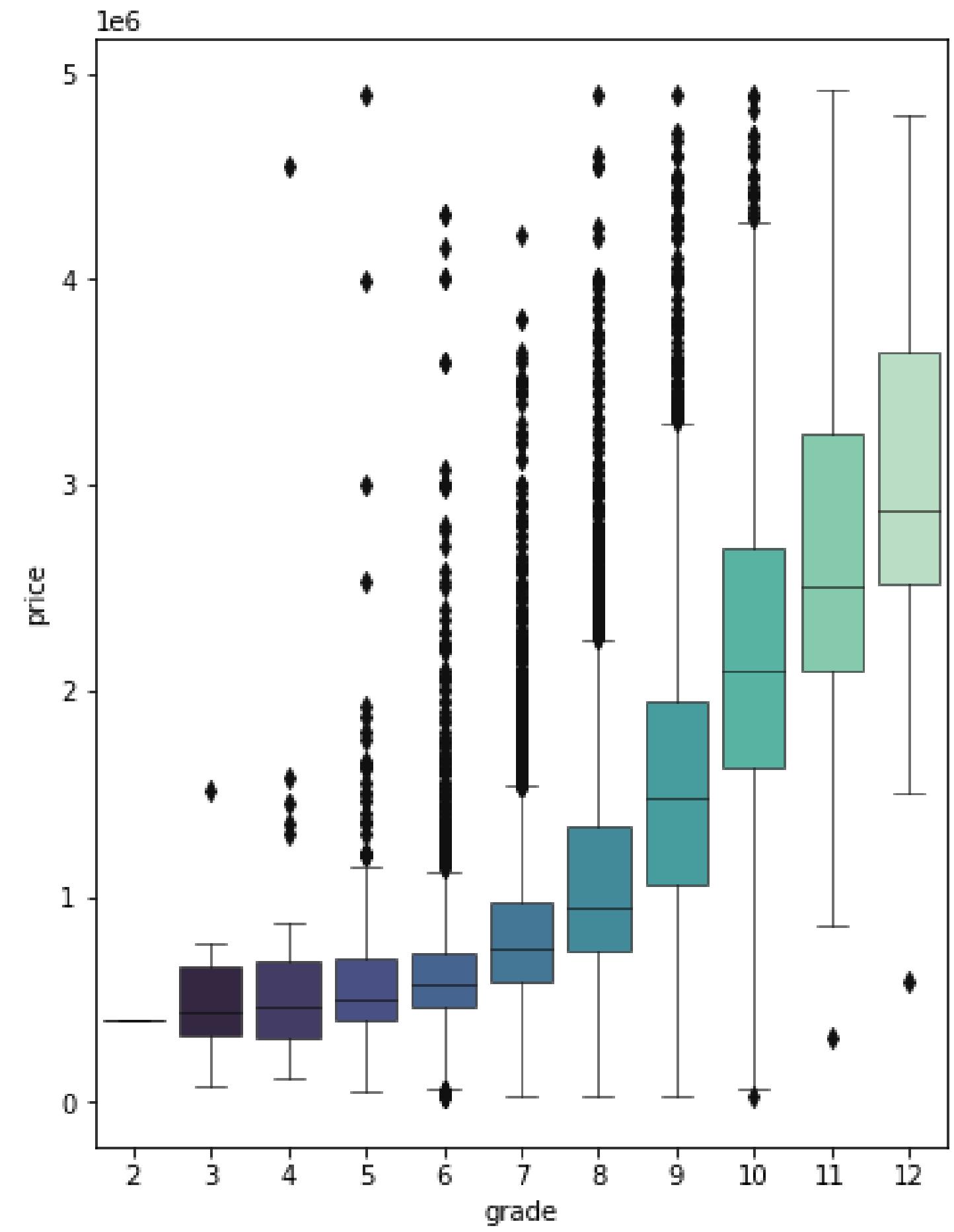
House Ranking (Grade/Condition)

