



# The Garage Problem

Solving the Renovation Question in King's County California

# Agenda

Business Problem

Goals

Data

Methods

Results



# Business Problem

Realtors of King's County are interested in whether or not they should renovate homes before trying to sell. Specifically, they'd like to know how much adding a garage might affect price, and if so, what size of garage.





# Primary Goals

- What is the possible monetary value return on renovating a home?
- How much will adding a garage increase possible sale price?
- How does size of garage effect price?

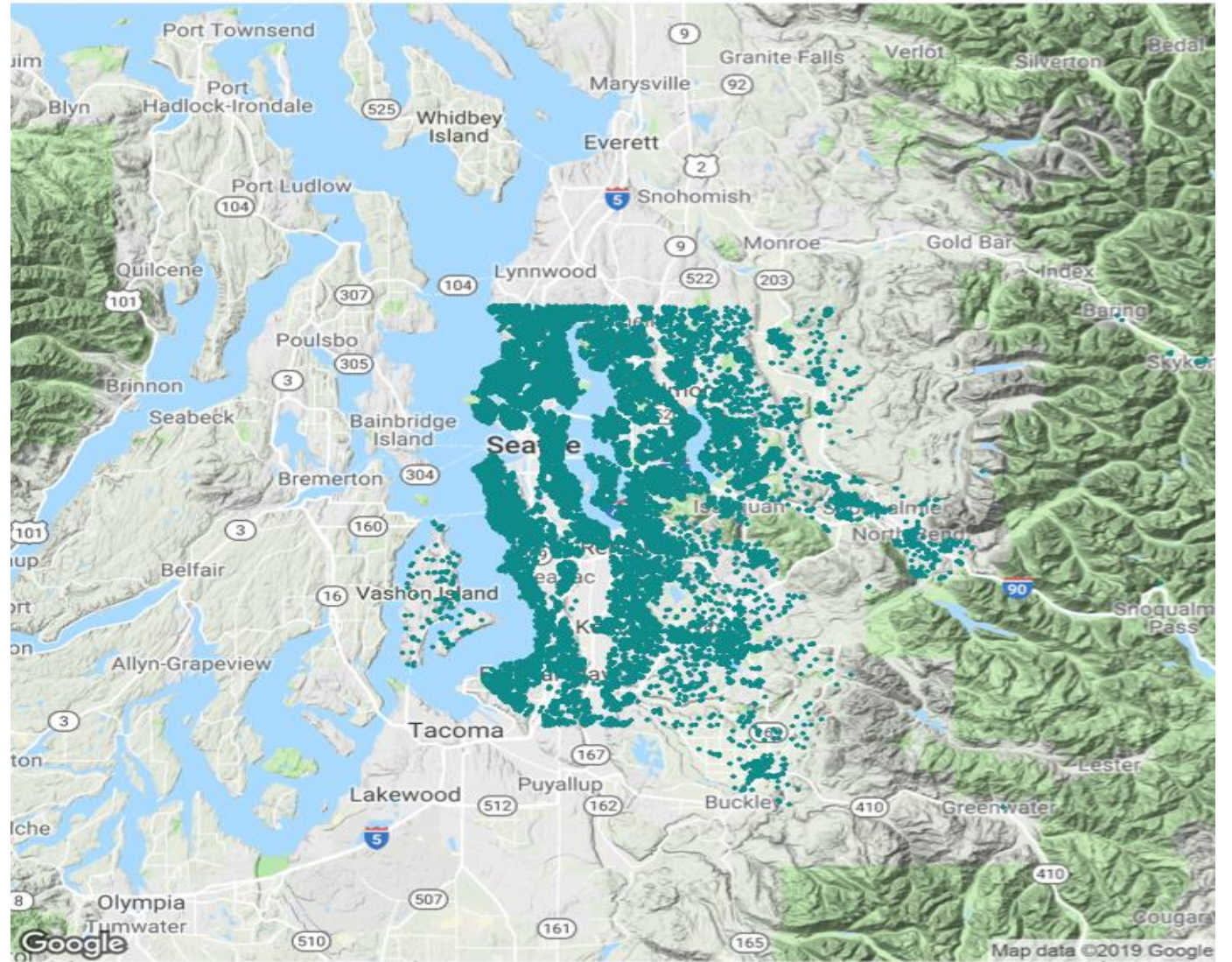




# The Data

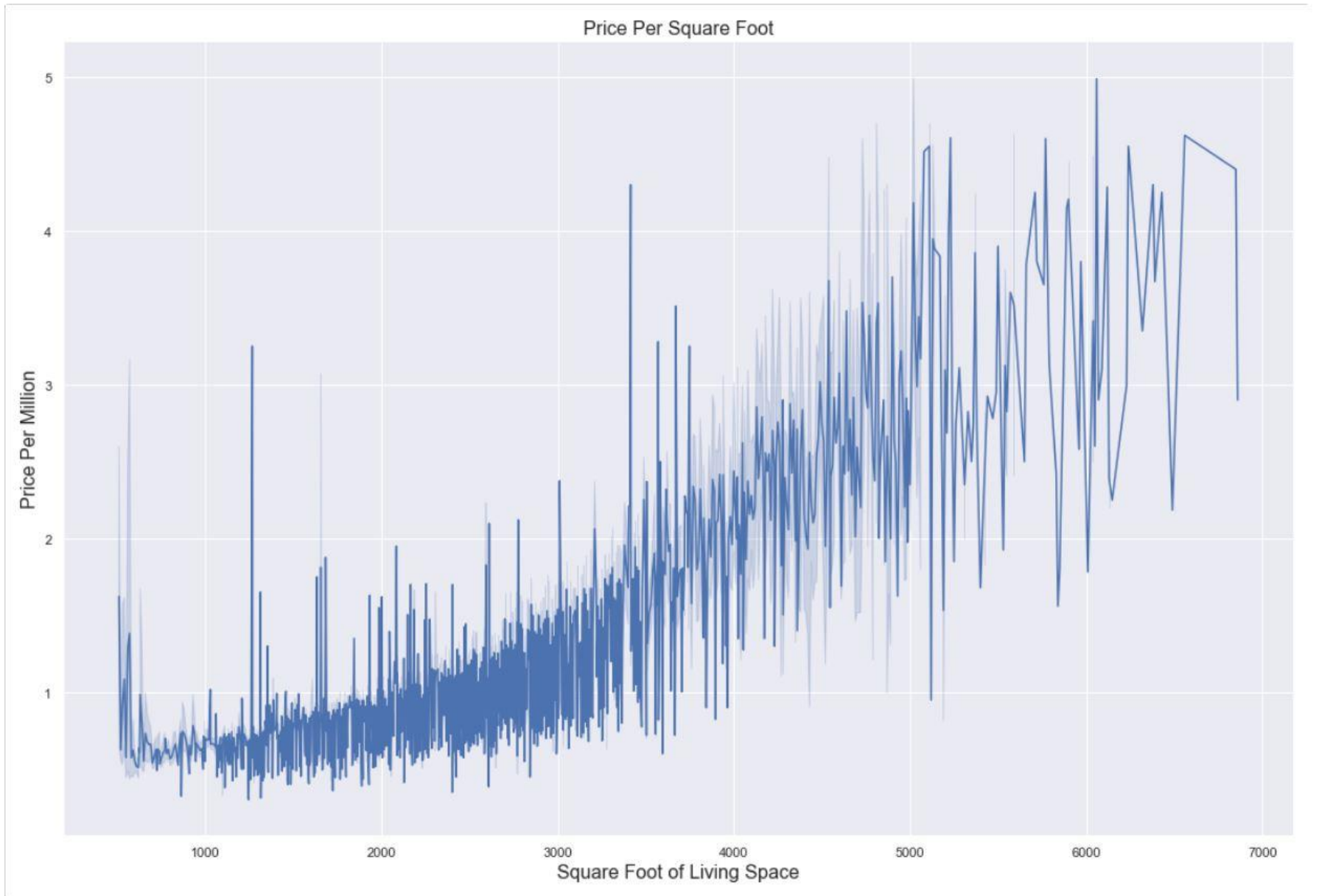
King County House Sales dataset

The data was pulled from  
[www.Kaggle.com](https://www.kaggle.com) and provided by  
the Flatiron School.