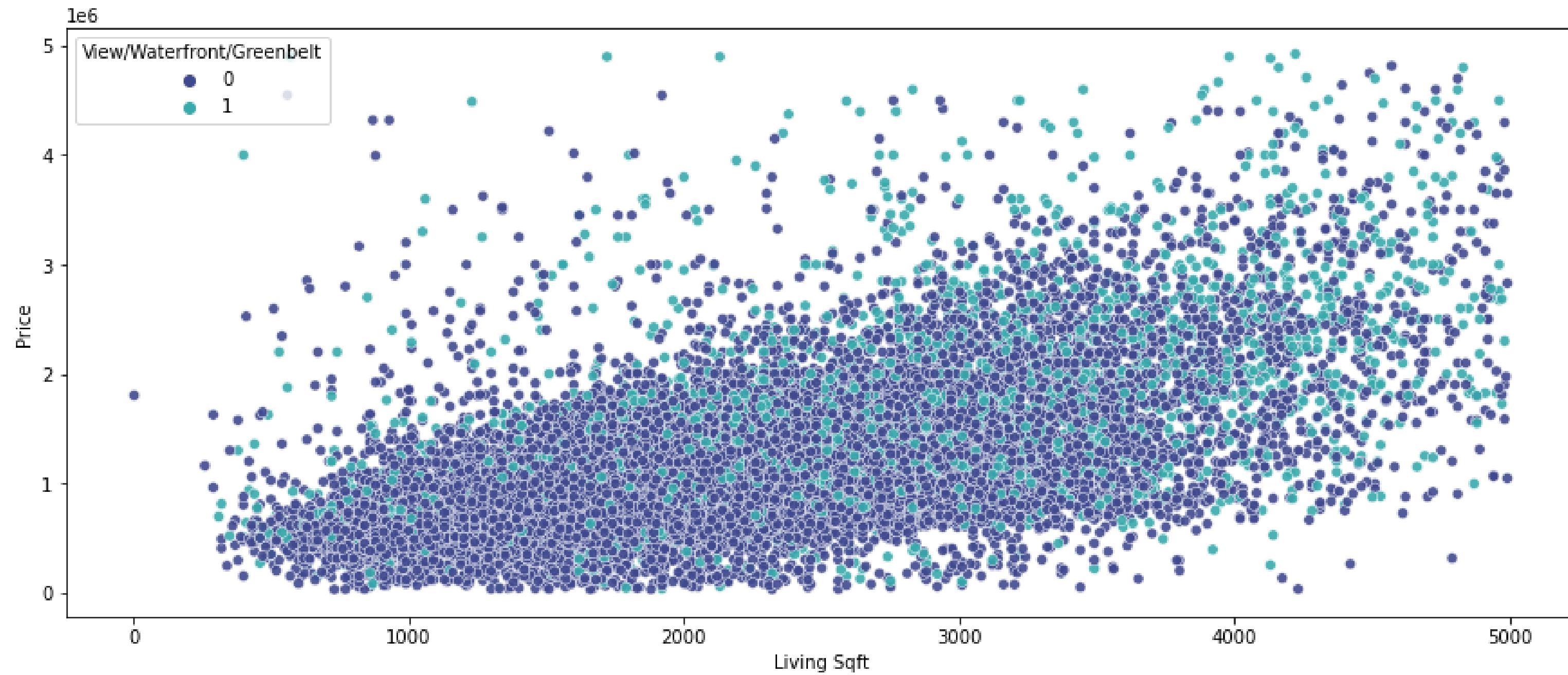
External Environment(Waterfront,
View, Greenbelt)

Sample: 3925 Houses



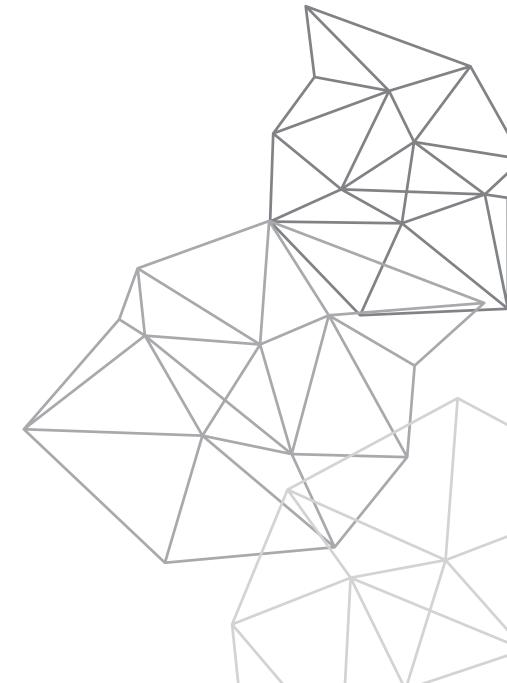
Price - Grade





Sqft. Living /Environment vs Price

Large houses are more expensive and more likely to have a view or to be close to nature.





Housing Price Distribution

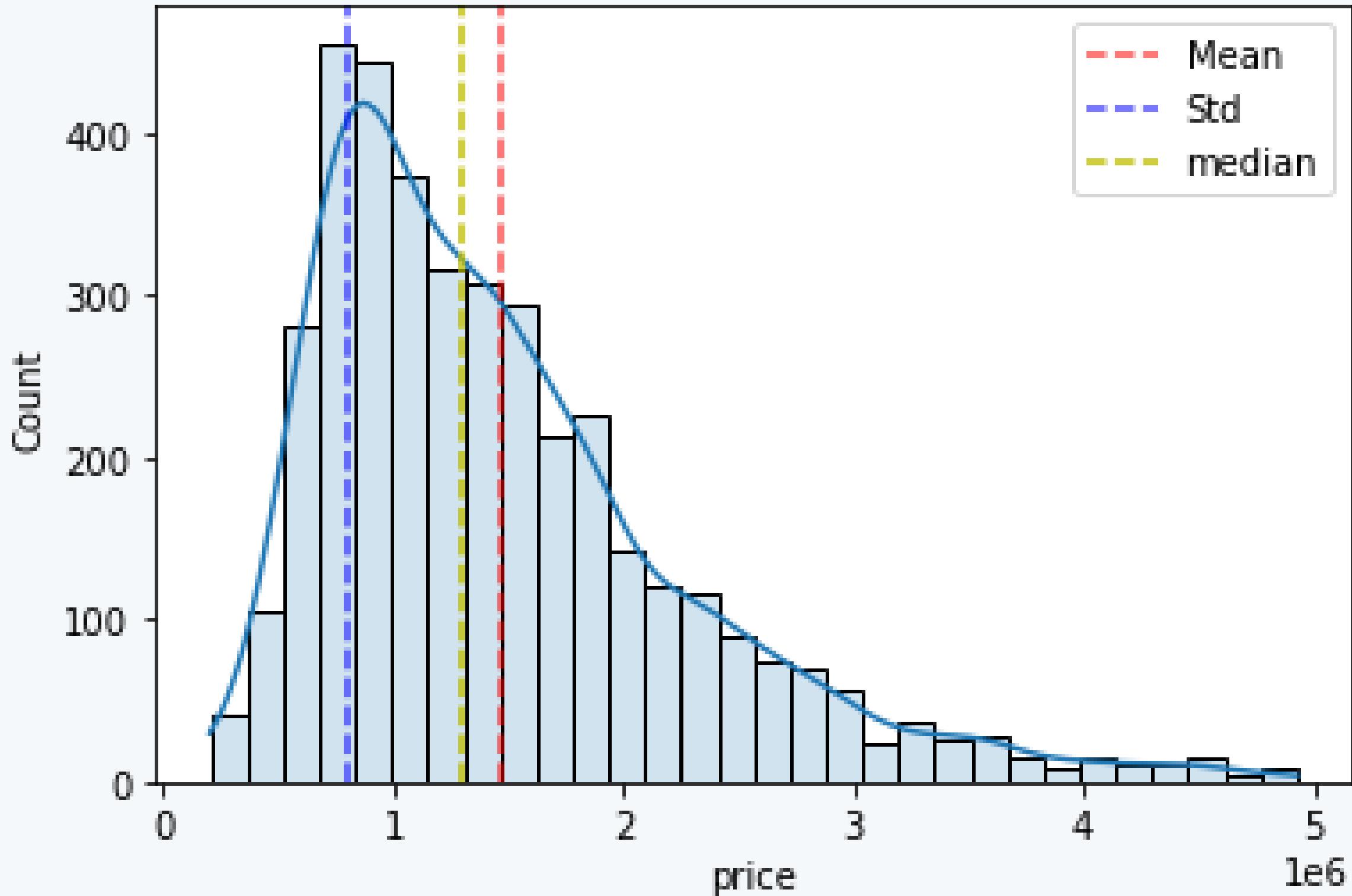
For houses with a view/waterfront/greenbelt in King County.