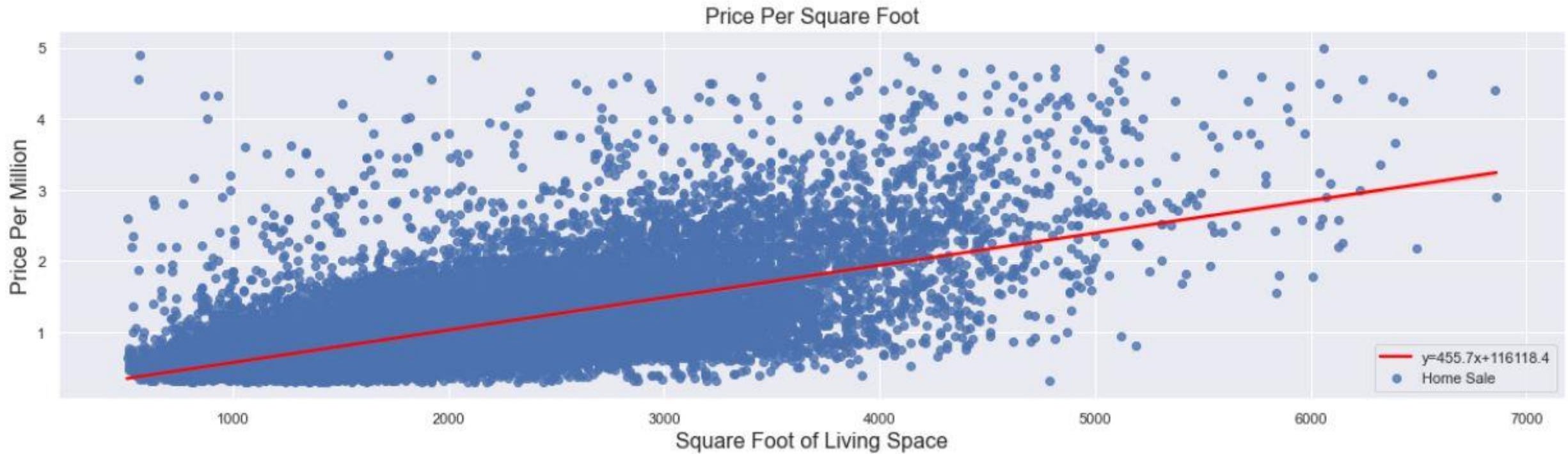


# Results

This line graph indicates a fairly strong correlation between price and square foot of living space.







Using linear regression, we can track the correlation and determine that with each increase in 1 square foot, we should expect to see an increase in price of about \$455. This falls within the expected range for California homes suggested by the housing website [www.fixr.com](http://www.fixr.com).