Mean: \$1,472,698.02

Median: \$1,295,000.0

Max: \$4.7 m

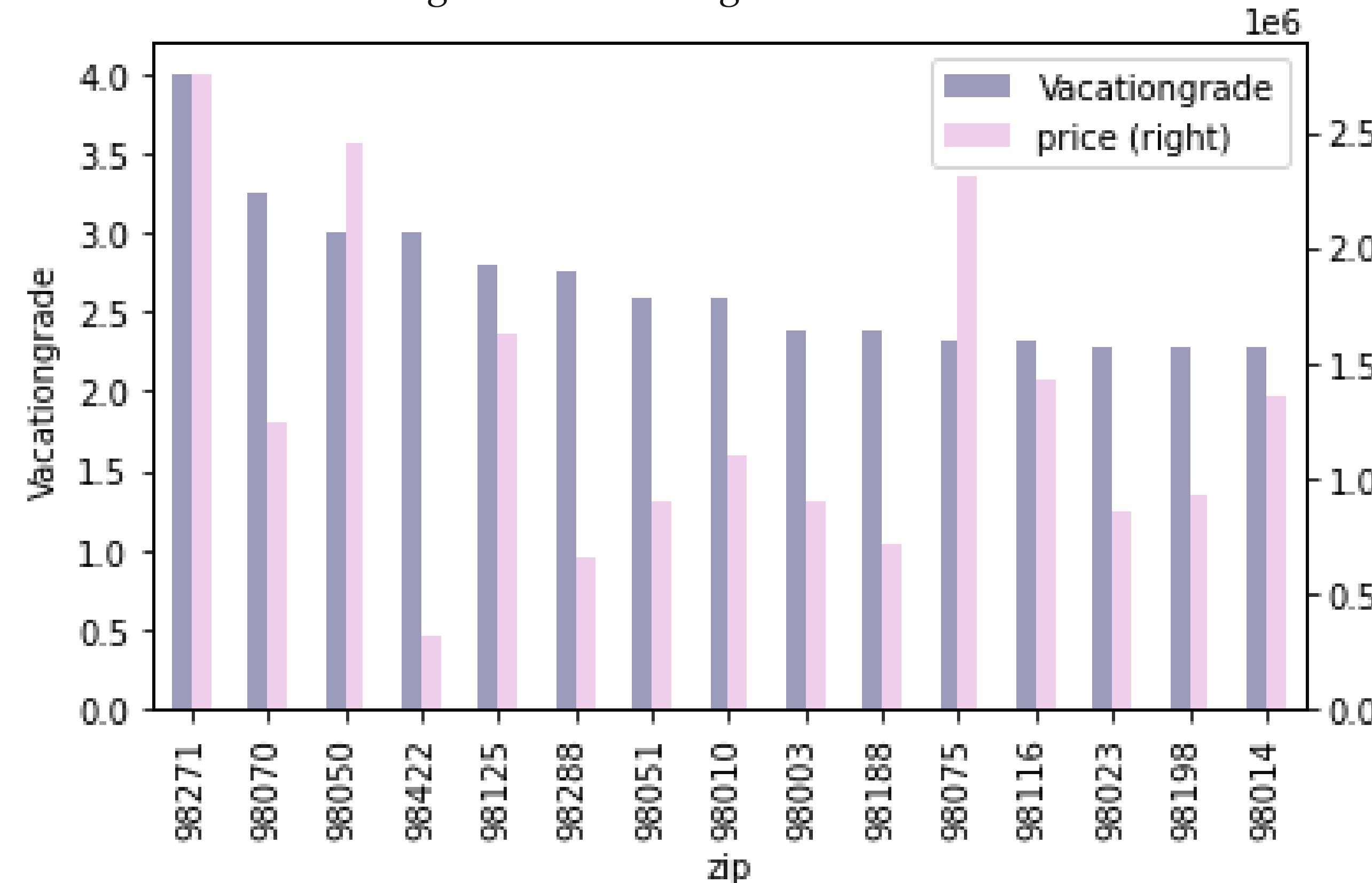
Right skewed distribution.
More skewed towards the pricey range, therefore more houses for sale in the middle to lower range of price.





Top 15 zipcodes of Vacation Grade Score vs Price

Vacation Grade Score = view rating + waterfront + greenbelt





98271

NWMLS



Price Prediction Model

Covers:

- Houses near a waterfront or a greenbelt or have a nice view.
- Higher or equal to average housing grade and condition.
- House price under 5m.
- Houses in King County.



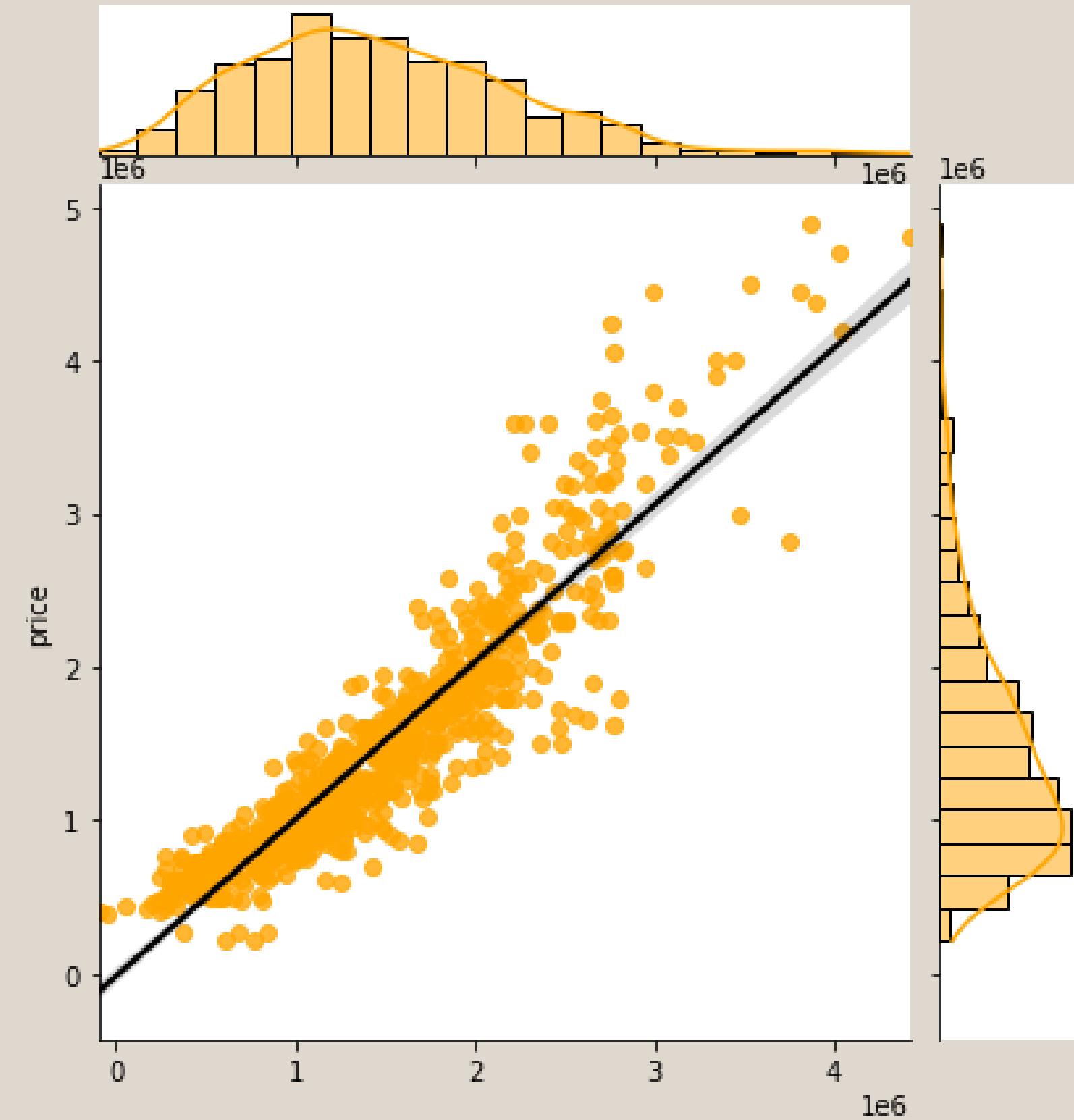


Prediction Accuracy

$R^2 = 0.83$

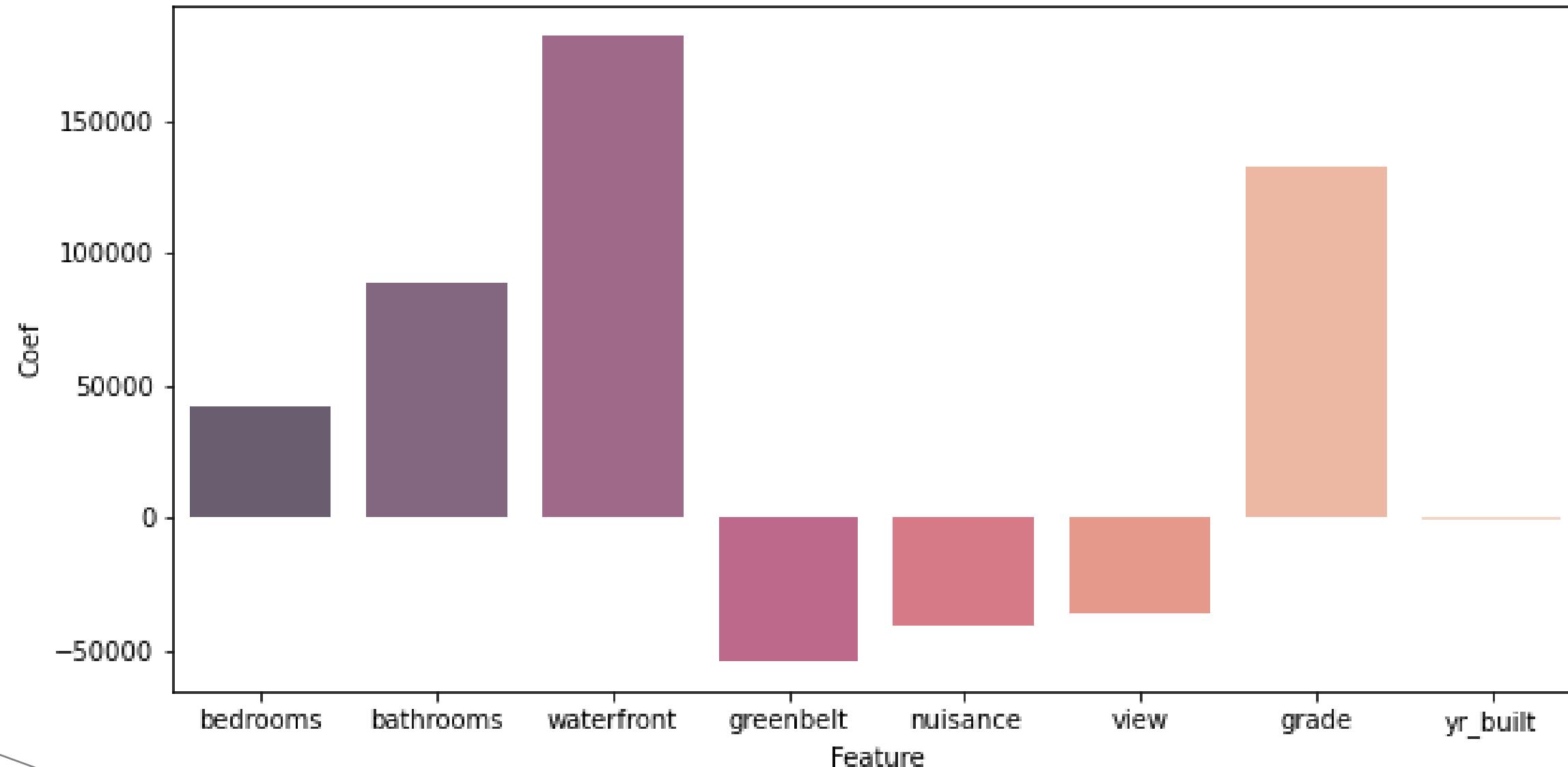
Predicted price vs actual price from testing data set.

Better prediction for houses under 2.5 m.
Accuracy faded due to less data points in the high end market.