Price Per Square Foot With or Without Garage

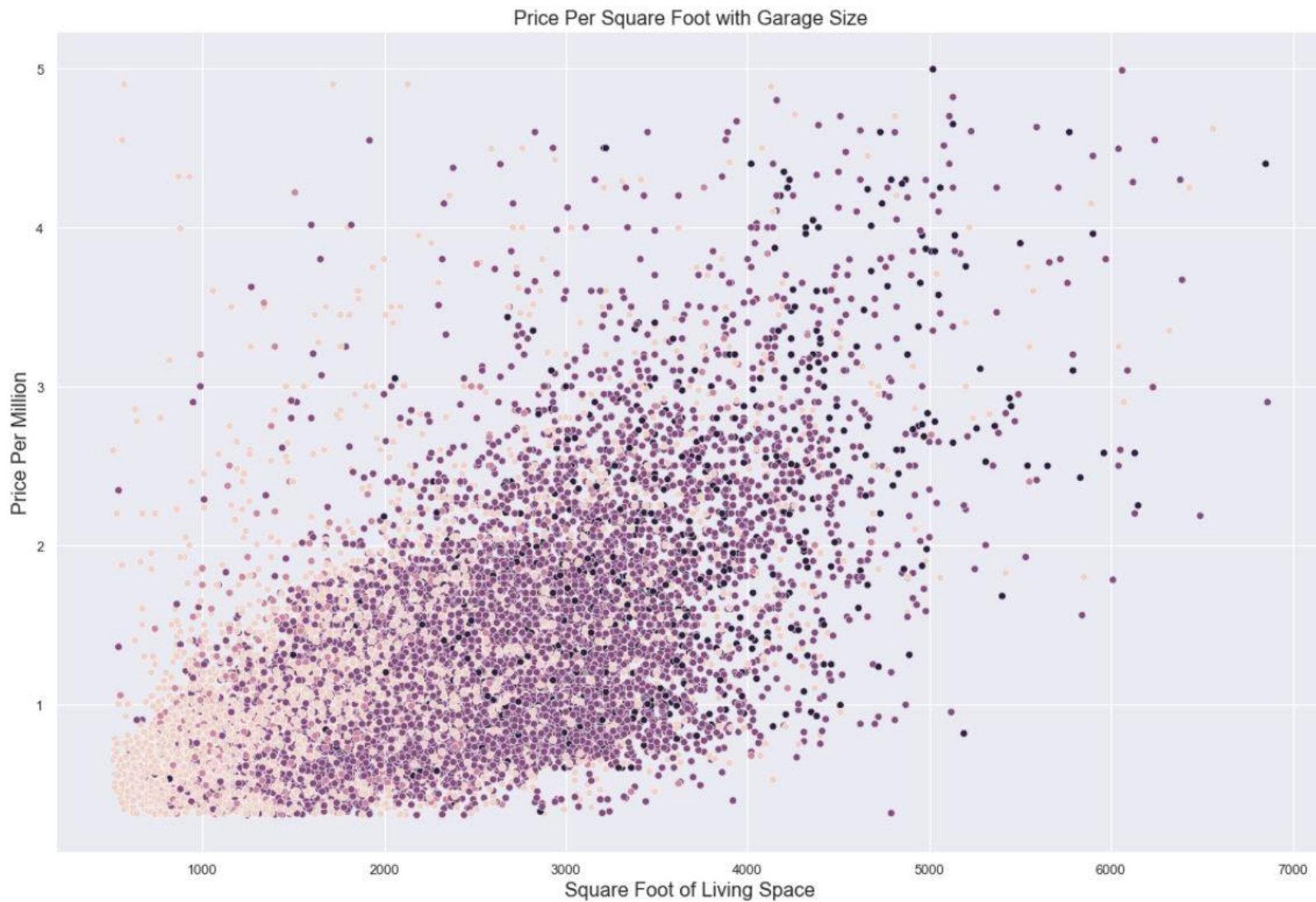


## Price per Square Foot

Houses with larger square footage in living space tend to have garages, but it is unclear if garages add to the sale value of the home

garage  
● No  
● Yes





## Adjusted for Garage Size

Again, houses with larger square footage in living space tend to have larger garages, but it is unclear if garages add to the sale value of the home

# Summary



Renovations are worth doing before trying to resell.



For max value, target square footage of living space.



Adding a 1-car garage seems to only add about \$4k in value to a home that does not already have one.



All other factors being equal, it looks like homes with larger than a 1-car garage actually sell for less.



# Thank You

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