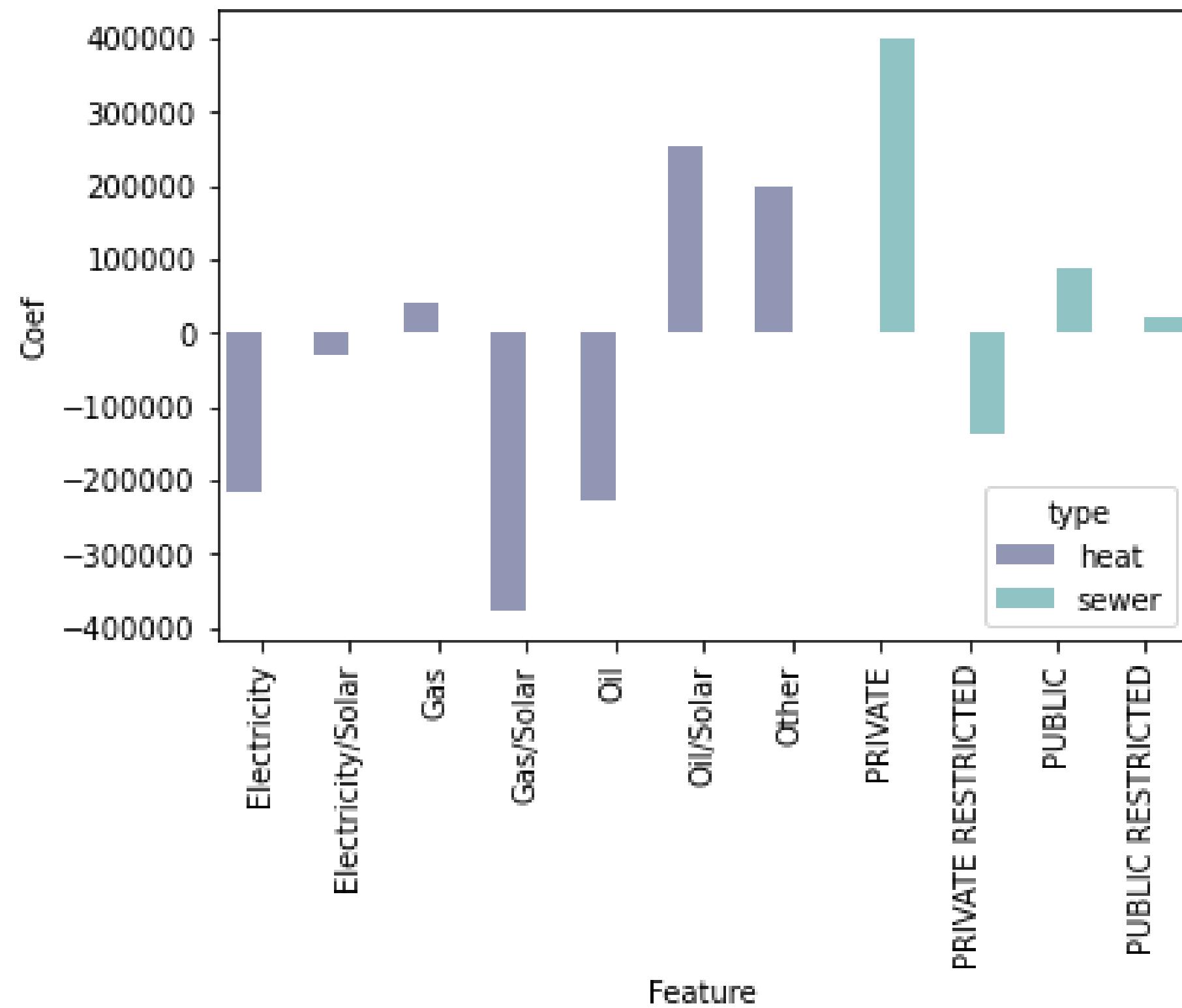


Features impact on Price

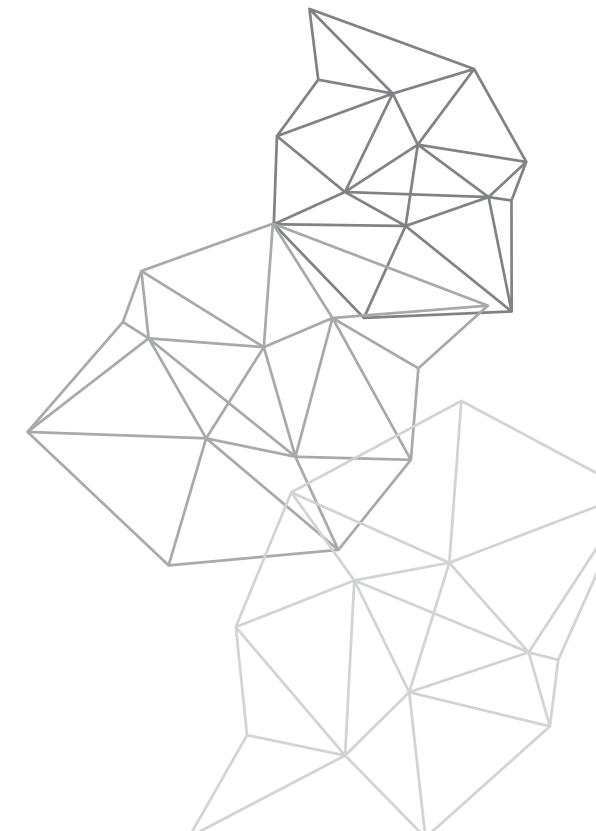


Coef	Feature
42332.3	Bedrooms
89262.3	Bathrooms
181832.3	Waterfront
-53829.7	Greenbelt
-41176.1	Nuisance
-36003.0	View
132525.0	Grade
-898.9	Yr Built

Insight I -
General Features impact on Price



Insight III
Heat Source |
Sewer System
Impact on
PRICE

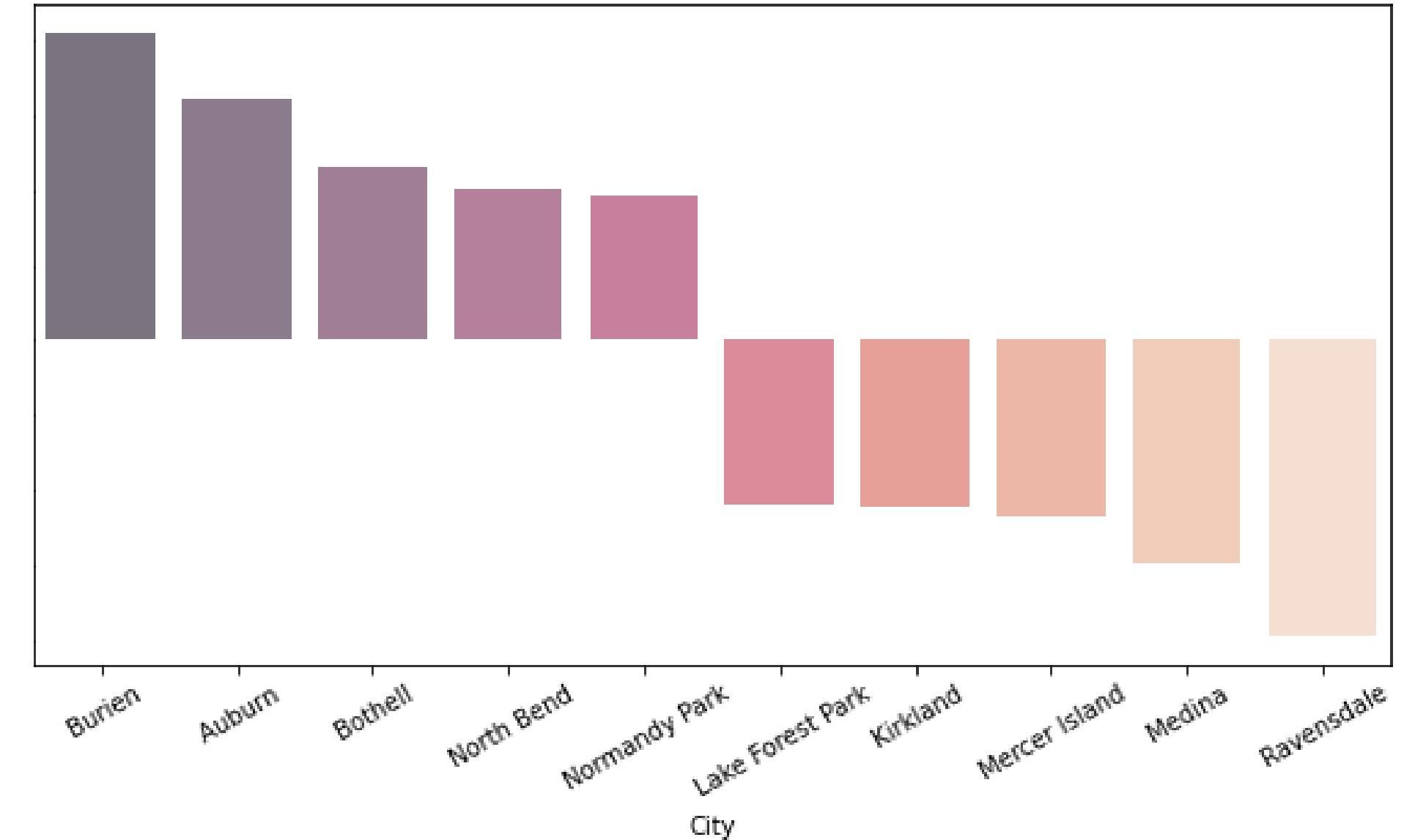




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Insight II Top 5 | Bottom 5 Cities Impact on Housing Values

Note: Other features also need to take into consideration when making decisions.





Recommendations to Vacation Home Buyers

- | Houses with higher grade, near waterfront have higher prices
- | Houses with Oil/Solar heat source and PRIVATE sewer system are shown to have greater value.
- | Renovate the house to add more bathrooms can significantly increase the housing value
- | Yr built doesn't have a significant negative impact on housing value
- | Start vacation home search in Burien, Auburn, Bothell, North Bend areas first.



NEXT STEP...

Obtain data before 2021 to add more data points for a better prediction beyond 2.5m.

Obtain demographic data for gaining a more thorough insights of geographic housing prediction.



Thank you for
joining me today!